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MAJOR ARTICLE



Perceptions of diversity, equity, and inclusion within undergraduate curriculum and university: A qualitative study

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ABSTRACT

Objective: Diversity, equity, and inclusion (DEI) efforts are important at university campuses, especially preparing students for the workforce. This study aimed to identify perceptions of DEI among seniors related to their major curriculum and at the university.

Participants: In Spring 2021, 101 graduating seniors, who are future health professionals, completed an online survey.

Methods: Open-ended and multiple-choice survey items were analyzed. Thematic coding for open-ended questions and SPSS was used for the quantitative analysis.

Results: Analyses revealed the university kept students informed of DEI activities; however, more could be done. In the department, participants reported that classes focused on DEI activities; however, some faculty entered classrooms without evaluating their own implicit biases. Future suggestions include creating a DEI-focused course and increasing faculty and student representation from underrepresented backgrounds.

Conclusions: Findings from this study can be used to inform DEI-related courses as well as faculty hiring and student recruitment guidelines.

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Introduction

The United States is going through a demographic shift, and researchers estimate that by 2060 the country will be more racially diverse than it is now.¹ The non-Hispanic white population is projected to shrink from 199 million in 2020 to 179 million in 2060, and approximately 32% of the population is projected to identify themselves as nonwhite by 2060.² Diversity, equity, and inclusion (DEI) in education, including information on LGBTQIA+ students, helps academic institutions promote inclusivity among diverse students, which has also reduced inequitable academic outcomes among different student groups.³ DEI is one of the major topics of discussion in higher education, especially in the United States.⁴ Addressing DEI, specifically associated with cultural diversity, within the academic setting affects higher education as it promotes inclusive learning environments, as well as assists with establishing goals associated with cultural competency and prepares future professionals for work in diverse settings.⁴ Academic organizations such as the American Association of Colleges and Universities (AAC&U) recommend that universities assist college students to learn and develop cultural competence as part of their academic training and in preparation for their future careers.⁵ Evidence shows that US industries that embrace DEI perform better financially.⁶ Therefore, career centers at academic institutions encourage

incorporating DEI-related topics in education and training to help students prepare for their future careers.⁷

Integrating DEI in the curriculum not only helps individual students but may help society as well. Students who are trained to appreciate the value of cultural diversity among peers eventually promote justice and equality in society.⁸ Educators and students from diverse backgrounds and life experiences bring different perspectives, creativity, and individual experiences to address complex social, political, and scientific topics.⁹ There are many benefits that result from a diverse workforce, such as fostering innovation, enhancing national and global competitiveness, contributing to advanced learning environments, improving research quality, enabling underserved student populations to participate in, and benefit from health research, and enhancing public trust.⁹ Students who want to pursue health professions need to be trained to serve a rapidly growing diverse population.

Curricular guidelines created by the National Council for the Social Studies (NCSS) recommend including up-to-date knowledge representing diverse human experiences, cultures, and beliefs in the academic programs and engaging students directly and indirectly in the learning process.¹⁰ It is vital to create a learning and working environment which is diverse and inclusive, where all voices, ideas, and experiences, especially those from historically represented populations, shape the way toward research and discovery.¹¹ The inclusion of DEI in higher education for students in health-related

programs is crucial to teaching students about the complex relationships within diverse populations and the analytical skills needed to thrive and prosper in their careers as health professionals.¹² These skills include the ability to work well with colleagues, supervisors, and subordinates from diverse backgrounds; to view issues from multiple perspectives; and to anticipate and respond with sensitivity to the needs and cultural differences of highly diverse customers, colleagues, employees, and global business partners.¹

Therefore, academic departments training future health professionals must prioritize relevant, adequate, and updated DEI strategies in the academic curricula, as well as in extracurricular activities.¹³ Prior research shows that a solid understanding and implementation of DEI strategies contribute to better academic and professional outcomes for students within the social sciences, particularly students from historically excluded backgrounds.¹⁴ Accrediting bodies, such as the Council on Education for Public Health (CEPH), recommend incorporating diversity and cultural competency in the curriculum, recruitment, and retention of diverse students, faculty, and staff, development and implementation of policies supporting DEI issues as well as including DEI topics in scholarship.¹⁵ Despite ample evidence of the benefits of diversity in academia, US higher education institutions, especially in the Mid-Atlantic and Southern region, still struggle to provide an all-inclusive environment to their students.^{16,17}

Although decades of initiatives acknowledging various DEI topics have increased diversity in academic institutions,¹⁸ discussions and activities related to DEI in academic institutions can still be challenging since it includes dealing with sensitive topics.^{18–20} The authors' institution acknowledges the importance of variation in ethnicity, race, culture, religion, age, gender, sexual orientation, veteran status; and fosters environments that offer equal opportunity, engagement, and positive academic experience that strives to be free from discrimination on any level. Through the curriculum, experiences, interactions, and resources, the authors' institution, a large public university, encourages diversity, equity, and inclusion to create cultural competency and promote cultural humility. However, available data shows that the university's undergraduate population lacks diversity, as it is predominantly White, female, and traditionally aged (19 to 23 years). It is important to understand student perceptions of DEI in the curriculum and at the university due to university-wide initiatives focused on embracing difference, promoting equity, and moving toward inclusive excellence. These initiatives include establishing leadership positions for all areas that report to the provost as well as establishing university-level positions for the promotion of DEI to achieve the university's anti-racist and anti-discrimination agenda. The Health Science Department is committed to establishing strategies based on student feedback, which will help to continue to build on and improve the curricular mapping and adjustments identifying which courses cover aspects of DEI and how they cover them, as well as ensuring that faculty and students are focused on promoting DEI and an environment of belonging. As these students enter health-related professions in increasingly diverse settings, it

is important to ensure our students are prepared for the workforce upon graduation. Therefore, the aim of this research study was to identify the perceptions and views related to DEI among graduating seniors in December 2020, and May and August 2021, who were majors within the academic department with the intention of identifying the perceived strengths and weaknesses of DEI efforts in the department and at the university.

Methods

Procedures

In April 2021, an email requesting participation was sent to all health sciences majors registered to graduate in the 2020–2021 academic year including December 2020 ($n=47$), May 2021 ($n=326$) and August 2021 ($n=55$) from a southeastern public four-year coeducational liberal arts university. The email provided informative details related to the study and a link to access the survey in QuestionPro. Upon clicking the link, students gave their informed consent before being directed to the survey. Participants were given three weeks to access and complete the survey. Two weeks after the initial email invitation, a follow-up email was sent out as a reminder to complete the survey and enter the raffle. The survey was then closed at the three-week deadline. To encourage participation, all who completed the survey were given the opportunity to enter a raffle to win one of five gift cards. This study was approved by the university's institutional review board, protocol #22-3150.

Measures

The survey included 28 items to assess student perceptions about DEI related to their curricular, faculty, and student interactions during their undergraduate career which were adapted from a previous survey.²¹ This study analyzed four open-ended questions that reported on the student's perceptions of 1) the university's focus on diverse populations, describing both 2) positive experiences and 3) negative experiences related to the interactions within the major and 4) suggestions the students may have for the major department to further support DEI. This study also included one multiple-choice question where participants rated their perceptions of university's focus on diverse populations and DEI efforts, with ratings from "excellent" to "needs improvement" to "not sure". All remaining items were used to collect demographic details about the participants including gender, sexual orientation, age, race/ethnicity, military status, length of residence in the United States, identifying as a first-generation student, identifying as the first-generation United States citizen for their family, identifying as an international student, and use of learning accommodations. To allow students to self-identify in the demographic questions, they were asked to write in their gender, sexuality, and select all that applied for race and ethnicity. Race/ethnicity was a "choose all that apply" question. Responses were recorded to White, for those who only chose this option, and other

identities, which included those who chose any nonwhite responses or indicated multiple identities. When answering questions about gender and sexual orientation, participants wrote in their answer. For gender, responses of “female” or “F” were considered female and those who wrote in “male” were considered male. Respondents only identified as male or female, and did not report other gender identities (e.g., non-binary). For sexual orientation, those reporting heterosexual or straight were considered straight/heterosexual; those who reported being bisexual, pansexual, lesbian, or gay were considered homosexual/gay/lesbian. Missing responses and responses of “female” and “male” for the sexuality question were considered missing data.

Data analysis

Following the completion of the data collection, quantitative analyses were used to describe the multiple-choice responses to the survey items and qualitative analyses were conducted to identify themes in open-ended survey responses. The Statistical Package for the Social Sciences (SPSS) (v.28) was used for descriptive statistics to describe demographic characteristics of the participants and the one multiple choice question about student perceptions of DEI at the university as well as to run the independent samples t-test to look at differences of student perceptions by race/ethnicity. Qualitative analyses were conducted using the software package, NVivo, to analyze the open-ended responses for the four questions where participants reported their perceptions of DEI efforts associated with positive and negative experiences within their academic major, perceptions of DEI efforts associated with the university, and suggestions for improvement. The themes were used to identify and analyze any existing trends and to cross-examine the information provided. The three authors met to review responses and discuss coding until consensus was reached for the coding of all open-ended responses.

Results

A total of 428 participants were emailed the survey. There was a total of 125 participants who opened or started the survey and 101 completed surveys, which was a 23.6% response rate. Demographic characteristics of the participants can be seen in Table 1. Of those who completed the demographic questions, the majority identified as female ($n=92$; 92%) and White ($n=73$; 73%). Considering the graduating class of 2020-2021 with a health science degree reported being 82.8% female and 92% White, this shows that females were overrepresented, and Whites were underrepresented in the sample. Additionally, 97.7% of the sample identified as straight/heterosexual ($n=86$). Many ($n=23$; 22.8%) of the participants identified as first-generation college students. Participants reported having been born in the U.S. and lived at least six consecutive months or more in another country ($n=15$; 14.9%) and four (4.0%) identified as a first-generation U.S. citizen. Six participants (5.9%) utilized learning accommodations with the disability services office

Table 1. Demographic characteristics of participants.

Characteristic	N	%
Gender* ($n=100$)		
Female	92	92.0
Male	8	8.0
Race/Ethnicity ($n=100$)		
White	73	73.0
Other Identities (including multiple races)	27	27.0
Sexual Orientation* ($n=90$)		
Straight/Heterosexual	86	95.6
Homosexual/Gay/Lesbian	2	2.2
Pansexual/Bisexual	2	2.2
First generation college student	23	22.8
Born in US and lived overseas 6 or more consecutive months	15	14.9
First generation US citizen	4	4.0
Disability services accommodation	6	5.9
U.S. Military	1	1
	Mean	SD
Age	21.55	0.61
		Range
		19-23

*Participants only reported female or male gender identities.

**Race/Ethnicity was a choose all that apply question and those that only identified as White were considered White and those who reported other races/ethnicities and/or multiple races/ethnicities were considered Other Identities.

at the university. At the time of the study, the university did not collect demographic data for the graduating class other than gender and race/ethnicity. Below are the results for the thematic analyses in response to the four open-ended survey questions.

Perceptions of DEI at the university

Participant perceptions of the university's focus on diverse populations was excellent ($n=71$, 69.6%), with several ($n=16$, 15.7%) reporting needs improvement, and some ($n=15$, 12.0%) who were not sure or neutral. A chi-square test of independence was performed to evaluate the relationship between race and perceptions of DEI at the university. The relationship between these variables was significant, $X^2(2, N=100)=24.49, p<0.001$. Students who identified as White were more likely to be happy with the university's DEI initiatives than nonwhite students. The cross tabulations for satisfaction by race are reported in Table 2.

There were 63 open-ended responses to the survey question about university perception of DEI and four themes identified: activities and programs at the university ($n=4$), areas related to DEI that are successful at the university ($n=25$), problematic areas that need improvement ($n=24$), and how the university is advertised to prospective students compared with the experience at the university ($n=8$). Nonwhite participants ($n=15$) reported that the university gave the perception of being a racially diverse campus, when in reality it was predominately white; whereas white participants ($n=47$) reported generally that the university was a diverse place, with several indicating that there is always more that can be done to promote diversity and inclusion.

Participant comments related to programs at the university focused on both inclusive and exclusive practices within university programs. For example, one participant commented that the university programs were frequently and clearly advertised through email to promote inclusion among all students, “I always receive emails about supporting this topic and having events for those with a diverse background

Table 2. Cross tabulation of student perceptions of the university focus on DEI by race ($n=100$).

Race	Good/Excellent		Needs Improvement		Neutral/Not Sure		Total	
	n	%	n	%	n	%	n	%
Nonwhite	10	37.0	12	44.4	5	18.5	27	100
White	59	80.8	4	5.5	10	13.7	73	100

to feel included or they can attend.” On the other hand, some participants reported feeling excluded from university activities, “The clubs and programs can be exclusive and not integrate multiple cultures in one and rather separates them.” Some participants had the perception that Greek organizations were exclusionary based on race and indicated that additional organizations were created to be more inclusive.

Many participant comments highlighted the many ways they learned about DEI during their time at university, including in classes and out of class through extracurricular activities. While many of these posts focused exclusively on positive aspects of DEI, several identified that while the university has been doing good work, there is always more that can be done. “The University sends out emails in regard to diversity and changes buildings names, but that alone is not going to shift their overall focus. They’re just small steps that are taken in hopes to make a change, but it is a step in the right direction.” This response focuses on the recent university effort to reevaluate campus buildings named for confederate military leaders and renaming them for historically excluded community members exemplifying some of the outward attempts to increase visibility of DEI efforts on campus.

Some problematic areas and areas noted for improvement identified that the actions the university took were performative and met the bare minimum requirements, “I sometimes feel like the university is only doing what is expected of creating a diverse environment, not going above and beyond what is needed.” Many of these comments included that the university itself is “not a diverse campus”. Therefore, in contrast to the positive responses above identifying this university as diverse, many respondents described the university as not a very diverse campus.

Along the lines of visible diversity on campus, several participants focused on how the university was visually advertised as a diverse campus; however, upon arriving at the university, it seemed less diverse than expected. For example, one participant commented, “The University can sometimes make it seem *[sic]* as though the school is diverse however, *[sic]* when you actually arrive on campus it is not as diverse as they make it seem.” Therefore, it seems as though, despite conflicting information, there is a prevailing sense that the campus is not diverse.

Positive perceptions of DEI in the department

There were 62 responses to the short answer question about positive perceptions of DEI in the department and four themes identified. Topics identified included material learned in the classroom ($n=45$; 44.6%), participants’ perception of the classroom environment ($n=14$; 13.9%), individual growth ($n=4$; 4.0%), and preparation for post-graduation settings ($n=14$; 13.9%). Both nonwhite ($n=13$) and white ($n=29$)

participants reported being treated equally by professors and learning about the relationship between race and health disparities in their classes.

The majority of participant responses focused on how their classes provided information related to DEI topics. Examples of DEI topics in the classroom included racial and ethnic disparities, cultural competency and cultural humility, and implicit bias. For example, one participant commented, “The department emphasizes cultural humility as well as cultural cultural *[sic]* competency in a majority of its classes.” Another participant described the use of diverse examples in the classroom, “I feel as though the majority of my professors in the...department were accepting and supporting of all students and worked to include different cultures and minorities into the curriculum.” While some responses identified that most of this learning took place in only a couple of classes at the most, overall, participants identified this content as meaningful.

Participants also described ways in which faculty created inclusive and supportive environments in the classroom that promoted their learning. Some participants described specific examples of classroom activities related to DEI that they appreciated, “A positive experience I had is when a professor would have us fill out forms in the beginning of the semester where we were able to put our preferred name and pronouns so that they could learn them without singling out students.” Others described how faculty were understanding and accommodating in individual encounters, “I...have [disability] accommodations and every teacher was accepting and there for support.” This showed that students were attuned to some of the ways in which faculty work to shape their classes based on DEI principles.

Individual growth focused on individual perceptions related to learning about challenging topics, such as identity, and being provided space to learn and grow while learning and reflecting. “The [professors in the department] do an excellent job of promoting diversity and inclusion. They helped me understand my own implicit biases without making me feel ashamed.” Here, respondents were able to report not only gaining knowledge from the classroom, but also learning more about themselves through the process of learning.

Participants reported learning tangible skills that they could incorporate into their future professional practices, “I learned a lot about cultural competency and how to make clients feel understood and respectful of their culture.” Participants reported feeling prepared to advocate for health equity and to fight health disparities as future health care professionals based on their experiences in the department, “I have had multiple classes that addressed the discrimination in health care and health outcomes due to race and how we as professionals should advocate for change.” This shows how

participants recognized that their studies had prepared them for their future careers as health professionals and advocates.

Negative perceptions of DEI in the department

There were 35 responses to the survey question about negative perceptions of DEI in the department, 18 of which related to DEI and were included in the coding. The four themes identified included: implicit bias in the classroom ($n=7$; 6.9%), treatment by faculty ($n=4$; 4.0%), treatment by students ($n=3$, 3.0%), and classroom environment ($n=4$, 4.0%). When looking at difference by race, nonwhite responses ($n=7$) focused on negative interactions with fellow students and the lack of representation among faculty and students in the department. On the other hand, responses from White participants ($n=29$) focused on the use of gender-neutral language, age-related assumptions, and accessibility.

Some responses focused on how faculty did not address their own implicit bias in the classroom. Specifically, comments focused on a lack of gender-neutral language, for example, "There hasn't been a lot of gender neutral language. A majority of the people in my major are female so we were referred to as ladies or girls". Another area of focus was on the lack of culturally representative examples as well as consideration for the cultural context for different scenarios in the classroom.

Concerns about treatment by individual faculty members mainly focused on ageism in the classroom. An example quote is, "I think age is an area where professors tend to assume that we all have the same or similar experiences because we are in college, however, I think age is a small factor when it comes to life experiences." One student also reported that they believe some faculty members act differently around students from different backgrounds.

There were also concerns about treatment by fellow students, "Most of the negative experiences I've had regarding diversity in the [department] were from students..." with another student elaborating "Sometimes when religion was brought up in classes some students wouldn't take facts seriously because it disagreed with their views and it would interrupt the class."

Classroom environment focused on availability of accessible materials (e.g., closed captioning) and how faculty interacted with the students. "I noticed that there are not a lot of inclusive resources like closed-caption videos available." Additionally, some participants addressed that, "Some professors did not present information in a way that made students understand or [sic] were comfortable". This shows that it can be challenging for faculty to present information in an accessible way, manage student reactions to potentially sensitive topics raised in the classroom, and ensure that all viewpoints are presented and respected on a particular topic.

Suggestions for improvement

There were 36 suggestions for improvement that focused on four themes: department promotion of DEI ($n=11$; 10.9%), curriculum suggestions ($n=17$; 16.8%), activities outside of the classroom ($n=4$; 4.0%) and faculty and student

representation ($n=4$; 4.0%). Responses from nonwhite participants ($n=9$) varied, with several reporting satisfaction with the department and some making suggestions for increasing diversity within the department, especially among faculty and staff. While responses from White participants ($n=47$) also focused on general satisfaction; these responses also included suggestions for required classes that focused on DEI and/or historically excluded populations both generally (i.e., General Education) and specifically for the major.

Overall, many participants believed that the department was doing a good job, at least as a start, related to DEI. "I really like what the...department is doing right now with taking important steps to be more inclusive. I think the department and school are well on the way to promoting an environment with principles of DEI." Therefore, many participants noticed the DEI efforts the department has been making and saw this as a step in the right direction, assuming this work continued over time.

Suggestions for curriculum changes were the most common, including suggestions to require a class on DEI topics for students in the major, or for all students at the university. Other participants suggested electives, such as DEI in health care for students in the major. Some participants gave suggestions for how faculty could be more inclusive in the classroom, such as "implement[ing] more images on slides that show how diseases would manifest on different skin tones specifically on African American individuals" and, "in examples or exam questions when using names or anything like that to either make the names more inclusive, gender neutral, or cultural." Finally, some comments focused on incorporating more real-life examples into the curriculum, such as, "Having...different speakers come in to give their stories and ways to get involved or just be an ally," "teach more about diverse populations in the town" and "to teach more about... how to handle situations where you don't know much."

Participants also acknowledged that there are valuable opportunities to learn about DEI outside of the classroom. "I would just say to create more social events and workshops that create and open more diversity, equity, and inclusion for those who may have a hard time doing so. I think this will help them and us get more comfortable and understand its importance." Therefore, there were suggestions for the university to expand the offerings and visibility of social programs and activities related to DEI.

Participant comments related to faculty representation focused on the few faculty members from historically excluded backgrounds and indicate the desire that more faculty from diverse backgrounds are hired in the near future. Comments related to student representation focused on increasing the number of males in the major. Participants thought that expanding gender diversity by attracting more males and students of diverse gender backgrounds, to the major would expand the depth of conversations in the classroom.

Discussion

Overall, participant perceptions of DEI at the university and in the department were positive. Many participants indicated

seeing steps in the right direction; although they noted that it was still important to expand and improve in these areas. In general, qualitative responses from nonwhite participants focused on their own experiences and treatment by fellow students and faculty; whereas responses from White participants focused on the classroom experience specifically, identifying opportunities for further classroom learning (i.e., suggestions for General Education and major classes related to DEI). Additionally, White participants were more likely to comment on aspects of diversity related to gender and disability (e.g., closed captioning).

As nonwhite students were less satisfied with the university's DEI efforts, there is more that the university could do to create a welcoming and inclusive campus. Examples from the open-ended responses in the analysis that support this finding include that there may be a lack of student respect for fellow students and faculty related to DEI issues. Additionally, students reported that the university advertised itself as a diverse campus in recruitment materials; however, it is a predominately White campus. This aligns with previous research which has found that students from historically excluded backgrounds were more critical of university DEI efforts than their White counterparts as they felt a lower sense of belonging on campuses and expressed concerns such as having trouble finding mentors from similar backgrounds as well as microaggressions and pressure to conform in the classroom.²²⁻²⁴ Future research should focus on understanding nonwhite students' perceptions of DEI at the university, specifically to understand what the university is doing well and what could be improved. There also seems to be possibility for paid opportunities for students to be involved in this effort.

A DEI training for incoming or existing students helping them to learn how to be respectful of people from different backgrounds and structuring the university to include a chain of command related to DEI-grievances would be helpful in increasing accountability. As a result, students may be more open to viewpoints other than their own, be less disruptive in class and able to discuss difficult topics in the classroom. This would also help students to be more respectful to their peers, and the staff and faculty members, as well as help faculty to feel more comfortable addressing sensitive issues in the classroom.²⁵ DEI training for new and/or existing students could also help to address concerns related to inclusion in university programs and activities. Therefore, it is important for the department, which has plans for DEI training development, and the university to take measures to ensure that students are engaging in DEI-related activities that can prepare them to interact with students from diverse backgrounds and perspectives. Additionally, this can be used to expand and improve university programs by incorporating student feedback as well as help to prepare students for their future careers in healthcare settings.²⁶

While students found the faculty and the curriculum in the major to be generally helpful in learning about DEI issues, one common suggestion was for a course in DEI principles to be offered either as a required general education course, or as an elective in the major.²⁷ This would help students to prepare for their careers while learning practical

aspects of interpersonal communication in the classroom. It was further recommended that faculty incorporate real world examples in the curriculum through guest speakers, community partners, and role play exercises in order to ensure that graduates from the major would feel very prepared to enter a diverse workforce.²⁸ While some faculty may already do this in their classes, establishing community partners within the department could be helpful in making this a consistent and sustainable effort.⁴

There are many opportunities for faculty to continue to utilize and incorporate DEI principles in the classroom. In addition to using real world examples and applied activities, faculty members can use gender-neutral and nonwhite examples in images and examples in the curriculum. The university is taking strides in this area by requiring faculty participation in DEI activities throughout the academic year; however, they can take further strides to ensure that at least some of these activities are related to pedagogy and require evidence of how DEI was incorporated in the classroom in annual and tenure/promotion documents.

Another area for improvement is to hire and retain faculty from backgrounds. University recruitment can focus on historically excluded populations, which is an ongoing effort in the department and at the university.²⁹ This will help students from diverse backgrounds feel more comfortable approaching faculty members for advice and may encourage them to pursue graduate school opportunities.³⁰ Additionally, identifying areas where historically marginalized faculty may be overburdened and disadvantaged, and working to address these disparities, could help with faculty retention. For example, it is well established that student evaluations of teaching are biased against female and historically marginalized faculty.^{30,31} In recent years, the university has updated the faculty handbook to reduce the importance of student evaluations in faculty annual evaluation and tenure/promotion documents, which in turn helps to reduce disparities among historically marginalized faculty in meeting the expectations of their job.

Limitations

There were several limitations to this study. Data collection occurred during the COVID-19 pandemic's height when most university communication and classes were delivered online, which may have led to fatigue from being online and viewing screens and having problematic issues with internet access. Students from historically marginalized backgrounds may have been disproportionately impacted by the burdens brought about by the pandemic, which may be why they did not complete the survey.

Additionally, as classes had been mostly online for over a year when the survey was administered, there may have been a difference in DEI content and perceptions during online classes compared with in-person classes. The importance of developing DEI skills to prepare for the job market may have been overemphasized as the participants were graduating seniors who may have been concerned about their post-graduation opportunities. Each faculty member

has a different approach to DEI in the classroom. As the current instrument focused generally on the department rather than on specific classes or faculty members; some faculty may do more than others in this area. Further, some classes (e.g., social determinants of health) are more suited to addressing DEI content in the curriculum due to the course topic.

Another limitation associated with this study was that most of the participants were white, heterosexual, and female, so they may not have noticed differential treatment due to their privilege or may have felt negatively impacted by DEI priorities at the university. Social desirability bias may have led to an overreport of dissatisfaction among White participants, as they knew the topic of the study and may have had less lived experience related to DEI than their nonwhite counterparts. As the study had only a few students from historically marginalized backgrounds, reports of negative treatment or exclusion related to historically marginalized identities may have been underreported. Therefore, the participants in the majority likely did not pay close attention to DEI principles during their college experience; however, students from historically excluded backgrounds may have felt excluded or received negative treatment. Feedback from historically excluded student voices is essential to provide open avenues available for BIPOC and LGBTQIA+ students in order to have a voice to advocate for their academic experiences, to ensure they are being treated fairly by peers and faculty, and to provide feedback for improvement in the future related to DEI. Finally, the physical accessibility of the academic building was not focused on in this survey, even though this is an important aspect of DEI.

Conclusion

The purpose of this study was to explore graduating seniors' perceptions of DEI in their major classes and during their time in college at a large state university. Many participants were satisfied with the amount of DEI activities included during their university experience, or at least saw it as a step in the right direction. However, some of the main criticisms focused on a lack of diversity among students and faculty in the department as well as a lack of representation in examples during class. Future research could seek out students from historically excluded backgrounds to see if their perceptions differ from those who responded to the survey. Along with seeking out participation by students from historically excluded backgrounds, the item focusing on race/ethnicity can be revised so that we can quantitatively compare student perspectives of DEI race/ethnicity. Moreover, research on the topic could examine the perceptions of recent alumni from the department who are working in healthcare to understand how prepared they felt to enter a diverse workforce or graduate program based on their undergraduate experience. Additionally, a longitudinal study is planned to identify changes in perceptions of DEI from first year to senior year among students in the major. This research can inform the department and university of the importance of adding classes, either general education or

specific to the major, related to DEI principles. This also suggests that university recruitment, admission, and hiring of people from diverse backgrounds is necessary and important. Finally, the future research can inform ways that the university can implement a DEI training for the entire student body as well as provide tools for faculty to address sensitive issues in the classroom. This is essential in order to ensure that recent college graduates are prepared to enter a diverse workforce where many of these issues will enter their daily work-related conversations and actions.

Conflict of interest disclosure

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