

ORIGINAL ARTICLE

Examining clinical training through a bicultural lens: Experiences of genetic counseling students who identify with a racial or ethnic minority group

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Abstract

Biculturals are individuals who have had significant exposure to more than one culture and who possess more than one cultural frame of reference. In the United States, this term has been used to describe both immigrants and members of racial or ethnic minority groups who live within the majority white culture. Biculturals develop a distinct repertoire of social and cognitive skills and have been shown to engage in a process of cultural frame switching in response to salient cultural cues. Through a conceptual lens offered by current research on biculturalism, this article examines transcripts of focus groups we collected for a study on the clinical training experiences of genetic counseling students who identify with a racial or ethnic minority group. We conducted a constructivist grounded theory study, collecting data via 13 videoconference focus groups with 32 recent graduates of genetic counseling training programs who identify with a racial or ethnic minority group. We focus here on two of the thematic categories identified in that study related to participants' experiences interacting with patients during supervised clinical rotations. We find three ways in which being bicultural influenced these genetic counselors' patient interactions. First, participants described interactions with both culturally concordant and culturally discordant patients that highlighted the salience of their racial, ethnic, or cultural identity in these encounters. Second, they reported sensitivity to social nuances between and within cultures, reflecting the findings of prior research about heightened cultural awareness in biculturals. Third, they described switching cultural frames in response to their patients' identities which, at times, created conflict between their professional and culturally concordant frameworks. The results of this study suggest that the influence of a student's racial, ethnic, or cultural identity on interactions with patients should be discussed within the supervisory relationship, and that being bicultural confers advantages in learning to provide culturally responsive care.

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KEYWORDS

bicultural, cultural competence, Genetic counseling, minority, supervision, underrepresented populations

1 | INTRODUCTION

Research in the health professions has described numerous benefits of employing providers who identify with a racial or ethnic minority group to serve multicultural patient populations. Patients prefer providers of the same race (Bureau of Health Professions, 2006; Saha et al., 2000), and racial concordance (shared racial identity) has been associated with improved communication between provider and patient (Cooper et al., 2003; Saha & Beach, 2020; Shen et al., 2018), as well as improved patient engagement and health outcomes (Alsan et al., 2019; Greenwood et al., 2020; Han & Osterling, 2012; Lin et al., 2018; Saha & Beach, 2020; Thomas et al., 2010). However, practitioners who identify with a racial or ethnic minority group experience challenges due to their identity. Racist behavior from patients, such as refusal of care or belittling remarks, takes an emotional toll (Chandrashekar & Jain, 2020; Wheeler et al., 2019). When working with patients who share their ethnic identity, Latina nurses have described the difficulties of adhering to professional norms expected by their colleagues while at the same time providing the 'culturally sensitive' care desired by patients (Lo & Nguyen, 2018).

In this article, we report the experiences with patient interactions during supervised clinical rotations of genetic counseling students who identify with a racial or ethnic minority group. Following naming conventions utilized by the Minority Genetic Professionals Network (MGPN), we will henceforth use the term 'minority' to refer to individuals who self-identify with one or more of the racial or ethnic categories other than 'white or Caucasian' among the list of identification options utilized on the National Society of Genetic Counselors Professional Status Survey (National Society of Genetic Counselors, 2019). These results were obtained as part of a larger study investigating their experiences during their genetic counseling training (Carmichael et al., 2020, 2021) and are here interrogated through a novel conceptual lens.

Biculturals are individuals who have internalized more than one culture as a result of significant and lengthy exposure (Benet-Martínez et al., 2002; West et al., 2017). This includes those who have physically moved from one location to another (such as immigrants, refugees, expatriates, or international students) and those who are minorities within their home country (indigenous people, racial and ethnic minorities, biracial individuals, and offspring of immigrants) (Nguyen & Benet-Martínez, 2007; Zane & Mak, 2003). Studies of biculturals have suggested that biculturalism may be associated with a distinct repertoire of social and cognitive skills, such as enhanced awareness of cultural context (West et al., 2017) and more complex conceptualizations of cultures (Benet-Martínez et al., 2006).

When biculturals encounter cues specific to one of their cultures, including cues of language, dialect, or visual imagery, they

What is known about this topic

Little is known about the role of biculturalism in the clinical training experiences of genetic counseling students who identify with a racial or ethnic minority group. Bicultural providers in other healthcare professions have reported challenges in navigating between the frameworks expected by their professional colleagues and culturally concordant patients.

What this paper adds to the topic

The racial, ethnic, or cultural identities of genetic counseling students impact their interactions with both culturally concordant and culturally discordant patients. Being bicultural creates a sensitivity to recognizing nuances within and between cultures, and cultural frame switching is a strategy that may confer an advantage in learning to provide culturally responsive care. The experiences of bicultural genetic counselors have the potential to inform strategies by which the genetic counseling profession can provide more equitable care to patients from diverse backgrounds.

may respond by engaging in a process which has been called *cultural frame switching*, shifting their cultural orientation in response to social cues (Benet-Martínez et al., 2002; Cheng et al., 2006; Hong et al., 2000; Wong & Hong, 2005). Language use is a particularly potent cue, triggering changes in values and attitudes (Luna et al., 2008), self-perception (Ross et al., 2002), emotions (Perunovic et al., 2007), bodily awareness (Freedman et al., 2020), behavior (Briley et al., 2005), and aspects of personality such as extraversion, agreeableness, and conscientiousness (Ramírez-Esparza et al., 2006).

Bicultural is a term that may or may not be used explicitly in self-identification and may reasonably apply to a range of individuals, including but not limited to those who are racial and ethnic minorities. In this article, we consider patient interactions through the theoretical lens of biculturalism. While participants did not self-identify as biculturals or use that terminology in their discussions, we aim to harness the concept of biculturalism to better understand the benefits and challenges in the clinical training setting that genetic counseling students might derive from the complexity inherent in identifying with a minority group, and the implications for supervision practices and training program design.

2 | METHODS

A detailed description of the methods utilized in this study has been previously published (Carmichael et al., 2020) and will be briefly summarized. This study is designed using the principles of constructivist grounded theory (Charmaz, 2014), an approach that recognizes the inherently subjective nature of grounded theory research and views the data as 'constructed' by the researcher and the participants, influenced by participants' experiences, selected theoretical lenses, and the researcher's interpretation (Creswell, 2007). Simmons University granted IRB approval to the first author in 2019 as part of her dissertation research.

2.1 | Participants

Participants were eligible for this study if they graduated from a genetic counseling program in the United States between 2017 and 2019 and self-identify with a racial or ethnic minority group. Participants were excluded if they had trained or completed a clinical internship with the first author. Given that approximately 400 students graduated each year at the time of this study (Abacan et al., 2019) and (historically), 8%–12% of genetic counselors identified with a racial or ethnic minority group (National Society of Genetic Counselors, 2019), and the estimated participant pool was between 96 and 144 individuals.

2.2 | Procedures

Participant recruitment involved targeted and snowball sampling via email blasts sent to the NSGC and the MGP. The recruitment email contained a link to a Qualtrics.com questionnaire; participants who clicked on the link were taken first to a consent form and then to a demographic questionnaire. Participants were asked to describe their racial or ethnic identity in their own words, and also to select the categories from the NSGC 2019 Professional Status Survey (National Society of Genetic Counselors, 2019) with which they had 'the most in common'. Participants who completed the questionnaire and were eligible were contacted to participate in a focus group.

We selected focus groups rather than individual interviews as the means of data collection because they have the potential to generate more novel themes than individual interviews as ideas arise through discussion among the participants (Barbour & Kitzinger, 1999; Morgan, 2018) and to facilitate a shift in the balance of power from the researcher to the participants (Farquhar & Das, 1999; Kook et al., 2019). Focus groups were conducted via Zoom.us videoconferencing to enable recruitment of participants throughout the United States (Matthews et al., 2018), and capped at four participants per group to minimize the impact of technological challenges and to maximize opportunities for each participant to contribute (Abrams et al., 2015; Stewart & Shamdasani, 2017).

Between June and October of 2019, the first author facilitated 13 focus groups. Each group lasted between 77 and 115 min (median: 89 min) and included two or three participants. Sessions were audio- and video-recorded with consent from participants and professionally transcribed.

2.3 | Instrumentation

We developed a semi-structured focus group guide (Carmichael et al., 2020) based on a review of literature pertaining to the experiences of genetic counseling students, mental health counseling students, and graduate students in general. We piloted the guide with nine genetic counselors who identify with a racial or ethnic minority group but were ineligible to participate in the study due to either their graduation year or training location. We collected feedback after each iteration; these sessions included both telephone and videoconference formats with between one and three participants.

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; Massey, 2011). Approximately 25% of the data were independently coded by members of the first author's dissertation committee, who then together examined coding discrepancies and discussed emergent themes. Themes were codified into categories for analysis and interpretation (Saldaña, 2021). Quotes selected for the present article were taken directly from participants and modified only by removing filler words (such as 'like' or 'kind of').

3 | RESULTS

3.1 | Participant characteristics

Forty individuals accessed the Qualtrics survey, and 32 of these met study criteria (four did not complete the consent form, two were current students, one had trained with the first author, and one did not identify with a racial or ethnic minority group). Participants trained at 14 different programs and included 28 females and four males. When asked to select the NSGC racial or ethnic category or categories with which they had 'the most in common', the responses included 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 ($n = 2$) (those who selected 'White or Caucasian' were all multiracial). When asked to describe their race or ethnicity in their own words, 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. Eighteen participants reported at least conversational fluency in a language other than English. Participants graduated in 2017 ($n = 4$), 2018 ($n = 14$), or 2019 ($n = 14$) and were under the age of 25 ($n = 12$), between the ages of 26 and 30 ($n = 19$), or over the age of 30 ($n = 1$).

3.2 | Overview of categories and themes

Reported here are themes that describe participants' interactions with patients during their clinical rotations considered through the theoretical lens of biculturalism. These fell within two of the larger project's thematic categories: *Clinical challenges with culturally discordant patients* and *Counseling minority patients*. *Clinical challenges with culturally discordant patients* captures participants' statements about challenges and negative interactions with patients related to their race or ethnicity and includes the themes of *Proving oneself* and *Negative patient interactions*. *Counseling minority patients* encompasses the diverse ways in which participants reported that their racial or ethnic identity impacted their interactions with patients who also identified with a minority group, whether these were shared identities or not. They described positive and negative influences in interactions with patients from racial, ethnic, or cultural minority groups, as well as those with limited English proficiency. Themes include *Sensitivity to cultural differences*, *Shared non-English language*, *Advantages and challenges in counseling culturally concordant patients*, and *Adapting counseling style for culturally concordant patients*.

3.3 | Clinical challenges with culturally discordant patients

3.3.1 | Theme 1: Proving oneself

'Proving oneself' refers to participants' perception that they needed to work harder to prove their competence to patients because of their racial or ethnic identity. This theme was predominantly, but not exclusively, reported by participants who identified as Black/African American. One participant reported, 'I feel like I have to warm [patients] up a little bit more for them to give me information, just because there's that element of, "I don't really trust you, Black lady."' Her focus-group partner concurred, describing the challenges he faced, in particular with older white men: 'Coming in young... Trying to prove myself, prove that I'm still a professional, prove that I'm smart, but also trying to find some sort of connection with the patient when we're generations apart.'

3.3.2 | Theme 2: Negative patient interactions

Participants described different types of interactions with patients that negatively impacted them due to their racial or ethnic identity. A small number of participants reported encountering patients that they described as overtly racist. One participant described a patient who was 'offensive on so many levels':

It wasn't even particularly me being Latino. It was just in regard to any minority. He was a part of a particular political party and during the session he was just voicing his opinion about how certain people shouldn't be in America.

Other participants described comments by patients that they did not perceive to be negatively intentioned but rather as awkward or distracting from the purpose of the genetic counseling session. One Black/African American participant recalled a patient apologizing for his ancestors' role in the slave trade: 'It was so uncomfortable. He's like, "Look at how far you've come. You're amazing... I'm so sorry for what my ancestors have done."' Questions about English language proficiency or country of origin were predominantly directed at participants who identified as having ancestry from Asia. One participant recalled that she would 'do a really great explanation of chromosomes' and pause to ask the patient if they had questions:

And the patient would go, "Yeah, what country are you from?" Or, "Oh, what language do you speak?" Or, "Oh, what does your name mean? That's a really weird last name." I'm like, I'm talking about genetics here. Can you focus on that?

Other Asian participants described similar encounters, in which the question, 'Where are you from?' was often followed by, 'No, where are you *really* from?' if they responded with a location in the United States. They were also asked why their English was so good, or about the meaning of their name: 'Do you ask Jessica what Jessica's name means?' Participants were cognizant that their white classmates did not have to navigate these types of interactions which diverted conversation from the purpose of the genetic counseling appointment.

3.4 | Counseling minority patients

The diversity of the patient population with whom participants interacted during their training was dependent on the demographics of the area where the program was located and on the selection of clinical sites. Most participants reported that they primarily counseled white patients; the following results describe their mostly limited opportunities to work with patients from minority racial, ethnic, or cultural groups.

3.4.1 | Theme 1: Sensitivity to cultural differences

Participants perceived that being part of a minority group themselves meant they had especially high levels of sensitivity to the challenges their minority patients might face. For example, one speculated that, 'Knowing what it feels like to grow up either stereotyped or around people who just don't really agree with me and my family based on the way we look – it's given me a lot more empathy with my patients'. Another stated, 'Being part of any minority just helps you get more of a sense of patients who are a lot of times in different minority groups too, whether it be a disability group or a racial minority or something like that'.

Several participants perceived that they were more sensitive to cultural nuances than their dominant-culture classmates. One participant felt that being biracial gave her a 'window' into different cultures, which helped her relate to patients from diverse backgrounds: 'Even though I'm American-raised and haven't really been brought up in that culture, in terms of having a different perspective, it's been a really positive thing'. Another biracial participant echoed this sentiment, saying that she had 'more of an eye to being attuned to cultural differences' than her classmates. A participant with Indian ancestry perceived that she was 'a little bit more aware of other people's experiences and their cultural backgrounds'. Another explained, 'It's not so much a language that helps me, and it's not so much my appearance that helps me, but it's the differences in cultural experience that really help me in my clinic practice'.

Participants also described specific personal experiences that informed their information giving. As a child, one participant had helped her non-English speaking parents navigate the healthcare system, and when utilizing an interpreter for a genetic counseling session, she reported paying special consideration to 'what type of information would I want them to know ... I probably catered my information-giving towards that'. Others cited their interactions with less-educated family members (such as a grandmother who 'was illiterate and only had a first-grade education') as guidance in choosing how to 'break down concepts into a way where people ... might be able to understand a little bit better'.

3.4.2 | Theme 2: Shared non-English language

Eighteen participants in this study reported at least conversational fluency in a language other than English, including Cantonese, Hindi, Korean, Malayalam, Mandarin, Nepali, Punjabi, Spanish, Tagalog, and Urdu. However, only a small proportion had opportunities to provide genetic counseling in this language. Participants reported that rules about providing care in a language other than English differed among clinical sites. For example, one Spanish-speaking participant recalled being asked to serve as a translator during some observations but not being allowed to speak Spanish in her later rotations: 'That would have helped so much more with the rapport, and I actually did it sometimes, but I got scolded'. Other participants reported that permission to counsel in another language was contingent on

whether the supervisor spoke that language; one participant described an awkward situation in which 'the patient knew I spoke Spanish, and she was like, "Why aren't you talking to me in Spanish?" But she understood it was just a more logistic policy thing. I wasn't trying to ignore her.' Another participant similarly perceived that her patients would have preferred that she speak Spanish rather than utilize an interpreter: 'They want to have someone who speaks their native language in front of them. They don't want to use a telephone [interpreter]'.

Participants described a sense of increased rapport when they conversed with a patient in their shared language. A Spanish-speaking participant recalled observing a session in which the patient was extremely reticent when interacting with the interpreter and genetic counselor. She was asked to try to connect with the patient in Spanish, and 'once the genetic counselor and the translator left the room, she had a million questions for me... She gave me a hug'. She surmised that, 'There was fear and hesitation to open up in front of the provider who did not speak her language.' An Urdu-speaking participant recalled her disappointment when she was not allowed to counsel a patient in that language, despite establishing rapport with them while awaiting the arrival of the interpreter: 'Now, the patient felt like there's a supervisor sitting there just kind of listening and watching. And I was having this indirect conversation with them, and now there was the interpreter who was translating'. She described the resulting interactions as 'very externalized ... and very removed'. Other participants similarly described the use of a shared language as 'empowering' and 'immediate rapport-building'. One participant recalled a patient asking to speak to her in their shared language while the supervisor was completing paperwork, and she recalled with pride the words of her supervisor:

My supervisor really appreciated how I used that bonding moment with her to do some genetic counseling-related things, and she told me that I should use that as my strength moving on, which was a really good thing to hear towards the beginning of my rotation. Made me feel really confident.

Despite the advantage of increased rapport, many participants who contracted in a shared language reported reverting to English or using an interpreter to convey medical or genetic information, citing their lack of vocabulary or training for that content. One participant reported that she was able to acquire and utilize genetic vocabulary in Spanish during a summer rotation in South America.

Participants described a number of ways in which utilizing an interpreter negatively impacted genetic counseling, in comparison with conversing directly in a shared language. One participant compared genetic counseling to other healthcare fields, noting that, 'Our field is about psychosocial and it's about talking in more detail, and that does tend to get lost sometimes with an interpreter'. She elaborated on potential causes, such as technical issues with a phone interpreter, interpreters eliminating some words in an attempt to speed up the appointment, or the patient being reluctant

to raise religious or cultural issues that they didn't think that the genetic counselor would understand. Other participants discussed strategies they had been taught to speed up interpreter-facilitated appointments, such as skipping details to focus on the 'three most important points'. One participant objected to this solution, stating that it was inappropriate not to give patients 'the same depth of a session, just because it's inconvenient to interpret.' Another individual in that focus group concurred, stating that this strategy creates grounds for medical mistrust:

If you're taking blood from these people, and you want them to be a part of research... They don't know what you're talking about, because you didn't explain. So, they're just like, "Yeah, this person just took blood from me. I don't even really know why they did that."

Participants who spoke a second language were occasionally in a position to evaluate the quality of the interpreter services. Several reported errors in translation that impacted the information-giving or psychosocial components of the session. A Hindi-speaking participant provided a particularly striking example of the potential for medical error when utilizing a medical interpreter. She recalled a session during her rotation in a metabolic clinic, when her supervisor was counseling an Urdu-speaking family with a very sick child:

I realized that the translator was really messing things up. Knowing English and knowing Hindi, whatever he was telling the patient was so incorrect about the dosage of the medicine, what they should be doing, how they should be taking care of her. It was completely wrong, and the geneticist and my supervisor did not have any idea.

She felt compelled to interrupt the session to correct the interpreter and ended up taking over the session. This case had a tremendous impact on her:

That was a coming-of-age moment for me as a genetic counselor because after being in clinic and sessions with people who don't look like me, who aren't like me, who I don't identify at all with... I understood them, they understood me. It was just a different session. It was my session, and I felt like it was my session. And it really helped me grow and learn and become the genetic counselor I am.

3.4.3 | Theme 3: Advantages and challenges in counseling culturally concordant patients

Participants who had the opportunity to interact with patients who shared their culture or language described predominantly positive experiences, but also some challenges. Participants enjoyed

encountering individuals from their culture, a feeling that they sensed was shared by the patient and which facilitated building rapport. For example, a participant from the Caribbean described her community as 'really tight knit... They always ask you, "Oh, where is your family from?" ... And then, you feel a sense of closeness with them.' Another participant from the Caribbean echoed this sentiment, stating, 'It just automatically builds that rapport. They automatically feel like they have something to talk to you about.'

The four Black/African American participants expressed a variety of reasons for why they enjoyed counseling Black patients. One said, 'When I see Black families, I'm so happy... I know they're probably going to be more comfortable with me than they would with someone else.' Another suspected that patients 'felt more comfortable to ask more questions' in comparison with a similar session conducted by her supervisor who was not a person of color. A third noted that, while patients do not usually understand why they've been referred to genetics, 'I do think that when a lot of them sat down and saw me, we just were able to easily start talking with each other in a very comfortable way'. The fourth Black/African American participant stated,

I always get excited when I see a Black family because ... even if we don't connect immediately, because obviously, it's not a panacea for connecting with everybody, but I do get excited because they can finally see someone that looks like them ... and we can just chat about chromosomes and genes and call it a day.

Five participants who identified as Hispanic or Latina described a similar rapport with patients from their culture, even if they did not speak Spanish. One felt that it was helpful to her patients that she looked 'similar' to them; 'I sometimes felt that that allowed them to maybe trust me a little bit more ... and they would be more open in terms of psychosocial things'. Another participant sensed that having 'someone who is similar to themselves, who is helping them in this medical issue' gave them 'a sense of ease ... that makes them maybe open up a little bit more'.

An Asian participant noted that some Asian patients seemed more comfortable talking to her than to her white supervisor:

There were a number of patients who just were a lot more talkative and their body language was leaning closer when I was speaking with them. And they would give more information about their personal life, not just their medical situation. And we would delve deeper into psychosocial components of their experience.

Participants reported that the connection they felt with their culturally concordant patients led them to provide care beyond what is typical for a genetic counselor. One participant recalled an Asian patient who asked her extensive questions about navigating the health-care system, and how rewarding it felt that the patient trusted her

enough to ask 'whatever questions came to her mind'. A Hispanic participant also recognized that she invested extra time caring for her Spanish-speaking patients because she knows the barriers that can arise due to lack of education or lack of English proficiency: 'I'm very protective of my Spanish-speaking patients, and my follow-up and workload with the case is a little bit more extensive'. Another Hispanic participant attributed this desire to help to growing up in a household where she helped her own parents navigate the healthcare system: 'It's just kind of a default for us, a very natural position and role to fill'. Other participants described themselves as more motivated than their colleagues to pursue logistically challenging follow-up, such as overseas cascade testing.

However, counseling culturally concordant patients also created challenges. Some participants whose parents had immigrated to North America worried that they would disappoint patients who either expected them to be fluent in another language based on their name, or 'if they expected me to incorporate their culture more than I could or more than I was comfortable with'. A participant with one Indian parent stated,

They get kind of excited to have an Indian genetic counselor or someone who looks outwardly Indian [but] I grew up in the US... I'm not Hindu. I don't speak any languages that are spoken in India. So, I feel like there are things that are expected of me because I look Indian, that I feel I disappoint when I don't know things that I feel like I should know just based on how I look.

Another participant with Indian ancestry echoed this sentiment: 'People see you're brown, they assume you're Indian. And they assume you speak Hindi or something and I just don't'.

Other participants felt that sometimes the shared culture created more closeness than was considered appropriate at their clinical sites. An Indian participant recalled a patient who 'recognized that I was Indian as well, and she offered to help me out if I'm new to the place and offered me her number in case I needed any help, which is quite strange, but also nice'. Another Indian participant recalled a similar interaction that 'became too familiar and almost familial, because I think Indian culture is just like that. If you find someone like you, you want to give them presents and bring them sweets and things like that... It was just awkward'.

One participant described a challenging situation that arose due to a conflict between her genetic counseling training and what she was taught as culturally appropriate behavior. She was counseling the parents of a patient who had tested positive for a pathogenic variant in one of the *BRCA* genes, which confers a heightened risk for breast and ovarian cancer, among others:

They're in their seventies, they're older. And you're supposed to be really respectful and deferential. You don't talk about things like cancer and breasts... There isn't even a word for ovary in Punjabi. It was tough to

balance that, being Indian and being respectful and not talking about things like that versus doing my job.

In that situation, it was easier for her white supervisor to ask the questions and provide information: 'They're a little bit more forgiving if it's someone who's not from their cultural background... because I know it's taboo versus someone who's not from that background doesn't'.

One participant noted that she was never taught how to appropriately navigate the cultural connection with her patients, and that she would have liked guidance about how to recognize when it is and is not appropriate to integrate shared culture into a session. 'I don't want to rely on my judgment, which is very subjective, to incorporate that into my session. But who knows? Maybe it could have benefited [patients] or been helpful in other ways'. However, she did not think that her supervisors or instructors were equipped to provide this training.

3.4.4 | Theme 4: Adapting counseling style for culturally concordant patients

Several participants articulated the ways in which their counseling style changed based on their patient's racial, ethnic, or cultural identity, whether deliberately or inadvertently. For example, in terms of contracting and establishing rapport, one Hispanic participant contrasted her approaches in English and Spanish: whereas in English, she would contract by saying, 'This is what the session is going to look like', in Spanish, 'I'll also say, "Oh, what part of Mexico is your family from? Oh, mine's from this part." ... I'll incorporate that a little bit more to establish common ground'. Another participant said she self-discloses more when speaking to patients from her culture: 'I feel more comfortable to share more of my experiences, to try to build that rapport early on, particularly given that they probably don't know what a genetic counselor is, if they're coming from overseas'.

Some participants described deliberately changing their counseling style when speaking to patients from their own culture. One Hispanic participant described how she approaches counseling sessions in Spanish:

I'm a lot more casual and conversational. And I know that most Hispanic people don't have a personal bubble, so I usually scoot in really, really close when I'm talking to them. I'll touch their arm. I'll give them a hug before we leave. I'll hold their hand if they're emotional or upset. And I don't typically do those without feeling like I've been given more permission with my Caucasian patients.

A Southeast Asian participant in the same focus group concurred; she described switching between the approach she would use for 'a white suburban mom' and someone from Southeast Asia, 'where we don't really mind staying close to each other, like, touching'.

In other cases, participants unintentionally switched communication styles. One participant, who had learned English as a second language, said that she found out 'the hard way' that she had a different affect when speaking in English compared with Spanish:

I have a flat affect in English. That was a big thing that my counselors would point out when I was starting to do sessions. But ... I'm actually not like that when I speak in Spanish, and I talk with my hands a lot. And I think it's because I learned Spanish socially, so I learned Spanish seeing my parents talking, making facial expressions... In English, when I speak with my patients, I might be saying the same things, but my facial affect is much more flat.

Notably, some participants highlighted the genetic counseling tenet of non-directiveness as being an unsuitable approach for individuals from their culture. One participant cautioned that individuals from Southeast Asia were accustomed to a more paternalistic healthcare model: 'If my mom was going to see a genetic counselor, and they said, 'Oh, genetic testing is completely your decision,' my mom would just question the authority of that provider'. When she counsels patients from Southeast Asia, she utilizes a more directive approach: 'You're not making that decision for them, but you're giving them more guidance than you would when it comes to your Caucasian patient population'. Her perception is that this is more effective for patients from her culture because, 'If I used the same approach, the session would go nowhere. They probably would feel more lost than they were at the beginning of the appointment'.

Another participant similarly noted that a non-directive approach is less effective with her Latino community:

These are people who expect you to tell them what to do, and they trust you to tell them what to do... [Non-directiveness] wouldn't really work if it's a Spanish-speaking patient with no education. I know we're supposed to give them the tools to decide on their own, but every single tool that we're trying to give them is entirely new.

While participants described adapting their counseling for patients from different cultures, they also cautioned that genetic counselors should not make blanket assumptions about patients based on their culture, even if they identify as part of that culture. An Indian American participant was cautious not to 'pigeon-hole' patients based on their ancestry: 'When I have a patient who's Indian American, their views may be very different than a patient who is from India, even though I can relate to both of them'. Another stressed the importance, when counseling patients from a different culture, to 'dive into those aspects that we don't really understand. What are the aspects of their identities that are going to make a difference in terms of what they decide?' Several participants spoke of 'testing the waters' to see whether they and their patient were from similar cultures. For example, one

participant might make a joke that someone from her culture would understand and see how it was received: 'Not everyone is going to be the same. So, going in with an assumption, but also making sure you're not diving deep directly'.

4 | DISCUSSION

This qualitative focus group study examined the experiences of genetic counseling students who identified with a racial or ethnic minority group, using the conceptual lens of biculturalism to analyze participants' descriptions of their interactions with patients during supervised clinical rotations. We identified three ways in which these experiences reflect prior research about biculturals: First, participants described interactions that highlighted the salience of their racial, ethnic, or cultural identity in patient encounters. Second, they perceived themselves to have a high level of personal attunement to social nuances within and between cultures that they did not believe was typical for their peers who did not identify with a racial or ethnic minority group. Third, they utilized strategies of cultural frame switching to tailor their counseling style for specific patients.

4.1 | Salience of minority identity

While most participants in this study reported minimal opportunities to counsel patients who shared their minority cultural identity, those who did reported feelings of pride and professional satisfaction in providing care to racially or ethnically concordant patients and perceived that shared elements of identity increased patients' comfort and willingness to ask questions. These findings align with prior studies that found race concordance between a patient and physician improved communication (Cooper et al., 2003; Shen et al., 2018). Participants also described challenges in interactions with culturally discordant patients, challenges to which they generally perceived supervisors were not fully attuned, as we have previously reported (Carmichael et al., 2021). These challenges included microaggressions, racism and having to work harder to establish rapport.

Participants who identified as immigrants or the children of immigrants described their cultural identity as being both a facilitator and a barrier in establishing rapport. Culture is a multidimensional construct consisting of elements such as shared practices, values, nationality, language, race, and ethnicity (Schwartz et al., 2010). Some participants drew on aspects of their shared heritage during contracting to connect with patients. Others, however, particularly those who had grown up in the United States with immigrant parents, worried that racially or ethnically concordant patients would be disappointed that they were not fluent in the same language or did not share the same cultural practices or values.

Although a majority of participants in this study were bilingual, few had the opportunity to develop their counseling skills in their non-English language. Prior research about patient-provider interactions has found that a lack of a shared language between patient

and provider negatively impacts the quality of care, particularly in terms of establishing rapport, transmitting information, and encouraging patient participation in medical decision-making (Ferguson & Candib, 2002), all important elements of the genetic counseling session. Furthermore, communicating through an interpreter is time-consuming, potentially limiting the amount of information that can be transmitted during the appointment. Finally, using a medical interpreter increases the potential for medical error; Flores et al. (2003) found an average of 31 errors in medical interpretation per medical visit when hospital interpreters were used, more than half of which had potential clinical consequences. Aguirre et al. (2005) describe learning and appropriately utilizing therapeutic vocabulary in a second language as a challenging process that requires considerable practice, highlighting the benefits of beginning this process as early as possible in training. Creating opportunities for students to become proficient at providing genetic counseling in non-English languages has the potential to reduce health disparities for patients with limited English proficiency.

4.2 | Sensitivity to cultural nuances

Participants in this study reported feeling themselves to be more attuned to nuances between and within cultures than their white classmates. We made no attempt to empirically assess whether these perceptions were valid, but published studies of biculturalism indeed suggest that the process of integrating two cultures leads to increased cultural sensitivity. Benet-Martínez et al. (2006) proposed that reconciling the contradictions and contrasts between two cultures enhances biculturals' capacity to recognize the complexity within other cultures. West et al. (2017) argue that biculturals are actually 'transformed' by their experiences navigating between two cultures, enabling them to draw connections between cultures and recombine ideas in new ways. Since they enter their training with an already developed sensitivity to cultural differences, biculturals are likely to have certain advantages in developing at least one of the practice-based competencies (PBCs) for genetic counselors, 'apply[ing] genetic counseling skills in a culturally responsive and respectful manner' (Accreditation Council for Genetic Counseling, 2019, p. 5).

4.3 | Cultural frame switching

Participants provided examples of cultural frame switching in their descriptions of how their counseling style changed in response to the cultural identity of the patient. Three participants who had extensive opportunities to counsel both Hispanic and non-Hispanic patients during their training described changes in both body language and facial expression or affect depending on the culture of the patient. One participant who had extensive opportunities to switch between her cultural frames learned to consciously activate different counseling styles based on the identity of her patient.

Participants who had opportunities to provide care to patients in their native language reported that this improved rapport, felt empowering, and built their confidence in their counseling skills. In contrast, they described the awkwardness of providing counseling through an interpreter when both they and the patient spoke the same language. Some of this awkwardness may be due to receiving conflicting cues from each language as to which cultural frame should be activated.

In some sessions, conflicts arose between the behavior expected of participants as professionals and the behavior expected of them by culturally concordant patients. This tension was strikingly illustrated by the participant who reported struggling to explain to older Punjabi speakers the consequences of a pathogenic *BRCA* variant. Schoonveld et al. (2007) characterized situations of this type as conflicts between a 'genetic counseling framework' and a 'culturally congruent framework'. Lo and Nguyen (2018) described a similar conflict for Latina nurses who strive to simultaneously adhere to professional norms and provide culturally sensitive care.

A notable conflict highlighted by several participants was between the genetic counseling profession's prioritization of non-directiveness and their culturally concordant patients' expectation of a more directive approach. Non-directiveness has deep roots in the profession as a key component of Carl Roger's Client-Centered Counseling, the original theoretical approach to genetic counseling (Wang et al., 2004). However, non-directiveness is not included in the PBCs for genetic counselors, which instead state that genetic counselors should be 'non-coercive' and provide the appropriate degree of guidance on a continuum from non-directiveness to directiveness (Accreditation Council for Genetic Counseling, 2019). It remains a 'presumed tenet' of the profession, despite reports that genetic counselors, in practice, adapt their degree of directiveness to the characteristics of the patient (McCarthy Veach et al., 2007; Wang et al., 2004; Weil et al., 2006). Research investigating patient-physician relationships in India and Mexico support the perception of these participants that individuals from their cultures may anticipate a more directive approach from healthcare providers (Gupta, 2007; Lisker & Carnevale, 2006). While the dynamic between patient and provider is undoubtedly also influenced by factors such as education level, socioeconomic status, gender, and age, these participants described non-directiveness as a specific aspect of their professional role that they modified when counseling culturally concordant patients.

4.4 | Study limitations

This study had several limitations that demonstrate the need for further research on this topic. First, these results reflect the experiences of participants who trained between 2015 and 2019, before the events of 2020 and 2021 that led to increased public and dynamic conversations about race and racial disparities in the United States. The experiences of more recent graduates were undoubtedly influenced by these events. Second, this study recruited individuals

who identified with a racial or ethnic minority group, and not the potentially larger group who might have self-identified as bicultural. The experiences of individuals who identify themselves as biculturals but not as part of a racial or ethnic minority group might be different. Third, this paper examines the experience of biculturals generally, but further research is needed to elucidate how specific aspects of being bicultural, such as visible minority status or fluent bilingualism, might exert unique influences on the experiences of genetic counseling students. Fourth, focus groups have both advantages and disadvantages as a means of data collection; we might speculate that the conversations could have differed if we had utilized individual interviews or if participants had been grouped differently. Finally, we only had access to the retrospective recollections of participants about their interactions with patients, and not the perspectives of the patients or supervisors.

4.5 | Training implications

The Reciprocal Engagement Model of Supervision (REM-S) 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 results of this study demonstrate that bicultural students bring particular strengths to their clinical rotations, including high perceived levels of sensitivity to nuances between and within cultures, an important component of providing culturally responsive care. Having multiple cultural frames and approaches to communication creates a strong foundation for developing a broad repertoire of counseling approaches. Supervisors should recognize these strengths and help students to develop them during their clinical rotations. This is not something that has been previously recognized or acknowledged in the field.

Furthermore, the REM-S states that the supervisor and the student should both understand the supervisor–student and student–patient dynamics (Wherley et al., 2015). Supervisors should recognize the significant role that the student's racial, ethnic, or cultural identity plays in their interactions with patients. Students who identify with a racial or ethnic minority group may face additional challenges in establishing rapport compared with their white counterparts or may need to employ different strategies. In addition, they may encounter comments from patients that highlight the salience of their racial or ethnic identity in the eyes of the patient, and they may experience microaggressions or racism. When counseling culturally concordant patients, students may struggle to integrate their genetic counseling framework and their culturally concordant framework. They should be provided with guidance as they learn to navigate between the expectations of their patients and those of their supervisors or other clinicians. Supervisors who do not share their student's racial, ethnic, or cultural identity should be willing to learn from the student's perceptions of the encounters and support them in learning to integrate these frameworks.

Training programs should make every effort to provide opportunities for students to counsel culturally concordant and culturally discordant patients during their clinical rotations. For bicultural students, counseling patients who share one or more of their cultural frameworks provides opportunities to identify cues that trigger cultural frame switching and more thoroughly explore and recognize the breadth of communication strategies at their disposal. Identifying opportunities for bilingual students to learn how to counsel in both languages will not only benefit the profession and patients by establishing a cohort of genetic counselors to provide care in that language, but it will also enable students to explore the ways in which language use activates cultural frame switching.

4.6 | Research recommendations

Our findings suggest that biculturalism can be a fruitful lens for examining the experiences of genetic counseling students and points to numerous avenues for future research. For example, research could focus on other groups of biculturals, such as children of immigrants or those who have lived abroad, to see how their experiences are similar or different, and on the experiences of bilingual genetic counselors. Investigating the perspectives of supervisors or patients when interacting with bicultural students or genetic counselors would elucidate how their strengths influence the encounters. Finally, strategies for providing culturally responsive supervision should be developed and best practices identified to optimize the clinical rotation experience in a more inclusive manner.

5 | CONCLUSIONS

This study investigated the experiences of genetic counseling students who identify with a racial or ethnic minority group and found that biculturalism can be a useful conceptual lens for understanding what happens in interactions with both culturally concordant and culturally discordant patients. Bicultural participants reported feeling an increased sensitivity to the nuances between and within cultures compared with their non-bicultural peers, and those who had the opportunity to counsel patients from both of their cultures were able to explore and develop a repertoire of cultural frames and communication strategies to utilize in their sessions. This study identifies a previously unrecognized strength that students who identify with a racial or ethnic minority group bring to the genetic counseling profession. Furthermore, it adds to the growing body of literature about biculturalism by examining the ways in which being bicultural impacts genetic counseling students. Finally, this study demonstrates the added value of being bicultural for genetic counselors who provide care to diverse patient populations.

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. 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. 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.

ACKNOWLEDGMENTS

The original study from which the data for this project were derived was completed in partial fulfillment of the requirements for the first author's Ph.D. in Health Professions Education at Simmons University, where the third author was a faculty member and served as her dissertation advisor. The authors would like to thank Dr. Daren Graves, who assisted with the design of the study and the analysis of the data, the many genetic counselors who provided feedback during the design phase, the Minority Genetic Professionals Network for their assistance with recruitment, and the participants who shared their time and perspectives.

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 subject's 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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REFERENCES

- Abacan, M., Alsubaie, L., Barlow-Stewart, K., Caanen, B., Cordier, C., Courtney, E., Davoine, E., Edwards, J., Elackatt, N. J., & Gardiner, K. (2019). The global state of the genetic counseling profession. *European Journal of Human Genetics*, 27(2), 183–197. <https://doi.org/10.1038/s41431-018-0252-x>
- Abrams, K. M., Wang, Z., Song, Y. J., & Galindo-Gonzalez, S. (2015). Data richness trade-offs between face-to-face, online audiovisual, and online text-only focus groups. *Social Science Computer Review*, 33(1), 80–96. <https://doi.org/10.1177/0894439313519733>
- Accreditation Council for Genetic Counseling. (2019). Practice-based competencies for genetic counselors. Available from https://www.gceducation.org/wp-content/uploads/2019/06/ACGC-Core-Competencies-Brochure_15_Web_REV-6-2019.pdf
- Aguirre, C., Bermúdez, J. M., Cardona, J., Zamora, J. A., & Reyes, N. A. (2005). The process of integrating language, context, and meaning: The voices of bilingual and bicultural therapists. In N. A. Reyes, & E. Wieling (Eds.), *Voices of color: First-person accounts of ethnic minority therapists* (pp. 189–209). SAGE Publications. <https://doi.org/10.4135/9781452231662.n11>
- Alsan, M., Garrick, O., & Graziani, G. (2019). Does diversity matter for health? Experimental evidence from Oakland. *American Economic Review*, 109(12), 4071–4111. <https://doi.org/10.1257/aer.20181446>
- Barbour, R., & Kitzinger, J. (1999). *Developing focus group research: Politics, theory and practice*. SAGE Publications. <https://doi.org/10.4135/9781849208857>
- Benet-Martínez, V., Lee, F., & Leu, J. (2006). Biculturalism and cognitive complexity: Expertise in cultural representations. *Journal of Cross-Cultural Psychology*, 37(4), 386–407. <https://doi.org/10.1177/0022022106288476>
- Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural Psychology*, 33(5), 492–516. <https://doi.org/10.1177/0022022102033005005>
- Briley, D. A., Morris, M. W., & Simonson, I. (2005). Cultural chameleons: Biculturals, conformity motives, and decision making. *Journal of Consumer Psychology*, 15(4), 351–362. https://doi.org/10.1207/s15327663jcp1504_9
- Bureau of Health Professions. (2006). *The rationale for diversity in the health professions: A review of the evidence*. U.S. Department of Health and Human Services.
- Carmichael, N., Redlinger-Grosse, K., & Birnbaum, S. (2020). Conscripted curriculum: The experiences of minority genetic counseling students. *Journal of Genetic Counseling*, 29(2), 303–314. <https://doi.org/10.1002/jgc4.1260>
- Carmichael, N., Redlinger-Grosse, K., & Birnbaum, S. (2021). Supporting a sense of inclusion and belonging for genetic counseling students who identify as racial or ethnic minorities. *Journal of Genetic Counseling*, 30(3), 813–827. <https://doi.org/10.1002/jgc4.1381>
- Chandrashekar, P., & Jain, S. H. (2020). Addressing Patient Bias and Discrimination Against Clinicians of Diverse Backgrounds. *Academic Medicine*, 95(12S), S33–S43. <https://doi.org/10.1097/ACM.0000000000003682>
- Charmaz, K. (2005). Grounded theory in the 21st century: Applications for advancing social justice studies. In N. K. Denzin, & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research*. SAGE Publications.
- Charmaz, K. (2014). *Constructing grounded theory* (2nd edn.). SAGE Publications.
- Cheng, C.-Y., Lee, F., & Benet-Martínez, V. (2006). Assimilation and contrast effects in cultural frame switching: Bicultural identity integration and valence of cultural cues. *Journal of Cross-Cultural Psychology*, 37(6), 742–760. <https://doi.org/10.1177/0022022106292081>
- Cooper, L. A., Roter, D. L., Johnson, R. L., Ford, D. E., Steinwachs, D. M., & Powe, N. R. (2003). Patient-centered communication, ratings of care, and concordance of patient and physician race. *Annals of Internal Medicine*, 139(11), 907–915. <https://doi.org/10.7326/0003-4819-139-11-200312020-00009>

- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd edn.). SAGE Publications.
- Farquhar, C., & Das, R. (1999). Are focus groups suitable for 'sensitive' topics? In R. S. Barbour, & J. Kitzinger (Eds.), *Developing focus group research: Politics, theory and practice* (pp. 47–63). SAGE Publications. <https://doi.org/10.4135/9781849208857.n4>
- Ferguson, W. J., & Candib, L. M. (2002). Culture, language, and the doctor-patient relationship. *Family Medicine*, 34(5), 353–361.
- Flores, G., Laws, M. B., Mayo, S. J., Zuckerman, B., Abreu, M., Medina, L., & Hardt, E. J. (2003). Errors in medical interpretation and their potential clinical consequences in pediatric encounters. *Pediatrics*, 111(1), 6–14. <https://doi.org/10.1542/peds.111.1.6>
- Freedman, A., Hu, H., Liu, I., Stewart, A., Adler, S., & Mehling, W. (2020). Similarities and differences in interoceptive bodily awareness between US-American and Japanese cultures: A focus-group study in bicultural Japanese-Americans. *Culture, Medicine, and Psychiatry*, 1–34. <https://doi.org/10.1007/s11013-020-09684-4>
- Greenwood, B. N., Hardeman, R. R., Huang, L., & Sojourner, A. (2020). Physician-patient racial concordance and disparities in birthing mortality for newborns. *Proceedings of the National Academy of Sciences*, 117(35), 21194–21200. <https://doi.org/10.1073/pnas.1913405117>
- Gupta, J. A. (2007). Private and public eugenics: Genetic testing and screening in India. *Journal of Bioethical Inquiry*, 4(3), 217–228. <https://doi.org/10.1007/s11673-007-9059-0>
- Han, M., & Osterling, K. L. (2012). Characteristics and factors impacting reunification outcomes among Vietnamese immigrant families in the child welfare system. *Children and Youth Services Review*, 34(1), 103–111. <https://doi.org/10.1016/j.childyouth.2011.09.005>
- Hong, Y.-Y., Morris, M. W., Chiu, C.-Y., & Benet-Martinez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55(7), 709. <https://doi.org/10.1037/0003-066X.55.7.709>
- Kook, R., Harel-Shalev, A., & Yuval, F. (2019). Focus groups and the collective construction of meaning: Listening to minority women. In *Women's studies international forum* (Vol. 72, pp. 87–94). Elsevier. <https://doi.org/10.1016/j.wsif.2018.12.004>
- Lin, C.-H., Chiang, P. P., Lux, E. A., & Lin, H.-F. (2018). Immigrant social worker practice: An ecological perspective on strengths and challenges. *Children and Youth Services Review*, 87, 103–113. <https://doi.org/10.1016/j.childyouth.2018.02.020>
- Lisker, R., & Carnevale, A. (2006). Changing opinions of Mexican geneticists on ethical issues. *Archives of Medical Research*, 37(6), 794–803. <https://doi.org/10.1016/j.arcmed.2006.01.005>
- Lo, M.-C.- M., & Nguyen, E. T. (2018). Caring and carrying the cost: Bicultural Latina nurses' challenges and strategies for working with coethnic patients. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 4(1), 149–171. <https://doi.org/10.7758/RSF.2018.4.1.09>
- Luna, D., Ringberg, T., & Peracchio, L. A. (2008). One individual, two identities: Frame switching among biculturals. *Journal of Consumer Research*, 35(2), 279–293. <https://doi.org/10.1086/586914>
- Massey, O. T. (2011). A proposed model for the analysis and interpretation of focus groups in evaluation research. *Evaluation and Program Planning*, 34(1), 21–28. <https://doi.org/10.1016/j.evalprogplan.2010.06.003>
- Matthews, K. L., Baird, M., & Duchesne, G. (2018). Using online meeting software to facilitate geographically dispersed focus groups for health workforce research. *Qualitative Health Research*, 28(10), 1621–1628. <https://doi.org/10.1177/1049732318782167>
- McCarthy Veach, P., Bartels, D. M., & LeRoy, B. S. (2007). Coming full circle: A reciprocal-engagement model of genetic counseling practice. *Journal of Genetic Counseling*, 16(6), 713–728. <https://doi.org/10.1007/s10897-007-9113-4>
- Morgan, D. L. (2018). *Basic and advanced focus groups*. SAGE Publications.
- National Society of Genetic Counselors. (2019). *NSGC professional status survey*. National Society of Genetic Counselors, Available from <https://www.nsgc.org/p/cm/ld/fid=68>
- Nguyen, A. M. D., & Benet-Martínez, V. (2007). Biculturalism unpacked: Components, measurement, individual differences, and outcomes. *Social and Personality Psychology Compass*, 1(1), 101–114. <https://doi.org/10.1111/j.1751-9004.2007.00029.x>
- Perunovic, W. Q. E., Heller, D., & Rafaeli, E. (2007). Within-person changes in the structure of emotion: The role of cultural identification and language. *Psychological Science*, 18(7), 607–613. <https://doi.org/10.1111/j.1467-9280.2007.01947.x>
- Ramírez-Esparza, N., Gosling, S. D., Benet-Martínez, V., Potter, J. P., & Pennebaker, J. W. (2006). Do bilinguals have two personalities? A special case of cultural frame switching. *Journal of Research in Personality*, 40(2), 99–120. <https://doi.org/10.1016/j.jrp.2004.09.001>
- Ross, M., Xun, W. E., & Wilson, A. E. (2002). Language and the bicultural self. *Personality and Social Psychology Bulletin*, 28(8), 1040–1050. <https://doi.org/10.1177/01461672022811003>
- Saha, S., & Beach, M. C. (2020). Impact of physician race on patient decision-making and ratings of physicians: A randomized experiment using video vignettes. *Journal of General Internal Medicine*, 1–8. <https://doi.org/10.1007/s11606-020-05646-z>
- Saha, S., Taggart, S. H., Komaromy, M., & Bindman, A. B. (2000). Do patients choose physicians of their own race? To provide the kind of care consumers want, medical schools might be able to justify using race as an admissions criterion. *Health Affairs*, 19(4), 76–83. <https://doi.org/10.1377/hlthaff.19.4.76>
- Saldaña, J. (2021). *The coding manual for qualitative researchers* (4th edn.). SAGE Publications.
- Schoonveld, K. C., McCarthy Veach, P., & LeRoy, B. S. (2007). What is it like to be in the minority? Ethnic and gender diversity in the genetic counseling profession. *Journal of Genetic Counseling*, 16(1), 53–69. <https://doi.org/10.1007/s10897-006-9045-4>
- Schwartz, S. J., Unger, J. B., Zamboanga, B. L., & Szapocznik, J. (2010). Rethinking the concept of acculturation: Implications for theory and research. *American Psychologist*, 65(4), 237. <https://doi.org/10.1037/a0019330>
- Shen, M. J., Peterson, E. B., Costas-Muñiz, R., Hernandez, M. H., Jewell, S. T., Matsoukas, K., & Bylund, C. L. (2018). The effects of race and racial concordance on patient-physician communication: A systematic review of the literature. *Journal of Racial and Ethnic Health Disparities*, 5(1), 117–140. <https://doi.org/10.1007/s40615-017-0350-4>
- Stewart, D. W., & Shamdasani, P. (2017). Online focus groups. *Journal of Advertising*, 46(1), 48–60. <https://doi.org/10.1080/00913367.2016.1252288>
- Thomas, C. L., Medina, C. K., & Cohen, H. L. (2010). Latino voices: Service delivery challenges in child protective services. *Families in Society*, 91(2), 158–164. <https://doi.org/10.1606/1044-3894.3975>
- Wang, C., Gonzalez, R., & Merajver, S. D. (2004). Assessment of genetic testing and related counseling services: Current research and future directions. *Social Science & Medicine*, 58(7), 1427–1442. [https://doi.org/10.1016/S0277-9536\(03\)00337-X](https://doi.org/10.1016/S0277-9536(03)00337-X)
- Weil, J., Ormond, K., Peters, J., Peters, K., Biesecker, B. B., & LeRoy, B. (2006). The relationship of nondirectiveness to genetic counseling: Report of a workshop at the 2003 NSGC Annual Education Conference. *Journal of Genetic Counseling*, 15(2), 85–93. <https://doi.org/10.1007/s10897-005-9008-1>
- West, A. L., Zhang, R., Yampolsky, M., & Sasaki, J. Y. (2017). More than the sum of its parts: A transformative theory of biculturalism. *Journal of Cross-Cultural Psychology*, 48(7), 963–990. <https://doi.org/10.1177/0022022117709533>
- Wheeler, M., de Bourmont, S., Paul-Emile, K., Pfeffinger, A., McMullen, A., Critchfield, J. M., & Fernandez, A. (2019). Physician and trainee

- experiences with patient bias. *JAMA Internal Medicine*, 179(12), 1678–1685. <https://doi.org/10.1001/jamainternmed.2019.4122>
- Wherley, C., McCarthy Veach, P., Martyr, M. A., & LeRoy, B. S. (2015). Form follows function: A model for clinical supervision of genetic counseling students. *Journal of Genetic Counseling*, 24(5), 702–716. <https://doi.org/10.1007/s10897-015-9837-5>
- Wong, R.-Y.-M., & Hong, Y.-Y. (2005). Dynamic influences of culture on cooperation in the prisoner's dilemma. *Psychological Science*, 16(6), 429–434. <https://doi.org/10.1111/j.0956-7976.2005.01552.x>
- Zane, N., & Mak, W. (2003). Major approaches to the measurement of acculturation among ethnic minority populations: A content analysis and an alternative empirical strategy. In K. M. Chun, P. Balls Organista, & G. Marin (Eds.), *Acculturation: Advances in*

theory, measurement, and applied research (pp. 39–60). American Psychological Association. <https://doi.org/10.1037/10472-005>

How to cite this article: Carmichael, N., Redlinger-Grosse, K., & Birnbaum, S. (2022). Examining clinical training through a bicultural lens: Experiences of genetic counseling students who identify with a racial or ethnic minority group. *Journal of Genetic Counseling*, 31, 411–423. <https://doi.org/10.1002/jgc4.1506>