

Deconstructing Ableism in Health Care Settings Through Case-Based Learning

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Abstract

Introduction: Patients with disabilities face health disparities, and providers with disabilities confront professional roadblocks and institutional bias. Yet their experiences are often excluded from medical education, and few case studies address culturally humble care for those with disabilities. **Methods:** We created two 1-hour case-based modules on disability and ableism from patient and provider perspectives. Modules were piloted in June 2020 and presented at two conferences in April 2021. Modules included a prereading, introductory disability presentation, and facilitated case discussions. Sessions were evaluated with pre- and/or postsession surveys. Modules were rated on 5-point Likert scales for educational value, professional growth contribution, and interactive/engaging design. **Results:** Participants rated the patient and provider modules 4.5, 4.4, and 4.4 and 4.5, 4.4, and 4.5 for the three categories, respectively. Participants noted that the sessions were insightful and validating and improved their understanding of ableism and the importance of disability curricula. There were significant improvements in participants' perceptions of ability to discuss ableism's impacts, recognize barriers, identify resource/support gaps for trainees, and advocate. A total of 171 participants completed our modules, with survey response rates of 38% (60 out of 160) and 48% (77 out of 160) for one conference and a postsurvey response rate of 64% (seven out of 11) for the second. **Discussion:** Designed for health care trainees, providers, administration, and staff, our sessions introduced concepts of ableism, accommodation, and health care barriers. Our results suggest the modules can contribute to professional growth, understandings of ableism, and participants' disability advocacy tool kit.

Keywords

Ableism, Bias, Case-Based Learning, Disabilities, Health Policy/Health Care Reform, Diversity, Inclusion, Equity

Educational Objectives

By the end of this activity, learners will be able to:

1. Define disability and ableism.
2. Discuss the ways ableism can manifest in the medical workplace.
3. Identify current barriers in health care for patients with disabilities.
4. Identify gaps in resources and support for health care trainees, health care professionals, and patients living with disabilities.
5. Generate potential solutions for addressing current gaps and effectively advocating for the disability community.

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Introduction

According to the Centers for Disease Control and Prevention, there are currently 61 million adults living with disabilities (26% of the adult population) in the US.¹ Among other dimensions of livelihood, these disabilities impair mobility, cognition, and sensory processing. Despite the prevalence of disabilities, health care systems have been ill equipped to adapt care to the specific needs of patients with disabilities. Problematically, curricula in US medical schools have not historically included adequate, if any, training or emphasis on the challenges faced by persons with disabilities.²

Persons with disabilities remain an underrepresented group within the medical and health care sectors, with under 5% of allopathic medical students identifying as disabled, due to various socioeconomic factors as well as a lack of available resources to accommodate professionals seeking to enter these fields.³ In addition, those with disabilities who successfully enter health care programs, or trainees who develop disabilities during

training in these programs (e.g., medical school), often have their needs disregarded and face discrimination, resulting in inequitable training.³ Such behavior can be identified as ableism, which is discrimination or prejudice against individuals with disabilities.

A phenomenon that may perpetuate these issues is insufficient cultural understanding of the lived experiences and needs of an individual with disabilities. An example of these lived experiences may include microaggressions, such as those involving the use of ableist language. Ableist language has been utilized for centuries (e.g., referring to an individual as “deaf and dumb” or “retarded”),⁴ yet only recently have impactful movements arisen acknowledging how ableist language has normalized behaviors that perpetuate ableism. With regard to addressing needs, physician preceptors reviewing trainee accommodations may be influenced by unrealistic, preconceived notions of medical student performance. This attitude can lead to the withholding of provisions or actions that are necessary to satisfy the approved accommodations.⁵

To further expand on the lack of cultural understanding, we can examine how traditional medical school curricula emphasize teachings from a biomedical perspective, as well as how didactic lectures focus on impairment.⁶ Specific pedagogical methods such as simulations may be effective at helping trainees understand disability from an individual perspective but fail to effectively convey the sociocultural aspects of living with a long-term disability. Thus, they are unlikely to improve attitudes or increase empathy toward patients with disabilities.^{7,8} By excluding the social perspective of disability, behaviors promoting ableism continue to be inadequately addressed.

A second major phenomenon promoting inequitable health care training involves the current structure of the US health care education system, which may frequently foster environments emphasizing extreme efficiency (e.g., having limited time to see multiple patients) without initiatives to address modern accessibility standards (e.g., training sites that lack examination tables that can be lowered to the height of a trainee utilizing a wheelchair).⁹ Even direct advocates, such as disability service providers, often lack the knowledge, resources, and staff to advocate for the needs and accommodations that medical trainees may require.³

Inequities in health care and training for patients and medical trainees with disabilities both stem from insufficient recognition of disability rights. Additionally, inflexible structural dynamics, including relationships with mentors and authority figures (e.g.,

attending physicians), may pressure an individual to stay silent despite knowing their rights, due to fear of receiving biased treatment upon speaking openly of their medical condition.³

To address these gaps, we developed practical, real-life case studies focused on ableism to facilitate small-group discussions with health care administrators, faculty, providers, medical trainees, and disability advocates relating to common yet overlooked challenges for patients and health professionals with disabilities. The work towards a more accessible health care system begins by acknowledging and discussing this discrepancy in professional education for trainees with disabilities. Only then can we begin to dissect the downstream effects of how this may affect both quality of care for patients with disabilities and implicit biases that health care professionals have toward these patients.

Curricula on disability in medicine have been gaining traction in recent years, with the publication of educational tools focusing on the history and culture of disability, the social versus medical model, and health disparities for patients with disabilities. Currently, *MedEdPORTAL* has only three preclinically focused modules on disability, including a panel discussion,¹⁰ an interactive video/lecture session,⁵ and, most recently, a small-group learning and discussion curriculum.⁶ Additionally, *MedEdPORTAL* has one module focused on resident physical exam skills for patients with disabilities.¹¹ A longitudinal disability curriculum was also published in *Academic Medicine*; this curriculum similarly introduces students to disability health and culture, the social model of disability, and its importance in medical dynamics.¹²

Our curriculum is uniquely situated to complement these existing modules as it introduces case-based learning (CBL) on disability from both patient and provider perspectives. Furthermore, by creating modules that can be used not only by medical students but also by residents, faculty, allied health professionals, health care administrators, and educators, we are broadening the discussion to include diverse stakeholders.¹³ By engaging learners in critical thinking in regard to their role in advancing a disabilities-inclusive culture and dismantling ableist bias, our modules build on the existing disability curricula by helping participants transition from observers to allies and advocates.

Methods

Conceptual Framework

The modules were developed by a current Stanford University School of Medicine medical student and member of the Stanford student organization Medical Students with Disability and Chronic Illness, as well as three premedical or medical trainees

who at the time served as interns with the Stanford Alliance for Disability Inclusion and Equity. We developed these case-based, small-group, discussion-centered modules to facilitate an understanding that would go beyond definitions and include action items for dismantling ableist cultural norms. Our discussion questions prompted participants to reflect on their own disability-related perceptions, deconstruct the structural and individual barriers for individuals with disabilities, and develop frameworks for improving clinician-clinician and patient-clinician interactions. In asking participants to engage as part of the scenarios being presented, we further connected participants with the human reality of disability and stimulated deeper thinking, with the goal of creating active forms of support and inclusion for patients and colleagues with disabilities.

Curricular Context

The case studies presented here were initially developed for use in breakout sessions during the First Annual Stanford Conference on Disability in Healthcare and Medicine on June 20, 2020. Both cases were delivered within 1 hour, with breakout groups discussing one of the two cases before an assigned facilitator moderated a large-group discussion of key points from both cases. Postconference feedback provided pilot data for us to improve upon our original modules. Based on the feedback from this event, we redesigned the modules to take place over the course of 2 hours and in a format compatible with administering them individually or in succession, with all participants having the opportunity to discuss each case in small groups.

Implementation

We implemented our modules in two settings. We structured the session with the following six components:

- Part 1: assigned prereading and participant instructions (Appendix A)—estimated time required: 30 minutes.
- Part 2 (optional): introductory presentation on disability (Appendix B)—recommended time: 15 minutes.
- Part 3: case presentation (Appendix C)—5 minutes.
- Part 4: small-group breakout discussion (Appendices D and E for facilitators)—30 minutes.
- Part 5: large-group summary and review of key points—20 minutes.
- Part 6: postsession survey (Appendix F)—5 minutes.

Prior to the session, participants were given instructions for the session (Appendix A) and asked to read articles from which the two case studies were derived. Participants were also provided with the cases and discussion questions (Appendix C) in advance.

The sessions began with the moderator introducing the case, questions, and instructions for the session, after which participants were split into breakout rooms of 10-15 people each. Facilitators were assigned to each breakout room to ensure coverage of central talking points, with facilitator guides (Appendices D and E) provided. Facilitators were also asked to do the prereading prior to the session for best preparation, as the cases were drawn from the scenarios reflected on in the prereadings. However, the facilitator guides were designed such that even facilitators who were not able to complete the reading would be able to provide participants with points of reflection and conversation. If there were more small groups than available facilitators, we allowed facilitators to circulate amongst groups as needed. After 30 minutes of small-group discussion, all participants reconvened to discuss highlights from each group and for the moderator to touch base on any remaining learning points. The postsession survey was then administered immediately after the session to measure receptivity to the exercise and collect feedback from participants. Facilitators for the sessions included faculty and guest speakers, all of whom were well versed in disability matters. In preparation for the session, facilitators were provided instructions for facilitation (Appendices D and E) and access to the session materials for advance review.

Complete accessibility of this session was a priority in planning and implementation; thus, all participants were asked about accommodation needs prior to the session, and all materials were provided in advance. American Sign Language and closed-captioning were provided for each session. While our sessions were conducted virtually, it should be noted that these modules could be integrated into numerous contexts, including classrooms, conferences, trainings, and workshops.

Evaluation Strategy

We presented the modules at both a disability-focused conference and a medical education conference, collecting data on the sessions from both. First, we shared the modules during the Second Annual Stanford Conference on Disability in Healthcare and Medicine hosted on April 10, 2021. This research was determined to be exempt by the Stanford University Research Compliance Office. Then, we presented the modules at the Building the Next Generation of Academic Physicians (BNGAP) Medical Education Conference on April 17, 2021, to ensure the module could succeed as an independent curricular entity. Notably, the BNGAP conference focused on underrepresented minorities, where most participants did not have notable past exposure to topics on disability. This research

was determined exempt by the University of New Mexico IRB Office.

Because of the requirements and organization of each conference, our methods of evaluation differed between the two implementations. For the Stanford conference, participants were offered only a postsession survey to assess the impact and efficacy of the session. For the BNGAP conference, all presentations were given standardized pre-session and postsession evaluations based on the educational objectives of the module being presented. Both sets of feedback provided valuable insight, so we have combined the two in the postsession survey provided in Appendix F. We also recognized the benefit of having a metric of efficacy measured before and after each session, as was done in the BNGAP implementation, so we have added a presurvey to Appendix F. Pre- and postsurvey questions used a 5-point scale (1 = *very poor*, 5 = *very good*) to assess participants' comfort with addressing our educational objectives before and after the session. Postsurvey questions used a different 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*) to assess the perceived effectiveness of the session, asking about its educational value, its contribution to participants' professional growth, and its engaging and interactive quality. We also sought out participant reflections on attitudes, strategies, and skills taken from the sessions to assess the potential impact on participants' future interactions with individuals with disabilities in health care.

In these sessions, we conducted two types of CBL modules—"Disability and the Patient Experience" and "Disability and the Provider Experience"—where our discussion revolved around a real-life case study for each module. The CBL approach made our resource versatile for both in-person and virtual settings, while our modules aimed to stimulate critical thinking. Participants were encouraged to question their own biases, perceptions, and attitudes while engaging with our modules.¹⁴ Dedicated moderators helped ensure that discussions were equitable and flowing.

Results

Participants came from a wide range of backgrounds, including medical students, allied health professions students, health care providers, health care administrators, advocates, and allies. Many of them identified as living with a disability, while some participants were introduced to the topic of ableism for the first time. During the Stanford Conference on Disability in Healthcare and Medicine, all 160 participants were asked to complete a postsession survey at the end of each module. A total of 60 participants completed the postsession survey for the "Disability and the Patient Experience" module (response rate: 38%), and a total of 77 participants completed the postsession survey for the "Disability and the Provider Experience" module (response rate: 48%).

Participants reported the "Disability and the Patient Experience" session's content to be educational overall ($M = 4.5$; Table 1). Participants also found that this session was engaging and interactive ($M = 4.4$) and strongly contributed to their professional growth ($M = 4.4$). Participants' comments about the session can be found in Table 2. The comments had distinct themes, such as recognizing the strong need for incorporating disability studies into medical training and gaining a deeper understanding of ableism and its culture.

Participants in the "Disability and the Provider Experience" session also reported its content to be highly educational ($M = 4.5$; Table 1). They found that the session was extremely engaging and interactive ($M = 4.5$) and strongly contributed to their professional growth ($M = 4.4$). Participants' comments about the session can be found in Table 2. The comments had distinct themes, such as addressing the challenges in requesting workplace accommodations and providing a sense of validation for participants who have faced challenges in requesting accommodations.

We also received data from pre-session ($N = 11$, response rate: 100%) and postsession surveys ($N = 7$, response rate: 64%)

Table 1. Participants' Postsession Survey Data^a

Statement ^b	"Disability and the Patient Experience" Session ^c		"Disability and the Provider Experience" Session ^d	
	M	SD	M	SD
I found this session to be educational.	4.5	0.9	4.5	0.9
This activity contributed to my professional growth.	4.4	0.9	4.4	0.9
This activity was engaging and interactive.	4.4	0.9	4.5	1.0

^aTable includes only the participants who completed the postsession survey.

^bRated on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*).

^c $N = 60$.

^d $N = 77$.

Table 2. Participants' Postsession Selected Comments

Theme	Comments From "Disability and the Patient Experience" Session	Comments From "Disability and the Provider Experience" Session
Need for improvement and change in medical training and its culture	<p>"Educating physicians about disabilities and the broad experiences that patients with disabilities face, and also biased assumptions, should begin from the start of medical school."</p> <p>"I learned that people need empathetic doctors who see them as a person, rather than a diagnosis. I also learned about the power of disability studies in helping build this empathy and understanding."</p> <p>"We need to have CME courses that continue the education of our community at higher levels."</p>	<p>"A culture shift is needed. The onus has been put on the individual to advocate and be an expert in advocacy. And even then, there are pitfalls in the system. Advocacy is exhausting on an individual level."</p> <p>"That culture change needs to happen from the top down. Attendings need to normalize training with a disability and advocate for a better system than they experienced."</p> <p>"We need to restructure our medical system in a way that doesn't overburden providers.... We should create a culture in which our providers feel comfortable disclosing disability status."</p>
Importance of addressing ableism in health care	<p>"[I realize] how much work needs to be done to help disabled people in healthcare and all aspects of society."</p> <p>"[I learned] the importance of addressing ableism in healthcare institutions to change cultures and attitudes."</p>	<p>"Disability shouldn't put any barrier or restriction for the patients or healthcare workers."</p> <p>"Accessibility for healthcare providers and students is just as important as meeting the accessibility needs of patients."</p> <p>"No one can be defined by their disability or condition. Everyone has to be treated with dignity, respect and empathy."</p>
New understanding of ableism and its culture	<p>"I learned reasons why disability is disregarded in healthcare systems."</p> <p>"Bias of disabled people's abilities interferes with care."</p> <p>"Disability is not inability."</p>	<p>"Accommodation vs accessibility (former is individual, scarcity-model-oriented, singles people out as different; latter allows for people's needs to be met and for them to meet needs of people they're connected to)."</p> <p>"I was able to reframe my thinking around accommodations; I was introduced to many people doing excellent work in the area of disabilities and medical education, people I can look to for guidance in improving the inclusiveness of my own approach to educating trainees."</p> <p>"It made the importance of visibility and openness even more apparent."</p>
How to address ableism in health care	<p>"Addressing change, preventing ableism through integrative and collaborative opportunities, creating opportunities for providers to promote experiential learning in ethical decision making."</p> <p>"Medical programs should seek out ways to incorporate disability education into their curriculum. Humility is important as well."</p> <p>"We need more people with disabilities leading conversations and assisting with policy change."</p>	<p>"[We need to work on] being more open to accommodations, acting as an advocate for those who need them; reframing accommodation: not a privilege, but a basic right."</p> <p>"Disabled providers need to be at the center of policy and systems creation rather than accommodated outliers."</p> <p>"So many [things I learned]. One is in recognizing who the helpful players are and how I need to proceed with my physician to ensure smooth processes for accommodations.... So much of what I learned went beyond mere facts and entered the realm of strategy—knowing in advance what barriers I might face, that they may not be unique to my school, and how I can utilize various pressure points in a system to ensure fair and just treatment in my career path."</p>
Engaging and insightful discussions Self-reflection	<p>"I appreciated all of the resources shared in the chat and the insight from everyone who shared."</p>	<p>"Loved hearing everyone's unique perspective but also appreciated how there were several themes that were universal, like changing the system."</p> <p>"I need to dive deeper into dismantling policies and practices at my institution. The idea that came to me during/after the session is that the opportunity for interprofessional learning when schools have multiple healthcare profession programs is great."</p> <p>"I think it's important to have self-compassion throughout the process of one's journey as a student and physician. It's also vitally important to find a sense of community like this one."</p>
Sense of validation		<p>"I feel less alone. I feel like I have at least one next step to advocate for myself. But also better ideas... how to advocate for learners and patients."</p> <p>"[I realized] that we have to continue to advocate for ourselves and our learners. That there's a community out there and I'm not alone."</p>

conducted by the BNGAP Medical Education Conference, in which attendees were asked to use a 5-point Likert scale (1 = *very poor*, 5 = *very good*) to evaluate their confidence in the educational objectives of the module before and after the session. The results in [Table 3](#) show a statistically significant increase in participants' confidence in four of the five educational objectives for the session. The postsession mean Likert rating for the five learning objectives ranged from 3.4 to 4.0. Many

participants noted that this was the first time they were given an in-depth opportunity to explore the impact of disability and ableism in medicine.

To ensure that our modules were of use to those directly in the medical field, we also asked for professional role or identity data from participants at both the Stanford and BNGAP conferences, as shown in [Table 4](#). Sixty-eight of the combined 171 participants

Table 3. Building the Next Generation of Academic Physicians Medical Education Conference: Pre- and Postsession Data Analysis

Objective ^a	M (SD)		p
	Pre-session ^b	Post-session ^c	
Define disability and ableism	2.8 (1.2)	3.6 (0.8)	.09
Discuss the ways ableism can manifest in the medical workplace	2.4 (1.1)	3.7 (0.8)	.003 ^d
Identify current barriers in health care for persons with disabilities	2.4 (1.1)	4.0 (0.8)	.001 ^d
Identify gaps in resources and support for health care trainees, health care professionals, and patients living with disabilities	2.2 (1.0)	3.9 (0.9)	.002 ^d
Generate potential solutions for addressing current gaps and how to effectively advocate for the disability community	2.1 (0.7)	3.4 (1.0)	.009 ^d

^aConfidence in achieving the objectives was rated on a 5-point Likert scale (1 = very poor, 5 = very good).

^bEleven of the 11 participants completed the pre-session survey.

^cSeven of the 11 participants completed the post-session survey.

^dStatistically significant ($p < .05$).

identified their roles in the provided surveys, of whom 38% ($N = 26$) were physicians, 18% ($N = 12$) were medical school faculty, 4% ($N = 3$) were medical researchers, 10% ($N = 7$) were medical education or health care administrators, 18% ($N = 12$) were allied health professionals, and 12% ($N = 8$) were medical trainees. In this case, allied health professionals included titles such as occupational therapist, physical therapist, physician-assistant, and registered nurse, and medical trainees were either medical students or residents.

Discussion

We developed two small-group, discussion-based learning modules with case studies on disability and ableism from the patient’s perspective and from the provider’s perspective. These innovative and interactive sessions introduce participants to a variety of topics, such as ableism, challenges in requesting accommodations, and health care barriers that persons with disabilities often face. Our modules uniquely capture both patient-facing and provider-facing facets of systemic ableism through case studies that can be readily delivered to learners at every stage of their medical careers, including undergraduate (premedical) education, graduate medical education, and continuing medical education. Furthermore, our modules have been tested with participants with and without previous

connection to disability-centered communities to demonstrate effective universal design. Since ableism is an intersectional issue that impacts all stages of medical training, we have intentionally designed these modules with the capability of being implemented in both curricula and professional development for health care providers, faculty, administration, and staff members.

We encountered challenges during the curriculum development and implementation process that are important to note. One challenge was ensuring our cases used objective language that allowed participants to form their own opinions and organically feed into group discussion. By using the CBL approach, rather than a didactic one, we sought to strike a balance and used scenarios based on real-life events to most accurately reflect the real impact ableism has in health care environments. Because we presented at different conferences, we also faced difficulty in managing multiple metrics for evaluation and were not able to obtain valuable pre-session survey data for a large percentage of our participants that would have provided additional insight. Recognizing the different levels of previous exposure to disability in health care, we created an accompanying introductory presentation on basic disability concepts to ensure our modules could be used by those with limited previous exposure to disability issues as well as those more familiar with these themes. We also recognized the importance of discussions across groups to at least address main principles of the sessions. As a solution, we included detailed discussion points in our facilitator guides to ensure participants would be exposed to key themes and to allow faculty or programs not well versed in disability to implement our modules successfully.

There are some limitations that could have resulted in a more comprehensive exploration of our CBL approach to discussion around ableism. While there was productive and meaningful discussion during each 1-hour session, participants clearly remained engaged and motivated to deliberate beyond the

Table 4. Number and Percentage of Participants in Each Role ($N = 68$)^a

Health Care Worker Category	No.	%
Physician	26	38
Medical school faculty	12	18
Medical researcher	3	4
Medical education or health care administrator	7	10
Allied health professional (e.g., occupational therapist, physical therapist, physician-assistant, registered nurse)	12	18
Medical trainee (medical student or resident)	8	12

^aBased on participants who responded to questions about professional identity in surveys at the Stanford Conference on Disability in Healthcare and Medicine and the Building the Next Generation of Academic Physicians Medical Education Conference. Both conferences combined had a total of 171 participants.

hour, including the time period following our conference event, during the informal postconference social. The cases we used limited the scope of discussion, for example, to medical resident-director interactions (Appendix C, Case A) and to assumptions about a neurodevelopmental disability (Appendix C, Case B). Furthermore, since these sessions were first conducted at our conference focused around addressing issues of ableism and disability advocacy, our results from that conference were skewed towards a sample pool representing individuals who may have been initially more educated about, and more motivated to engage with, these types of discussions. However, we believe our data from the BNGAP conference, where participants were not necessarily previously invested in disability studies, provide an adequate baseline to postulate how the modules would translate to participants who are not well versed in the disability space.

In 2020, we conducted a pilot version of this CBL curriculum and used the feedback to improve upon our execution of this curriculum for 2021. There is further room for improvement via implementing questionnaires tailored towards pre- and postdiscussion periods, then subsequently comparing the responses to quantify the educational value of the content gained postdiscussion. Future follow-up with participants is also a possibility to measure long-term retention of participants' perspectives. In addition, it would be beneficial to either include more cases for discussion in the future or broaden the generalizability of each case to represent ableism in the context of a wider range of specialties and/or health care professions. Beyond our disability-focused conference, it would be interesting to evaluate the effectiveness of these modules in settings such as mandatory health care training sites and public awareness workshops. Further iterations can be used in the context of providing a guide and resource within both health care and higher education institutions.

Appendices

- A. Participant Instructions.docx
- B. Introduction to Disability Slide Deck.pptx
- C. Cases and Discussion Questions.docx
- D. Case A Facilitator Guide.docx
- E. Case B Facilitator Guide.docx
- F. Postsession Survey.docx

All appendices are peer reviewed as integral parts of the Original Publication.

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Prior Presentations

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Ethical Approval

The Stanford University Research Compliance Office and the University of New Mexico IRB Office deemed further review of this project not necessary.

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