MOVING FROM INJUSTICE TO EQUITY: A TIME FOR THE PHARMACY PROFESSION TO TAKE ACTION

RESEARCH

Development of a Cultural Intelligence Framework in Pharmacy Education

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Submitted February 8, 2021; accepted June 23, 2021; published October 2021.

Objective. Pharmacists must be equipped with the knowledge, skills, and attitudes necessary to provide culturally intelligent and patient-centered care; however, most are not trained to do so. In order to prepare culturally intelligent pharmacists, standards and curricula for cultural intelligence must be defined and implemented within pharmacy education. The objective of this study was to create a cultural intelligence framework (CIF) for pharmacy education and determine its alignment with Doctor of Pharmacy (PharmD) training.

Methods. An extensive literature analysis on current methods of cultural intelligence education was used to construct a CIF, which integrates leading models of cultural intelligence in health care education with Bloom's Taxonomy. Five student focus groups were conducted to explore and map their cultural experiences to the CIF. All focus groups were recorded, transcribed, deidentified and deductively coded using the CIF.

Results. The four CIF domains (awareness, knowledge, practice, desire) were observed in all five focus groups; however, not every participant expressed each domain when sharing their experiences. Most students expressed cultural awareness, knowledge, and desire, however, only a few students discussed cultural practice. Participant comments regarding their experiences differed by race and year in the curriculum.

Conclusion. This study was a first step toward understanding cultural intelligence education and experiences in pharmacy. The CIF represents an evidence-based approach to cultural intelligence training that can help prepare pharmacy learners to be socially responsible health care practitioners.

Keywords: cultural intelligence, curriculum design, diversity, qualitative research, cultural competence

INTRODUCTION

Given the increasing racial and cultural diversity of the United States, health care providers must develop cultural intelligence aimed at providing the highest level of care.^{1,2} Cultural intelligence is defined as the ability to attune to the values, beliefs, attitudes, and body language of people from different cultures and to effectively use this knowledge to interact with empathy and understanding in diverse contexts.³⁻⁶ Without education and training, health care providers are more likely to maintain the status quo within a White, ableist,

heteronormative dominant culture that fails to address well-documented health care disparities.^{7,8} In 2019, for example, Whites received better care on 40% of the national health care quality measures compared to Blacks, American Indians, and Alaska Natives.⁹

As frontline health care professionals, pharmacists are accessible and entrusted to counsel patients regarding medication understanding and adherence,¹⁰ making it critical that they are equipped to provide culturally intelligent care.^{2,3} However, pharmacists are not typically trained in cultural intelligence, including how to examine biases and address social determinants of health.¹¹ Research suggests that providers' own stereotyping and prejudice can promote racial and ethnic disparities in health care, especially when implicit biases are not examined and challenged.^{12,13}

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Related concepts, such as cultural competency, awareness, humility, and sensitivity, also describe the need for health practitioners who can effectively provide care in a multi-cultural setting. Cultural intelligence specifically differs from these concepts in its specific ties to intelligence research.³ It asserts that there is a metacognitive, cognitive, motivational, and behavioral component needed for intercultural settings.⁴⁻⁶ As Richard-Eaglin notes, “cultural intelligence provides a foundation that encourages practices that support diversity, equity, inclusion, and belonging.”^{14(p90)}

Two common culturally-oriented models, cross-cultural competence¹⁵ and cultural competence,¹⁶ were developed for health care practice. However, discussion focused on health professions students is limited and focused on increasing the diversity of the students enrolled in their programs.¹⁵⁻¹⁷ Increased diversity of future practitioners is important;¹⁸ however, merely increasing the diversity of the practitioner population does not guarantee culturally competent care.

To prepare culturally intelligent pharmacists, standards and curricula for cultural intelligence must be developed within pharmacy education.¹⁹⁻²² The American Association of Colleges of Pharmacy’s (AACP) 2013 Center for Pharmacy Advancement (CAPE) Educational Outcomes includes a domain on cultural sensitivity, noting that students should “recognize social determinants of health to diminish disparities and inequities in access to quality care.”¹⁹ Related, the Accreditation Council for Pharmacy Education (ACPE) 2016 Standards highlight “Cultural Awareness,” defined as “exploration of the potential impact of cultural values, beliefs, and practices on patient care outcomes.”²⁰ Further, the American College of Clinical Pharmacy (ACCP) acknowledged the need for patient-centered culturally sensitive health care and the related role of pharmacy education.^{21,22} Despite consensus that these concepts are essential for the future of pharmacy practice, there is little guidance available for their implementation within pharmacy education.²¹⁻²³

To date, most culturally-related pharmacy education efforts have been fragmented, outdated, and lack a strong conceptual framework to create sustainable transformative change.^{21,23} Most pharmacy curricula focus on health disparities, which has resulted in students linking cultural diversity to negative health outcomes without addressing the root cause of those disparities.¹³ Further, there is a lack of data on how cultural intelligence training in professional programs aligns with experiences and outcomes in health care.^{15,24} The objective of this study was to create a cultural intelligence framework (CIF) for pharmacy education and determine its alignment with Doctor of Pharmacy (PharmD) student experiences.

METHODS

A cultural intelligence framework (CIF) for pharmacy education was created through an intensive literary analysis of cultural intelligence education. Search terms included: cultural competen*, cross cultural competen*, cross cultural education, health care cultural education, cultural competenc* framework, cultural competen* education. The phrase “cultural intelligence” is used intentionally for the framework instead of the phrases “cultural competence” and “cross-cultural competence” to highlight the fact that cultural education is a never-ending growth process and that one never reaches full competence. Health care was specified; however, a health care discipline (ie, medicine, nursing, pharmacy) was not specified.

The Association of American Medical Colleges (AAMC) guide for cultural competence education and Van Dyne and colleagues Four Factor Model of Cultural Intelligence were integrated with other primary literature and adapted into a single framework by the researchers.^{5,6,16,17,25} The resulting CIF proposes four domains of cultural intelligence that represent a continuous, lifelong learning process (Figure 1): *cultural awareness* as the process of self-examination and in-depth exploration of one’s own cultural background;^{17,26} *cultural knowledge*, as the process of seeking and obtaining a knowledge base about culturally diverse groups;^{5,6,17,26} *cultural practice* as the process of interacting with patients from culturally diverse backgrounds and possessing the ability to gather relevant cultural data regarding the patient’s presenting problem as well as accurately perform a culturally-based assessment;^{17,26} and *cultural desire* as the motivation of a health care practitioner to want to engage in the process of becoming culturally intelligent.^{5,6,17}

Objectives were developed for each CIF domain according to Bloom’s taxonomy^{27,28} in an effort to enable translation of the CIF domains for student learning (Table 1). For example, cultural awareness has six objectives: remember, understand, apply, analyze, evaluate, and create. To develop cultural awareness, a student must recognize differences between various cultures and within same cultures (remember), understand how cultural differences can affect patient care and understand health disparities (understand), and so on. For each objective, the project team identified example assessments of how student learning may be evaluated.

After the CIF was developed, qualitative methods were employed to explore and map student experiences to the framework. A combination of purposeful and snowball sampling were used to identify participants from the UNC Eshelman School of Pharmacy. The school’s Associate Dean of Organization Diversity and Inclusion nominated students who had expressed interest in diversity, equity,

Figure 1. The Four Interconnected Domains of the Cultural Intelligence Framework

The Cultural Intelligence Framework consists of four interconnected domains: cultural awareness, cultural knowledge, cultural practice, and cultural desire. Each domain contains objectives scaffolded to build intelligence in that domain, but all four domains are needed to contribute to holistic culturally intelligent learning.

and inclusion (DEI) through their engagement with DEI initiatives. Those students were then asked to share the names of their peers who had an interest in DEI. Participants were contacted through email and invited to participate in a 60-minute focus group via Zoom (Zoom Video Communications, Inc). First through fourth professional year (P1-P4) pharmacy students (n=15) participated in one of five focus groups during July 2020. The number of participants per focus group ranged from two to four. Students selected a focus group time that was convenient for their schedule. The nature of the work precipitates the need to acknowledge that the focus group facilitator self-identified as a white female, and at the time of the study, was a post-doctoral research fellow with no direct connection to the students other than through the study.

Focus group questions were structured to gain insight into participants' experiences of cultural intelligence

based on the four CIF domains. For example, students were asked, "Think of a time on rotation when an interaction with a patient who was culturally different from you went well. What went well during this encounter?" To gain insight into the domain of Cultural Awareness a follow-up question was posed: "How does your understanding of your own culture help you in these types of situations?" In addition, participants were reminded that cultural differences included attributes such as race, ethnicity, nationality, religion, age, sexual-orientation, and others.

Field notes were created for each focus group, and each focus group session was audio recorded, transcribed, and deidentified. Deductive codes were created through the adaptation of the CIF by two research team members (DL and LM).²⁹ The same two researchers used MAXQDA (VERBI Software, Berlin, Germany) to collaboratively code 60% of the data. The collaborative

coding process allowed for the consistent application of the CIF codebook and in-depth discussion of the data. The remaining transcripts were coded individually by both researchers, and intercoder agreement exceeded 80%, reaching threshold for agreement.²⁹ All disagreements were discussed and resolved. Analytic memoing occurred throughout analysis to capture thoughts and themes that emerged within the data.³⁰ Frequency counts were used to highlight which domains and objectives were applied most frequently to the data. This study was determined to be exempt by the University of North Carolina at Chapel Hill institutional review board.

RESULTS

The majority of participants (N=15) were female (n=11, 73%); a majority also self-identified as Black, Indigenous, or Person of Color (BIPOC) (n=9, 60%), and had completed at least three years of pharmacy school (n=8, 53%). The four CIF domains were observed in all focus groups, but not every participant expressed each domain or objective when sharing their experience. Participants shared evidence of having cultural awareness (n=98 codes out of 257 total codes, 38%), cultural knowledge (n=78, 30%), cultural desire (n=54, 21%), and cultural practice (n=27, 11%) during the focus groups.

Participant experiences appeared to differ by race and ethnicity. Cultural awareness comments from white students, for example, indicated that they recognized differences between various cultures (remember) and understood how cultural differences could affect patient care (understand). Those students who identified as BIPOC also recognized and understood cultural differences and expressed how their own culture shaped their experience, perspectives, and beliefs (apply), analyzed their personal susceptibility to bias (analyze), and evaluated their own cultural awareness and how it shaped their actions in the practice setting (evaluate). As one BIPOC student shared, "I naturally understand my community because that is my culture. I did not receive that training in school. It's because of my culture, who I am, what I identify as that I was able to adapt and be knowledgeable in certain situations."

Experiences also differed by other cultural factors such as religion, sexual orientation, gender identity, and age. For example, a participant shared: "As someone who is gay, I feel like I've encountered stigma associated with seeking health care. I've talked with providers about something pertaining to my sexual health that made me feel very uncomfortable and I felt judged. But I've also had providers that were really great, they were very open and friendly, and it allowed me to be more open and

honest with them about the care I thought I needed and facilitated good dialogue. So, I've found that, if I translate that into my pharmacy practice, patients are also more likely to open up and have a good dialogue with you."

This participant demonstrated cultural awareness by expressing their understanding of how cultural differences impacts patient care by acknowledging their own discomfort when engaging with providers (understand), they analyzed their own culture and how that shaped their experiences, perspectives, and beliefs by noting that their comfort with a provider influenced their openness with that provider (analyze), and finally they evaluated their own cultural awareness and how that shaped their actions in their own practice by noting how they have translated their own experiences into practice (evaluate).

Differences by cohort also emerged as P3 and P4 participants shared experiences that mapped to nearly all six objectives of the cultural knowledge domain yet P1 and P2 students mainly focused on describing their understanding of different cultures (understand), how there are challenges in cross-cultural communication (apply) and could articulate how culture affects the quality of patient care. Very few P1 and P2 students could speak to the objectives of evaluate and create.

More detailed results are organized below according to the four CIF domains, with participant quotes provided to illustrate findings. Additional quotes can be found in Appendix 1. Cultural awareness was expressed by all participants, as most recognized differences between various cultures (remember), exhibited the ability to understand how cultural differences can affect patient care (understand), and analyzed how their culture shapes their actions (analyze). For example, a BIPOC student shared, "There's a lot of stigma in the African American community surrounding mental illness, and so being aware of that ... from my own culture, it kind of helped me. I felt like when I extended a hand to this patient who was also of African descent and just trying to be an ally for her and to make sure that she never felt judged by me."

Here the participant provided an analysis of their own culture by acknowledging the stigma toward mental illness in the African American community. The participant then analyzes their own cultural awareness by identifying how the knowledge of the stigma helped them during the patient encounter. This led the participant to ensure that the patient did not feel judged for seeking support.

Of the six cultural knowledge objectives (ie, understand, apply, analyze, evaluate – culture, evaluate – disparities, and create), participants most readily expressed the strategies they used to minimize cultural barriers for a patient (create), described experiences that required them to analyze how culture affects the quality of patient care

(analyze), and described common challenges of cross-cultural communication (apply). For example, a BIPOC participant stated, "... if you are dealing with a diabetic patient and they are Hispanic you need to know the types of foods that they eat to make sure you're creating a reasonable guide for how to eat healthier and to control their blood sugar. You can't just tell everyone to go to Whole Foods or Trader Joe's to get the freshest vegetables if their only option is canned foods."

The participant shared the importance of having cultural knowledge and exhibited all six objectives. The participant evaluated both the patient's Hispanic culture and the underlying health and health care disparities that potentially exist when making their recommendation. Further, the participant analyzed how culture could affect the quality of patient care while describing common challenges in cross-cultural communication. Finally, the participant shared a specific strategy of rinsing a canned food item to reduce the sodium as a way to support the hypothetical diabetic patient.

Other times, participants shared experiences that mapped to only one or two cultural knowledge objectives. A white student shared, "I work a lot with the pharmacy assistance program, which has a large Spanish speaking population. We were instructed, no matter what, even if you're just ringing out the prescription, please call specific interpreters because there are so many things that can be caught." The strategy of contacting proper interpretive services, even for the most minor transactions in the pharmacy, demonstrates cultural knowledge regarding strategies that reduce barriers for patients.

Cultural desire was expressed by all participants. Participants were able to define cultural desire (remember) and the importance of working to become a culturally intelligent pharmacist (understand). For example, one White participant shared, "I had a great rotation last summer where I was at a federally qualified health center with the majority of patients either uninsured or on Medicaid and it was really great to learn more about the population, how to help them, what specific struggles are unique to them, and how we as pharmacists can ... help them and really be a resource to the community." However, fewer participants were able to effectively describe a plan for becoming more culturally intelligent (create), analyze their current level of cultural intelligence (analyze), and apply cultural intelligence to patient interactions (apply). A BIPOC participant shared, "I wish I knew what resources I could seek out to learn about other cultures. Unfortunately, I don't know if we've been introduced to those resources in the curriculum ... I think the best thing, school wise, for me has been [volunteering at a clinic], because I think that's where I've seen the most diverse pool of patients."

Not captured via the framework were all students' desire, regardless of race and ethnicity, to have their peers become more culturally intelligent. As one BIPOC participant shared, "the skills that I want are way different from what I want the rest of my classmates who are white and don't have a minority background to gain. ... I'm just more knowledgeable about these things because I'm a person of color ... and I want my classmates to gain these basic skills before they're dealing with patients of color." Students acknowledged that they sought out and attended the elective/optional programs, but that many of their peers did not. For instance, a white student shared, "I've gotten a lot of experiences, but it is because I opted into it and wanted to learn more. I'm super grateful for the experiences I've gotten, but I definitely wish that everyone got them, you know."

Cultural practice was not expressed as readily as the other domains. It was not evident that participants understood the types of cultural differences they may encounter while on pharmacy practice experiences (understand), understood how to obtain relevant cultural information during an encounter (understand), could conduct a cultural assessment of a patient during an encounter (apply), or make recommendations to the pharmacy team for minimizing potential cultural barriers for a patient (create).

When students did express the cultural practice domain, they mainly evaluated the effectiveness of the cultural communication and awareness of the patient encounter (evaluate). For instance, a bilingual BIPOC participant shared "Even when you have interpretive services, a lot of information gets lost ... sometimes the interpreter and patient might have a widely huge dialect difference. I've sat in on visits before where I've heard the patient say something and it gets interpreted by the interpreter way different." The participant provided a brief evaluation of cultural communication through an interpreter and acknowledged that this strategy is not always effective because of different dialects.

When others provided examples of the understand, apply, evaluate, and create objectives in their description of practice experiences, they also acknowledged their lack of decision-making power as students. For instance, a BIPOC participant shared, "As a student you can only do so much when you're under the wing of a preceptor. So you can advocate as much as you want to, but at the end of the day the final decision goes to the pharmacist. We were at a pain clinic, and I felt like who I was with at the time was not truly believing the severity of the pain of the black woman ... And I was very angry with the interaction and I tried to challenge it and advocate for [the patient] but there was nothing I could do." Although the participant understood cultural practice in this experience and advocated a

recommendation that addressed an apparent cultural barrier, the student's decision-making power was limited.

DISCUSSION

This is the first study to create a CIF for pharmacy education and evaluate the relevancy of the framework with respect to the experiences of PharmD students. The CIF adapted leading models of cultural intelligence in health care education for PharmD training and included Bloom's objectives to describe critical, achievable learning outcomes. Student experiences most frequently focused on cultural awareness, knowledge, and desire. Student emphasis on cultural awareness is consistent with other research that suggests becoming culturally intelligent first requires awareness of one's own cultural background and how it shapes their thoughts and actions.^{31,32}

Unlike other studies using surveys and questionnaires (eg, Clinical Cultural Competency Questionnaire),³³ this study utilized focus groups to explore cultural intelligence. Our methodology provided students a space to voice their experiences and concerns, making the connection direct and personal.^{2,34-36} This allowed for additional detail of participants' experiences beyond what is captured in a survey.³⁷ For instance, participants shared their ideas for how to integrate cultural intelligence into the curriculum and their desire for their peers to become culturally intelligent.

Most participants expressed objectives in all four domains; however, the frequency and description of their experiences varied by race and ethnicity. These findings are consistent with other studies that examined student cultural awareness, namely that BIPOC students exhibited more evidence of having advanced cultural awareness than their white peers.^{2,32,34} Differences in experiences based on race suggest that integration of cultural intelligence training into the curriculum should reflect the needs of the student population. Differences by program year could be due to the time P3 and P4 students have spent in experiential practice settings that provided them with more opportunities to engage in cultural pharmacy practice situations.^{2,38} Training should be varied and provide ample opportunity for students not just to remember and understand, but to apply, analyze, and evaluate their own culture and how it shapes their actions in the practice setting.

Additionally, the cultural practice domain was not readily identified within the data set. This could mean that students lacked experience in the practice setting to make cultural intelligence practice suggestions or they were not fully prepared in this domain. Chen and colleagues found that if students were not provided consistent cultural competency and health literacy training across the curriculum, their scores dropped significantly on the Inventory for

Assessing the Process of Cultural Competence Among Health Care Professionals Student Version.^{38,39} Despite not readily discussing the cultural practice domain, students did identify numerous ways of integrating cultural intelligence training into the curriculum, including having panels of culturally diverse faculty, providers, and patients to share their experiences, holding directed discussions in the IPPE preparation course, and purposefully integrating health disparities and other challenges (eg, no insurance, language barriers) into practice patient cases.

Culture is tremendously dynamic and multifaceted, and evidence shows that cultural competency in a culture or several cultures is not achievable and may lead to overgeneralizing and stereotyping.^{7,8,11-13} Findings from the focus groups highlighted the need to weave cultural intelligence education throughout the entire professional program (didactic and experiential) and assess it systematically to ensure students are achieving the appropriate knowledge and skills and displaying essential behaviors. The framework along with the UNC Eshelman School of Pharmacy's DEI Strategic Plan are being used as a guide to incorporate culturally intelligent education, training, and assessment into the PharmD curriculum. The student participants in this study encountered cultural experiences in numerous settings (eg, coursework, early and advanced clinical practice experiences, and co-curricular activities); thus, the school is working to identify ways to incorporate cultural intelligence training in each setting.

Thinking forward, the CIF has the potential to provide consistency in cultural intelligence education, training, and assessment across schools of pharmacy, as well as the potential to be modified to suit the curricular needs of other health care professions. These efforts must be anchored in an organizational strategy to facilitate a shared vision and accountability for recruiting and retaining diverse student talent to produce a culturally informed and prepared pharmacy workforce to improve health equity. The implication of this is the cultivation of culturally intelligent health care practitioners nationwide who are equipped to understand, appreciate, and interact with the growing diverse population of the United States. By addressing gaps in knowledge, skills, and attitudes of pharmacists and training them to be more culturally intelligent, we hope to address health care disparities by providing more understanding and equitable care to historically marginalized groups.

Future studies are needed to further validate the CIF at other schools and colleges of pharmacy, in addition to other health professions institutions. In addition, studies should be conducted to measure differences in cultural intelligence in students prior to and after cultural intelligence training. Because results suggest differences

between groups based on various demographic characteristics (eg, race, cohort), more research is needed to understand the experiences and needs of students from diverse backgrounds.^{18,40} Further, research is needed within pharmacy education to identify and develop effective and inclusive learning strategies that reduce bias and disparities. This work is critical for advancing the small yet growing body of literature exploring diversity, bias, and cultural training within pharmacy education.⁴¹

While this study is an important first step toward understanding cultural intelligence in pharmacy education, there are several limitations. First, the focus groups were conducted with a small sample confined to a single school of pharmacy. Second, selection bias may have occurred as students were purposefully recruited. Third, students may have been influenced by social desirability bias, thereby presenting themselves in the best way possible. Finally, the facilitator of the focus groups self-identified as a white female postdoctoral fellow which could have influenced how participants responded to the questions. Despite these limitations, participants were perceived to speak openly, and many expressed appreciation for the opportunity to share their perspective and experiences.

CONCLUSION

The CIF represents an evidence-based approach to the design and implementation of cultural intelligence training that can help prepare pharmacy students to become socially responsible health care practitioners. This study advances the understanding of cultural intelligence education and experiences in pharmacy education. Future analyses will include additional qualitative research regarding efficacy and applicability to other PharmD curricula at additional institutions.

ACKNOWLEDGMENTS

The authors would like to thank the Research and Scholarship in Pharmacy pathway instructors Dr. Craig R. Lee, Dr. Sachiko Ozawa, and Dr. Robert Hubal for their feedback on early drafts of the CIF.

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Appendix 1. Cultural Intelligence Framework

Domain	Bloom's	Objective	Student Experience	Assessment Examples
Cultural Awareness the process of self-examination and in-depth exploration of one's cultural background	Remember	Recognize differences between various cultures and within same cultures	"I was on rotation in a rural [part of the state] and that was a culture shock. I'm from [the west coast] from an urban, suburban area. So for me, things were definitely handled at a different pace. Things were done different than what I was used to and the situations I encountered in a rural area compared to practicing in a more urban area." – white student	Short essay on cultural differences; true or false quiz or Kahoot on aspects of various cultures
	Understand	Understand how cultural differences can affect patient care; understand healthcare disparities	"As a cis, white male I can't really understand, and don't think I ever will. So, all I can do in situations is listen and learn from experiences of others and do my best to understand what they're saying and then try to implement that in my own practice. Just hearing stories from other people and what they've experienced in the healthcare setting, how they felt dismissed, unheard, rushed." – white student	Questions after watching video on how cultural differences affected a patient; ask students to find articles or research related to health disparities due to cultural differences and share with others
	Apply	Analyze student's own culture and how that shapes their experiences, perspectives, and beliefs	"Going to the doctor with my parents before, who also had trouble talking in English to their health care providers. I felt the patient's secondhand embarrassment and reminded the patient that we had as much time as needed. And we'll make sure that we get all your questions answered. So just knowing what it's like for a patient to experience a language barrier I felt like helped me connect better with the patient." – BIPOC student	Thought map components of student's own culture; research components of culture that the student ascribes to and discuss; share memorable life experiences related to culture
	Analyze	Address personal susceptibility to bias and stereotyping	"I worked at a [community pharmacy] where the patient population was about 80% on Medicaid. I was interacting with a black patient and she mentioned, 'Oh, I don't usually pay anything' and I instinctively said, 'Oh you're on Medicaid.' That was really a landing point for me about not assuming. So usually it was zero, but she [the patient] was in that weird part of the year where she had a deductible that had to be met. So that was really a learning point for me in just not assuming." – white student	Online assessment revealing personal biases with reflection after; propose strategies for addressing bias and stereotyping others

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Domain	Bloom's	Objective	Student Experience	Assessment Examples
Cultural Knowledge the process of seeking and obtaining a knowledge base about culturally diverse groups	Evaluate	Evaluate student's own cultural awareness and how that shapes their actions	"As someone who is gay, I feel like I've encountered stigma associated with seeking health care. I've talked with providers about something pertaining to my sexual health that made me feel very uncomfortable and I felt judged. I've also had providers that were really great, very open and friendly and it allowed me to be more open and honest with them about the care I think I need and facilitated good dialogue. So, I've found that if I translate that into my pharmacy practice patients are also more likely to open up and have a good dialogue with you." – white student	Online tests for students on cultural intelligence and awareness; written reflection on strengths and areas for improvement in cultural intelligence
	Create	Create goals for increasing cultural awareness	*Students did not speak to this objective	Short written answer
	Understand	Define and explain the different behaviors, values, and beliefs of various cultures	"The Cherokee people, there's a huge distrust of white healthcare workers on account of the history. Some Cherokee people don't use \$20 bills because Andrew Jackson's one there. And I was like, WOW, that runs pretty deep, and so there's this huge mistrust of white healthcare workers. They [Indigenous peoples] are reluctant to get care, even though for a lot of people the financial barrier is gone." –BIPOC student	Research the background of a certain culture the student may interact with in the future and present to group
	Apply	Describe common challenges in cross-cultural communication (eg, trust and style)	"A patient, who didn't speak any English needed over the counter recommendations, as well as to pick up a prescription. I was trying to communicate with the patient; however, I didn't know the best way to do it. I was really ignorant in the sense that I didn't know if our company had interpreter services that I could call. And so, by the end like I tried to point to things, I tried to ask questions, but there was really no good way for me to communicate with the patient. And so I felt really bad, and the patient was getting frustrated, I was getting frustrated, we had this inability to communicate with each other in an effective way. And they [the patient] didn't get what they needed" – white student	Recall models of effective cross-cultural communication, assessment, and negotiation

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Domain	Bloom's	Objective	Student Experience	Assessment Examples
	Analyze	Analyze how culture affects the quality of patient care	“We had an African American child who’s three years old admitted for cardiac issues, for background a lot of our patients tend to be infants and neonates. This child was diagnosed late, he’d never been in a hospital, his mom wasn’t around, [he was] very terrified, and not comfortable with providers. The team of providers had such a demeaning and disparaging way they were talking about this kid that I’d never seen them use with any of the white children on the floor. Describing him [the patient] as fussy, as rude and it seemed to be more racially motivated than anything else.” – BIPOC student	Thought map about why health disparities might occur disproportionately for minorities; discussion about what other biases we may have outside of racial
	Evaluate – Disparities	Discuss factors underlying health and healthcare disparities – access, socioeconomic, environment, institutional, racial/ethnic	“In our interaction with a black woman was complaining of her extreme pain. I was at a pain clinic, and I felt like who I was with at the time [preceptor] was not truly believing the severity of the pain of the black woman and it was assumed she [the patient] was pill seeking. The woman was being honest about things she has tried to help with her pain, but instead of that being looked as being honest she [the patient] was punished for that honesty and turned away. I was very angry with the interaction and I tried to challenge it and advocate for her [the patient] but there was nothing I could do. I felt like that was a situation where unconscious bias was influencing a decision and that patient went home with nothing and in a lot of pain.” – BIPOC student	Construct and appraise the literature as it relates to health disparities, including system issues and quality in health care
	Evaluate - Culture	Evaluate a patient’s background to identify how their culture may shape their behaviors, values, and beliefs in a healthcare setting	“I know pharmacies are really different in a lot of other countries. I’ve been to [South America] to visit my grandmother and you can go up to the pharmacy storefront and just buy a pill of whatever you need. So, this patient was new to the country and he was asking for a specific medication. I understood where he was coming from and explained the process to him. Like, you need to go see a doctor first.” – BIPOC student	Written short answer on components of a certain culture and how they may determine what kind of care a patient wants and what kind of care they may receive here as a patient in the United States; written plan of action for navigating cultural barriers

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Domain	Bloom's	Objective	Student Experience	Assessment Examples
Cultural Practice the process of interacting with patients from culturally diverse backgrounds and possessing the ability to gather relevant cultural data regarding the patient's presenting problem as well as accurately perform a culturally based assessment	Create	Identify strategies to minimize potential cultural barriers for a patient	"I do encounter my fair share of people who are above 65. I'm a fast speaker, so in general I practice speaking a little bit slower. And don't assume they can't hear you, unless they tell you they can't hear you. And sometimes they [the older patients] sound like they're mumbling a little bit, so not being afraid to ask them to repeat something or just saying 'so what I am hearing from you is ...' asking for clarification. Just taking your time with a patient has helped me make those interactions a lot better." – BIPOC student	Create a list of strategies that may be considerations to minimize cultural barriers
	Understand	Understand cultural differences that the student may encounter while on early immersion or APPEs	"Like the pharmacy field is mostly white people and our school is majority white ... most of our preceptors are white. It's very important to culturally be aware of who you're interacting with. When we go on rotation we're just thrown into the situation where we have to learn by ourselves and it's kind of scary at first." – BIPOC student	Research demographic of patients at student's next practice site
	Understand	Understand how to obtain relevant information about a patient's culture during an encounter	"Whenever you go into any different workplace or immersion experience one of the first questions you should ask is, how do I interact with patients who don't speak English or who have various social determinants of health? Finding out what resources are available to patients who are strictly English speaking. Because we'd be naïve to think that we're only going to interact with patients who speak English." – white student	Generate a list of questions that are appropriate to ask during a cultural assessment of a patient in order to provide the highest level of care
	Apply	Conduct a cultural assessment of a patient during a patient encounter	"I have grandparents who immigrated to this country, both sets of them. And I've seen them come back [from a visit] with medications. I've helped my grandmother with some of her	Conduct a cultural assessment of a patient during a patient encounter

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Domain	Bloom's	Objective	Student Experience	Assessment Examples
	Evaluate	Evaluate effectiveness of cultural communication and cultural awareness during patient encounter	<p>medication that she got back in [her home country] ... So I've worked at the hospital doing med histories. So when patients are like, 'Oh, I got penicillin back home.' I'm like 'Okay, what do you mean back home?' like what exactly are we working with. So I think [my experience with my grandparents] helped me a lot in what questions to ask patients and what exactly they mean when they say they just got penicillin from the store." – BIPOC student</p> <p>"I had a Spanish speaking patient who came pretty recently to the United States and needed to establish care and get treatment for one of their conditions. Luckily for me, the two medical students were both pretty proficient in Spanish and they were able to communicate with the patient. And I had to listen to what the patient was saying and wait for the med students to translate, which was challenging. You kind of understand the value of body language, I was able to understand a lot of what the patient was saying just by where he was pointing or facial expressions and stuff like that. I was able to get all the information I needed and assess the patient and help them get the medications they needed." – white student</p>	<p>Written reflection on areas of strength and areas for improvement in recent patient encounter completed during immersion experience</p>
	Create	Make recommendations to team for minimizing potential cultural barriers for a patient	<p>"During my first rotation in a rural area, an older gentleman came in to ask for some help with his wife's insulin pen. We just did a re-teaching and then sent him on his way. They ended up calling back a little bit later. I spoke to the wife and it was just very hard trying to explain to them what to do without them being present. I could tell things weren't going well. So long story short, me and the other student volunteered to drive to their house (up the side of a mountain). We were able to figure out the issue there in person." – BIPOC student</p>	<p>Include recommendations to preceptor and/or team during immersion experience</p>

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Domain	Bloom's	Objective	Student Experience	Assessment Examples
Cultural Desire the motivation of a healthcare practitioner to want to engage in the process of becoming culturally intelligent	Remember	Define cultural desire	“In school we’re taught that this group or this group is more prone to this disease or that disease. But why is that? Why aren’t we learning about racism being a social determinant of health? And I think that’s super important to look at the underlying cause of things. Not just saying, ‘oh, this patient is more likely to get diabetes or have cardiovascular problems, but why?’ What stresses are being placed on them? What about their access to food? And things like that. – white student	Research cultural desire; create a list of what it looks like to have cultural desire as a student and in the workplace
	Understand	Understand the importance of cultural desire in seeking to be culturally intelligent healthcare practitioners	“When I was in [a major metropolitan area], I was in a family practice with a very LGBTQ community which I really enjoyed because you don’t really get a lot of interaction with that community [near the university]. So it was African American, Hispanic, low income, and LGBTQ was the main population and it was awesome to see interactions, to see how comfortable practitioners were communicating correctly with them and handling them properly. And I do not think I would have gotten that experience if I stayed close to [the university] because that’s just not the demographic. So, there’s definitely a benefit to experiences that are further away that exposes us to different demographics.” – BIPOC student	Group discussion on why it is important to have cultural desire as future PharmDs
	Apply	Self-reflection on where the student is in their desire to be culturally intelligent	“And so I guess I wish I had known how to better manage the situation. As in, what resources are available to me, and then to be able to better communication because I don’t ever want to leave a patient interaction wishing I could do more. I want to leave it all on the table. I want to do everything I can, but in that situation, I definitely feel like I left a lot to be needed.” – white student	Written reflection on what the student has learned about cultural intelligence and the importance of cultural intelligence
	Analyze	Analyze areas of strength and areas for improvement in	“I wish I knew more about how to advocate on behalf of patients, especially if I felt like they weren’t getting appropriate care. I wish I knew	Group discussion or written reflection

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Domain	Bloom's	Objective	Student Experience	Assessment Examples
Create		desiring to be culturally intelligent	what the rates were of minority patients not having their pain scores taken seriously. And then about my own culture, I would like to know if other Asian American pharmacy students have had the same experiences I've had where patients were not trying to be racist or off putting but they said something that made people uncomfortable. I would just like to know what they did during that experience and what their preceptor did or if they told their preceptor." – BIPOC student	Group discussion or written reflection
			“There is no shortage of experts of color who have had personal experiences and have done legitimate research on this issue [cultural disparities]. And we're at [the university]! I'm sure we can find someone who can come and talk to us at the pharmacy school. Also having panels of people of color who can share their anecdotes, I mean it just more personal and you get to see what these people go through. So maybe both health providers and patients would be impactful.” – BIPOC student	
Apply		Demonstrate cultural intelligence in patient/clinical interactions	<p>“I had a patient once at the independent pharmacy I worked at, he looked like he was from an eastern Asian country. He was asking for a specific medication and I kind of understood where he was coming from and explained the process to him of ‘oh, you actually need to go see a doctor first.’ I took the time to tell him how pharmacy was here. It was a little bit slower conversation and he had a lot of questions, just overall confusion. I think it was easier for me because I've seen it in other countries. And it was frustrating for me personally because afterwards the other technicians were like, ‘oh why didn't he come in with a script? He doesn't understand how this works?’ I just think in general there's a lack of competency in global pharmacy. I felt like I'd helped somebody that day who probably would</p>	Construct and practice questions to elicit the need for cultural considerations. Respond appropriately to patient feedback regarding cross-cultural concerns; demonstrate comfort when conversing with patients/colleagues about cultural issues; apply negotiating and problem-solving skills in shared decision-making with a patient; evaluate when an interpreter is needed and collaborate with interpreter effectively; assess and enhance patient adherence based on the patient's explanatory model; select and use appropriate cross-

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Domain	Bloom's	Objective	Student Experience	Assessment Examples
			not have been helped otherwise. But it helped me understand that there's a lot of education that needs to happen." – BIPOC student	cultural health communication tools; listen to patients discuss their health beliefs in a nonjudgmental manner; exhibit respect for a patient's cultural and health beliefs; support a culture, social, and medical history, including a patient's health beliefs and model of their illness.

Note: In developing cultural intelligence, it is important that learning should be acquired across different cultures including, but not limited to ethnic group, sexual orientation, geographic culture, religion, age, disabilities (physical and mental), socioeconomic status, political affiliation, occupational status, language, and physical size.