“You can be yourself in all your forms”; A grounded theory exploration of identity safety in clinical medical students

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Purpose: Identity threats, such as stereotype threat and microaggressions, impair learning and erode well-being. Juxtaposed with identity threat, the notion of identity safety appears pivotal to understand how health professions trainees experience thriving in their identities to optimize learning. This exploratory study aims to conceptualize the construct of ‘identity safety’ in the clinical learning environment.

Methods: This multi-institutional, qualitative interview study was informed by constructivist grounded theory and critical epistemology. Participants were clinical students at three public medical schools in the United States in 2022. The investigators purposively and theoretically sampled learners based on their responses to an 11-item survey which included an open-ended question soliciting students’ personal identities and the racial/ethnic and gender Stereotype Vulnerability Scales. The investigators sampled, coded, constantly compared, and continued sampling until the codes could be developed into categories then concepts and finally into a theory. The team applied critical reflexivity throughout the analytic process to enrich data interpretations.

Results: Sixteen diverse students were interviewed. Participants described an identity safety continuum from identity safety to mediation to identity threat. Learners characterized identity safety as the ability to exist as their authentic selves without feeling the need to monitor how others perceive their identities. Identity safety was built upon learners’ agency to leverage their identities in the service of patients, feeling seen as a unique individuals and thereby others upholding their personhood, and finally, belonging in the learning environment. Mediation occurred when students were aware of an identity threat, yet through actions enacted by the self or others, were able to mitigate the threat. Learners suffered from identity threat when they experienced non-inclusive learning environments, stereotype threat, interpersonal threats, and sociopolitical threats. Identity safety was emotional and cognitively consequential.

Discussion: Identity safety may foster a favorable learning environment by liberating individuals from self-monitoring, insulating them from identity threats and enabling them to leverage their identities for patient care.
Introduction

Identity threat, defined as any form of internal, interpersonal, or structural hostility toward one’s identity, detracts from the cognitive and emotional wellbeing of learners.\(^1\) Internal and external identity threats including stereotype threat, microaggressions, racism, sexism, and ableism, disproportionately impact learners from minoritized backgrounds compared to their majority counterparts.\(^2\)–\(^6\) In medicine, these phenomena promote burnout, harm well-being, increase cognitive load, and are associated with poorer academic performance.\(^2,5,7,8\) While medical institutions are increasingly cognizant of the need to support diversity, equity and inclusion efforts for learners of all identities,\(^9,10\) they continue to fall short in creating environments that enable all learners to thrive.\(^11\)–\(^14\)

Identity and identity development are complex and multifactorial.\(^15\) Everyone holds visible and invisible identities which affect their lived experiences and shape the ways they understand the world.\(^16,17\) As learners develop into physicians, they navigate the process of professional identity formation (PIF), a developmental and socialization process by which an individual joins a professional community.\(^18\) Throughout PIF, learners’ personal identities influence the development of their emerging professional identity.\(^19\) Scholars have noted that current conceptualizations of PIF may refer to constructs such as professionalism which may favor the cultural norms of some identity groups over others.\(^20,21\) Socialization involves negotiation of one’s pre-existing identities and the desired new professional identity; sometimes requiring that learners abandon aspects of their existing identities to be accepted into the medical profession.\(^20,22\)–\(^24\) It remains unclear how best support learners as they navigate dissonance
between their personal and professional identities, a dissonance which may manifest as identity threat.

Juxtaposed with the concept of identity threat, the concept of identity safety appears pivotal to understanding how health professions trainees could thrive in their diverse identities and optimally learn in the clinical environment. Psychological safety, emphasizes reducing power hierarchies to promote open discussion of errors, challenging leaders when necessary and mastery mindsets. Educational safety, a related construct, refers to empowered learners who can concentrate on a learning task without needing to self-monitor their projected image. While psychological and educational safety support optimal learning, they do not explicitly account for or accommodate individual learners’ identities. Without intentionally engaging learners’ identities, educators may miss the opportunity to create identity safe environments where learners are liberated from identity threats and supported to thrive.

Understanding identity safety has the potential to provide novel insights for how to optimize the learning environment for all learners. Steele and Cohn-Vargas described identity safe classrooms for elementary school students as places which leveraged diversity, were learner-centered, fostered classroom relationships, and created caring environments. Gamarael et al. explored identity safety among LBGTQ youth and defined it as freedom to be oneself. These conceptualizations provide helpful but incomplete insights into whether and how identity safety manifests as a favorable force in health professions education, given the emphasis on the provision of patient care in a complex and dynamic learning environments. This study aims to
draw upon identity-salient experiences of medical students to better understand the construct of identity safety in health professions education.

**Methods**

**Ontological Stance:** This was a multi-institutional qualitative study informed by several elements of constructivist grounded theory, and critical pedagogy, drawing upon the work of diverse foundational scholars such as Paolo Freire, Kimberlé Crenshaw, and bell hooks. Constructivist grounded theory locates itself in the historical, cultural and social context and effectively explores complex cognitive and social processes not well explained by existing theory. Critical race and feminist theories compliment this by dissecting how social norms perpetuate current societal power arrangements favoring historically dominant groups.

**Participants and Setting:** Participants were clinical medical students at three US medical schools: the University of California, San Francisco (UCSF); the University of Colorado; the University of Washington. Interviews were conducted in February through May of 2022. We chose clinical medical students as they were likely relatively early in their identity formation as physicians while also having experienced a wide range of clinical experiences. All schools obtained ethics approval for the study.

**Research Team and Reflexivity:** Our team held diverse identities including gender (two women, four men), race (one Black, one Latino, one South Asian, and three white individuals), ability status (two with mental illness), religion, nationality, professional roles, and family roles, amongst others. We acknowledge our differential privileges based upon our diverse identities:
these identities influenced our data collection and data interpretation. JLB is a gay Black man: as an interviewer, his external appearance likely influenced stories shared by participants. Our team met both to discuss differing interpretations of data but also to reflect on how the identities and backgrounds of the interviewers and analysts may have shaped our interpretations of the data as well as what participants chose to share in the interview.

**Procedures:** The authors invited students via email to class listserv to participate in a study on identity in medical school, noting that the investigators sought the opinions of students from diverse backgrounds. Interested students completed an 11-item electronic Qualtrics survey (Appendix 1) with a write-in prompt soliciting the identities that they felt most defined who they are, as well as the racial/ethnic and gender versions of the Stereotype Vulnerability Scale (SVS), each five-items scored on a 5-point Likert scale with total score ranging from 5-25.\(^{38}\) Participants were also invited to provide their email to be invited to an individual interview; interviewees received a $25 stipend.

The authors purposively selected initial interviewees with minoritized identities, prioritizing Black, trans, and immigrant learners in initial sampling and high-stereotype threat (SVS>15). We subsequently performed maximum variation sampling by iteratively sampling those with a diversity of identities and SVS scores,\(^ {39}\) deliberately seeking participants whose narratives might enrich or challenge our evolving theoretical framework.

JLB, an experienced qualitative researcher, conducted all interviews over Zoom using a semi-structured interview guide which the authors developed through literature review and which
evolved over the course of the study in line with our constructivist grounded theory approach.\textsuperscript{2,28,31} (Appendix 2) Interviews explored learners’ experiences in medicine when their identities came into play; where they felt self-conscious, free, or safe in their identities; how their identities influenced their perspectives as a future physician; and how each student defined ‘identity safety.’ All transcripts were professionally transcribed, reviewed by JLB for accuracy, and deidentified.

**Analysis:** Drawing upon constructivist grounded theory, we iteratively sampled, coded and developed our model using constant comparison through the research process.\textsuperscript{33} JLB, JSI, and KEH performed open coding of three transcripts. Open codes were consolidated into a codebook. Each transcript was coded twice: by JLB and either JS, AdPJ, JSI, KEH, or a research assistant. We reconciled coding differences through discussion. After coding, the team used the syntheses of excerpts to develop categories which were through discussion and writing were synthesized into a theory. We continued data collection and model revision until JLB felt that we had reach sufficient conceptual depth with respect to the range, complexity, and nuance of evidence, where no new major concepts arose and our model remained stable despite further data collection.\textsuperscript{40}

To validate whether the final model effectively reflected our data, JLB compared four transcripts line by line to the model. To member check, we emailed a draft of the results to all participants and whether the results appropriately encompassed their interview. In total, 8/16 replied: all respondents felt the results aligned with their experiences and perception of the interview. One respondent asked for a quote to be trimmed to protect their confidentiality.
Results

One-hundred and thirty-seven learners responded to the survey. We purposively sampled among respondents and interviewed 16 diverse individuals. Interviewees represented a range of racial/ethnic and gender SVS scores and were diverse (Table 1): eight identified as women, two as non-binary, six as men, five as being from racially underrepresented groups, five as LGBQ, and three as having a disability. Participants described multiple other identities which shaped their experience in medicine including religion and intended specialty, amongst others. (Table 1)

Learners’ identities heavily influenced their experiences on clerkships. These experiences existed on a continuum from identity safety to mediation to identity threat (Figure 1). Below we describe that continuum in detail and end by exploring the impacts of identity safety on learners.

Identity Safety

Participants’ narratives demonstrated that in identity safety one exists as one’s authentic selves without feeling compelled to manage others’ impressions of their identities. Identity safe environments value each person’s identities and empower individuals to leverage those identities to improve patient care. Identity safety arose from three interrelated factors: feeling agency to leverage one’s identities to serve patients, others who uphold learners’ sense of personhood, and feelings of belonging in the learning environment. Table 2 lists exemplar quotations of safety-promoting actions from learners or others in the learning environments.

Agency to serve refers to the ways that learners engender their own identity safety by leveraging their identities to help patients. Learners judiciously concealed or revealed their identities,
“Everybody has a hand of identities…some of them are facing outwards, everybody sees them when you walk into a room. Others are more hidden…And these cards, when I feel like it is to my advantage I can play them, and bring that increased patient connection, that patient care, that patient trust. But there’s also the option, at least for me, that some of my cards are hidden…I can hide some of those cards and not play them.” (P15) This ability to use one’s own experiences to help others, promoted self-reflection and growth: “I moved to the United States when I was like nine. And for a long time, I even rejected my Filipino identity. And it wasn't until medical school actually, where I realized like, ‘Oh, these skills that I have are actually very beneficial to other people.’ is when I started to embrace it.”(P2) Participants demonstrated a sense of purpose to use their experiences to help patients. One learner with type 1 diabetes talked about how she advocated for a patient, “I got to show him my pump and kind of advocate to my attending because she was like, ‘Oh, I don't know. He doesn't seem like a very controlled diabetic. He's not really someone I think of as a candidate for an insulin pump.’ And I kind of got to advocate like, "No. This is the standard of treatment. Everyone should be able to access this."...I felt like I got to help advance patient care in that way. And my attending, I think appreciated kind of learning from me in that aspect.” (P7) Participants even drew upon adverse experiences in the service of patients. One survivor of sexual assault and previous sexual assault response advocate said, “I always include that as part of my social history...And so, I've had many times during my third year in clinical spaces, where I've kind of caught those things and then been able to connect patients with resources.” (P13) Because of their unique identities, learners wielded power in the form of cultural capital to influence patients in ways that their teammates could not. “I think working with patients and seeing, especially the adolescents, their shoulders just completely relax when I say "Hi, I'm XXX, I use they/them pronouns, what about you?" That's been really
cool."(P9) In this way, learners with minoritized identities claimed their power to create identity safety for themselves and for patients.

**Upholding personhood** refers to others’ efforts to get to know a learner on an individual level, where learners were seen in the richness of their diverse identities and not minimized to a single identity. Participants recounted that their personhood was upheld when, supervisors invested in knowing learners during breaks in clinical duties or when participants had the opportunity to engage in social activities with their attendings (e.g. talk while sharing a meal). A learner described safety as a time when, “you don't have to feel like you can only show a certain part. When you truly feel like you can be yourself in all your forms, I think that means identity safety to me...when people make you feel they're genuinely interested and are curious and want to learn without having a judgment.” (P1) Importantly, upholding personhood meant that participants did not feel minimized or tokenized to a singular aspect of their identity. “[My attending] took me out for coffee and we talked about life and it eventually led to gender stuff. She's like, ‘I have a one-year-old son, how can I teach him to enjoy exploring gender?’...that like felt really respectful and caring of like, ‘I got to meet you.’ Not like ‘I got to meet a trans person.’”(P9) Some medical schools facilitated peer-to-peer discussion about identity or created diverse longitudinal learning communities for learners to explore personal and professional struggles with peers. These opportunities outside of the clinical environment helped learners develop relationships with their peers that upheld their personhood.

Participants felt **belonging in the learning environment** when they felt accepted as their full selves and saw others with identity concordance, when another person shared an identity. In
contexts that promoted safety, students felt identity concordance with patients and staff, saw that diverse identities were valued, or had longitudinal relationships with peers or supervisor. “I park my car far away and I’m walking into the hospital, I feel even safe walking through [Latino neighborhood]. I feel I don’t feel like an outsider. I feel like I’m welcomed there.” (P8) Identity concordance liberated participants from self-monitoring, “for most of that rotation, I had curly hair and she actually made me feel very comfortable with my curly hair. She has curly hair, too, and it wasn’t a big deal.” (P1) (Table 2) One participant did not realize he lacked belonging at his home institution until he did an away rotation: “So there’s three zones in the ED there. All three attendings were Asian women or at least half Asian women. And that just, I thought, wow, this would never have happened during my time in [home school] ...I felt very empowered and very accepted in that space in a way that I never did in [home school].” (P15).

Hospital staff members played an important role in promoting belonging for minoritized learners. This included things likes making statements of affirmation while passing participants in the hallway, "Assalamu alaikum, sister of islam.” (P11) A learner interested in surgery described how identity concordant operating room staff supported her to succeed clinically, “in the OR...they're like, ‘Oh, I'll try to find you expired sutures,’ ...because I connected with them through being Filipino”. (P2) Participants said these small acts of support bolstered their morale on tough days in medical school.

Mediation

Table 3 lists vignettes from our participants demonstrating how in mediation, participants were aware of an identity threat, but through allyship from others and self-defense they were able to
manage the threat and stay in a less threatening zone. In reference to a proactive attending who
rehearsed responses to microaggressions with the team before later seeing a patient who
demonstrated sexist behaviors, a learner said, "I don't think this is safe, but [the
microaggression] had gotten dampened in effects."(P3) Participants themselves proactively
avoided identity threats by seeking out identity concordant mentors, wearing pronoun pins, or
communicating with clerkship directors to ensure that their disability accommodations would be
appropriately implemented. Learners also described interpersonal and internal strategies they
used to minimize the impact of identity threats. Interpersonally left the room of confrontational
patients and debriefed uncomfortable situations. Internally, participants rationalized identity
threats (e.g. ‘the patient is confused’), empathized with others’ unique lived experiences, and
sometimes internally slighted the person committing the threat: “And I don’t want to be mean to
the patient, but I was just like, he’s just being an idiot and that I’m okay with that.” (P8)

Identity Threat

In contrast to mediation, identity threat led learners to expend cognitive or emotional energy
without resolving the threat. Learners suffered from identity threat when they experienced non-
inclusive learning environments, stereotype threat, interpersonal threats, and sociopolitical
threats. When possible, participants downplayed or concealed aspects of their identity to avoid
identity threat.

Participants described non-inclusive learning environments as places that lacked diversity and
encouraged assimilation. Some minoritized participants spoke to the isolation of coming from a
marginalized group without visible role models. One hijabi woman struggled, never having met
another hijabi physician to ask, “How do you do it? Like, How do you like put a stethoscope in when your hijab is all pinned?”” (P11) Participants felt that assessment and professionalism encouraged assimilation. As one learner reflected, “I’ll play the game. For a couple of clerkships I’ll get the grades that I need… But at a certain point I was like, this is not how I want to practice medicine. I want to do it in a way that feels true to myself and aligned with my identity and not feeling like I have to hide certain parts of myself.” (P4). In general, participants named safety-net hospitals as more inclusive and veterans’ hospitals or surgical rotations as more less so. “I actually feel kind of the most unsafe [at the military hospital] …you can't have chronic health conditions to be a military doc.”(P7)

Participants suffered from stereotype threat, as they manipulated their hair, their mannerisms, and the way they spoke to disprove stereotypes about their identity group. “I have a very fluffy, maybe girly language in general. And I think when it comes to professional emails, I feel like I have to be very coarse, and I have to be concise and short and write in a way that I feel like a very busy, important White man would write.” (P10) Learners from majority identities were also aware of stereotypes that could lead to uncomfortable interactions with co-workers. One white male medical student described always holding the door open for others to prevent being mistaken for a more senior team member, “And so when you see me doing that, my little dorky short coat stuff, no one's confused who the attending is, regardless of their race or their gender or their age.” (P14)

Interpersonal threats encompassed microaggressions, minimization, and assumptions. Inaction in the face of witnessing a threat was harmful, “I feel when people don't participate in correcting mispronouncing or misgendering of me in healthcare settings, it, to me, feels a passive acceptance
or approval of transphobia.” (P6) Other participants sometimes felt tokenized or minimized to a single identity.

Politically charged events contributed to learners’ experience of identity threat. “With all of the discussion around Roe versus Wade and kind of the abortion laws in our country... I knew what I believed. I knew that it was contrary to what everyone else was saying and I guess I was assuming, but I felt like they would view me negatively if I were to express like, ‘Hey actually, I think differently.’” (P16) Many learners who experienced identity threat just remained silent to avoid jeopardizing their evaluations.

**Impact of the Identity Safety Continuum**

Identity safety decreased self-monitoring, impacted specialty selection, and advanced patient care. Identity safety liberated participants from self-monitoring. For example, one learner spoke about the first time she wore her favorite purple hair tie after deciding to pursue a different specialty with more diversity, “It's very symbolic for everything else that I put away in my identity for a long time. And it made me happy because I was like, "Wow, I don't have to overthink really dumb, small things like a scrunchy now.” (P2) To promote future identity safety, learners considered their future identity safety through their specialty selection. While few participants said they picked a specialty in part, to diversify it, most participants gravitated toward specialties where they felt identity safe. One participant described that her family medicine rotation, “was the first time where I was indebted to all of the experiences from my different identities to patient care,...So encouraged to play up or play down different parts of my identity... Perhaps why I
chose to apply to family medicine. It just felt like a very safe and wonderful place where I could be myself and really integrate that into the type of care I provide my patients.” (P4)

Discussion
This grounded theory study of medical students describes that identity safety lies on a dynamic continuum with mediation, and identity threat. Learners’ agency to serve, co-workers’ upholding personhood, and belonging in learning environment are the pillars upon which identity safety is constructed. In comparison to psychological and educational safety, which rely upon others to create a sense of safety, our results demonstrate that learners can foster their own sense of identity safety as can others in the learning environment. Identity safety is identity-conscious, not identity-agnostic: learners feel identity safe when their identities are seen as an important part of who they are, when their identities are neither ignored nor viewed as the totality of their personhood. Identity safety is an important educational construct which may promote a sense of rightful presence, decrease learners’ emotional and cognitive burden, and inform diversity, equity, and inclusion efforts.

Identity safety calls attention to the concept of ‘rightful presence.’ This concept emerged from critical studies relating to refugee communities. Refugees admitted into sanctuary cities are viewed as ‘guests’ who are allowed in by ‘hosts. If a guest deviates from host norms, hosts may revoke their hospitality. In contrast, rightful presence refers to, “legitimate membership in a community because of who one is (not who one should be).” As our learners’ reflections show, many learners feel that they are ‘guests’ in medicine and must adhere to a strict set of social rules or they risk either not advancing or being pushed out. Considering professional identity formation and socialization into medicine, professionalism and assessment are examples of
constructs which our learners with non-dominant identities felt were wielded against them and could push them out. Learners were identity safe when they felt seen and accepted for who they authentically were and not who they pretended to be.

Both learners and patients benefit from identity safe environments. Considering cognitive load theory, identity threats and self-monitoring increase extraneous load or distractor information which impairs one’s ability to accomplish a task. Higher extraneous load is cognitively impairing: even expert clinicians perform more poorly on diagnostic tasks with higher extraneous load. When identity safe, participants spent less time monitoring their appearance, mannerisms, and other ways of being. This decrease in self-monitoring likely represents a decrease in extraneous load. Identity safe learners leverage their experiences, cultures, languages, and mannerisms, to make substantial contributions to patient care. This resonates with what Steele and Cohn-Vargas’ termed ‘leveraging diversity as a resource.’

Identity safety may inform diversity, equity, and inclusion efforts. Importantly, identity safe environments are not comprised of homogenous groups. Notably, the contexts in which learners felt the safest were diverse environments where everyone was respected and seen in their identities. While identity concordance and representation do promote identity safety, identity safe environments also bridge across identity differences. Colleagues and supervisors with privileged roles and identities can commit to upholding personhood to promote identity safety for others. Finally, our results highlight that learners influence their professional identity formation by selecting their communities of professional socialization, at times forgoing specialties or institutions that they otherwise enjoy due to a lack of identity safety.
This study has limitations. Study participants were from three schools, this may limit transferability of the findings. The experiences of students within the medical training system may differ substantially from individuals at different stages of training or different professions.

**Conclusion**

Identity safety is a highly consequential phenomenon. Identity safety may foster a favorable learning environment by liberating individuals from self-monitoring, insulating them from identity threats and enabling them to leverage their identities for patient care. More work must be done to understand more deeply how educators and learners can optimize identity safety in the learning environment.

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**Table 1: Demographics of interview participants in a 2022 study of identity safety among clinical medical students.** Religion and intended specialty are listed separately to protect participant identity.

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^Stereotype Vulnerability Score (SVS)- 5-item Likert scale, scores could range from 5 (low) - 25 (high)
*Some students applied into the same specialty
Figure 1: Theoretical model of identity safety continuum (identity threat, identity mediation, identity safety).

FIGURE TO BE COMPLETED
Table 2: **Safety promoting actions.** Agency to serve, upholding personhood, and belonging were hallmarks of identity safety. Allyship and self-defense were used in mediation to help mitigate but not eliminate threats. Personhood, self-defense, and agency to serve were actions carried out by others or by learners which helped to promote identity safety.

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<tr>
<th>Category of Protective Action</th>
<th>Definition</th>
<th>Example</th>
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<td><strong>Agency to Serve</strong></td>
<td>The ways that learners engender their own identity safety by leveraging their identities to help patients.</td>
<td><em>I had a lot of cases of patients that were consanguineous siblings, like not siblings, but cousins who were married...So I was able to communicate both ways. Like to the team, &quot;Yes, their relationship is consensual, and they don't understand.&quot; And then also to the patients... &quot;Yes, this family dynamic can cause a lot of genetic issues, so we want to be careful and test for these things to make sure that you have the healthiest pregnancy and the healthiest baby possible.&quot;</em> (P12)</td>
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<td><strong>Upholding Personhood</strong></td>
<td>Others' efforts to get to know a learner on an individual level, where learners were seen in the richness of their diverse identities and not minimized to a single identity.</td>
<td><em>&quot;I think it's a nice community and differences of opinions. And many of the people that come down to the [rotation] don't match my identities. And so, hearing their struggles and the friction that they had with patients who were less accepting of their identities, I think getting to hear their stories and then disagreeing with what had happened to them...So it's 19 of us. And so, there's quite a few different identities, but the unifying factor of wanting to support one another, I think we all bought into that, and listening to the different experiences that we were all having.&quot;</em> (P13)</td>
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<td><strong>Belonging</strong></td>
<td>Times when a learner felt accepted as their full selves and saw others with identity concordance or when another person shared an identity.</td>
<td><em>&quot;I think it's a first day on that rotation, actually, my attending was gay and I thought, I immediately... it's kind of like the game recognize game feeling, but we're kind of, it's like, great, cool. I guess secure in a way as well, where I could be a little bit more quote, unquote, flamboyant in that way and just be a little bit more open in the way that I talk about things and in my manners.&quot;</em> (P15)</td>
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<td><strong>Anticipatory Allyship</strong></td>
<td>Supportive actions that occurred in the face of an oncoming threat that is expected but</td>
<td><em>&quot;And even there was an [LJC] student before me the year before us who purposefully went to the leadership and requested certain preceptors for the Black students that were coming in, which was me and another student. And she was Black. And she was like, &quot;These students need to get these attendings because these are the attendings I had the best experience with as a Black woman.&quot;</em> (P10)</td>
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<td><em>&quot;A lot of my OB appointments were with attendings who trained here. And they were always like, &quot;You have a legal right to pump, a legal right to provide food for your...&quot;</em> (P7)</td>
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has not yet occurred.  

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<tr>
<th>Reactionary Allyship</th>
<th>Supportive responses in the face of an identity threat in attempt to protect the targeted individual.</th>
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<td>“There was a time, this was pre-clerkship, that my professors were just misgendering me so, so, so much that eventually, I emailed all of my classmates and was like, “I can’t do this, I need your help, you all.” And they stepped up and that was great. That they needed an ask to step up that strongly. Also, it took me reaching the end of a certain line before folks were showing up more strongly” (P6)</td>
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<td>“If I perceive that there’s a nonverbal indication that someone perceives me as a leader in the room, I will look at the person that they should be talking to, or even point to try to have a nonverbal cue that the person they shouldn’t be addressing is not me. And if they continue to do that, even saying something passive like what does doctor so and so think about this. And then if it gets I think in very sparing cases where the person didn’t figure it out, just being explicit that, “I’m one of the medical students in the room. You should be directing your question to Dr. so and so.” (P5)</td>
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<th>Self-defense</th>
<th>Internal response to an identity threat, often in the form of either compassion or defensiveness.</th>
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<td>“When I hear things like that, I feel like for some people it may be harder, but for me it just fortified my reasons for being there. And I don’t want to be mean to the patient, but I was just like, he’s just being an idiot and that I’m okay with that. I’m okay with thinking of him as such and moving on” (P8)</td>
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<td>“I guess with these patients in particular, I try not to get offended because I take people’s backgrounds and their cultural context into play and be like, “There’s no way that this old guy who lived in the middle of nowhere for the entirety of his life could ever know who I am.” I rarely, rarely get mad. I don’t get mad unless someone is intentionally malicious.” (P12)</td>
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| Learner had to change into clothing that did not fit her preferred cultural attire but felt protected because a Muslim male resident defended her in the operating room | A Muslim woman who typically wears a hijab, in the operating room wore a scrub cap and high-neck undershirt: clothing that she felt covered her body appropriately according to her faith. A scrub tech in the hospital informed her that her clothing was inappropriate for the operating room, and she would have to change it. A male Muslim resident replied, “Hey, this is for her faith. This is why she wears this. I'm wearing it undershirt, too, that you can see.”

The learner reflected later, “And that felt great in that moment that someone was on my team and vouching for me. And when the scrub still was like, ‘No, you can't,’ like I think what I really appreciated was that he pointed out the double standard of like, ‘Look, I'm also wearing an undershirt that you can see, but you're not saying anything to me,’ …Yeah, I really appreciated having someone in my corner in that moment. And even though the outcome was still that I had to change and wear something else, he apologized on their behalf…so I really appreciated that resident.” (P11) |
| Learner reflects on the challenges to getting needed disability accommodations sometimes being supported, other times not. | “I think there have been lots of different sites of support and none of them have been sufficient. There's student disability services and they both have gotten me the accommodations that I have in some ways and have also pushed back on other accommodations that I've stated I've needed…And then I'm talking to the deans and I'm talking to Student Disability Services and I'm like, ‘I told you I couldn't do this and I can't. So what are you going to do? Why couldn't you have trusted me in the first place?’ Then on the other hand, in those moments, Student Disability Services and the deans have gotten it together to shift things to meet my need retroactively or from that point forward.” (P6) |
| Learner shares background with attending who is later dismissed because others did not understand her point but the learner understood and felt commonality with the attending. | “Well, I have an attending who is a Mexican woman. She actually went to medical school in Mexico. I think culturally we're very similar…She understands some difficulties that I have when I'm communicating sometimes, since English is our second language for both of us…We were on this conference call…it was like a conference where all the physicians were giving the clinical presentation and our questions, et cetera. And the individuals on the conference dismissed her, didn't understand what she was trying to say…So, we talked about it and how this is a common thing that happens to us because English is our second language…she was just like, ‘Oh, they make me feel so ignorant sometimes.’ And to me, it was like, ‘No, I mean I understand what you mean. I get that, too.’ So it was more like an acknowledgement of the things that we go through and I guess, positive in a way that we could bond over it, but it's still unfortunate in the end.” (P1) |
| Learner gets very gendered feedback which did not sit well with her, so she checked in about the feedback with another resident who helped learner to disregard the feedback. | “I feel like I had a very interesting interaction in my surgery rotation…I got really interesting feedback from one of the senior residents and they said, 'you're obviously good with people and you're good with patients, but you want to be careful.' And I said, 'That's interesting. Why would you say that?' And he said, ‘Sometimes I think you're too friendly. When you're too friendly and too personable in something and surgery goes wrong. I think your patient can automatically see you in an unprofessional way…Maybe it’s just you're a female and that's just the way you are. ‘... I sat and thought about it for a long time…I actually spoke with one of the interns on my team and I said, ‘Hey, I got this feedback and it was interesting to me because I've never heard that before.’ And I was like, what's your take on it? He was very much like strictly a style thing”. (P4) |
Appendix 1: Survey of identities and racial/ethnic and gender stereotype vulnerability

Thank you very much for participating in our multi-institution research study on medical students’ experiences around identity on clerkships. This brief online survey should take 2-3 minutes to complete. You may stop the survey at any time. We intend to invite some students who complete this survey to an individual interview exploring topics related to this survey. If you are willing and invited to complete an interview, you will receive a $25 Amazon gift card for participating in a 45-60 minute interview. If interested, you will receive instructions on how to enter your name at the end of the survey.

Please rate how much you agree or disagree with each of the following statements (Likert 5-point scale: strongly agree to strongly disagree):

1. My evaluators expected me to do poorly on clerkships because of my race or ethnicity.
2. Clerkships may have been easier for people of my race or ethnicity.
3. People feel I have less medical ability because of my race or ethnicity.
4. On clerkships, people of my race or ethnicity face biased evaluations from others.
5. In medical school, I feel that others look down on me because of my race or ethnicity.

6. My evaluators expected me to do poorly on clerkships because of my gender.
7. Clerkships may have been easier for people of my gender.
8. People feel I have less medical ability because of my gender.
9. On clerkships, people of my gender face biased evaluations from others.
10. In medical school, I feel that others look down on me because of my race or ethnicity.

11. We all hold many different identities (race, ethnicity, gender, sexual orientation, religion, ability status, parent, etc.). Please list the identities that you feel most define who you are.

We are interested in interviewing students to explore their experiences relating to the themes of this survey and your identity more broadly. If you are willing to be contacted for an in-person or video interview lasting 45-60 minutes, please write your email below. If selected, you will receive a $25 gift card for participating in the interview. If not interested, feel free to skip this question.
Appendix 2: Interview Facilitator Guide

Thank you very much for your willingness to participate in this interview. My name is Justin Bullock. I am working with investigators at four institutions across the country. We are interested in exploring medical students’ experiences with how their personal identities impact their experiences in the medical workplace. The team at UCSF consists of myself and Dr. Karen Hauer. Being in this study is voluntary. The interview will last approximately one hour. During this time, we talk about the identities that matter the most to you, your experiences on clerkships having those identities and how they impact your experience as a soon to be doctor. We asked you to take part in the study because you completed a survey expressing your interest to be interviewed. We are interested in your personal opinions; there are no right or wrong answers. You can skip questions that you do not want to answer or stop the interview at any time and you will still receive the $25 gift card. With your permission, I would like to record this interview for later transcription. Your name and any potential identifying information will be removed from the transcript and will not be used in our analysis. We will keep the data we collect confidential and will not share your personal information with anyone outside the interviewing team. This interview will not affect your evaluations or grading in any way. Because this is an interview for a study, I will do our best to remain neutral in response to any comments that you make during our conversation. I may occasionally jot down notes to help me listen. At this point, if you would like to participate in our interview, please say yes.

Do you have any questions before we turn on the recorders and begin?

To begin, could you please tell me what parts of your identity matter the most to you, personally? I encourage you to think broadly about the parts of you that define who you are. Anything else?

How do you think all of the internal identities you just mentioned relate to how other people see you as you work in the hospital?

Can you tell me about a time on clerkships where your identity affected your interactions with another team member or patient?

Can you tell me about a time on clerkships when you felt free to show your identity or rewarded for holding your identity?
    Probe: this can include any clothing, language, mannerism, or other cultural marker of your identity.

Can you tell me about a time where you felt self-conscious or penalized for displaying some aspect of your identity?
    Probe: this can include any clothing, language, mannerism, or other cultural marker of your identity.

Can you speak about a time on clerkships when someone did something that made you feel unsafe for you, given your identities?
    -What about it that made you unsafe?
Did you or others respond? What was the impact of their response?

Focusing on one or all those identities that you have mentioned, can you describe a time where you felt safe to be yourself in medical school?
  
  What was it that made you safe?
  
  Can you tell me about another time where you felt safe?

Can you please describe how your medical school’s setting including the community, city or state that you are in, affects your sense of safety of your identities?

Which of your identities most shape your sense of safety while on clinical clerkships? Why?
  
  Why do you think that is?

What does it mean to you to belong as yourself as a soon to be physician?

How has your identity influenced the way you see yourself as a future physician?

How has your perception of what it means to feel safe in your identities changed over the course of your clinical rotations?

Do you feel that medicine accepts people with identities like you? How so or how not?

Our research team is interested in understanding how we can create safe places in medicine for individuals of all identities. Reflecting on the conversation that we just had, can you tell me what comes to mind when you hear the phrase identity safety.

How do you identify in terms of:
  
  Race/ethnicity
  
  Gender
  
  Sexual orientation
  
  Do you identify as someone who is:
  
  First generation in medicine
  
  Disabled