

## BRIEF

# Examining Social Identities of Patient Diversity Through Cases Presented in a Therapeutics Course Series

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**Objective.** In pharmacy education, considerable debate surrounds the decision about whether didactic cases should include social identities, such as race, ethnicity, sexual orientation, gender identity, ability, spirituality, nationality, and socioeconomic status. In considering what and how much of these identities to include, the first step could be to measure their current inclusion. This study aimed to quantify the presence of these social identities in cases presented to student pharmacists in a three-semester course series.

**Methods.** One hundred forty-four cases presented in a three-semester pharmacotherapeutics course series were reviewed. The primary objective was to quantify the inclusion of each social identity. The secondary objective was to assess whether the identities were needed to answer specific questions related to each case. Cases were reviewed by two independent study researchers; a third impartial reviewer settled disagreements.

**Results.** Cases rarely explicitly included social identities. Race was explicitly stated in 15% of cases ( $n = 21$ ). Gender identity was explicitly named in two cases (1%), but nearly all cases implied gender through pronouns. Gender was necessary to answer case questions in approximately 20% of cases ( $n=27$ ). Socioeconomic status, ability, sexual orientation, and nationality were infrequently named among all cases, at rates of 6%, 5%, 1%, and 1%, respectively.

**Conclusion.** This study found that didactic cases rarely explicitly state social identities. In determining the next steps for integrating social identities, pharmacy education must first take stock of how it currently acknowledges these identities.

**Keywords:** pharmacy education, social identities, diversity, equity, inclusion, curriculum, health care education

## INTRODUCTION

Shared decision-making in medical practice has become the mainstay in health care, allowing for treatment individualization. Individualizing the care offered to each patient requires social determinants of health that incorporate social identities (described in Table 1) and other patient-specific factors.<sup>1</sup> The most commonly used of these identities were previously considered the “Big Eight,” but this nomenclature has fallen out of favor due to implied hierarchy.<sup>2</sup> Notably, a lack of disclosure or use of these identities has been linked with poorer health outcomes.<sup>3-6</sup> Therefore, early exposure to social identities may help students understand their potential impact in practice.

The availability of literature surrounding social identities has increased in recent years, and health care providers

are paying more attention to the lens used to examine identities.<sup>7,8</sup> The American Medical Association (AMA) recently published guidance for reporting race and ethnicity within medical research, focusing on nomenclature and the use of other social identities, such as sexual orientation, sex and gender, and socioeconomic status. Importantly, this guidance may also provide a framework that can be used to view educational cases.<sup>9</sup>

As organizations consider how they use language and how patient-specific information is presented in practice, an initial step in health care provider education may be to determine how or whether this information is presented to learners in current curricula. In recent years, medical students have called for inclusion of social identities within their curricula to better prepare for practice.<sup>3,4,6</sup> Others have voiced concern that identities are strongly embedded in one case or example and are not expected to be considered throughout the curriculum.<sup>10</sup> The inclusion of social identities within other disciplines’ curricula has been largely driven by students, staff, faculty, and community

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Table 1. Descriptions of the Eight Social Identities Reviewed<sup>2</sup>

Social identity	Description
Ability	The physical or mental capacity to do or perform a task
Ethnicity	A person or group of people who share a national, cultural, and/or linguistic heritage
Gender identity	Who a person sees themselves as (eg, woman, man, transgender, nonbinary, or as none of these)
Nationality	The individual's country of origin
Race	A group that is socially defined based on physical criteria (eg, skin color and facial features)
Religion/spirituality	An institutionalized or personal system of beliefs and practices relating to the divine
Sexual orientation	An emotional, romantic, sexual, spiritual, affectional, and/or relational attraction to another person(s)
Socioeconomic status	The social standing based on income or positions in society (eg, working class, middle class, upper class)

members, though administrative leaders are supportive of this.<sup>3</sup> Some programs excel at integrating this content when a champion or perceived expert in the area leads the way.<sup>6</sup> In order to consider the next steps for integrating diversity, equity, and inclusion into pharmacy curricula, programs must first measure their current inclusion of social identities within the didactic setting. The purpose of this study was to quantify the presence of these eight social identities within patient cases presented to a single cohort of student pharmacists over a three-semester pharmacotherapy course series.

## METHODS

This was an observational study that examined patient cases from a three-semester pharmacotherapeutics course that used team-based learning (TBL) pedagogy. The cases were presented to one cohort of student pharmacists at a private, predominantly White institution (PWI) in the Midwest between January 2019 and May 2020. Faculty at the institution are predominantly White, and most of the clinical practice faculty identify as White. All cases were individually analyzed and reviewed for each of the previously listed social identities after presentation to students. No attempts were made to modify the inclusion of the identities while the cases were actively being taught. Cases were assessed by the investigators between January 2020 and May 2020.

Each case underwent two independent reviews by the study authors. One investigator provided consistency by reviewing all cases. The cases were equally divided among other investigators for a second review. A third, impartial reviewer settled any discrepancies of the categorization. Two of the investigators taught within the course series and recused themselves from assessing their own cases to avoid bias. A Qualtrics survey (Qualtrics International Inc) was used to record the following data for each case: disease state or topic area, the course in which the case was presented, and identification of primary and secondary outcomes. The

survey provided a space for consistent reporting of the variables, decreasing variation between reviewers. The authors developed the data collection tool, as no known validated instrument for this purpose was available.

The primary objective of the study was to quantify the inclusion of each piece of social identity information. To meet the primary objective, the case had to have *explicitly* stated, not implied, a specific social identity. The secondary objective focused on whether each identity was needed to answer specific case questions. Analysis using descriptive statistics was completed using Excel.

## RESULTS

A total of 144 patient cases were presented to a single cohort of student pharmacists over a three-semester pharmacotherapeutics course series between January 2019 and May 2020. The volume of cases presented in each semester was 41, 65, and 38 cases, which covered 19, 20, and 22 topics, respectively. Per topic, the mean number of patient cases presented was 2.6 (SD=1.7), with a mode of two and a range of one to eight.

Only 39 cases (27%) *explicitly* stated any of the examined social identities. Thirty-five cases (24%) explicitly stated one identity, and four cases (3%) explicitly stated more than one identity within the case. Race was the most often included social identity. Named races included White (52%, n=11), Black (43%, n=9), and Hispanic (5%, n=1). Further description of the primary and secondary outcomes is presented in Table 2.

## DISCUSSION

The cases presented within a three-semester pharmacotherapeutic course series lacked explicit inclusion of any of the eight social identities reviewed. The reported race of patients in these cases differed widely from that of the institution's state and city census data,<sup>11,12</sup> but including a more diverse population in the classroom or in objective structured clinical examination (OSCE) cases may

Table 2. Social Identity Inclusion in Pharmacotherapy Cases (N=144)

Social identity	Present in case, No. (%) <sup>a</sup>	Relevant to case questions, No. (%) <sup>a</sup>
Race	21 (14.6)	11 (7.6)
Socioeconomic status	9 (6.3)	17 (11.8)
Ability	7 (4.9)	13 (9.0)
Gender identity	2 (1.4)	27 (18.8)
Sexual orientation	2 (1.4)	1 (0.7)
Nationality	2 (1.4)	1 (0.7)
Ethnicity	0 (0)	n/a <sup>b</sup>
Religion	0 (0)	n/a <sup>b</sup>

<sup>a</sup> Cases could include more than one of the social identities; thus, the percentages are of total cases and do not add up to 100%.

<sup>b</sup> These were not included in the cases, so they were not able to be considered for being relevant to the case questions presented to the students.

prepare learners to work with a broader patient population. These cases may present the opportunity for learners to further investigate specific identities that may alter the care plan. Moving beyond current practices of identity inclusion may resonate and lead to further learning and incorporation of these identities into clinical practice, as was seen in an OSCE related to patients with limited English proficiency.<sup>13</sup> The discrepancy in racial mismatching found here is not unique to this examined curriculum; a study of a preparatory question bank for medical students demonstrated that almost 86% of racial mentions were White, whereas entire populations (ie, Native Hawaiian/Pacific Islander) were excluded, ignoring the diversity within the United States.<sup>14</sup> While most racial mentions were of patients who were White, race/ethnicity were only mentioned in approximately 20% of the bank's case questions (n=455/2011).<sup>14</sup> This imbalance could potentially further biases, especially as non-White races were mentioned more frequently when that information was necessary to answer the case questions.<sup>14</sup> Consistently omitting identities, particularly race, in patient presentations may result in the identity being labeled as a distractor when it is included and may further instill implicit biases.<sup>15</sup> Including specific identities should be balanced with inundating students with information as a way to avoid instilling biases. When relevant to the care or case, race or other social identities may be best placed in the physical examination or social history instead of the introductory sentence.<sup>15</sup>

After race, socioeconomic status was the most included social identity, likely as this information encouraged students to consider cost in therapeutic decisions. Including socioeconomic status may further discussions regarding patient circumstances, such as employment,

housing status, and food security, that would encourage practitioners to change care plans. Socioeconomic status and race are closely intertwined, as mentioning race could serve as a springboard to other discussions regarding influential elements of social determinants of health, such as education, food security, housing, employment opportunities, and health care access.<sup>7</sup> Health professions students are expected to master content knowledge, communication skills, and connection with patients,<sup>5</sup> thus raising the stakes when social identities are considered and need to be addressed. Purposeful consideration of how to apply each piece of social identity is critical for removing barriers to equitable health care. Identifying and using the intersections of identities among students, instructors, and patients<sup>16</sup> is necessary to break down biases and further ingrain the identities within health care education. As shown in this study, the cases examined provided few opportunities to use and view these intersections.

Gender identity and sexual orientation were often implied, using pronouns or referring to a wife or boyfriend. The lack of inclusion could indicate that instructors are generally uncomfortable with explicitly integrating this identity into patient cases, or, more likely, that this information does not impact clinical decision-making for most disease states. Yet, if variations of those identities are not explicitly included, the potential exists for heterosexual and binary gender identities to be the reinforced default. These identities can be integrated into specific cases, standalone courses, or clinical rotations<sup>6</sup>; multiple avenues of exposure are available to prepare learners in their pathways to direct patient care.

When appropriate and intentional in nature, authentic inclusion of various social identities is critical to build informed and unbiased presentations to learners. Including those with lived experiences enhances authenticity, though involvement must be balanced with "tokenizing" that individual and their experiences for a specific case.<sup>3</sup> A case may accurately represent a particular patient or encounter, though learners could walk away with the impression that every patient with that particular identity embodies those characteristics.<sup>10</sup> Overall, including any social identity should include a voice from that specific identity, such as the example "nothing about us without us."<sup>17</sup> Pedagogies that use teams should also anticipate that any individual student may be looked at to speak for an entire population and may feel threatened via hostile actions or words.<sup>5</sup> Therefore, the instructor should navigate difficult conversations or challenging moments in the classroom, and these strategies should focus on psychological safety of every member of the classroom community. By bringing together the content expert (instructor) and lived

experiences, a stronger and more inclusive case can be built to better the learning opportunity for students.<sup>3</sup>

Potential biases and inaccurate portrayals of individuals must also be considered when identities are embedded in case discussions. These biases may be disguised as race corrections, such as in calculators for estimating glomerular filtration rate or vaginal birth after cesarean, or in disease states such as heart failure, cardiothoracic surgery, organ transplant, urology, and oncology. The result of racial corrections may lead to poor health outcomes for patients who are non-White, most commonly Black.<sup>8</sup> Interestingly, the guidelines and organizations that support these calculators are silent on their use in individuals who are biracial or have multiple racial identities,<sup>7,8</sup> leading to questions about the calculators' racial correction validity. Vyas and colleagues<sup>8</sup> are clear in advocating for the inclusion of race in clinical care while remaining vigilant to its impact and inclusion in the care delivered. Importantly, visual presentation of a patient, such as race, could lead to further bias. An OSCE-based assessment demonstrated a considerable reduction in the time to requesting an interpreter in standardized patients with limited English proficiency<sup>13</sup>; however, the authors did not comment on whether the visualization of the standard patients' race, not their abilities, contributed to the reduced time.

Finally, instructors may feel inadequately prepared to lead discussions regarding social identities.<sup>3</sup> Instructors may hesitate to include aspects of patient social identities to avoid further stereotyping of identities.<sup>5</sup> Instructors often anticipate facing roadblocks or tension within their program, particularly prior to best practices being established or communicated among instructors.<sup>3</sup> These barriers could include a lack of time within curricula, a lack of instructor knowledge or comfort, or uncertainty about where to best integrate content.<sup>6</sup> Students who embody a particular social identity may bring a higher level of knowledge into such discussions,<sup>4</sup> which offers additional learning opportunities for students without that identity. Learners can also be an asset to identifying new resources for instructors to use, such as websites that host resources for transgender care, cultural competence, and provider listings for individuals who are gender nonbinary.<sup>18</sup> Hesitating to include identities could construct a barrier for students by limiting their opportunities to practice using the identities to care for patients with intersecting backgrounds. When gender minority standardized patients were polled about this, they identified three themes of opportunities: personal connection, gaps in care received, and opportunities for improving medical education.<sup>5</sup> Instructors and learners have responsibilities to education through questioning content, accepting feedback, and continuously improving in a world with fluctuating definitions for identities.<sup>15</sup> Ingraining

social identities into health professional education can progress over time, as demonstrated by transgender care in physician assistant curricula, which was included in 59%-67% of programs in 2014 but was included in nearly 86% of programs in 2020.<sup>6</sup> Another approach may be to integrate inclusivity into admissions processes, as is done within medical education.<sup>9</sup>

The AMA recently introduced a paper regarding the reporting of race and ethnicity, with the intent of reducing unintentional bias in published literature.<sup>9</sup> The authors of the paper position that excluding race and ethnicity in reporting disregards important social inequities and constructs that should be considered to remove barriers to care. They also acknowledge that including them in medical research remains important at this time; however, this statement is specific to published literature and not necessarily didactic cases. Also, the reporting of race and ethnicity should be done as separate identities with acknowledgement that individuals may not adhere to just one. This is an important concept to consider in writing cases as human beings are much more complex than the one- or two-word description given regarding the race or ethnicity of a patient.

There are important limitations to this study. First, investigator interpretation was needed to determine whether the identity was indeed needed/relevant for answering case questions. This interpretation could have led to investigator bias; to control for this, two investigators reviewed each case, and discrepancies were resolved by a third, impartial investigator. Second, identities were only counted if explicitly named within the case, which could have led to underrepresented implicit identities. Third, patient cases were specific to this course series at one institution and are not representative of other curricula; this limits the generalizability of the findings. An important fourth consideration is that some identities were being thoroughly examined within society at the time of the writing of this article, whereas the depths of these discussions were not outwardly occurring when this project was initiated. Another limitation is that the identities examined here do not make up an exhaustive list. Other identities could include language spoken and use of an interpreter, or one's immigration or citizenship status. A final limitation of this study, as well as of other published data,<sup>16</sup> is that the intersection of these social identities is difficult to measure. For example, the perceived value of learning by including a patient who is Black versus a female patient who also identifies as Black and LGBTQIA (lesbian, gay, bisexual, transgender, queer [or questioning], asexual [or allied], intersex) with a lower socioeconomic status may not always be accurately measured. Though not unique to this type of scholarship, these intersections were not addressed.

## CONCLUSION

This study found that eight social identities were rarely explicitly included in pharmacotherapeutics cases presented to one cohort of students at a private, PWI in the Midwest. Thoughtful and purposeful inclusion of social identities is critical to inclusive and individualized care practices with student pharmacists. It is important to consider that cultural competence is not a checklist, and it should evolve as practitioners navigate their fields.<sup>19,20</sup> Doing this work in the classroom allows for inclusivity and individualization to be carried into professional practices, though it is not the only opportunity for exposure. Collaboration among pharmacy programs would allow for comparing the techniques used for including social identities, determining the effects of these interventions on the inclusion of social identities, and identifying student perceptions or the knowledge gained by students. In determining the next steps in including social identities within didactic teaching involving cases, institutions first need to perform a self-assessment of the current level of inclusion.

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## REFERENCES

1. Braveman P, Gottlieb L. The social determinants of health: it's time to consider the causes of the causes. *Public Health Rep.* 2014; 129 Suppl 2(Suppl 2):19-31. doi: 10.1177/00333549141291S206
2. Sample cultural identifiers. National Association of Independent Schools. Accessed June 29, 2021. <https://www.nais.org/articles/pages/sample-cultural-identifiers/>
3. Bohnert CA, Combs RM, Noonan EJ, Weathers AE, Weingartner LA. Gender minorities in simulation: a mixed methods study of medical school standardized patient programs in the United States and Canada. *Simul Healthc.* 2021;16(6):e151-e158. doi: 10.1097/SIH.0000000000000532
4. Jamieson A, Cross H, Arthur S, Nambiar K, Llewellyn CD. Patient sexual orientation and gender identity disclosure. *Clin Teach.* 2020;17(6):669-673. doi: 10.1111/tct/13182
5. Noonan EJ, Weingartner LA, Combs RM, Bohnert C, Shaw MA, Sawning S. Perspectives of transgender and genderqueer

- standardized patients. *Teach Learn Med.* 2021;33(2):116-128. doi: 10.1080/10401334.2020.1811096
6. Rolls J, Davis J, Backman R, Wood T, Honda T. Curricular approaches to transgender health in physician assistant education. *Acad Med.* 2020;95(10):1563-1569. doi:10.1097/ACM.0000000000003464
7. Amutah C, Greenidge K, Mante A, Munyikwa M, Surya SL, Higginbotham E, Jones DS, Lavizzo-Mourey R, Roberts D, Tsai J, Aysola J. Misrepresenting race – the role of medical schools in propagating physician bias. *N Engl J Med.* 2021;384(9):872-878. doi: 10.1056/NEJMms2025768
8. Vyas DA, Eisenstein LG, Jones DS. Hidden in plain sight – reconsidering the use of race correction in clinical algorithms. *N Engl J Med.* 2020;383(9):874-882. doi: 10.1056/NEJMms2004740
9. Flanagan A, Frey T, Christiansen SL, et al. Updated guidance on the reporting of race and ethnicity in medical and science journals. *JAMA.* 2021;326(7):621-627. doi: 10.1001/jama.2021.13304
10. Miller E, Green AR. Student reflections on learning cross-cultural skills through a 'cultural competence' OSCE. *Med Teach.* 2007;29:e76-84. doi: 10.1080/01421590701266701
11. QuickFacts Des Moines. United States Census Bureau. Published 2019. Accessed March 22, 2021. <https://www.census.gov/quickfacts/fact/table/desmoinescityiowa,IA/PST045219>
12. QuickFacts Iowa. United States Census Bureau. Published 2019. Accessed March 22, 2021. <https://www.census.gov/quickfacts/IA>
13. Fune J, Chinchilia JP, Hoppe A, Bganugo C, et al. Lost in translation: an OSCE-based workshop for helping learners navigate a limited English proficiency patient encounter. *MedEdPORTAL.* 2021; 17:1118. doi: 10.15766/mep\_2374-8265.11118
14. Ripp K, Braun L. Race/Ethnicity in medical education: an analysis of a question bank for Step 1 of the United States Medical Licensing Examination. *Teach Learn Med.* 2017;29(2):115-122. doi: 10.1080/10401334.2016.1268056
15. Finucane TE. Mention of a patient's "race" in clinical presentations. *Virtual Mentor.* Am Med Assoc J Ethics 2014;16(6):423-427. doi: 10.1001/virtualmentor.2014.16.06.ecas1-1406
16. Bochatay N, Bajwa NM, Ju M, Applebaum NP, van Schaik SM. Towards equitable learning environments for medical education: bias and the intersection of social identities. *Med Educ.* 2021. doi: 10.1111/medu.14602
17. Iezzoni LI, Long-Bellil LM. Training physicians about caring for persons with disabilities: "Nothing about us without us!". *Disabil Health J.* 2012;5(3):136-139. doi: 10.1016/j.dhjo.2012.03.003
18. GLMA Health Professional Advancing LGBTQ Equality. Accessed November 3, 2021. Available at: <http://www.glma.org>.
19. Balzora S, Abiri B, Wang XJ, McKeever J, Poles M, Zabar S, et al. Assessing cultural competency skills in gastroenterology fellowship training. *World J Gastroenterol.* 2015;21(6):1887-1892. doi: 10.3748/wjg.v21.i6.1887
20. Lee YH, Lin SC, Wang PY, Lin MH. Objective structural clinical examination for evaluating learning efficacy of Cultural Competence Cultivation Programme for nurses. *BMC Nurs.* 2020;19(114):1-8. doi: 10.1186/s12912-020-00500-3