

**ORIGINAL ARTICLE**

# Supporting a sense of inclusion and belonging for genetic counseling students who identify as racial or ethnic minorities

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**Abstract**

Racial and ethnic minority graduate students in a variety of academic and professional disciplines have been reported to experience microaggressions and feelings of isolation during the course of their training. The purpose of this constructivist grounded theory study was to characterize the training experiences of genetic counseling students who identify as racial or ethnic minorities. The goal of enhancing racial and ethnic diversity has been discussed for decades within the genetic counseling profession, but the actual training experience of underrepresented minorities has yet to be fully explored. We conducted 13 videoconference focus groups with 32 recent graduates of genetic counseling training programs who identify as racial or ethnic minorities. This paper presents results from three of the thematic categories identified in that larger study: *Participants' interactions with classmates*, *Sense of belonging in the GC profession*, and *Available or desired supports*. Participants reported experiencing negative interactions within their training program, during supervised clinical rotations, and at professional events; negative interactions included comments suggesting they did not belong in the United States, being confused with another non-white classmate, and intrusive questions or assumptions about their family, culture, or religion that were not similarly directed at white classmates. Trainees who were Muslim or Black/African American reported feeling particularly isolated by these incidents. Participants reported that they sought support from a variety of sources following negative experiences. Non-minority program faculty were perceived as able to offer *listening or action* but not *understanding or guidance*, which were perceived as more likely to be available from individuals who identify as racial or ethnic minorities. Results of this exploratory study suggest the need for training programs to ensure that appropriate supports are available to minority students, including diverse faculty and staff and non-program resources.

**KEYWORDS**

belonging, diversity, Genetic counselors, graduate school, microaggression, minority, underrepresented populations

## 1 | INTRODUCTION

### 1.1 | Diversity of the genetic counseling profession

According to the National Society of Genetic Counselors (NSGC) 2020 Professional Status Survey (PSS), genetic counselors in the United States and Canada are overwhelmingly white (90%), with 5% identifying as Asian, 3% as Asian Indian, 2% as Hispanic/Latino(a), 2% as Black/African American, and 1% or less with other races or ethnicities (National Society of Genetic Counselors, 2020). Despite efforts to recruit more racial and ethnic minorities to the profession, these percentages have changed only slightly over a period of decades (Mittman & Downs, 2008). During this time, relatively little attention has been paid to the experiences of minority genetic counselors during their training and as professionals. Schoonveld et al. (2007) found that genetic counselors who identified as racial or ethnic minorities felt that their culture was ignored or became their sole identifying characteristic, and that they were expected to be diversity experts or to act as a bridge between their community and the field of genetic counseling. To our knowledge, no research about the experiences of minority genetic counseling students was published between the appearance of Schoonveld et al.'s study and our 2020 article on this matter. We demonstrated that, particularly during lessons about cultural competency, minority genetic counseling students are relied upon to educate their non-minority classmates about issues of race and ethnicity, leading to feelings of frustration and exhaustion (Carmichael et al., 2020).

Several different terms are commonly utilized to describe the negative interactions that individuals may experience due to their race or ethnicity. Implicit bias describes subconscious attitudes toward a person or group that may result in discriminatory behavior (Murray-García et al., 2014). Stereotyping is the attribution of specific characteristics to all members of a group (Dovidio et al., 2008). Microaggressions describe small comments or brief exchanges that communicate negative messages to individuals based on their minority identity. For example, this could include statements implying that Asians do not belong in the United States or insinuating that African Americans are criminals. While they may possibly be unintentional on the part of the perpetrator, microaggressions are defined by their negative impact on the victim (Sue et al., 2007).

Racial and ethnic minority students in other academic disciplines have been reported to face racism, discrimination, and microaggressions of several types which lead to increased feelings of isolation and a decreased sense of belonging in a field or program (Brunsma et al., 2017; Clark et al., 2012; Gay, 2004; Haskins et al., 2013; Smith et al., 2007; Torres et al., 2010). In counseling professions, it has been documented that students can encounter racism during supervised clinical rotations, a particularly challenging environment because the power dynamic inherent in the supervisory relationship may prevent students from voicing their discomfort (Bernard & Goodyear, 2004; Fong & Lease, 1997).

#### What is known about this topic

Little is known about the training experiences of genetic counseling students who identify as racial or ethnic minorities, but minority students in other fields have been reported to experience racism, discrimination, and microaggressions.

#### What this paper adds to the topic

We report that genetic counseling students who identify as racial or ethnic minorities experience negative interactions, racism, and microaggressions during their training and recommend ways in which training programs, supervisors, and the profession as a whole can create a more equitable, inclusive, and supportive environment for these students.

### 1.2 | Study purpose

Here, we report selected findings from a broader study of genetic counseling training as experienced by students who identify as racial or ethnic minorities. Other results from this study have been previously reported (Carmichael et al., 2020). This paper focuses specifically on experiences that impacted participants' sense of belonging in the genetic counseling profession and on the types of supports that were believed to be of benefit in response to those experiences. Participants in this study are described as 'individuals who identify as racial or ethnic minorities' following the terminology used by the Minority Genetic Professionals Network (MGPN). Within this article, the term 'minority' refers specifically to individuals who identify as racial or ethnic minorities.

## 2 | METHODS

A detailed description of the methods utilized in this study has been previously published (Carmichael et al., 2020) and will be summarized here briefly. We designed the study based on the principles of constructivist grounded theory (Charmaz, 2014), an approach that recognizes the inherently subjective nature of grounded theory research; data are viewed as being 'constructed' by the researcher and participants, influenced by the researcher and participants' experiences and interpretations (Creswell, 2007). Institutional Review Board (IRB) approval for this study was granted to the first author by Simmons University in 2019 as part of her dissertation research.

### 2.1 | Participants

Eligible participants for this study included individuals who graduated from genetic counseling programs between 2017 and 2019 and

who self-identified as a racial or ethnic minority. Exclusion criteria included having trained or completed a clinical internship with the first author.

## 2.2 | Procedures

Recruitment of participants involved targeted sampling and snowball sampling via e-mail blasts sent by the NSGC and the MGNP. The recruitment e-mail included a link to a Qualtrics.com questionnaire, through which participants could first consent to the study and then provide demographic information. Participants were asked to describe their racial or ethnic identity in their own words, and then to select from a drop-down menu of racial or ethnic categories drawn from those utilized by NSGC in the 2019 PSS (National Society of Genetic Counselors, 2019). Those who completed the questionnaire were then contacted and scheduled to participate in a focus group.

Focus groups were selected as the means of data collection (rather than individual interviews) for two reasons. First, it has been suggested that group interactions have the potential to generate more novel themes as ideas emerge and arise through discussion among the participants (Barbour & Kitzinger, 1999; De Jong & Schellens, 1998; Kaplowitz, 2000; Morgan, 2018). Second, focus groups facilitate a shift in the balance of power from the researcher to the participants (Farquhar & Das, 1999; Kook et al., 2019; Wilkinson, 1999), an important consideration in this study because of the multiple potential sources of power inequality: The interviewer was an older white woman and seasoned professional interviewing younger recent graduates about their experiences as racial and ethnic minorities. Focus groups were conducted via Zoom.us videoconferencing in order to enable recruitment of participants throughout the United States (Matthews et al., 2018; Rupert et al., 2017), but participation was capped at four participants to minimize the likelihood of potential impacts from slow internet speeds and to maximize opportunities for each participant to speak (Abrams et al., 2015; Rosenthal, 2016; Stewart & Shamdasani, 2017). Sessions were audio- and video-recorded with consent from participants, downloaded to the first author's encrypted and password-protected laptop, and transcribed by a professional transcriptionist.

## 2.3 | Instrumentation

We developed a semi-structured focus group guide (Table 1) based on a review of extant literature pertaining to the experiences of genetic counseling students, mental health counseling students, and graduate students in general. The guide was piloted with nine genetic counselors who identify as minorities but were not eligible to participate in the study due to graduation date or training location.

**TABLE 1** Focus group guide

Introductions: Preferred name, racial or ethnic identity, languages spoken, description of training program (including racial and ethnic composition of the cohort and faculty)  
 How, if at all, do you feel that your experience overall was different than that of your white classmates?  
 Thinking back to experiences in graduate school and in clinic, can you recall a specific instance in which you felt like your race or ethnicity positively or negatively impacted your training?  
 In preparation for your clinical training, how, if at all, did your graduate program or supervisor discuss how your race or ethnicity might impact the experience?  
 With the goal of improving the training experiences for students who identify as racial or ethnic minorities, what recommendations, if any, would you make to graduate programs or supervisors?  
 How, if at all, did you feel like your racial or ethnic identity impacted your sense of being a genetic counselor?  
 How, if at all, do you think that your experiences impacted your sense of belonging in the genetic counseling profession?

## 2.4 | Data analysis

The transcripts were placed into NVivo, a software program for qualitative data analysis. Data were analyzed using a constant-comparative approach: Themes that emerged from each focus group informed those that followed (Charmaz, 2005, 2014; Creswell, 2007; Hood, 2007; Massey, 2011). Selected portions of the focus group transcripts, comprising approximately 25% of the data, were independently coded by members of the first author's dissertation committee who identified as racial or ethnic minorities; the first author and committee members examined coding discrepancies and discussed emergent themes. Quotes selected for the present article were taken directly from participants and modified only by removing filler words (such as 'like' or 'kind of'). Prior to publication, a copy of the results section was e-mailed to nine participants who were potentially identifiable due to their minority identity or quoted statements; one quotation was truncated at the request of a participant.

## 3 | RESULTS

### 3.1 | Participant characteristics

Forty individuals accessed the Qualtrics survey, and 32 were deemed eligible to participate in the study (the others either did not complete the consent form or did not meet study criteria). Between June and October of 2019, the first author facilitated 13 videoconference focus groups, each with two or three participants and lasting between 77 and 115 minutes (median: 89 minutes). The 28 female and four male participants represented 14 different training programs. When asked to select the NSGC racial or ethnic category with which they had 'the most in common', they responded as follows: Asian ( $n = 12$ ), Asian Indian ( $n = 11$ ), Hispanic or Latino(a) ( $n = 7$ ), White or Caucasian ( $n = 7$ ), Black or

African American ( $n = 4$ ), and Other ( $n = 2$ ). Participants were able to select more than one category; those who selected 'White or Caucasian' were all multi-racial. It is noteworthy that when asked to describe their race or ethnicity in their own words, participants offered a much broader range of categories: their responses included African American/Black, Asian, American Chinese, Biracial, Caribbean, Chinese, Desi, Filipino, First-generation, Guyanese-American, Hispanic, Indian, Indian-American, Iraqi, Latina, Mexican, Mixed-race, Muslim, Native American, Nepali Brahmin, Pakistani, Pakistani-American, South Asian, Southeast Asian, West Indian, and 1.5 generation. Participants predominantly graduated in 2018 ( $n = 14$ ) or 2019 ( $n = 14$ ). Twelve participants were under the age of 25, 19 were between the ages of 26 and 30, and one was over the age of 30.

### 3.2 | Overview of categories and themes

The data for this article represent themes that fell within three of the larger project's eight thematic categories: *Participants' interactions with classmates*, *Sense of belonging in the GC profession*, and *Available or desired supports* (Table 2). *Participants' interactions with classmates* reflects the relationships between participants and their classmates, the influence of the political climate and other identities on those relationships, and specific negative interactions they experienced. *Sense of belonging in the GC profession* refers to statements reflecting the ways in which participants felt their identity impacted their sense of belonging within their training programs, within the profession as a whole, or at the NSGC annual conference. The final category, *Available or desired supports*, reflects the types of support that participants were able to access or wish had been available to them.

### 3.3 | Participants' interactions with classmates

#### 3.3.1 | Theme 1: Cohort interactions

Some participants described their training program as a comfortable environment in which they formed close relationships with their classmates. For example, one participant described her cohort as 'a really close-knit group'. Other participants felt isolated within their programs as a result of their minority status: 'It was kind of a cultural shock to me to come into a group of people who were predominantly white'.

Participants reported a prevailing sense of worry related to how they would be perceived by their peers. A participant who learned English as a second language worried, 'What if I pronounce a word weirdly? And everyone's going to laugh about it, or maybe think that I don't know how to speak English'. Another, who had grown up in a largely Black and Latino neighborhood, worried that her classmates would look down on her because she was not as 'well-spoken' as them: 'Everything [they say] is articulated well, pronounced well, placed correctly... That used to bother me quite a lot'. Another Black participant worried about making a mistake because 'they're

going to think that I'm just a Black genetic counselor that doesn't know anything... as opposed to "oh, I just missed it." One participant suggested that, while it might be common for graduate school students to feel like, 'I don't belong, I'm not smart enough, I'm not good enough', this was exacerbated for students who feel that they do not belong from an 'ethnic, cultural, racial perspective'.

On the other hand, one Latina participant described how her insecurities were effectively mitigated by the attitude of her program faculty:

[My program faculty] never made me feel like my ethnicity was anything to be a problem... I wasn't the token ethnicity box that they needed for that year. They chose me based on my skills, and it was a bonus that I'm able to bring diversity.

Participants described the value of having one or more minority classmates. One appreciated having someone with whom she could share 'an eye roll or something' after a microaggression. A Hispanic participant felt fortunate to have a classmate from a similar background with whom she formed a close friendship; she described how valuable that connection was in helping her adapt to an environment that otherwise felt extremely foreign:

There's just something that goes a little bit deeper when you have shared childhood experiences and shared home experiences... We speak the same language on another level, actual language aside... We have similar jokes, sense of humor, our parents are similar backgrounds, discipline was the same in our household, music, food, all of that.

#### 3.3.2 | Theme 2: Overlapping identities

Racial or ethnic identity was only one aspect of how participants defined themselves, and overlapping identities—such as socioeconomic status (SES) and being a first-generation college student (neither parent attended college)—were described as exacerbating a sense of isolation within the training program. Participants who were of lower SES reported a keen awareness of not being able to afford some of the activities their classmates talked about enjoying: 'They were doing things that people of their social class would do that I wouldn't do, and ... I was also working two part-time jobs while going to school'. In addition, these participants felt that their different childhood experiences to some extent separated them from their classmates; one recalled feeling, for example, that she could not contribute when classmates shared stories about family travel or vacation destinations. Another explained, 'They could understand each other on a level where it was just a little bit harder for me to relate to some of the shared experience that they had'. The distance created by SES persisted after graduation: 'I'm still drowning in my own financial situation', one respondent said. 'And it's hard for me

**TABLE 2** Categories and themes that arose from focus group discussions with 32 recent graduates of genetic counseling programs who identify as racial or ethnic minorities

Theme	Definition	Examples
Participants' interactions with classmates		
Cohort interactions	Relationships between participants and other members of their cohorts	'On the micro-aggression level ... it definitely feels like I am not 100% included. And it's not something that they're choosing to do'. 'When her mom made food, oh my gosh, it was amazing... And we would always swap stories, and we also had similar upbringing situations'.
Overlapping identities	The ways in which identities such as socio-economic status and parent's educational level impacted interactions	'I don't know if exactly wealth had anything to do with it, but maybe opportunity... They could understand each other on a level where it was just a little bit harder for me to relate to some of the shared experience that they had'. 'Me calling and telling [my parents] that I'm struggling in school, I think they would worry way more than they should because they didn't have the schooling experience in the United States'.
Negative impact of political environment	How the political climate impacted participants during their training	'I couldn't talk about that aspect with my classmates... There's a lot of implications with the election that affects everyone, obviously. But that of fear, was not one of them'. 'There wasn't a lot of acknowledgement of anything political, because for a lot of people, it just felt like it wasn't really bothering them as much. But it was impacting me a lot, so it was really hard'.
Negative interactions	Interactions in the training environment that negatively impacted participants	'People would comment on how [my food] looked or how it smelled, just little comments that I've never experienced in my life because I've always lived places where there's such a huge diversity of cultures and foods'. 'That was pretty eye-opening because ... I just didn't know that people could have some of those misconceptions'.
Sense of belonging in the GC profession		
Belonging in the GC profession	Sense of belonging in the profession in general	'I didn't ever expect to come in and have a community ready... I already had that mentality of, I'm going to be the minority here, and maybe there'll be a few people that I have shared experiences with, but this is more me trying to set the scene or path'. 'I've definitely overcome a lot of things in my life. I'm proud to say where I'm working and that I am Latina and that I represent being a first-generation individual. So, I'm happy and I'm proud to say that just because I hope to be an example for someone in the future to come into this field and be a minority and increase those numbers'.
Belonging at the NSGC conference	Sense of belonging at the NSGC Annual Education Conference	'Being the only person of color, minority identifying person, in a room of 50 felt very overwhelming to me... I never felt that as almost viscerally as I did when I went to NSGC that first time'. 'Going to NSGC was like going to the Stepford Wives... Everyone's in a J. Crew cardigan and has flats on and is about the same height. It's a little crazy. So, I do feel a little bit more othered, I guess, a throwback to my all-girls middle school'.
Available or desired supports		
Support within the program	Support sought or received from individuals affiliated with the training program	'[My program director] was open to listening to what I had to say, and even giving me the space to do something about it, I thought that was really, really cool that she was able to do that'. 'I told her I'm depressed because of what's going on in the world around me, because I feel helpless, because I want to speak, but at the same time, it's awkward to do so. And she just listened'.
Impact of faculty minority status	The influence of faculty race or ethnicity on the support sought or provided	'Knowing that she was there and on my side, I felt pretty good about choosing that program'. 'But my program director and the faculty is majority white women and don't necessarily have the experience or knowledge to give me advice on how to handle those situations'.

(Continues)

TABLE 2 (Continued)

Theme	Definition	Examples
Non-program resources	Sources of support outside the training program	'She probably just kept me sane during that time. But outside of that, I didn't even want to tell anyone because I wanted to be strong'. 'I didn't want that to impact me in terms of my clinic performance, my academics. I just wanted to have a small community around me, so I reached out for those resources myself'.
Recommendations for programs	Recommendations of how programs could better support minority students	'Bring it up with them at some point in a private setting ...so when something comes up, if it does, that student feels comfortable coming back and saying, 'Yeah, remember that thing that I was worried about? It's happening'. 'I think sometimes, they were saying a lot of misconceptions about, well, if you check this box, then that equals all these other things. And that's just not the case'.

Abbreviations: GC, genetic counseling; NSGC, National Society of Genetic Counselors.

to say I want to be part of the profession when so many of my colleagues are not dealing with what I'm dealing with'.

Participants reported that being a first-generation college student created a sense of difference that lasted throughout the training program and into the job search process. One reported, for example, that, in contrast to her classmates, she would not call her family for support when faced with challenging assignments, and sometimes she specifically withheld her feelings so her family would not know about them: 'Me calling and telling them that I'm struggling in school... They wouldn't be able to help me in any way, and often-times they wouldn't even understand what the topic was'. Another remembered classmates talking about calling their parents for assistance with resumes and cover letters—a task for which her parents had no basis for offering help:

I've worked so hard just to get here, and it's so obvious education is an equalizer, but it's not the ultimate equalizer because the further that I go, people still have other resources that they're able to get just within their own home community.

### 3.3.3 | Theme 3: Negative impact of political climate

Given the timeframe of the original study, participants were training between 2015-2019, a time when the political atmosphere in the United States was particularly divisive. Participants commented on their sense that the political landscape was impacting them differently from the way it impacted white classmates, and that their white classmates appeared oblivious or insensitive to the unique vulnerability of minority students. One participant recalled, 'There was a fear in the brown community... but I couldn't talk about that aspect with my classmates'. A Muslim participant recalled that it 'felt like I couldn't really talk about it to anyone, and no one else was experiencing that whole election cycle the way I was... I felt really suffocated'.

Another participant felt hurt by the contrast she detected between the level of her classmates' outrage regarding anti-feminist

rhetoric in the media of that period compared with their level of outrage regarding rhetoric directed against other marginalized groups:

[The Republican candidate] had been saying so many inflammatory things about people of color, immigrants, disabled people, all these marginalized groups. But then suddenly, he comes for white women, and that's when everyone was up in arms... Where were you guys when the rest of us were being attacked for who we were?

One international student recalled with disappointment the outrage that female classmates expressed about 'being the other now'. 'As a person of color', she said, 'as someone who sounds different, as someone who looks different, as someone who identifies as Indian, you go through that every day'.

### 3.3.4 | Theme 4: Negative interactions

Participants reported a range of interactions with classmates that felt demeaning or diminishing. For example, one recalled being confused 'for one of the other brown women in my class' during her orientation. Another reported the strange feeling when she met a group of classmates for the first time and 'a group of them made a comment that they were intimidated to meet me'. An Indian student was told that her visa process was taking longer than that of her Canadian classmates 'because terrorists don't come from Canada'. An American-born participant of Indian ancestry recalled being described as 'foreign' by a classmate.

Two participants reported that sharing food from their culture elicited clumsy remarks—performances of enthusiasm that seemed forced or unnatural. As one described such an episode:

If I brought dumplings into my class, people would say, "Oh, that's so cool, that's so different. This is so good, and I've never had anything like that before." And I'm like, it's pork in a wheat wrapper... I appreciate that



they were so enthusiastic about it ... but that level of enthusiasm still makes me feel different.

Two participants, who were of Indian ancestry, reported uncomfortably intrusive questions about their romantic relationships, as if private family reactions to a person's choice of partner are an appropriate topic for group discussion. One commented that, 'People think it's their right to be more personal if there's this othering identity'.

One participant, who wore a hijab when she began training, was taken aback when she was asked by an interviewer whether her religious affiliation would prevent her from offering pregnancy termination to a patient. This question ate at her as she began her clinical rotations, and she worried that patients would also assume that she was unwilling to discuss this option. She struggled with this concern alone, not feeling that she had 'anyone appropriate' to discuss it with. Partway through her training, she chose to stop wearing a hijab, which relieved some of this anxiety and discomfort. However, she was surprised by what she perceived to be a subsequent change in the way she was treated by her classmates and faculty; 'Because I took this piece of cloth off my head, they now were starting to have different behaviors towards me... I wasn't really expecting that'.

### 3.4 | Sense of belonging in the GC profession

#### 3.4.1 | Theme 1: Belonging in the GC profession

This theme includes comments from participants about 'fitting in' to the profession of genetic counseling. Participants said they were aware of the demographics of the genetic counseling profession when they applied to graduate school and anticipated landing 'in a sea of people in which I can be picked out'; they regarded themselves as 'a pioneer or trailblazer'. The reality of training and practicing in an overwhelmingly white profession, however, created a sense of isolation even in these deliberately self-identified pathbreakers. One participant described 'that sense of, I don't belong here, that sense of I don't fit in'. Another explained that, 'The majority of time I'm more explaining where I'm coming from than I feel the person I'm speaking with is just receiving my experience as a reality because it's familiar to them'.

One Black participant pondered the ways in which genetic counselors define themselves, and how that might lead them to respond to her, particularly in regard to her speech patterns:

My speech is part of my identity. I can't change that I'm an African American woman... If others feel like your speech patterns and how you talk and how you carry yourself defines what it is to be an educated individual or a genetic counselor, in that sense, my identity doesn't match in that way.

Supervised clinical rotations are an important component of the training process, as this is where genetic counseling students put their

classroom learning into practice with patients and learn to navigate professional relationships. Participants reported interactions with supervisors and other professionals in their clinic rotations that made them uncomfortable. These included ignorant questions about their country of origin, repeatedly mispronouncing their name, and statements that were described as being 'culturally insensitive'. A Black participant recalled a lot of 'probing questions' about her hair that she did not think would have been asked of someone with a different ethnic background. Participants also reported situations in which supervisors or physicians attempted to draw them into conversations about topics related to race; these were uncomfortable for participants due to the power dynamic inherent in being a student in a clinical setting.

Participants also reported being negatively impacted by clinicians' commentary about patients. A Muslim participant recalled what she described as the 'derogatory nature' in which certain Muslim patients were discussed; 'It seemed the wife was being controlled by her husband', a clinician said after a session, 'and they're from the middle East, so I know that that's kind of how it is there'. Another participant described an instance in a prenatal clinic when a physician speculated that the young Black partner of a patient probably owned a gun; 'That made me super uncomfortable that she had made this assumption ... that he was violent, that he had a gun, that he was all of these things because he was a 14-year-old [Black] guy. At least he came to her appointments'. As students, participants found it extremely challenging to speak up when these situations occurred: 'You're not going to voice your opinions—I mean at least I wouldn't, because that's a doctor. That's your supervisor. And if you become argumentative ... then it looks bad on you as a student'. Another participant stated, 'Not only am I a student, but I'm a woman and a brown woman, which I felt put me at an even less place to make a comment about it'.

When participants experienced what they regarded as microaggressions or racism from patients, they rarely felt that their supervisors responded adequately or appropriately. For example, a Black participant's supervisor commented that he seemed to lack rapport with an older white patient who had described his family as 'rich off of old tobacco farms' in the south; the supervisor had not recognized that this was a reference to slavery and that it had negatively impacted the student. Another participant recalled a situation with an overtly racist patient:

My supervisor ... didn't know what to do. She's never been in that situation before because she's a white woman... I didn't think the debrief was actually really helpful for me as a counselor because she was just going on and on about how she felt bad.

One participant speculated that microaggressions by patients 'were never really commented on by my supervisors because it's an uncomfortable conversation to have'. Another wished that she had had a supervisor who could teach her how to handle these situations, since 'I never really had a conversation for how to deal with the more common microaggression comments'.

Participants highlighted the importance of increasing diversity within the profession. One said, 'If we're going to be serving people of such diverse populations, we really need to be more representative of those populations'. Participants were divided as to whether efforts to increase diversity were adequate. One said, 'I'm really liking the fact that there has been a shift toward talking more openly about race and ethnicity'. Another optimistically stated, 'It seems like it's actually gaining some traction this time around, which I know in the past, it hasn't always'. Others, however, were frustrated by the pace of change: 'All I see is sitting and talking and going back and forth on the same idea, and not actually trying to do something about it'.

Despite the ambivalence expressed about NSGC and the profession, participants overall expressed pride in being a genetic counselor and felt that their presence positively impacted the profession: 'Because of my racial, ethnic, cultural, whatever, identities that I identify with, it actually gives me a lot to offer to the field, to be able to serve as an advocate'. Another participant summed up their feelings about being a genetic counselor:

I think all of us, especially minorities, just really love what we do, and love the genetics of it and love the people. And I hope that that rings true regardless of all the sucky stuff that happens along the way.

### 3.4.2 | Theme 2: Belonging at the NSGC conference

Genetic counseling students typically attend the NSGC annual education conference during their second year of training, and some participants had also attended the conference since graduating. Many described this as being a kind of singular moment when they fully appreciated the lack of diversity in the profession. One described 'a sea of Caucasian women of a certain age wearing cardigans' and another referred to 'this sea of people with the same skin tone... You have to kind of look around the room to pick up people of color'. One participant commented that, 'I feel like I stick out like a sore thumb'. This discomfort was echoed by a participant who described the long walk from the hotel to the exhibition hall: 'I was just walking, and then I swear, everywhere I look, it was just Caucasian female... I do not fit in anywhere with these people'.

Four participants described the NSGC conference using the term 'sorority': 'It's this sorority mindset ... It's hard to exist outside of that and still be a genetic counselor'. One described the 'sorority mentality' characterized by the 'cardigan-look culture', and another criticized the atmosphere as more 'sorority party girl mentality' than 'serious medical professional'. A Muslim participant didn't expect the industry-sponsored parties to be so 'sorority-like'; she said, 'I don't drink, and being in more of a party club sort of environment is not something that I'm necessarily comfortable with... I kind of felt a little left out'.

Some participants noted that attempts to poke fun at the stereotype of the 'typical' genetic counselor often instead served to

reinforce the exclusion of individuals who did not fit that mold. A male participant commented, 'Everyone else kind of leans into, "Oh, you're a genetic counselor. You wear a cardigan."' A female participant recalled a humorous packing list that was circulated before the conference, which suggested bringing 'a pashmina and a chunky necklace'. In her mind, 'It's just so, so, tone deaf... I've had so many people, especially the men in my program, come up to me and say, "I don't feel like I fit in here."' Her thoughts were echoed by another participant who cautioned,

We want to make sure that we create this community moving forward to be more inclusive, to be non-exclusionary and be intentional about that. Because of the fact of a lot of these perceived identities to be a genetic counselor, it becomes a barrier for us to get more people of diverse backgrounds in our field... There are certain values that we can be homogenous in, but not necessarily in personality.

Participants who attended the 2018 conference recalled the minority meetup hosted by the MGPN as a highlight of the conference. One described it as an opportunity to 'take a breath of fresh air and talk to people that get it, without even talking about race or ethnicity... It's an environment with people who can understand where you're coming from'. Another noted that, 'We're not even the same minority. But we all have the same things that come up... And just because we have those similar stories, it feels like we're the same people'. For a Muslim participant, this was the first time that she realized that 'these feelings of isolation ... that I cope with are real, and are shared with other people in the community... I feel like it was a game changer in many ways'.

The discomfort that participants experienced led some to question whether they would attend future conferences. One said that, while she enjoyed 'the content itself and hearing about cases and the science ... the experience was so overwhelmingly jarring, to be quite frank, that I would find it hard to go unless I was hard pressed'. Another said, 'This will be the third year that I go, and it was a hard decision to go this year. I've felt very disillusioned every time I've gone'.

## 3.5 | Available or desired supports

### 3.5.1 | Theme 1: Support within the program

Genetic counseling programs are generally small, and participants described turning to their program leadership when they desired support. Under some circumstances, participants reported that the most valuable support they could receive from program faculty was listening: 'Sometimes, it's just important to listen and acknowledge that there is an issue rather than just going immediately to try and help someone'. When a Black participant was upset about the police shootings that were dominating the headlines, she went to one of her program faculty: 'I just broke down and I just told her everything



I was feeling... She canceled the entire day ... and just listened to me and comforted me in that situation. And I love her to this day for that'. Another said, 'I cried a lot to my program directors. There were a lot of times where I would just be like, okay, this is not okay. This is bothering me. And they were very receptive of it'.

However, some participants would have appreciated actions in addition to listening. A Black participant felt that, while he could talk to his program faculty, 'It didn't go past support ... which is good and you need it, and you appreciate it, and I'm grateful. But nobody championed for me'; he found a 'champion' through the university counseling office. A participant who identified as Hispanic and a first-generation college student approached her faculty within weeks of starting her training with concerns about adjusting to an environment that felt alien and unwelcoming. She too independently identified cultural and counseling resources on campus. However, she felt supported by her program faculty because they checked in with her to confirm that she was accessing resources elsewhere, 'so even if I didn't feel comfortable enough to come to them, that I was getting help in a safe space and a place that I wanted to go to'. In addition, her program faculty found opportunities for her and a classmate of similar background to 'reconnect with why we wanted to be in this profession and work with the patient population we wanted to... Because outside of that, it was just like, privilege, privilege, privilege'.

Participants also approached program faculty with concerns about uncomfortable situations that they encountered in the classroom or in clinic. One Muslim participant recalled meeting with a faculty member when she was upset about an instructor who made disparaging comments about the treatment of women in Muslim cultures: 'I just cried in her office... I explained it to her, and the nice thing was that she listened and she was I think on board with me that that wasn't okay... After that, I felt much better'. The participant whose clinician made the assumption that a Black male teenager likely owned a gun brought up this situation with her program faculty, hoping to receive guidance about how to handle these types of situations:

Her comment was, "Yeah, that's going to happen and you have to pick your battles"... I still feel uncomfortable about that interaction and still don't really know how to deal with microaggressions and racist comments that are made in the workplace when somebody of greater power makes that comment... While I'm kind of the lowest rung in the totem pole, I feel I have to stay quiet. And that's what was reinforced to me with my program director.

One participant noted that minority students may need to educate their program leadership: 'Sometimes, it's not like the program doesn't care about you. They truly don't know what your experience is like. They literally don't know what would be helpful'. This was a particular challenge for participants who identified as Muslim. One participant approached her program leadership because she would be fasting for

the month of Ramadan and was concerned about how this would impact her during examinations: 'I got more of the response, not of, "Oh, well you need any extra time, is there anything I can do to be more accommodating?" I got the response of, "Oh wow, that's so impressive, good for you."' After that, she was less 'transparent about my personal needs'. Another Muslim participant provided a striking example of this lack of understanding, recalling that her program leadership did not reach out to her with an offer of support until almost two months after the devastating 2016 election:

I think I got an e-mail over winter break in December about this Arabic Student Association that is on our main campus, if you need support... I was pleased by that, because it was like, oh look, she's trying to find me something, which is nice. But it was definitely a little late. And also, I'm not Arab.

### 3.5.2 | Theme 2: Impact of faculty minority status

Many participants elected not to discuss negative classroom or clinical interactions with their white faculty because they either did not think they would understand, or because they did not think they would receive the guidance they were seeking. Participants stated that, 'They weren't the right person to talk to about said issue', and, 'She would not have had any of the similar experiences'. This was the case even when they liked the faculty member; one participant said, 'I had a very safe rapport with my program director... But there were instances where I was very aware that I was talking to a white woman'.

In other cases, participants felt that the explaining why a situation was upsetting to a white faculty member was too exhausting. A Hispanic participant explained that, if she were talking to a faculty member who did not share her cultural context, she would need to 'a) explain the situation, b) explain how it made [me] feel, and then, c) talk about it'. In contrast, when she spoke to her culturally congruent classmate, 'it was just, "This happened this afternoon." "Oh my god, I totally understand."— it's more the short story and not the long story'.

Some participants had a minority faculty member, supervisor, or mentor to whom they could direct questions and from whom they could receive guidance. A Latina participant connected with a Spanish-speaking supervisor: 'She helped me a lot just becoming more comfortable in my skin ... because she came from the same experience. In her program, she was the only minority'. A multi-racial participant recalled that her supervisor at her first rotation, who also identified as a minority, commented that she was using 'pretty heavy jargon' with a patient; the supervisor disclosed that she had done the same, and together they explored this as a strategy employed by individuals 'that are first-generation college students or that identify as a non-white race, to have whoever's sitting across the table from them know intuitively that they are intelligent because we can't rely on our appearance to convey that message'.

Finally, one participant articulated that the decision of whether to discuss a situation with program leadership might be influenced by the desired outcome:

When we experience micro-aggressions, I think sometimes we just want to be heard or we just want to vent, versus going to someone in power, like our directors or supervisors. They can help more if we want a consequence... Sometimes, you just kind of want to be heard in a setting where you're not also explaining it and there's no negative consequence.

### 3.5.3 | Theme 3: Non-program resources

Some participants described supports and resources that they accessed outside the genetic counseling program. One Hispanic participant sought out a therapist who was also Hispanic, because it was easier to talk to her about the microaggressions she experienced. A Black participant connected with a Black mentor through the student health clinic; this woman 'supported me, believed in me ... It actually took a lot of champions outside of my program for me to even get through my program'. A South Asian participant sought out a student group on campus when she began feeling isolated: 'I didn't want that to impact me in terms of my clinic performance, my academics. I just wanted to have a small community around me, so I reached out for those resources myself'.

One participant, who was not only a racial/ethnic minority, but also was from a lower SES and a first-generation college student, recognized that a strong support network would be vital to her success in graduate school. She took this into consideration when selecting a training program:

I thought about [diversity] a lot. First, I thought about the money, honestly, but then my next thing was, I need a support system because I was the first in my family to go to college. Upper, graduate-level education wasn't even on my radar growing up, so I knew that if I was going to transition into this now higher-higher education, I was going to need a good support system.

### 3.5.4 | Theme 4: Recommendations for programs

Participants made a number of recommendations about how training programs could better support minority students. One recommended that programs have a discussion with students in a private setting and ask, 'Are there any things in particular that you're worried about?' but cautioned against putting people in boxes: 'Oh yes, you checked Asian or Hispanic on your application. Now I'm just going to consciously or subconsciously apply all these stereotypes to you'. Another recommended framing offers of support as, 'If anyone has

any questions about reaching out to genetic counselors of color, we have that resource'. A third participant recommended that programs provide students with contact information for campus resources: 'We have an equal opportunity office here on campus. If something is not right, whether in clinical rotations or in class or with your fellow classmates, you can go to them and report it'.

One participant asserted that genetic counseling programs have both the ability and the responsibility to identify resources for students: 'As genetic counselors, we are trained to identify resources for patients. Within a program, there should be someone who's able to identify resources in a community that can apply to different individuals... I just think there's no excuse'.

## 4 | DISCUSSION

This qualitative focus group study examined the experiences of minority genetic counseling students during their graduate school training. Given that genetic counselors are overwhelmingly white (National Society of Genetic Counselors, 2020), most minority students will train with predominantly white faculty and peers. This study identified a myriad of subtle and overt interactions between participants and their classmates, faculty, clinicians, or other members of the profession that negatively impacted their sense of belonging in the profession, causing them to feel 'othered'. Participants also described a variety of supports that they either sought or desired in response to these stressors.

### 4.1 | Othering of minority students

Participants reported varied experiences within their training programs. While some described supportive peers and faculty, others recalled a sense of 'culture shock' upon entering such a racially/ethnically homogeneous environment. The sense that they did not belong was exacerbated by a range of microaggressions from classmates or faculty. Two participants reported being confused for another minority student in their cohort; Hassouneh and Thomas (2017) describe this as an invalidation, being viewed as a member one's racial or ethnic group first and as an individual second. Others reported more direct comments, such as a Muslim student being told by her classmates that they were 'intimidated' to meet her, or an American-born student being described as 'foreign'. These statements might not have been intentionally demeaning or hurtful, but they were nevertheless experienced as microaggressions that negatively impacted the students who were on the receiving end.

Even seemingly well-intentioned remarks by classmates reinforced participants' sense that they were different. Overly enthusiastic comments about contributions to a potluck reinforced the otherness of students from the non-dominant culture, and intrusive questions about romantic relationships infringed on the expectation of privacy granted to white classmates. These experiences are not unique to genetic counseling students, but have been documented

across multiple disciplines. They lead to a decreased sense of belonging and feelings of isolation as they draw attention to the salience of racial and ethnic identity as an important difference between minority students and their peers (Brunnsma et al., 2017; Clark et al., 2012; Gay, 2004).

Three identities were particularly isolating for participants: being Muslim, Black/African American, or of lower SES. Muslim participants perceived that classmates and faculty were uncomfortable or unfamiliar with their faith and oblivious to their vulnerability in a troubling political climate. A Muslim participant recounted her struggles with choosing whether or not to wear a hijab and was also disappointed by what she perceived to be a change in how her peers and faculty treated her after she stopped wearing it. Black participants were concerned about how they were perceived by their white classmates and faculty; Hassouneh and Thomas (2017) reported that their Black participants similarly confronted stereotypes of being intellectually inferior. Being from a lower SES created an additional barrier between participants and their peers due to differences in disposable income; however, this barrier was not solely one-directional as these participants also described a reluctance to adapt to the 'privileged environment' of the training program. The challenges of being a minority were also compounded by being the first in their family to attend college; these participants noted that their classmates from more advantaged backgrounds were able to access supports through their family and community up to and through the job search process that were unavailable to them.

Challenging interactions arose not only within the training program, but also in clinical rotations. These may have long-term consequences for trainees, because uncomfortable comments and questions from established members of the profession can lead to minority students feeling like they do not belong (Paul et al., 2014). Participants in this study reported inappropriate comments or questions from supervisors and other clinicians, to which they hesitated to respond because of the inherent power dynamic of the supervisory relationship. The Reciprocal Engagement Model of Supervision (REM-S), which outlines the relationship between genetic counseling supervisors and trainees, tasks supervisors with providing culturally competent supervision that respects the student's capabilities, autonomy, and emotions, so that students develop professionally to provide effective genetic counseling services (Wherley et al., 2015). The experiences of participants in this study reinforce the findings of Suguitan et al. (2019), who reported that genetic counselors had difficulty articulating strategies they used to provide culturally competent supervision to their students.

## 4.2 | Support for minority students

The results from this study and our previous publication (Carmichael et al., 2020) demonstrate that minority genetic counseling students experience additional challenges during their training in comparison to their white peers. In some cases, participants chose to discuss these experiences with program leadership; in other cases, they did

not. The decision to disclose depended in part on the response they were seeking, which can be broadly categorized as *listening*, *action*, *understanding*, or *guidance*.

When participants discussed negative incidents with their program leadership, they were typically seeking either *listening* or *action*. Multiple participants reported that their faculty were good listeners, a skill that genetic counselors use regularly in the clinical setting. Some described crying as faculty members listened patiently in their offices; others described the generosity of faculty willing to put aside other priorities to make time for listening.

At times, however, participants said they reached out to faculty specifically because they wanted someone in a leadership position to take *action*. These episodes included situations in which participants would have appreciated consideration for religious observances or when they heard racist or offensive statements from instructors or clinicians. While participants described faculty as being 'receptive' or 'on board', they were disappointed when action was not ultimately taken. Some participants reacted by advocating for themselves, while others withdrew but hesitated to ask for support after subsequent problems. Two participants characterized their program directors as being 'open' to hearing about problematic situations and 'supportive' of them implementing solutions but noted, as well, that it was the student, in the end, who shouldered the burden of actually taking specific steps to rectify the problem.

When participants were seeking neither listening nor action, but rather *understanding* or *guidance*, they did not perceive that white faculty or supervisors would be helpful. Following encounters with racism in the clinical setting, they found white supervisors either did not recognize the racism or did not respond in the desired way. Even when participants described their white faculty or supervisors as well-intentioned, they still perceived that they 'literally don't know what would be helpful'.

For *understanding*, participants turned to other individuals who identified as minorities, such as friends within the training program, counselors at campus health services, or by joining cultural organizations at the university or in the community. A Hispanic participant described the cultural center on her campus as a place where 'you can go in and just take a breath of air'; the language, art, food, and music were all familiar to her. Prior studies have identified this 'cultural nourishment' (González, 2002) as a means of both improving student persistence in school and combatting minority students' feelings of isolation on predominantly white campuses (González, 2002; Museus, 2008). Participants perceived that individuals who shared their identity understood not only the challenges they encountered, but their emotional impact; explaining a negative interaction to them was less exhausting than explaining it to someone who was white, because it was 'more the short story and not the long story'.

Several participants were able to develop a relationship with an available minority faculty member or clinical supervisor to whom they could turn for *guidance*. Participants reported that a shared identity enabled these individuals not only to understand the challenges that students encountered, but also to give advice based on their own often parallel experiences. Studies in other academic fields have also

found that minority students prefer a mentor who shares their racial or ethnic identity, recognizing that professional socialization differs based on identity (Brunsma et al., 2017; Carapinha et al., 2016). Along these lines, multiple participants recalled their positive experiences at the minority meetup organized by the MGPN at the 2018 NSGC education conference; this organization is now also facilitating mentoring relationships between minority students or recent graduates and more established members of the profession.

In summary, participants who identify as racial or ethnic minorities are likely to experience challenges beyond those of their white peers and may desire additional support. Some of this support can be provided by white program faculty or supervisors, but at times students would prefer to speak with someone who shares their minority identity. Participants stressed that, if program leadership is seeking to recruit a more diverse student cohort, they have a responsibility to provide appropriate supports to these students.

### 4.3 | Study limitations

There are several limitations to this study. The first is a limitation that is characteristic of qualitative studies in general: These results reflect the experiences of these participants, and cannot be generalized to represent the experiences of all genetic counseling students who identify as racial or ethnic minorities. In addition, participants were training between the years of 2015-2019; given the evolving conversations about race in the United States, they may or may not reflect the experiences of more recent graduates. Second, while we selected focus groups as our means of data collection because of their perceived advantages when discussing sensitive topics like race, they also have drawbacks; the nature and direction of the conversation is influenced by the composition of the group, and participants may selectively omit information or provide socially desirable answers. Finally, we did not collect data from the training programs about the support services that they make available to students, but relied solely on the reports from participants.

### 4.4 | Training implications

While the need to diversify the genetic counseling profession has been discussed for decades, much less attention has been paid to the other two aspects of the 'DEI' trilogy—that is, equity and inclusion. This study demonstrates that students who identify as racial or ethnic minorities face challenges during their training which are not shared by their white classmates and which can negatively impact their sense of belonging in the profession. The responsibility to improve this situation rests with both the individual training programs and with the genetic counseling profession as a whole.

Because minority students encounter microaggressions from faculty, supervisors, and fellow students, all individuals associated

with genetic counseling programs should undergo anti-racism and anti-bias training. As conversations about racism have intensified in 2020, a plethora of online and print resources have been developed to assist with this type of learning. Genetic training programs should integrate explicit instruction about structural racism into their curricula to ensure that their students understand not only the framework within which the profession is situated, but also the ways in which this negatively impacts their colleagues and patients. The responsibility to educate peers and supervisors should not fall on minority students, but on program leadership (Carmichael et al., 2020). Furthermore, training programs should incorporate exercises, such as personal narratives and structured reflections, that develop students' understanding of their own positionality, intersecting identities, and implicit biases.

Participants in this study highlighted how isolating it felt to be the only racial or ethnic minority in their cohort and noted the value of having one or more minority classmates. Training programs should recognize that increasing diversity by creating a single 'diversity scholarship' places an inequitable burden on a minority student. We recommend that training programs mitigate this negative impact by structuring scholarships so that they support multiple minority students. Programs should also take into consideration cohort diversity in their admissions process. While we recognize that training programs lack some level of control in shaping their cohorts due to the match process, in circumstances where programs find they only have one or two minority students, faculty should make proactive efforts to connect students through the MGPN and/or academic networks to other minority students.

Participants in this study recommended that program leadership not single out students with perceived minority identities to offer support, but rather meet with all students at the beginning of their training and on an ongoing basis to ascertain their needs. They should be prepared to suggest a range of options depending on the type of support that the student desires. When students approach them with concerns, they should be aware that the student may be seeking not only *listening*, but also *action*. If the student prefers to speak to a mentor who shares their minority identity rather than a white faculty member or supervisor, the training program should have individuals with a wide range of majority and minority identities available to offer understanding and guidance. The MGPN has developed a mentorship program to provide support to students who identify as racial or ethnic minorities. In addition to racial and ethnic identity, participants in this study indicated that being a first-generation college student or from lower SES created additional needs for support.

Supervisors should be prepared to provide culturally competent supervision to trainees. This should begin with conversations about how the supervisor's and the supervisee's cultural identities influence their relationship with each other and their interactions with patients (Suguitan et al., 2019). It should also include a supervisor-initiated discussion about the type of support that a trainee might find beneficial when encountering racism or microaggressions during a counseling session. Because such encounters can occur

unexpectedly, the discussion should occur at the beginning of a rotation, not after a negative interaction.

The genetic counseling profession as a whole should consider the ways in which the stereotype of the typical genetic counselors as being a 'high SES white woman' are deliberately or inadvertently reinforced. Per the NSGC Code of Ethics (NSGC Code of Ethics, 2017), 'professional relationships with other genetic counselors ... are based on mutual respect, caring, collaboration, fidelity, veracity and support'. To support their minority peers, majority genetic counselors should avail themselves of the many books and websites available to educate themselves about microaggressions, issues of structural racism, and white privilege.

#### 4.5 | Research recommendations

This study focused on the perspectives of students who identify as racial or ethnic minorities. Future research could focus on other non-majority groups, such as those who identify as LGBTQ+. Our findings also suggest that the experiences of individuals who are from lower SES or first-generation college students bear further investigating. In addition, other perspectives, such as that of recent graduates, supervisors, faculty, or program leadership, would place these findings in a broader context. Finally, a comprehensive survey of current efforts of genetic counseling programs to provide anti-bias training or support for minority students would be informative in terms of identifying current practices, which could then be evaluated for efficacy.

### 5 | CONCLUSIONS

This study investigated the training experiences of genetic counseling students who identify as racial or ethnic minorities and found that they experienced negative interactions, racism, and microaggressions within their training programs, supervised clinical rotations, and at professional events. Similar to students in other academic disciplines, these experiences led to feelings of isolation and of not belonging in the profession. Participants sought support from a variety of sources; they reached out to white program leadership, faculty, and supervisors when they desired *listening* or *action*. However, they did not perceive that these individuals could provide *understanding* or *guidance*, seeking this instead from other individuals who identify as racial or ethnic minorities. This study demonstrates that training programs need to ensure that appropriate supports are available to minority students, identifying non-program resources if necessary.

#### AUTHOR CONTRIBUTIONS

Nikkola Carmichael contributed to the conception and design of this study. She recruited the participants, facilitated the focus groups, and analyzed and interpreted the data. She was also the primary author of this work. Shira Birnbaum contributed to the conception and design of this study. She assisted with the analysis and

interpretation, as well as the writing and revision of this work. Krista Redlinger-Grosse contributed to the conception and design of this study. She assisted with analysis and interpretation, as well as the writing and revision of this work.

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#### COMPLIANCE WITH ETHICAL STANDARDS

#### CONFLICT OF INTEREST

Nikkola Carmichael, Shira Birnbaum, and Krista Redlinger-Grosse declare that they have no conflict of interest.

#### HUMAN STUDIES AND INFORMED CONSENT

Approval to conduct this human subjects research was obtained from the Simmons University IRB. All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000. Informed consent was obtained from all participants for being included in the study.

#### ANIMAL STUDIES

No non-human animal studies were carried out by the authors for this article.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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