

Teaching Sex- and Gender-Sensitive Medicine Is Not Just a Matter of Content

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ABSTRACT: Despite a growing integration of sex and gender-sensitive content in medical education around the globe, the focus on content often leads to a lack of consideration of the hidden curriculum. To foster an inclusive, sex- and gender-sensitive culture in medical education, we have to take a holistic approach that transcends a sole focus on explicit teaching content. This article provides reflections about the practice of teaching sex and gender-sensitive medicine focusing on the impactful yet implicit notions we convey about sex and gender in medical education. We propose action for leaders and teachers in medical education to explicitly address sex/gender in the hidden curriculum and within their institution, challenging the invisible practices of academia in the medical field.

KEYWORDS: sex- and gender-sensitive medicine, gender bias, diversity, medical education, curriculum, hidden curriculum

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Introduction

A growing number of medical schools around the globe are considering or enacting the integration of sex and gender-sensitive medicine (SGSM) into their curricula. The implementation of SGSM oftentimes focuses on explicit processes, thematic design, and teaching content.¹ However, the focus on teaching content often ignores the hidden curriculum. The hidden curriculum encompasses conscious and subconscious intradisciplinary beliefs and values and affects teaching settings, textbooks, buildings, campus rituals, teacher–student or student–student relationships, language use, and much more.² In academic medicine, heterosexual stereotypically masculine culture and sexism in the form of gender stereotypes, gender bias, sexual harassment, and hostile environments are produced, reproduced, and sustained via hidden curricula—hindering the implementation of SGSM.^{3–6}

Although we explicitly implement SGSM longitudinally from the first semester of the undergraduate curriculum through to graduation, the academic medical culture surrounding and influencing the students still reinforces stereotypes on sex, gender, and their influence on health, and often contradicts our sex- and gender-sensitive teaching. For example, we teach the importance of an inclusive portrayal of diverse patient populations, but common medical textbooks oftentimes limit their imagery to the *white*, male body, perpetuating an androcentric medical culture.^{4,5}

While establishing a new medical faculty with a strong focus on SGSM at Bielefeld University in Germany, we therefore deliberately targeted aspects of the hidden curriculum. This article provides insights and actions focused on the implementation of SGSM beyond content. SGSM is an intersectional issue and cannot be regarded in isolation. Intersectionality

describes the overlap of several discrimination categories, resulting in synergistic discriminatory effects rather than additive effects. Intersectionality plays a pivotal role in analyzing (health) inequalities.⁷ The implementation of SGSM should therefore explicitly consider the overlap of several inequality dimensions and address the ensuing biases. As a medical faculty, it is important to highlight the existence of diverse identities and foster reflective competencies to adequately prepare the students for their future clinical work with diverse patient populations.

These are 3 domains that should be intentionally considered in this process:

Inclusive, Diversity-Sensitive Simulation Training and Skills Lab

The first domain we want to address is the practical skills training of medical students. Simulation training is an effective format to teach clinical skills while focusing on diversity. Beauchamp and colleagues describe the need for sex- and gender-specific equipment for the development of sex-, gender-, and culturally sensitive simulation training.⁸

Examples of props used in our skills lab are arm simulation models with black and brown skin for venipuncture training or simulation models with breasts and bras for life support training. This is especially important, as many providers and bystanders start CPR significantly later or not at all on women due to fears associated with (inappropriately) touching their breasts or hurting them.⁹ Training with inclusive simulation models allows educators and students to openly discuss and address sociocultural barriers that may impede care and dispel potential insecurities before they arise in actual patient interactions. Female and male skeletons are also available in equal numbers



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Table 1. Examples of more inclusive medical education by domain within the hidden curriculum.

HIDDEN CURRICULUM DOMAIN	AIM	EXAMPLE	REFERENCE AND FURTHER READING
Inclusive, diversity-sensitive simulation training and skills lab	To enhance students' practical skills in preparation for patient care for diverse populations	CPR models with breasts and bra	Review on sex, gender, and culturally competent simulation training ⁸
		Simulation models with different skin colors, for example, arm models for venipuncture training with black and brown skin	Audit of manikins' skin tone and gender in emergency medicine residency training ¹⁵
		Sex-, gender-, and diversity-sensitive communication training	Expert consensus on gender criteria in communication training ¹⁶
Language use, imagery, and academic style	To model inclusive language and imagery and foster a culture of inclusion and anti-discrimination	Use of inclusive language in teaching, that is, overall vocabulary, gendered language, and avoidance of stereotypes	Guide for <i>race</i> and Culture representation in teaching cases ¹³
			Recommendations for the representation of <i>race</i> in medical education ¹⁷
		Imagery showing different skin colors and differently abled bodies in lectures and case studies, for example, skin color in anatomy textbooks and specifically dermatology lectures or represent people in wheelchairs or using a walker	Sex/gender portrayal in anatomy textbooks ⁵
			Sex and <i>race</i> portrayal in emergency medicine textbooks ⁴
		Sensitive inclusion of diverse patients in case studies without stereotyping, for example, LGBTQ* patient is found to have Covid-19-infection instead of an STI	Guide for <i>race</i> and culture representation in teaching cases ¹³
			Analysis of gender bias in teaching cases with practical recommendations ¹⁸
			Student perspective on disparities in medical curriculum ¹⁹
Structural and institutional level	To reduce structural barriers for equitable access to teaching	Allow for flexible working-hours/teaching time to accommodate, for example, care-responsibilities	Article on inclusive language use in medical practice ²⁰
			Review on reducing bias and stigma in clinical communication ²¹
		Barrier-free access to teaching sites, labs, and events, for example, ensuring access to all lab facilities for students with wheelchair	Study on barriers to family building among physicians and medical student ²²
	To foster safe learning and working environments and inclusive institutional culture	Continuous training on SGSM, unconscious bias, and anti-discrimination for staff and lecturers	Study on family friendliness in medical education ²³
			Perspective on ableism in medical education ²⁴
		Counseling center for support in case of discrimination in teaching/clinic	Review on institutional measures to provide inclusivity ¹⁴
			Perspective on racism in health and healthcare professionals perceptions ²⁵
			Framework for antiracist medical educators ²⁶
			Study on experiences of discrimination of medical students ²⁷

(continued)

Table 1. Continued.

HIDDEN CURRICULUM DOMAIN	AIM	EXAMPLE	REFERENCE AND FURTHER READING
	To sustain transformation towards a more inclusive institutional culture	Inclusive recruiting of staff members, students, and external speakers from diverse backgrounds	Study on prevention strategies for sexual harassment in academic medicine ²⁸
			Perspective on racism in health and healthcare professionals perceptions ²⁵
			Perspective on ableism in medical education ²⁴
		Mentoring programs and networks for underrepresented and structurally discriminated groups	Systematic review on gender inequalities in careers ⁶
			Network of students fighting ableism ²⁹
		Structural measures to support students and staff experiencing discrimination	Study on prevention strategies for sexual harassment in academic medicine ²⁸
		Quality monitoring and capacity building, for example, standardized evaluations and feedback, review of lecture materials using gender and diversity-sensitive checklists, mandatory train-the-trainer courses for lecturers about gender, diversity, and discrimination	Implicit Bias Checklist for medical teachers ³⁰
			Twelve tips for diversity and inclusion in medical education ³¹
			Framework for antiracist medical educators ²⁶

Note. This table provides examples of more inclusive medical education by domains of the hidden curriculum and literature for further reference. The literature provided is nonexhaustive.

Abbreviations: CPR, cardiopulmonary resuscitation; LGBTQ*, Lesbian, Gay, Bisexual, Trans*gender, Queer*; STI, sexually transmitted infections; SGSM, sex- and gender-sensitive medicine.

for anatomy teaching, and the students are encouraged to use digital anatomical atlas resources comparing female and male anatomical features.

Although these approaches support inclusivity, some anatomical models are currently unavailable for different anatomies. For example, a model for rectal examination is only available as a pelvis with penis and prostate, not with uterus and vagina.

Another important aspect to address in skills training is the structural embedding of formal student consent procedures. Attention to gender-diverse individuals in peer-based practice training is still limited given the standard binary segregation of most training units that involve physical maneuvers, such as e.g. taking pulses or abdominal examination. While consent-taking and creating a safe environment during patient examinations is regarded as a key element of excellent bedside training,¹⁰ it is oftentimes not taught with the necessary emphasis during student skill training.

Language Use, Imagery, and Academic Style

A pivotal domain to consider when targeting the hidden curriculum is language use and imagery. Language plays a crucial role in transmitting and perpetuating subconscious and implicit cultural belief systems. This applies to both explicit and indirect

mediation of attitudes such as hostile sexism and verbal discrimination, reproducing gender stereotypes, gender bias, and benevolent sexism.^{3,6}

During medical training, instructors can model inclusive language and address discriminatory terminology. Inclusive language can be the use of anatomical features rather than the assumption of sex-specific anatomy, which in turn can have an impact on the provision of care.¹¹ For example, recommending that all individuals with cervix be offered regular Pap smears rather than all females or women can reduce access barriers to preventative care for all genders.¹²

The visual representation and imagery of diverse patient groups are widely advocated to adequately prepare medical students for their future work.^{4,5,13} Display of different types of genders, skin colors, or abled bodies in medical imagery, that is, in lecture scripts, case studies, or textbooks is still rare, but we should aspire to reflect the diverse composition of the patient population in the real-world settings.

Intersectional critique should also address the hidden within the formal curriculum as exemplified by the predominance of “white, western, male” representation in case studies, citations, and references, and a stereotypical understanding of “good academic writing.”¹⁴ Since many educators still lack these skills, providing checklists, for example, the inclusive presentation of

sex/gender and diversity in lecture scripts or case studies can support lecturers with the development of inclusive course material.¹³

Inclusive language and imagery can be applied to all academic contexts, during bedside teaching and lecturing, but also in research output and in institutional language and image use such as institutional policy and documents. Concrete examples of more inclusive medical education by hidden curriculum domain are displayed in Table 1.

Structural and Institutional Level

A third domain to consider is at the often intertwined structural and institutional level of medical education. Structural and institutional practices are powerful mediators of the hidden curriculum, given their often unquestioned reproduction and inflexibility to change.^{2,14} To increase diversity and accessibility, structural practices have to be made explicit and visible in order to be challenged.

Structural barriers to equitable teaching access can be physical, economic, and psychological. For example, students with care responsibilities express a preference for teaching during core-working hours.²³ The absence of attendance obligations while maintaining the inclusion of content at the examination level also increases students' scheduling flexibility. Killick¹⁴ also describes inclusive campus services such as halal/kosher meals in the cafeteria and unimpeded accessibility of all facilities as opportunities to institutionally address intersectional concerns.

Representation matters also in academic medicine. The under-representation of gender diversity and Black, Asian, and minority ethnic (BAME) students and academic staff "speaks volumes concerning whose university we are in."¹⁴ The recruitment of women, gender diverse, and BAME lecturers and invitation of outside speakers of diverse backgrounds plays a vital role in opening certain disciplines and career options, enhancing inclusive work and study cultures.^{6,14,32} To foster a safe learning and working environment, a culture of institutional acknowledgment of inclusion and anti-discrimination within the institution and the medical system, clear reporting mechanisms for discriminative behavior and anti-discrimination trainings are needed.^{28,33}

To address the attitudes and knowledge of educators and enhance their skills to teach inclusively, faculty development initiatives such as train-the-trainer formats and quality monitoring will have to address sex, gender, and diversity aspects. In addition, developing teaching concepts together with the community also expands students' and lecturers' perspectives, while concomitantly acknowledging the expertise of non-medical personnel in their own health. Examples from our own curriculum include an interactive lecture about the health needs of inter* and trans* people led by representatives of inter* and trans* associations, as well as the participatory and co-creative development of lectures about inclusivity with disabled people.

Conclusion

If we aim to strengthen sex, gender, and diversity competencies in students, we must reflect on the messages we are sending beyond the formal content. We cannot expect students to acquire these competencies while we as faculty continue to convey contradictory and noninclusive messages.

While some examples of domains of SGSM in the hidden curriculum are structural or institutional, and need to be addressed strategically by leadership and faculty members, other examples provided can be addressed directly by teachers and faculty staff. They can align their teaching practices such as language, imagery, or skills teaching with the objectives of sex, gender, and diversity competencies outlined in the formal curriculum.

The examples and proposed actions cannot fully and conclusively capture a sex- and gender-sensitive (hidden) curriculum. It will remain a perpetual process that requires constant reflexivity and re-evaluation in light of evolving sociocultural, technical, and organizational processes.

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Authors Contribution

Both authors contributed substantially to the manuscript. LW conceptualized, drafted, and revised the article. SOP conceptualized and revised the article.

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