

# Integrating Cultural Humility into Medical Education Using a Structured and Interactive Workshop

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**Background:** Cultural humility is a lifelong commitment to self-evaluation, redressing power imbalances in patient–physician relationships and developing mutually trusting beneficial partnerships.

**Objective:** The objective of this study was to determine the feasibility and efficacy of cultural humility training.

**Methods:** From July 2020–March 2021, 90-minute educational workshops attended by 133 medical students, resident physicians and medical education faculty included 1) pre- and post- intervention surveys; 2) interactive presentation on equity and cultural humility principles; 3) participants explored sociocultural identities and power; and 4) reflective group discussions.

**Results:** There were significant increases from pre to post intervention assessments for perception scores (3.89 [SEM= 0.04] versus 4.22 [0.08],  $p < 0.001$ ) and knowledge scores (0.52 [0.02] versus 0.67 [0.02],  $p < 0.001$ ). Commonest identities participants recognized as changing over time were personality = 40%, appearance = 36%, and age = 35%. Commonest identities experienced as oppressed/subjugated were race/ethnicity = 54%, gender = 40% and religion = 28%; whilst commonest identities experienced as privileged were gender = 49%, race/ethnicity = 42% and appearance = 25%. Male participants assigned mean power score of 73% to gender identity compared to mean power score of –8% by female participants ( $P < 0.001$ ). Non-Hispanic Whites had mean power score for race identity of 62% compared to 13% for non-white participants ( $p < 0.001$ ). English as a second language was only acknowledged as an oppressed/subjugated identity by those born outside the United States ( $p < 0.001$ ).

**Conclusion:** An interactive educational workshop can increase participants’ knowledge and perceptions regarding cultural humility. Participants can self-reflect to recognize sociocultural identities that are oppressed/subjugated or privileged.

**Keywords:** cultural humility, patient experience, sociocultural identities, intersectionality

## Introduction

Sociocultural identity is a person’s sense of self and their understanding of their place in a cultural or social group, shaped by a wide array of societal and cultural influences that impact thoughts, feelings, behaviors, and ultimately health outcomes.<sup>1</sup> This intertwines with cultural humility, which is described as the ability to maintain an interpersonal stance that is other-oriented (or open to others) in relation to aspects of sociocultural identity that are most important to the person.<sup>2–4</sup> The concept of cultural humility was developed by Melanie Tervalon, and Jann Murray-García in 1998 to address health disparities and institutional inequities in medicine.<sup>5–8</sup> Cultural humility has three dimensions: 1) lifelong commitment to learning, self-evaluation and critical self-reflection; 2) recognizing and challenging power imbalances; and 3) institutional accountability. Cultural humility is a lifelong commitment to self-evaluation and self-critique, to redress the power imbalances in the patient-physician dynamic, and to develop mutually beneficial partnerships based on trust.<sup>5–8</sup> Institutionalized cultural humility can facilitate non-paternalistic communication and collaboration; improved patient-centered care; stronger patient rapport, cooperation, partnership building; and improved ratings of patient and hospital safety culture. Cultural humility helps pave the way for “culturally safe” clinical care based on respectful, open communication that acknowledges innate power differentials within the healthcare system.<sup>2</sup>

Increased awareness of cultural humility and its integration into the medical education curriculum offers universal benefits for physicians and patient care.<sup>4</sup> Cultural humility training can facilitate sociocultural identity awareness, adoption of cross-cultural care to effectively communicate with diverse patients. Diversity, especially during residency, helps to improve cultural sensitivity among residents, shaping learners' perspective to better appreciate and value diversity and in turn lessening the burden of health disparities for patients.<sup>9,10</sup> This is crucial, because the demographic landscape of the United States is undergoing a significant transformation, characterized by increasing diversity. Projections suggest that by 2050, over half of the nation's populace will comprise individuals from ethnic and racial minority groups.<sup>11</sup> Consequently, healthcare providers are confronted with the imperative of acquiring proficient communication skills that facilitate effective interaction with patients, underscored by cultural humility. This necessity arises from the evolving cultural milieu within healthcare settings. Health inequities are rooted in social injustices and social determinants of health that make some populations more vulnerable to poor health. Allostatic load because of health inequities leads to health risky behaviors, with immune, metabolic, and cardiovascular disorders leading to disease.<sup>12</sup> Taking care of and communicating effectively with patients and families across socioeconomic and cultural backgrounds requires cultural humility. The incorporation of cultural humility into medical education represents a recent development. While this shift holds promise for mitigating healthcare disparities, scant empirical guidance is available to assist medical educators in imparting cultural humility competencies within the medical curriculum confidently and effectively.<sup>13</sup> Furthermore, the Accreditation Council for Graduate Medical Education (ACGME) mandates that physician residents be trained to respect and be responsive to a diverse population, while Liaison Committee on Medical Education (LCME) requires similar training.<sup>14,15</sup> Consequently, medical educators have begun to advocate for humility trainings.<sup>16–19</sup> Therefore, the objective of this study was to determine: 1) if an interactive educational workshop can increase knowledge and perceptions regarding cultural humility; 2) if participants can reflect on their own unique sociocultural identities and recognize which identities are oppressed, privileged, or have power and have changed over time.

## Methods

This is a retrospective study of educational workshops presented from July 2020 to March 2021. The target population was a convenient sample of medical students, physician residents and faculty. We developed this workshop to meet the ACGME requirements of communicating effectively with patients, families, and the public, across a broad range of socioeconomic and sociocultural backgrounds.<sup>20</sup> All participants provided informed consent for the study. Kern's six step approach for curriculum development was used.<sup>21</sup> Our Kern's six step approach included the following: Step 1) Problem identification and general needs assessment, as described in the introduction above. Step 2) Targeted needs assessment, included a review of our medical students, interns curriculum and faculty development schedules, which all revealed a lack content regarding cultural humility. Step 3) Goals and objectives were a) Explore oneself as a cultural human being; b) Discuss equity, equality and the role of social determinates of health and allostatic load; c) Use ideas of social contact hypothesis to address power imbalance in the provider/client relationship; d) Identify ways to take a culturally humble stand in relationship with others; e) Discuss at least 3 strategies or recommendations regarding the practice of cultural humility. Step 4) Educational strategies engaged learners directly to become familiar with several core equity and cultural humility principles and incorporate self-reflective exercises and self-assessments into teaching in real time. The conceptual framework utilized was "situated learning-guided participation" in which didactic and interactive activities facilitate independent learning.<sup>22</sup> The workshop incorporated self-reflective exercises and self-assessments on cultural humility and included interactive presentations on culture, equity/disparities, social determinates of health and allostatic load ([Appendix 1](#)). Participants complete a short survey awareness and knowledge regarding cultural humility. A survey consisting of eight perception and twelve knowledge questions on cultural humility was created by the lead author, who has expertise in medical education, after appropriate and in-depth literature review which was assessed for clarity and reliability by content experts and repeat testing. The survey was tested in a cohort of medical students and revised based on their feedback before adoption for the workshop ([Appendix 2](#)). Step 5) Implementation: Participants explored sociocultural identities using a diversity wheel ([Appendix 3](#)), reflected on power imbalance and intersectionality ([Appendix 4](#)) and identified ways to take a culturally humble stand in relationship with others in group activities ([Appendix 5](#)). The workshop presentation required approximately 2 hours to implement and was presented in multiple in-person and virtual educational sessions to medical students,

residents, and faculty. The workshop was relatively inexpensive, acceptable, and feasible with faculty time commitment as the major cost. The organization and planning of this program required about four hours and was conducted by the lead author who trained three residents to co-present. Step 6) Evaluation and feedback: The survey was completed by participants, pre- and immediately after the educational workshop to assess short-term learning ([Appendix 6](#)). Statistical analysis was performed using chi-square test for discrete variables and student *t* test for continuous variable performed with calculation of 95% confidence interval and odds ratio as indicated. P value of 0.05 as significant using SPSS 21.0 (IBM Corp, Armonk, New York). The study was approved by the Institutional Review Board of Arrowhead Regional Medical Center, protocol number 20–45.

## Results

There were 133 participants with 51 (45.5%) males, and 61 (54.5%) females while 21(15.8%) declined gender assignment; and 36 (27%) reported previous training in cultural humility. Participants included non-Hispanic Whites = 54 (40.6%); Asians = 60 (45.1%), Hispanic = 11(8.7%) and African American = 2(1.5%). Seventy-eight (78%) were born in the United States; and 22 (22%) outside the United States while 33 (24.8%) participants did not divulge place of birth. There were 70 (56.5%) medical students, 38 (30.6%) residents and 16 (12.9%) faculty, with 9 (6.8%) missing title information.

Evaluation at Kirkpatrick level 2 (learning) demonstrated significant increases from pre- to post- intervention assessments for perception scores (3.89 [standard error of the mean {SEM}= 0.04] versus 4.22 [0.08],  $p<0.001$ ) and knowledge scores (0.52 [0.02] versus 0.67 [0.02],  $p<0.001$ ). For specific items, post intervention; participants significantly increased their perceptions regarding confidence in doing a cross-cultural patient interview; awareness of power over patients and confidence in building trust with marginalized patients. Knowledge items that significantly increased after the intervention were knowledge on Asian and Hispanic culture, health equality, cultural humility definition, intersectionality and reducing power imbalance ([Table 1](#)).

**Table 1** Pre-Intervention and Post-Intervention Scores of the Cultural Humility Workshop of 133 Participants

Variable*	Mean Pre-Test Score	Mean Post-Test Score	P value
Total perception Score	3.89 (0.04)	4.22(0.08)	<0.001
Total knowledge Score	0.52 (0.02)	0.67 (0.02)	<0.001
<b>Perception Questions</b>			
Personal negative healthcare encounter	2.75 (0.12)	2.99 (0.15)	ns
Observed negative healthcare encounter	3.94 (0.1)	4.12 (0.1)	ns
Confident doing cross-cultural patient Interview	3.73(0.09)	4.07(0.09)	0.009
Power over patients preventing care	3.93(0.08)	4.25 (0.09)	0.007
Confident learning from patient	4.44 (0.06)	4.6 (0.06)	ns
I judge patients	3.57 (0.09)	3.7 (0.12)	ns
Confident in increasing respect of patients and negotiation	4.56 (0.06)	4.66 (0.06)	ns
Building trust with marginalized patients	4.19 (0.07)	4.45(0.08)	0.014
<b>Knowledge Questions</b>			
Asian culture	0.83 (0.03)	0.98(0.02)	0.001
African American culture	0.86(0.04)	0.95 (0.03)	0.048
Hispanic culture	0.35(0.04)	0.66(0.04)	<0.001
Health equality	0.63(0.04)	0.83(0.04)	0.001

(Continued)

**Table 1** (Continued).

Variable*	Mean Pre-Test Score	Mean Post-Test Score	P value
Health equity and inequity	0.52 (0.05)	0.61 (0.05)	ns
Allostasis	0.62 (0.04)	0.66 (0.05)	ns
Cultural humility	0.07 (0.02)	0.26(0.05)	<0.001
Cultural humility primary characteristic	0.62 (0.04)	0.74 (0.05)	ns
Intersectionality	0.46(0.05)	0.7(0.05)	0.001
Institution accountability	0.49 (0.05)	0.47 (0.05)	ns
Reducing Power Imbalance	0.47(0.05)	0.63(0.05)	0.018
Lifelong self-reflection	0.42 (0.04)	0.48 (0.05)	ns

**Notes:** () = Standard error of the mean; (95% CI) = 95% Confidence interval of the difference; Variable\*: A brief synopsis of each perception question and the theme of each knowledge question is listed. The full description of each question can be found in the Appendix; The total knowledge score is the total score obtained by the participants on the 12 knowledge questions and the total perception score is the total score on a likert scale of 1–5 obtained by the participant on the 8 perception questions; ns= non-significant p value.

Participants self-reflected to recognize their own sociocultural identities. Commonest socio-cultural identities identified were gender = 85 (92%), race/ethnicity = 77(84%), age = 73 (76%) and place of birth = 67(73%) (Table 2). Comparison of sociocultural identities showed that female participants recognized significantly more sociocultural

**Table 2** Total Numbers of Sociocultural Identities Recognized by Participants, Including Identities Recognized as Privileged, Oppressed and Those Changing Over Time, Total n=92

Recognized Sociocultural Identities		
Sociocultural identity	no	Percentage
Gender	85	92.4
Race/Ethnicity	77	83.7
Age	73	75.7
Place of birth	67	72.8
Personality	64	69.6
Appearance	53	5.6
Religion	52	56.5
Personal Habits	47	51.1
Sexual orientation	42	45.7
Marital Status	36	39.1
Income	30	32.6
Parental status	24	26.1
Education	23	25
First generation to go to college	20	21.7

(Continued)

**Table 2** (Continued).

<b>Recognized Sociocultural Identities</b>		
Hobby	18	19.6
English as a second language	16	17.3
Family background	13	14.1
Career	9	9.8
Disability	5	5.4
Mental illness	4	4.3
Illness	3	3.3
<b>Identity that Changed Over Time</b>	<b>no</b>	<b>Percentage</b>
Personality	37	40.2
Appearance	33	35.8
Age	32	34.78
Religion	13	14.13
Marital Status	11	11.95
Parental status	6	6.52
<b>Oppressed identity</b>	<b>no</b>	<b>Percentage</b>
Race/ethnicity	50	54.34
Gender	37	40.2
Religion	26	28.26
Age	21	22.82
Appearance	18	19.56
English as a second language	7	7.6
<b>Privileged identity</b>	<b>no</b>	<b>Percentage</b>
Gender	45	48.91
Race/ethnicity	39	42.39
Appearance	23	25
Age	18	19.56
Sexual orientation	18	19.56
Personality	16	17.39

identities than male participants [11.15(SEM=0.34) versus 8.74 (0.53),  $p<0.001$ ]; and participants born outside the United States recognized significantly more socio-cultural identities than those born in the United States [11.36 (0.54) versus 9.19 (0.45),  $p=0.005$ ] while residents and medical students recognized more sociocultural identities than faculty [10.5 (0.51); 9.33(0.49) versus 5.83 (0.48),  $p<0.001$ ].

Commonest identities recognized as changing over time included personality = 40%, appearance = 36%, and age =35%. Commonest identities recognized as oppressed included race/ethnicity= 54%, gender = 40% and religion = 28%,

while commonest identities recognized as privileged were gender= 49%, race/ethnicity = 42% and appearance =25%. (Table 2). Non- Hispanic whites significantly experienced more race privilege while minoritized participants (under-represented groups in medicine) significantly experienced race as oppressed/subjugated. Similarly, male participants significantly recognized gender privilege whilst females significantly recognized more oppressed gender identities. English as a second language was only acknowledged as an oppressed/subjugated identity by participants born outside the United States while those born in the United States significantly experienced more gender privilege (Table 3).

Participants also quantified the power of their identities by assigning a score from -100% to +100%. Identity with the highest mean power score was sexual orientation= 59.3% (range= -20% to 100%), followed by education = 55.0% (-25% to 100%); race = 34.2% (-90% to 100%); gender = 23.5% (-90% to 100%); appearance =19.80% (-50% to 90%); age =15.0% (-90% to 90%) and the lowest power was in religion = 0.5% (-100% to 100%). Significant associations of mean power scores included gender, with male participants assigning significantly higher mean power scores compared to female participants (+73% versus -8%,  $p<0.001$ ). Non-Hispanic Whites also had significantly higher mean power scores for race identity compared to minoritized participants (+62% versus +13%,  $p<0.001$ ). Residents had significant higher mean power scores for education identity compared to medical students (+81% versus +41%,  $p<0.001$ ). (Table 4).

## Discussion

Solchanyk et al noted that little is known about how best to implement the principles of cultural humility into existing undergraduate medical education curricula. In their review, educators at NYU medical school implemented a cultural humility OSCE training, that demonstrated only 18% of learners had some competency in cultural humility principles.<sup>18</sup> This is in comparison in our study, which showed that a 90-minute interactive workshop significantly increased perception and knowledge regarding cultural humility. Effective culturally responsive communication requires clinicians to recognize that culture influences a patient/clients' view and reaction to health messages.<sup>5</sup> Consequently, physicians' training and practice of cultural humility can facilitate the awareness and appreciation of patients' socio-cultural context,

**Table 3** Significant Associations Between Demographic Factors and Reported Privileged or Oppressed/Subjugated Sociocultural Identities by Participants

Sociocultural Identity	Variable	Variable	P value	OR; 95% CI
<b>Race identity categories</b>	<b>Non-Hispanic White</b>	<b>Other races*</b>		
Race privilege identity (n= 84)	21/36 (58%)	16/48 (41%)	0.016	1.65; 1.24 –3.18
Oppressed race identity (n= 84)	12/35 (34%)	33/49 (67%)	0.004	0.57; 0.38–0.87
	<b>Previous Training</b>	<b>No Previous Training</b>		
Race privilege identity (n=84)	16/26 (62%)	22/63 (35%)	0.03	2.98; 1.16 –7.67
<b>Gender Identity categories</b>	<b>Male</b>	<b>Female</b>		
Gender privilege identity (n= 86)	29/39 (74%)	14/47 (30%)	<0.001	2.36; 1.49–3.73
Oppressed gender identity (n= 86)	2/38 (5%)	31/48 (65%)	<0.001	0.34; 0.23–0.51
	<b>Born in USA</b>	<b>Born outside USA</b>		
Gender privilege identity (n=67)	30/55 (55%)	2/10 (17%)	0.025	4.6; 1.1 –19.3
<b>Language identity categories</b>	<b>Born in USA</b>	<b>Born outside USA</b>		
English as 2nd language oppressed identity (n= 85)	0/60 (0%)	5/12 (42%)	<0.001	0.12; 0.6 –2.3

**Notes:** Other races\*: African Americans, Asian Americans and Hispanic Americans; Statistical analysis was done using Chi square analysis to determine significant associations between demographic factors (race, gender, country of birth, educational status, and previous training in cultural humility) and participants reported sociocultural Identities (race privilege, race oppression, gender privilege, gender oppression, English as 2nd language oppressed identity); Only significant results are reported; (n): total number of participants who reported on the specific sociocultural Identity; Each value is recorded as the number of participants who selected the oppressed or privileged identity divided by the denominator of all participants in that demographic variable; OR; 95% CI: Odds ratio, 95% confidence interval.

**Table 4** Power Assignment by Participants (from -100 to +100) of Reported Sociocultural Identities

Identity	Mean Power Score		p value; 95% CI
	Male	Female	
Gender Identity	73.13% (8.7%)	-7.66% (8.1%)	<0.001 (56.07% to 105.49%)
Race Identity	White	Non-White	<0.001 (25.67% to 70.98%)
	61.8% (9.13%)	13.4722% (6.99%)	
Education identity	Medical Students	Residents	0.005; (-66.19% to -13.95%)
	40.64% (10.59%)	80.71% (6.59%)	
Appearance identity	Previous Training	No Previous Training	0.038 (1.9% to 57.27%)
	41.42% (10.56%)	11.84% (6.99%)	
Education identity	82.5% (7.04%)	44.62% (9.66%)	0.005 (12.85% to 62.9%)

**Notes:** Statistical analysis was done using Student *T* test to determine significant associations between power assignment by participants (from -100 to +100) and reported sociocultural Identities (gender, race, education, and appearance). Only significant results are reported; 95% CI OR: 95% confidence interval.

values and beliefs regarding health, which can lead to improved patient's satisfaction, perception of cultural safety, and health outcomes.<sup>5,19</sup>

Our program focused on “turning inward” enabling participants to explore their own sociocultural identities, the intersectionality of privilege and power structures and reflect on how their background and experiences of privilege or subjugation could help or hinder their connection to patients. Our findings confirmed gender power imbalance with male participants acknowledging privilege while female participants recognized more gender oppression consistent with previous research. In a recent study, female academic physicians were three times as likely as men to identify gender as a reason for everyday experiences of discrimination and twice as likely as men to recognize gender discrimination in the workplace.<sup>23</sup> A contribution to the literature from our study is the quantification of power with male participants assigning their gender a high mean power score of over 70% whilst female participants assigned a negative mean power score of -8% to gender.

Identity formation is a dynamic process achieved through socialization. Educators have proposed that a goal of medical education is the development of a professional identity and that educational strategies be developed to support this objective.<sup>24</sup> This is in alignment with our study which used self-reflective exercises to facilitate identity recognitions by both learners and faculty. Cruess et al emphasized that identity is not static and will continue to evolve, consistent with our study findings with participants able to recognize identities that have changed over time and the recognition of age as an important identity. Furthermore, the identity differences noted between medical students, residents and faculty is in agreement with the sequence of professional identity development.<sup>25</sup>

Acceptance and Commitment Training (ACT) is a well-established third wave therapeutic approach with substantial empirical support, based on the premise that psychological inflexibility is at the root of human suffering. Psychological inflexibility is characterized by behaviors such as experiential avoidance, attachment to a conceptualized self, rigid adherence to one's thoughts and emotions as literal truths (cognitive and emotional fusion), lack of clarity regarding personal values, dominance of past and future-related thoughts, and actions that are misaligned with one's values, manifesting as either impulsivity or passivity.<sup>13</sup> Lombardero et al used ACT skills for cultural humility virtual interactive modules as part of an elective course to teach Medical Spanish to 4th-year medical students and reported a significant increase in the cultural humility and in psychological flexibility of the participants.<sup>13</sup> In comparison, our study that was in-person and in addition to medical students we included both residents and faculty. In contrast to ACT, we utilized the



conceptual framework of situated learning-guided participation which is based on the four pillars: content, context, community, and active engagement.

Additionally, we observed that minoritized participants were more likely to view their race/ethnicity as oppressed whilst Non-Hispanic Whites acknowledged their race/ethnicity as privileged. Chow et al showed that minoritized identity experiences enabled physicians to connect with patients from similar backgrounds.<sup>26</sup> Because the patient population is diversifying at a faster rate than the physician population, they concluded that physicians would benefit from explicit opportunities to reflect on life experiences to improve connectedness with patients.<sup>26</sup> It is also recognized that identities are intersectional and individuals may identify as privileged with respect to one identity while identifying as oppressed/subjugated in another, eg African American male can identify as both privileged (gender) and oppressed (race).<sup>23</sup>

Our study also observed the importance of place of birth in identity formation. Participants who were first-generation immigrants acknowledged more sociocultural identities and were the only group who identified English as a second language as an oppressed identity. In the United States, people with limited English proficiency experience health care disparities, have less access to health care and perceive poorer patient–physician interactions, hence training medical students and physicians who are also immigrants to reflect on their experience can lead to empathy, improved communication, and trust with these patients.<sup>24,25</sup>

There are many limitations to this study. The study population is small with fewer faculty participation in comparison with residents and medical students thus there is a possibility of selection bias. Our study survey results may have been influenced by social-desirability bias with participants providing more favorable responses than their true beliefs, intentions and perceptions. There was also a disproportionate ethnic distribution especially with a low representation of African American participants which can be attributed to the convenient sample and the institutional environment where the study was conducted. Since this was a convenient sample, a control or comparison group was not used. We also considered that a control group may not be ethical. Additionally, a power calculation was also not done because of the convenient sample of including all participants to our cultural humility workshops. Since this is a cross-sectional study, a causal inference cannot be made. Even though our perception results do suggest that individual participants may have been motivated to incorporate lessons learned into clinical practice, a longitudinal study would be required for validation. The study findings may not be generalizable to other communities since most of the participants were from Southern California. We did not perform in-depth investigations of personal, relational, and collective identities nor explored the different developmental stages. Barriers to implementation include time to identify and train facilitators. Institutions and departments would have to prioritize training and provide protected time for both faculty and residents.

## Conclusions

In conclusion, we have shown that an interactive reflective educational workshop presented by both in-person and virtual formats increased perceptions and knowledge regarding the principles of cultural humility. Furthermore, participants were able to reflect, acknowledge and quantify the power of their privileged and oppressed sociocultural identities. Future directions include developing a longitudinal curriculum encompassing role plays, simulations, and clinical observations of patient care with feedback, that could be used to train cohorts of learners to evaluate Kirkpatrick level 3, change in behavior. It is also important for future studies to investigate the direct impact of cultural humility training on patient care outcomes and health disparities. Furthermore, the studies should be conducted in a more multicultural environment to better represent the general and patient population of the United States.

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## Disclosure

The authors report no conflicts of interest in this work.



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