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Concordance of Resident and Patient Perceptions of Culturally Dexterous Patient Care Skills

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Abstract

PURPOSE: Disparities in surgical care persist. To mitigate these disparities, we are implementing and testing the Provider Awareness and Cultural dexterity Toolkit for Surgeons (PACTS), a curriculum to improve surgical residents' cultural dexterity during clinical encounters. We analyzed baseline data to look for concordance between residents' self-perceived cultural dexterity skills and patients' perceptions of their skills. We hypothesized that residents would rate their skills in cultural dexterity higher than patients would perceive those skills.

METHODS: Prior to the implementation of the curriculum, surgical residents at 5 academic medical centers completed a self-assessment of their skills in culturally dexterous patient care using a modified version of the Cross-Cultural Care Survey. Randomly selected surgical inpatients at these centers completed a similar survey about the quality of culturally dexterous care provided by a surgery resident on their service. Likert scale responses for both assessments were classified as high (agree/strongly agree) or low (neutral/disagree/strongly disagree) competency. Resident and patient ratings of cultural dexterity were compared. Assessments were considered dexterous if 75% of responses were in the high category. Univariate and multivariate analysis was conducted using STATA 16.

RESULTS: A total of 179 residents from 5 surgical residency programs completed self-assessments prior to receiving the PACTS curriculum, including 88 (49.2%) women and 97

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(54.2%) junior residents (PGY 1–2s), of whom 54.7% were White, 19% were Asian, and 8.9% were Black/African American. A total of 494 patients with an average age of 55.1 years were surveyed, of whom 238 (48.2%) were female and 320 (64.8%) were White. Fifty percent of residents viewed themselves as culturally dexterous, while 57% of patients reported receiving culturally dexterous care; this difference was not statistically significant ($p = 0.09$). Residents who perceived themselves to be culturally dexterous were more likely to self-identify as non-White as compared to White ($p < 0.05$). On multivariate analysis, White patients were more likely to report highly dexterous care, whereas Black patients were more likely to report poorly dexterous care ($p < 0.05$).

CONCLUSIONS: At baseline, half of patients reported receiving culturally dexterous care from surgical residents at 5 academic medical centers in the United States. This was consistent with residents' self-assessment of their cultural dexterity skills. White patients were more likely to report receiving culturally dexterous care as compared to non-White patients. Non-White residents were more likely to feel confident in their cultural dexterity skills. A novel curriculum has been designed to improve these interactions between patients and surgical residents.

Keywords

Surgical education; GME; Disparities; Cultural competency

INTRODUCTION

Healthcare disparities in the United States are well-documented. Racial, ethnic, and socioeconomic minority groups have worse health outcomes and report poorer satisfaction with their healthcare as compared to nonminority patients. These disparities include decreased access to care, poorer pain control, increased postoperative complications, and higher mortality risk.^{1–7} While the evidence is consistent, the path toward eradicating these disparities remains unclear. In an attempt to mitigate disparities through improved provider-patient communication, the Institute of Medicine released a call to action for healthcare educators across all specialties to incorporate cultural competency training into curricula in 2003.⁸ While surgical faculty have recognized the importance of providing better cross-cultural care, a surgery-specific, standardized curriculum has yet to be made available^{9,10} despite this established need.¹¹ Furthermore, traditional cultural competency training programs are often focused on discrete endpoints within patient encounters rather than the process of adaptation in order to individualize care.¹²

In response to this, our group created an evidence-based, patient-centered curriculum called the Provider Awareness Cultural dexterity Toolkit for Surgeons (PACTS). The term “cultural dexterity” refers to the ability of an individual to tailor their interaction to the unique needs of culturally diverse patients and to adapt their communication skills in order to minimize unconscious harm and bias. PACTS seeks to introduce and enhance these skills, serving as a novel departure from traditional cultural competency training in 2 specific ways. First, the content of the curriculum avoids stereotyping by focusing on communication methods and ongoing reflection on personal biases. Second, the curriculum is immersive across multiple platforms, and it utilizes the “flipped classroom” model, allowing residents to study online before practicing skills in live Case Explorations. The efficacy of this curriculum as an

educational tool to improve surgical patients' outcomes and experiences is currently being assessed through a crossover trial at 8 surgical residency programs in the United States. As part of the baseline data collection, we sought to understand (1) how patients perceive the quality of their care and communication with residents, (2) how residents view their own skills in culturally dexterous communication, and (3) whether these 2 perceptions align.

To this end, we surveyed patients about the cultural dexterity of their care. We also surveyed residents about their own ability to provide culturally dexterous care. We hypothesized that residents would rate their skills in cultural dexterity higher than patients would perceive those skills.

METHODS

Resident Self-Assessment

This prospective, cluster-randomized trial was implemented at 8 academic medical centers. We assessed residents' knowledge, attitudes, and skills about caring for diverse patients prior to introduction of the curriculum, with plans for follow-up testing twice throughout the trial. The first assessment was planned after the first year of implementation, when half of the learners had received the curriculum, and the second was planned 1 year later, after the second group had received the curriculum and the first group could be assessed for knowledge retention. This instrument was adapted from preexisting, validated instruments such as the Cross-Cultural Care Survey,¹¹ and it was modified to be relevant to surgical training and practice. Residents provided demographic data, including gender, race, ethnicity, and language fluency. Language fluency was assessed by the question, "Do you speak any languages other than English fluently?" If the resident answered "yes," they were then offered the question, "What language(s) other than English do you speak fluently?" This question was intended to capture residents whose primary language is not English, as well as those who may have learned a secondary language. The self-reported skills section consisted of 23 questions assessing how prepared residents feel providing various aspects of clinical care relevant to culturally diverse patients. Each question had 4 possible answer choices on a modified Likert scale: "very unprepared," "somewhat unprepared," "somewhat prepared," and "very well prepared."

Each question response was stratified into a binary categorization of cultural dexterity. Responses of "very unprepared" and "somewhat unprepared" indicated a lack of cultural dexterity and were therefore given a value of 0. Responses of "somewhat prepared" and "very well prepared" were categorized as culturally dexterous and given a value of 1. Each resident's total cultural dexterity score was calculated using this binary system, with a maximum score of 23. We defined residents as culturally dexterous if they perceived themselves as dexterous on 75% of the questions, i.e., had a total score of 17.25 or greater. Because of the arbitrary nature of this definition, we performed a sensitivity analysis, using a cutoff of 60%, 70%, 80%, and 90% to look for an impact on findings.

Patient Surveys

To evaluate patients' satisfaction and clinical quality related to PACTS training, patients enrolled in the study were administered a survey, which consisted of 28 questions on the extent to which their surgical resident practiced culturally dexterous care during their inpatient admission on a surgical service. The survey was administered at any point during their admission, at which time a face sheet of the surgical team was provided for patients to select the resident with whom they were able to recall clinical interactions most clearly. The duration of time between a clinical encounter with the resident and survey administration was no longer than a standard work day due to the daily rounding structure of the inpatient surgical teams. This survey was adapted from the AHRQ's Consumer Assessment of Healthcare Providers and Systems Surgical Care Survey, and written at a fifth to sixth grade reading level.¹³ The answer choices to these questions were on a 6-point Likert scale: "strongly disagree," "disagree," "neither agree nor disagree," "agree," "strongly agree," and "does not apply." Patients completed this survey privately after a brief explanation and informed consent from a research assistant. At the beginning of the survey, preferred patient language was assessed by the question, "Please select the language in which you feel the most comfortable completing this survey." Patients were also asked to provide their self-reported race/ethnicity and other demographic data.

Similar to the resident surveys, each patient response was stratified into a binary categorization of perceived cultural dexterity by their resident. A total of 24 of the 28 questions assessed cultural dexterity in a positive tone, i.e., responses of "agree" and "strongly agree" indicated the presence of cultural dexterity. Four of the 28 questions were reverse coded; culturally dexterous care was indicated by responses of "strongly disagree" or "disagree" were given (e.g., "I felt disrespected by this doctor because of my limited ability to speak English"). Patients were not required to answer all 28 questions. Each patient was considered to have received culturally dexterous care if they responded positively on 75% of the questions they answered. As with the resident definition of cultural dexterity, we performed an identical sensitivity analysis for this cutoff.

Finally, the percentage of patients who reported receiving culturally dexterous care was compared to the percentage of residents who reported confidence in their cultural dexterity skills.

Statistical Analysis

Comparisons between resident responses and patient responses were made using Pearson chi-square tests. Multivariate logistic regression analyses were used to identify independent factors associated with patients reporting culturally dexterous care and with residents identifying as culturally dexterous. Resident variables included PGY group (junior vs senior resident), gender, race, ethnicity, and categorization of White vs non-White. Patient variables were age group (less than 65 vs 65 or older), gender, race, and categorization of White vs non-White. Statistical analysis was performed using STATA 16 (StataCorp LP, College Station, TX) and level of significance was set as $p < 0.05$.

The study was approved by the Partners Healthcare Institutional Review Board. Due to data-sharing restrictions at some sites, we were only able to include the data from 5 sites for this analysis.

RESULTS

There were 179 residents from 5 academic surgical residency programs who took the assessment prior to receiving the PACTS curriculum (Table 1), of whom 51% were male with an average age of 30 years, 54% were junior residents (PGY 1–2s, 55% were white, 19% were Asian, and 9% were Black/African American). Nine percent of residents were Hispanic/Latinx. A total of 95% of residents had at least one parent with some college education, and 35% spoke a language in addition to English.

Fifty-seven percent (102 of 179) of the residents perceived themselves to be culturally dexterous. On univariate analysis, residents who perceived themselves to be culturally dexterous were more likely to self-identify as non-White as opposed to White residents ($p < 0.05$). There were no significant differences in PGY level, gender, ethnicity, and ability to speak a language other than English between the groups (all $p > 0.05$). When the non-White residents were stratified into individual race categories on multivariate analysis, Black residents were more likely to report their skills as culturally dexterous compared to residents of other races (odds ratio [OR] 7.48, 95% CI 1.60–35.05, $p = 0.011$) as seen in Table 2.

A total of 494 patients were recruited for this study, of whom 52% were male, 65% were White, 18% were Black/African American, and 10% chose not to disclose their race (Table 3). Just under 10% of patients identified as Hispanic/Latinx. A total of 34% were age 65 or older, with an average age of 55 years, and 66% of patients had some college education. English was not the primary language for 6% of patients. Nearly half (245 of 494, or 49.6%) of all patients felt that they received culturally dexterous care from their surgical resident. Patients who did not perceive their care as culturally dexterous were more likely to self-identify as non-White ($p < 0.05$). There were no significant differences in age, gender identity, ethnicity, or preferred language between the groups (all $p > 0.05$). Race was significant on multivariate analysis, with non-White patients less likely to report receiving dexterous care (OR 0.47, 95% CI 0.30–0.72, $p = 0.001$). When stratified by race groups, patients identifying as Asian/Native Hawaiian/Pacific Islander were much less likely to report culturally dexterous care with an OR of 0.37 (95% CI 0.22–0.61, $p < 0.001$; Table 4).

When comparing patient and resident perceptions of cultural dexterity, we found no significant difference between the groups (49.6% vs 57%, $p > 0.05$). When we performed our sensitivity analysis varying the dexterity cutoff for residents and patients, we found that below 75%, there was no statistically significant difference between the patient-reported dexterity scores and residents' self-assessments of their own cultural dexterity. Above this level, patient perceptions of cultural dexterity were significantly lower than resident confidence in their own skills.

DISCUSSION

Prior to the implementation of a novel cultural dexterity curriculum for surgical residents, half of patients rated the care they received as culturally dexterous according to our study criteria. This was consistent with residents' self-assessment of their cultural dexterity skills. White patients were more likely to report culturally dexterous care as compared to non-White patients. Non-White residents were more likely to feel confident in their cultural dexterity skills.

These findings support the need for cultural dexterity curricula, as it suggests that half of patients, and particularly those of racial minority groups, do not feel that they receive culturally dexterous care from their surgical residents. Studies have shown that patients with limited English proficiency are at increased risk for serious medical events¹⁴ and that those from racial/ethnic minority backgrounds and of lower socioeconomic status have lower rates of medication adherence.^{15,16} Improved communication between providers and patients is also associated with decreased cost of inpatient stay¹⁷ and reduction in harmful errors.¹⁸ Interventions such as PACTS seek to improve providers' skills in improving trust, communication, satisfaction, and, ultimately, quality of care for these at-risk groups.

One possible explanation for these findings is racial concordance between patients and providers. Studies have shown that racial, ethnic, and language concordance between patients and providers results in increased likelihood of patient seeking medical care,¹⁹ improved satisfaction with care,²⁰ better perceived communication,²¹ and even superior clinical outcomes.²² Thus, the White patients in our study may have been more likely to report receiving culturally dexterous care as the majority of their residents were also White. Perhaps this concordance also impacts residents' self-perceived communication skills, with non-White residents more confident in providing culturally dexterous care to patients of their same race/ethnicity. Further analyses at the resident-patient dyad level could help identify these trends within PACTS.

Our study suggests that non-White residents feel more confident in their cultural dexterity skills as compared to their White colleagues. There are many possible etiologies and implications of why this demographic group may report feeling more confident in their skills. First, non-White residents may have had personal experiences as patients or patient family members in the healthcare system from which they gained a unique perspective on how they would want to receive care. These experiences could potentially influence the way these residents feel that they approach patient interactions. Non-White residents may also draw knowledge and skills from their own experiences with racial bias and microaggressions from colleagues, attendings, patients, and ancillary staff, which is a known problem for this subgroup of trainees.²⁴ Similarly, non-White residents may draw self-perceived cultural dexterity skills from their experiences with "code-switching," or adapting one's behavior as needed in order to assimilate with the majority population in a given environment. Regardless of the reason why these non-White residents feel more competent in providing care to culturally diverse patients, it has been shown that minority patients are more likely to seek care from and report greater satisfaction with racially concordant providers.^{21,25}

After completion of the PACTS curriculum, we hope to see an increase in both the proportion of patients who report receiving culturally dexterous care as well as the number of residents who are confident in their ability to provide culturally dexterous care to a wide variety of patient populations. Additionally, the cross-over design of the PACTS trial will allow us to see if the impact of this curriculum is sustained beyond the time of its immediate implementation. Efforts to improve cultural dexterity within surgery are unique as compared to many other medical specialties due to its often acute nature, which can limit providers' ability to build long-term relationships. Thus, having a set of tools and skills readily available to assist surgeons with communication in clinical encounters is vitally important. We hope to find an ongoing benefit to our curriculum for both patients and residents as a step toward improved care and communication.

Our study is not without limitations. The patient and resident participants represent only 5 university residency programs and their affiliated hospitals, all of which are academic medical centers. Thus, the generalizability to other surgical residency programs, such as independent programs, may be limited. We are also limited by the demographic makeup of our patient population. Most patients in our study were White, limiting our ability to comment on the experience of minority patients, who are the intended targets of this intervention. During later data collection periods, surveys will be available to patients in additional languages, which researchers hope will diversify the patient respondents. Despite the fact that only 35% of the patients who were surveyed were non-White, the perceived lack of culturally dexterous care by minorities maintained significance on multivariate analysis, reaffirming a need for improved cultural dexterity training for residents. In order to preserve the anonymity of residents, these data were analyzed at a program level, so we are unable to draw one-to-one correlations between patient survey results and resident self-assessment results, including analyses to assess for how patient-provider concordance impacts perceptions of cultural dexterity. Additionally, residents may not have been honest in their self-assessments out of concern that their program director may have access to their data, despite assurances that these data were de-identified.

With regards to our analysis, it is unknown whether it is appropriate to measure cultural dexterity on a binary scale rather than as a continuous variable or a composite score. Furthermore, we did not assess our analysis for differences if we classified neutral patient responses as culturally dexterous rather than nondexterous. Our decision to place the cutoff for cultural dexterity at 75% is arbitrary, as there is no existing literature to support this cutoff. Our sensitivity analysis found that patient perceptions of cultural dexterity were lower than resident perceptions of their own skills at more stringent definitions of cultural dexterity, which is consistent with our hypothesis. These data, however, do not change our overall findings from this study – namely, that patients should be receiving culturally dexterous care more often and residents need education on how to do so.

Areas for further research include focused analysis on individual items and categories on the patient surveys. This will allow for potential modification of the curriculum in order to optimize impact on patient care. Likewise, if residents are found to lack skills or confidence in a particular area, this would provide valuable information on how to customize the curriculum in the future.

In summary, our analysis indicates the need, from both the patient and resident perspective, for resident training on how to provide culturally dexterous care. With the PACTS trial, we hope to impact the cultural dexterity of surgical trainees, resulting in improved patient experience and ultimately clinical outcomes.

REFERENCES

1. Elsamadicy AA, et al. Impact of gender disparities on short-term and long-term patient reported outcomes and satisfaction measures after elective lumbar spine surgery: a single institutional study of 384 patients. *World Neurosurg.* 2017;107:952–958. [PubMed: 28743671]
2. Elsamadicy AA, et al. Influence of racial disparities on patient-reported satisfaction and short- and long-term perception of health status after elective lumbar spine surgery. *J Neurosurg Spine.* 2018;29:40–45. [PubMed: 29701564]
3. Alexander AL, et al. Examining disparities in route of surgery and postoperative complications in black race and hysterectomy. *Obstet Gynecol.* 2019;133:6–12. [PubMed: 30531569]
4. Asban A, et al. Gender and racial disparities in survival after surgery among papillary and patients with follicular thyroid cancer: a 45-year experience. *Clin Med Insights Endocrinol Diabetes.* 2019;12:1179551419866196. [PubMed: 31598065]
5. Zarkowsky DS, et al. Racial/ethnic disparities associated with initial hemodialysis access. *JAMA Surg.* 2015;150:529–536. [PubMed: 25923973]
6. Kulkarni S, et al. Association of racial disparities with access to kidney transplant after the implementation of the new kidney allocation system. *JAMA Surg.* 2019;154:618–625. [PubMed: 30942882]
7. Eaglehouse YL, et al. Racial differences in time to breast cancer surgery and overall survival in the US Military Health System. *JAMA Surg.* 2019;154: e185113. [PubMed: 30673075]
8. Smedley BD SAY, Nelson AR. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* 2003.
9. Changoor NR, et al. Surgeons' perceptions toward providing care for diverse patients: the need for cultural dexterity training. *Ann Surg.* 2019;269:275–282. [PubMed: 29095198]
10. Shah SS, Sapigao FB, Chun MBJ. An overview of cultural competency curricula in ACGME-accredited General Surgery Residency Programs. *J Surg Educ.* 2017;74:16–22. [PubMed: 27663082]
11. Weissman JS, et al. Resident physicians' preparedness to provide cross-cultural care. *JAMA.* 2005;294:1058–1067. [PubMed: 16145026]
12. Tervalon M, Murray-García J. Cultural humility versus cultural competence: a critical distinction in defining physician training outcomes in multicultural education. *J Health Care Poor Underserved.* 1998;9:117–125. [PubMed: 10073197]
13. Quality, A.f.H.R.a.. CAHPS Surgical Care Survey. Agency for Healthcare Research and Quality; 2011 p. 1–5.
14. Cohen AL, et al. Are language barriers associated with serious medical events in hospitalized pediatric patients? *Pediatrics.* 2005;116:575–579. [PubMed: 16140695]
15. Salt E, Frazier SK. Predictors of medication adherence in patients with rheumatoid arthritis. *Drug Dev Res.* 2011;72:756–763. [PubMed: 22267889]
16. Simoni JM, et al. Racial/ethnic disparities in ART adherence in the United States: findings from the MACH14 study. *J Acquir Immune Defic Syndr.* 2012;60:466–472. [PubMed: 22595873]
17. Clay-Williams R, et al. Improving teamwork and patient outcomes with daily structured interdisciplinary bedside rounds: a multimethod evaluation. *J Hosp Med.* 2018;13:311–317. [PubMed: 29698537]
18. Khan A, et al. Patient safety after implementation of a coproduced family centered communication programme: multicenter before and after intervention study. *BMJ.* 2018;363:k4764. [PubMed: 30518517]

19. Ma A, Sanchez A, Ma M. The impact of patient-provider race/ethnicity concordance on provider visits: updated evidence from the medical expenditure panel survey. *J Racial Ethn Health Disparities*. 2019;6:1011–1020. [PubMed: 31236800]
20. Saha S, et al. Patient-physician racial concordance and the perceived quality and use of health care. *Arch Intern Med*. 1999;159:997–1004. [PubMed: 10326942]
21. Shen MJ, Peterson EB, Costas-muñiz R, et al. The effects of race and racial concordance on patient-physician communication: a systematic review of the literature. *J Racial Ethn Health Disparities*. 2018;5:117–140. [PubMed: 28275996]
22. Mehler PS, Lundgren RA, Pines I, Doll K. A community study of language concordance in Russian patients with diabetes. *Ethn Dis*. 2004;14:584–588. [PubMed: 15724780]
23. Osseo-Asare A, et al. Minority resident physicians' views on the role of race/ethnicity in their training experiences in the workplace. *JAMA Netw Open*. 2018;1:e182723. [PubMed: 30646179]
24. Chen FM, et al. Patients' beliefs about racism, preferences for physician race, and satisfaction with care. *Ann Fam Med*. 2005;3:138–143. [PubMed: 15798040]

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TABLE 1.

Resident Demographics

Resident Characteristics	Nondexterous	Dexterous	p Value
Total	77	102	
<i>PGY</i>			0.7
1	27(49.1%)	28 (50.9%)	
2	15 (35.7%)	27 (64.3%)	
3	15 (46.9%)	17(53.1%)	
4	10(41.7%)	14(58.3%)	
5	10(38.5%)	16(61.5%)	
<i>Junior vs Senior Resident</i>			0.93
Junior (PGY 1–2)	42 (43.3%)	55 (56.7%)	
Senior (PGY 3–5)	35 (42.7%)	47 (57.3%)	
<i>Gender</i>			0.34
Male	36 (39.6%)	55 (60.4%)	
Female	41 (46.6%)	47(53.4%)	
<i>Bilingual</i>			0.19
No	54 (46.6%)	62 (53.4%)	
Yes	23 (36.5%)	40 (63.5%)	
<i>Race</i>			0.025
White	49 (50%)	49 (50%)	
Asian/Native Hawaiian/Pacific Islander	17(50%)	17 (50%)	
Black/African American	2 (12.5%)	14(87.5%)	
African	4 (44.4%)	5 (55.6%)	
Multiracial	2 (33.3%)	4 (66.7%)	
Decline to answer	3 (18.8%)	13 (81.3%)	
<i>White vs non-White</i>			0.042
White	49 (50%)	49 (50%)	
Non-White	25 (38.5%)	40 (61.5%)	
Decline to answer	3 (18.8%)	13 (81.3%)	
<i>Ethnicity</i>			0.21

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Resident Characteristics	Nondexterous	Dexterous	p Value
Non-Hispanic/non-Latinx	70 (44%)	89 (56%)	
Hispanic/Latinx	7(43.8%)	9 (56.3%)	
Decline to answer	0 (0%)	4(100%)	

TABLE 2.

Predictors of Residents Self-Reporting Cultural Dexterity Skills

Predictor	Odds Ratio	95% CI	p Value
<i>Junior vs Senior Resident</i>			
Junior	-		
Senior	1.09	0.58–2.08	0.79
<i>Gender</i>			
Male	-		
Female	0.84	0.44–1.58	0.585
<i>Bilingual</i>			
No	-		
Yes	2.06	0.98–4.35	0.058
<i>Race</i>			
White	-		
Asian/Native Hawaiian/Pacific Islander	0.72	0.30–1.70	0.454
Black/African American	7.48	1.60–35.05	0.011
African	0.92	0.22–3.90	0.905
Multiracial	2	0.35–11.55	0.44
Decline to answer	3.01	0.70–12.97	0.14
<i>White vs non-White</i>			
White	-		
Non-White	1.43	0.74–2.78	0.289
Decline to answer	2.92	0.70–12.30	0.143
<i>Ethnicity</i>			
Non-Hispanic/non-Latinx	-		
Hispanic/Latinx	2.01	0.57–7.04	0.277

TABLE 3.

Patient Demographics

Patient Characteristics	Nondexterous Care	Dexterous Care	p Value
Total	249	245	
Age			0.8
Less than 65	162 (50%)	162 (50%)	
65 or older	87(51.2%)	83 (48.8%)	
Gender			0.45
Male	124(48.6%)	131 (51.4%)	
Female	124(52.1%)	114 (47.9%)	
Prefer to self-describe	1 (100%)	0 (0.0%)	
Race			0.012
White	146 (45.6%)	174(54.6%)	
Black/African American	6 (42.9%)	8 (57.1%)	
Asian/Native Hawaiian/Pacific Islander	61 (67.8%)	29 (32.2%)	
African	1 (33.3%)	2 (66.7%)	
Multiracial	9 (56.3%)	7(43.7%)	
Decline to answer	26(51%)	25 (49%)	
White vs non-White			0.006
White	146 (45.6%)	174(54.4%)	
Non-White	77(62.6%)	46 (37.4%)	
Decline to answer	26(51%)	25 (49%)	
Ethnicity			0.26
Non-Hispanic/non-Latinx	205 (52.2%)	188 (47.8%)	
Hispanic/Latinx	21 (46.7%)	24 (53.3%)	
Decline to answer	23 (41.1%)	33 (58.9%)	
English as primary language			0.88
Yes	234 (50.3%)	231 (49.7%)	
No	15 (51.7%)	14(48.3%)	

TABLE 4.

Predictors of Patients Reporting Receiving Culturally Dexterous Care

Predictor	Odds Ratio	95% CI	p Value
<i>Age</i>			
Less than 65	-		
65 or older	0.92	0.62–1.35	0.643
<i>Gender</i>			
Male	-		
Female	0.86	0.59–1.23	0.404
<i>Race</i>			
White	-		
Black/African American	1.08	0.36–3.20	0.894
Asian/Native Hawaiian/Pacific Islander	0.37	0.22–0.61	<0.001
African	1.39	0.12–15.96	0.791
Multiracial	0.65	0.23–1.81	0.407
Decline to answer	0.56	0.26–1.23	0.149
<i>White vs non-White</i>			
White	-		
Non-White	0.47	0.30–0.72	0.001
Decline to answer	0.58	0.27–1.26	0.169
<i>Ethnicity</i>			
Non-Hispanic/non-Latinx	-		
Hispanic/Latinx	0.58	0.25–1.33	0.2
Decline to answer	1.06	0.43–2.63	0.896
English as primary language	1.28	0.57–2.88	0.555