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Author(s): Kate G. Burt, Kathleen Delgado, Jennifer O'Hara, Jesse Gissen and Marina Stopler

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Persistence in Nutrition Education and Credentialing among Low-Income Minority Students: A Qualitative Exploratory Study

Kate G. Burt¹, PhD, RD; Kathleen Delgado², MS, RD; Jennifer O'Hara¹; Jesse Gissen¹, RD; Marina Stopler¹, MS, RD, IBCLC

Author Affiliations: ¹Dietetics, Foods and Nutrition Program, Lehman College, City University of New York, Bronx, New York; ²Hostos Community College, City University of New York, Bronx, New York

Corresponding Author: Kate G. Burt, Dietetics, Foods and Nutrition Program, Lehman College, City University of New York. 250 Bedford Park Boulevard West, G-431, Bronx, NY, 10468, Katherine.Burt@lehman.cuny.edu

ABSTRACT

Our purpose is to understand the experiences of low-income nutrition program graduates of color and identify supports and barriers to pursuing professional credentialing. Thirteen graduates (38.5% Black (n = 5), 38.5% Hispanic/Latino (n = 5), 7.7% Asian (n = 1), 15.4% White (n = 2)) of a public New York City college's nutrition major participated in a survey and group interview; descriptive statistics and thematic analysis were conducted to analyze data. Notable differences emerged in motivations to study nutrition and confidence/shame between those who did and did not persist. Supports were faculty support, familiarity with resources, and field experience. Barriers were balancing responsibilities, faculty/tutor accessibility, the credentialing process, and science-based coursework. Results suggest strategies are needed to develop environmental and academic supports and build students' grit and agency.

Keywords: ■ Dietetics Education ■ Grit and Agency ■ Qualitative Research ■ Resources and Support ■ Self-Confidence

INTRODUCTION

The United States population is becoming more diverse, and by 2050 people of color will account for a majority of the population (Ortman & Guarneri, n.d.). It is increasingly important for the schools of health sciences to produce a workforce that reflects the population, in part because race is a significant factor in the quality of healthcare an individual receives, which ultimately impacts health outcomes (Egede, 2006). Registered dietitian nutritionists (RDNs) from underrepresented groups are especially valuable to help address the needs of communities of color because they are often more knowledgeable about community members' cultural values, beliefs, and practices, which improves the overall effectiveness of nutrition programs fostering patient compliance (Wynn, Raj, Tyus et al., 2017). Yet, RDNs remain overwhelmingly White; people of color account for only 11.1% of RDNs Commission on Dietetic Registration (2019).

In order to become an RDN, one must earn (at minimum) a bachelors degree from an accredited Didactic Program in Dietetics (DPD) and then obtain placement (known as "match with") in a dietetic internship. Although faculty support and preparation for the internship process are important for higher need students, intensive support programs that include mentoring, skill development, and resource access are limited. Some peer programs or programs that connect students of color with professionals in the field have shown promise though they may not be enough to facilitate successful entry into a dietetic internship (Besnilian, Goldenberg, & Plunkett, 2016; Felton, Nickols-Richardson, Serrano, & Hosig, 2008).

To date, only one large study has explored the barriers and supports nutrition students' experience when pursuing the RDN credential; but participants reflected the RDN population, which is overwhelmingly White (86% White) (Wynn et al., 2017). Low-income students or those of color may have different experiences, but those differences are unknown. Moreover, as compared to other health professions, nutrition is particularly challenging for low-income students of color in part because most dietetic internships are full-time and unpaid, whereas training for several other health profession credentials are embedded in the curriculum or are available as paid opportunities (Burt, Delgado, Chen, & Paul, 2018).

In order to strengthen efforts to promote diversity and improve educational outcomes, more information is needed about specific educational barriers affecting marginalized demographic groups. This involves not only understanding academic and financial barriers, but also broadening knowledge of social and personal barriers. As such, the purpose of this study is to understand the persistence of low-income graduates of color from an accredited nutrition program and identify supports and barriers to pursuing a career as a credentialed nutrition professional.

METHODS

Study Design and Measures

This study utilized a two-phase data-collection process consisting of a survey (phase 1) and interview (phase 2). The survey had 40 open- and close-ended questions and was disseminated through Google forms. It gathered demographic information and included questions about choosing an accredited nutrition major and pursuing the dietetic internship. Survey data was used to identify which of three group interviews each participant would be invited to join (described more below).

Three semi-structured group interviews were conducted with graduates who (1) never applied to a dietetic internship, (2) applied but didn't match with a dietetic internship, and (3) applied (one or more times) and matched with a dietetic internship. Questions were designed to solicit information about participants' knowledge of the field of nutrition and process to becoming an RDN, supports, barriers, and factors that influenced their decisions throughout their education.

Interviews were conducted at Lehman College in New York City and were about one hour in duration. Member checking (also known as participant validation) was done throughout the interviews to ensure trustworthiness of data (Birt, Scott, Cavers, Campbell, & Walter, 2016). To incentivize participation, graduates were offered the opportunity to win a tablet computer (\$200 value); three tablets (one for each group) were distributed. The Lehman College Institutional Review Board approved this study after a full review and written informed consent was obtained for all participants (protocol # 2017-0557).

Participants and Recruitment

Recent graduates ($n = 111$) of a minority-serving, urban public university's accredited nutrition program were invited to participate in the survey during fall 2017. Twenty-six graduates responded to the survey (23.4% response rate). It is likely that the response rate was low due to the fact that many students listed their college email address as their preferred email address when they declared their major but no longer use or check that account. All survey respondents ($n = 26$) were invited to participate in one of three group interviews. As ethnic minority populations are difficult to reach, several dates and times (afternoon and evening) were presented as options for the interviews but several survey respondents reported that they were unable to participate due to other responsibilities, e.g., work or family. (Ellard-Gray, Jeffrey, Choubak, & Crann, 2015). Given the difficulty of recruitment, a minimum sample of 12 participants as sought for interviews, as metathemes may be found with only 6 interviews and saturation reached with 12 (Guest, Bunce, & Johnson, 2006).

Data Analysis

We calculated descriptive statistics from survey data using Microsoft Excel. Group interviews were transcribed by a transcription service; transcripts were analyzed by three independent coders (the lead researcher, second, and third authors) using line-by-line prefigured and emergent coding. The coders met to discuss codes in several meetings in which they synthesized information to identify patterns, perceptions, and ideas and classified them into themes. Interviews were also analyzed individually to determine if data saturation was reached (Hancock, Amankwaa, Revell, & Mueller, 2016).

RESULTS

Thirteen survey respondents participated in group interviews; three in the never applied group; 3 in the applied and didn't match group; and 7 in the applied and matched group. Participants were 38.5% Black ($n = 5$), 38.5% Hispanic/Latino ($n = 5$), 7.7% Asian ($n = 1$), 15.4% White ($n = 2$). 38.5% of participants were the first in their families to graduate college.

Nutrition was a first career for 100% of the "never applied" (NA) group, 67% of the "applied but didn't match" (Applied) group, and 57% of the "applied and matched" (Matched) group. Of all participants, most were financially independent during their studies (69%) and most received financial aid (62%). 31% reported a household income of less than \$25,000/year, 38% reported a household income of between \$25k-\$50k/year, 15% reported a household income between \$50k-\$75k/year, and 15% reported a household income greater than \$75k/year. 23% of participants reported supporting one or more children while they were enrolled in the nutrition program. Findings from the qualitative interviews indicated that data saturation was reached, as evidenced by the limited variability in themes and lack of differing opinions (Hancock et al., 2016).

Differences between Those Who Did And Did Not Apply for the Dietetic Internship

There were two notable differences between the participants who never applied to a dietetic internship (DI) and those who did (regardless of whether or not they matched). The first was related to why participants' chose to major in nutrition and the second was related to personal characteristics, specifically confidence. Direct quotes from the group interviews that illustrate these differences are in table 1.

Choice to major in an accredited nutrition program. Participants in the NA group majored in nutrition because of a personal interest to help people (themselves, family, or their communities) combat diet-related chronic disease, and improve the nutritional quality of foods they prepared at home. They chose the accredited major in nutrition (instead of a non-accredited major in nutrition at the same college) because they perceived that the accredited

Table 1. Select Quotes Capturing Differences between Didactic Program in Nutrition Graduates of a Minority-Serving, Public Institution Who Persist and Do Not Persist in Nutrition in Fall 2017

<i>Themes</i>	<i>Interview Group</i>	<i>Direct Quotes</i>
Choice to major in nutrition	NA:	I don't remember the exact specifics of [the non-accredited major option], but I remember option one being accredited . . . so [I figured] I'll more than likely be able to do more things with that I wanted to do more like community nutrition, WIC, or I didn't want to be in the kitchen.
	Applied:	I did a little bit of research before I went into the RD program. I knew that I wanted to be a dietitian. I didn't know what a DTR was, but I knew that I wanted an RD.
	Matched:	I didn't know there [were two options for the major] until I got here to apply I wanted to be a dietitian but [initially] I didn't know there was an [accredited] option and a [non-accredited] option.
Confidence	NA:	You get to a point where they feel like you should know [the course material], and you're afraid to tell them 'no, I missed that'. . . and you don't want to say that because then they look at you as if "well, what are you doing here if you didn't catch that.' You just kind of are quiet, and you let it go under the rug [Finally, when I applied for my first job in nutrition] I was like you know what, I have nothing to lose, but it literally took me like three months to actually send them my resume because I was just so scared. I was like, I have no experience, all I have is my degree, they're not going to hire me, there's no reason for them to hire me, but then when you hit that point where you're just like . . . nothing else could happen. I just went for it, and I think they called me back in like two weeks for an interview. The hiring process was maybe five or six months. I was like oh, I must have done something well.

(continued)

Table 1. (continued)

Themes	Interview Group	Direct Quotes
Applied:		My biggest obstacle is feeling like a living, breathing oxymoron. I have been morbidly obese 95% of my life and even with lifestyle changes and bariatric surgery, I still struggle with my weight.
Matched:		Even trying to find work outside after graduating, it is almost next to impossible for a DTR who's trying at work because everybody wants the RD, so you're kind of left there . . . even when you're talking to other RDs and their like "oh, you're not an RD," so it's like you're a step below them." I don't feel comfortable in the nutrition world, honestly. I don't feel comfortable physically because I am overweight, but I've been overweight literally since I was a kid. There has never been a time when I was small, ever. Sometimes you just have to embrace it. I never felt comfortable sitting in a room full of people talking about all this illness and diabetes and things that affect my family.

program would facilitate more opportunities in the future, though at the time of choosing the major, they weren't sure what those opportunities might be. None of the respondents mentioned becoming an RDN as a reason for choosing the accredited major.

In contrast, most of the graduates from the other groups (all of which applied for an internship) cited a career goal to become an RDN as the impetus for majoring in an accredited program. They reported doing research about careers in nutrition in advance of choosing a major, which led them to select the RDN route. The idea that a little research was required to understand career paths arose several times during the discussion with participants in the Matched group and was discussed by a majority of participants in the Applied group whereas it was not mentioned at all in the NA group.

Confidence. Participants in all groups struggled with issues related to confidence; in all groups, at least one participant reported feeling like imposters due to their physical appearance, specifically being overweight or obese in a weight, diet, and health-focused field.

More commonly, however, struggling with confidence affected participants in each group differently. The NA group described lacking confidence and experiencing shame several

times throughout the interview, which ultimately became a barrier to pursuing the help they needed to succeed. They emphasized that they believe they would have been more successful had they been more confident to approach and communicate with faculty (e.g., when they didn't understand course material). In contrast, participants in the Applied and Matched groups also struggled understanding material, but sought tutoring or extra help from professors when needed. Self-confidence continued to be an issue for participants in the NA group after graduation; participants reported lacking the confidence to even apply for nutrition-related jobs because they felt as if they had nothing to offer employers.

Facilitators of Success

Several facilitators of success emerged from the data, including: faculty encouragement and support, familiarity with on campus resources, and experience in the field. Direct quotes supporting these findings are in Table 2.

Faculty encouragement and support. Participants in all groups reported that faculty encouragement was critical to their success; in different ways, participants across groups described the importance of developing relationships with faculty that ultimately inspired and guided their learning. The NA participants in particular reported feeling motivated by two key professors who emphasized a focus on their future career (generally) rather than on the competitiveness of the DI. Since NA group participants did not apply for the DI, they didn't speak to the application process. Applied group participants described wanting more support from faculty during the DI application process; they had unresolved questions and were unclear about important aspects. The Matched group emphasized the importance of faculty guidance to obtain high quality volunteer experiences to improve their chances of matching with a DI. Students in all groups noted that more faculty support, communication, and encouragement would have been helpful throughout their time in the major.

Familiarity with on-campus resources. Vital resources highlighted in the group interviews included academic and educational resources as well as career and health resources. Participants in the Matched group reported "getting lucky" by having a professor who identified on-campus academic resources early in their education. In particular, they felt as though knowing about and working with the health sciences librarian was critical to their early success. Participants in all groups also mentioned the importance of free, on-campus health science tutors. However, NA group participants reported challenges to attend tutoring hours due to personal commitments and responsibilities, whereas Applied and Matched group participants were able to attend tutoring sessions. Other on-campus resources, like the food pantry, health center, and career center were cited as critical as well, particularly in the context of having limited time to earn a livable income while enrolled in a full course load. Students used these resources to acquire food and register for Supplemental Nutrition Assistant Program benefits, receive health care, and improve their resumes (respectively).

Table 2. Select Quotes Capturing Facilitators of Success of Didactic Program in Nutrition Graduates of a Minority-Serving, Public Institution's Nutrition Major in Fall 2017

<i>Themes</i>	<i>Interview</i>	
	<i>Group</i>	<i>Direct Quotes</i>
Faculty encouragement and support	NA:	[The professor] kind of geared me into that, because she owned a restaurant herself for so many years, so the fact that she used to talk to us about that, and we had the projects where we had to put our own meals together. [My interest] just kind of grew from that, but she also encouraged me to go for it.
	Applied:	I think that a lot of students do need a little bit of hand holding because of workload and study and then trying to [complete the internship application], it can be overwhelming.
	Matched:	What happened more specifically was, [our professor] gave us concrete places and examples of where we could [volunteer], and she actually told me about an opportunity at WIC, doing the cooking matters [program], and that gave me an avenue there because it wasn't like I had to go in and create it from scratch, it was like okay if this is a place where you're interested in, and I went a'running. That's how I started.
Familiarity with on-campus resources	NA:	This was some time after I graduated, [but] I was [still] wondering what resources are out there for someone who is still trying to work in the field.
	Applied:	I was going to [the on-campus tutors] and they really helped. I was making sure in the last week when I quit my job that I had time, I would spend hours with the two of them going over microbiology or chemistry or anything else.
	Matched:	I think it's also missed that we have in the career center somebody who deals specifically with [health professions] and can help with the resume, so whether they're looking for a job in the field or a job while they're in school, that's another resource that I don't think is utilized and some people don't even know exists.

Themes	Interview Group	Direct Quotes
Experience in the field	NA:	<p>We have the food pantry. When I was working at the [university's] health center, everybody was always walking in completely surprised that the resources were there, that you can apply for food stamps, that you can get some medical care either free or low cost. You can get counseling services. Those resources are not really pushed . . . but perhaps we should explain the services that are [available to] our students.</p>
	Applied:	<p>I was [doing my fieldwork] at City Harvest. It helped me a little bit for this job here, but it doesn't help me if I want to work with women and infants. I'm giving out food demonstrations . . . I got to teach a class. That helped me, but lots of the stuff didn't help.</p> <p>I do seasonal work right now as a community nutrition educator. That's what I'm doing now, but that's just seasonal, because I don't have too much experience. That's the other problem. You don't get that much experience in the program, so I have to try to look for stuff on my own and lots of the time 'we don't have any openings,' 'we don't have anything ready right now.' It's harder for me, so I have to just take what I can just to get some sort of experience. I mean, I use my education, but it's just seasonal.</p>
	Matched:	<p>As much as I can picture [working as a nutrition professional and] build it up in my head, or read about it, I didn't realize what it was like to work at a nursing home until I was at a nursing home. It was a nice nursing home, too, but every day I would go in and be like man, I really don't want to be here.</p> <p>When you're going through, you're mentally and physically exhausted from all the tasks that you have to do, but to have people that are in the field and enjoying what they're doing to come in and be like 'this is worth it!'</p> <p>I don't think [students] realize that you need to go into your rotations like it's a job, that means getting there on time, not calling in sick, doing what they ask you to do, dressing appropriately.</p>

Experience in the field. Participants agreed that getting more experience in professional settings is critical to success. Participants in the Applied and Matched groups reported that they wished there were more experiential opportunities built into the major and/or that they could have afforded to do more volunteer work as way to improve their DI applications. However, NA group participants' reactions to volunteering were mixed; some participants struggled to see the value in volunteering and felt as though their volunteer experience (in a required fieldwork course) didn't enhance their job applications, whereas work experience would have been more helpful. After graduation, they felt as though getting a job in nutrition was a double-edged sword in so far as employers want candidates to have experience but they couldn't get experience in entry-level jobs because they were so competitive. This is in stark contrast to participants in the Matched group who described the importance of approaching every volunteer, fieldwork, or internship experience as if it were a job.

Barriers to Success

Several barriers to pursuing dietetic education and credentials emerged as well, including: balance between school, work, and life, faculty/tutor availability and accessibility, and aspects of the dietetic internship. Direct quotes supporting these findings are in Table 3.

Work-school-life balance. Overall, participants in all groups described difficulty managing their time and responsibilities. While participants of the NA group felt immense pressure, they were unable to shirk any of their responsibilities (e.g., full-time job or being the primary caretaker of one or more family members). They reported high stress because they had other obligations that required their attention and felt as though these responsibilities were their biggest obstacles. As a result of these demands, they experienced stress and pressure that shifted their attitude from striving to achieve a high grade point average to simply wanting to complete the major successfully, which ultimately led to feeling burnt out. Participants in the Applied group also reported a similar struggle where they "just needed to finish," but these participants also reported that they were able to scale back their commitment to other activities (e.g., jobs, volunteer sites, and social lives). Several participants in the Matched group reported that they did not work at all while enrolled in full-time coursework in order to maintain a high grade point average. The Matched group described balancing school and life as a time-management issue; they described trying to balance studying, volunteering, and participating in student activities (rather than personal responsibilities).

Faculty/tutor availability and accessibility. Participants in the NA group reported struggling to get help from professors and/or tutors, in particular because office hours were not flexible. In contrast, participants in the Applied and Matched groups also reported that tutor accessibility was an issue, but they reportedly prioritized attending office hours.

The NA group participants also felt as though they needed more encouragement from professors, who they perceived as unapproachable and who created a "sink or swim" envi-

ronment. Participants in the NA group received the message that the only way to “swim” in nutrition was to match with a DI, which they understood required both a high grade point average and volunteer work. This created more stress and pressure than participants were already experiencing because the NA group participants worked in jobs or as caregivers fulltime. Participants in all groups reported needing more guidance from faculty in general.

Aspects of the dietetic internship. The financial burden participants experienced was related to the cost of applying to the DI, the cost of the DI itself, and lost wages as a result of a full-time DI. The NA group perceived the DI as completely unaffordable and unattainable and therefore, never gave serious consideration to applying for it. In addition, they felt as though the uncertainty of getting a well-paying job after the DI was too risky. While the Applied group also emphasized the anticipated financial burden of the internship, they felt as though the DI would pay for itself long term. Yet, they described confusion with an unclear application process that required additional fees to each program they applied to. Even those who Matched felt as though they would have benefited from help navigating the process.

Science-based coursework. Participants in the NA group reported that high level science-based classes (e.g., medical nutrition therapy and advanced nutrition) was very fast paced and that it would leave you in the dust if you didn’t “get it” right away. This was further complicated by the fact that they felt the course load was very high yet they were unable to reduce their load to focus because they would be ineligible for financial aid. Moreover, by the time they realized that the combination of science-heavy content and course volume was too much, they felt as if it was “too late” to change majors.

DISCUSSION

This is the first study to find that there may be important differences between low-income students of color who persist in the field of nutrition and those who don’t and to identify specific supports and barriers for these demographics. It is well established that low-income students of color are less likely than higher income Whites to enroll and persist in higher education (National Clearinghouse House, 2014). Yet, the challenges that low-income students of color face pursuing nutrition specifically have been understudied. The results of this study reveal important, previously undescribed areas in which low-income students of color struggle to persist in nutrition.

Orientation toward personal interests or career goals combined with a lack of self-confidence and being unfamiliar with the expectations and advantages of becoming a credentialed nutrition professional (RDN) seem to affect the trajectory of low-income, minority students at the onset of their academic career. That is, those who set career goals, have confidence, and are knowledgeable about the process may be more likely to persist. These characteristics align with research that suggests that grit—setting and pursuing a goal despite setbacks—is necessary

Table 3. Select Quotes Capturing Barriers to Success of Didactic Program in Nutrition Graduates of a Minority-Serving, Public Institution's Nutrition Major in Fall 2017

<i>Themes</i>	<i>Interview</i>	
	<i>Group</i>	<i>Direct Quotes</i>
School-work-life balance	NA:	I remember [my husband and baby] both got sick, and I had a microbiology test in the morning, and it was four o'clock in the morning, and all I could do was cry like, 'I'm going to fail this exam.'
	Applied:	When I first got here I was making straight As. At some point I was just like 'I just want to pass,' but then I'm like 'I worked so hard just to say I just want to pass?' I felt bad, like I just wasted three years and everything that I've done so far amounts to 'I just want to pass.' That kind of made me upset at the end, but I was just like look, I got it, let me just move on.
	Matched:	I worked full time, so I bartended nights, I worked five nights a week from five to two, and then I came to class from like nine until four . . . I think I was in a psychology class and my whole body started shaking, and I thought that I was about to pass out. I walked into the bar and I quit that day. I was like I'm done, I'm sorry, I can't do it. It's like one or the other. [My biggest obstacle was] time management, structuring myself around the courses, making sure I got all my homework done on time and not leave it until the last minute, like a typical undergraduate. Sometimes the income becomes an issue, because insurance is so expensive. If you're not working full time you don't have insurance. If you work very little . . . it is what it is. You get Medicaid if you're not making a certain amount, but if you make a penny over that amount, which is not much, then you've got to spend a lot of money purchasing your insurance. Time is an issue because we're expected to volunteer, we're expected to participate in club activities, we're expected to study and do well, so time is an issue.

<i>Themes</i>	<i>Interview Group</i>	<i>Direct Quotes</i>
Faculty/tutor availability and accessibility	NA:	The times I'd actually meet with some of the professors was either Tuesday or maybe Thursday, that's it, for like one hour. It wasn't realistic, because with the different classes and schedules outside, there was no real flexibility
	Applied:	[Tutors are only available for four hours per week, so I finally had time to go] when I quit my job, [then] I would spend hours with the two of them going over microbiology or chemistry or anything else. Another issue is when I started we didn't have any tutors at all and now we have inconsistent tutoring because it's hard to get somebody to tutor on a consistent basis.
	Matched:	[Each program's application fees cost] you a lot more money, but what is the difference if you're not going to get picked up [by the first program], what does it matter as a fifth or a sixth or a fourth? You only put three on. I still don't know, so I think that will be very important to get to understand the whole system of the computer matching not just to the surface. I wish we had here a walkthrough of [the DI application system]. There are some little things that almost completely destroyed my application that I realized last minute. If I [hadn't] I actually would have accidentally sent it without the recommendations attached.
Science-based coursework	NA:	If we had a tutoring lab or just a session a couple days a week in the particular classes where somebody could have helped us with just that, especially the harder lessons like advanced nutrition, I think I would have done better. I would have done better than trying to get at it on my own.

for students to achieve success and is lacking in lower-income students (Duckworth & Gross, 2014). However, grit alone may not be enough to overcome challenges, as grit is narrowly focused on placing the onus on individuals. Other research suggests that in addition to grit, agency—in part, the ability to navigate social and educational settings—is necessary to achieve success (Kundu, 2017). In this study, graduates who persisted along the pathway to become an RDN described accessing on-campus resources, supporting that both grit and agency are critical to succeed.

It is interesting that those who did not persist with the DI seemed externally motivated (influenced by faculty) whereas those who persisted to match with the DI were internally motivated toward personal, explicit career goals. Faculty support, specifically in the form of setting high expectations and goals through individualized and personal attention may be an important component to creating a positive educational environment that fosters growth for nutrition or other health majors (Kundu, 2016). Utilizing technology to create innovative ways to provide support to students (e.g. creating virtual office hours or video tutoring sessions) is an emerging area of research that may better meet the needs of low-income students of color (Besnilian, Goldenberg, & Plunkett, 2016). In addition, participants generally reported positive outcomes from gaining more experience, either through volunteering or required fieldwork. Fieldwork may be students' first exposure to nutrition practice and of particular importance for nutrition programs to incorporate in order to help students persist. These environmental supports (faculty and exposure to the profession) may be of particular benefit to low-income students of color, who are less likely to have knowledge about health professions (U.S. Department of Health and Human Services, Health Resources and Services Administration, 2006).

Several participants described feeling as if they didn't belong in the nutrition profession due to their weight, which probably increased self-doubt and may make students less likely to persist in the field. Since it is well established that low-income people of color are more likely to be overweight and obese, (Krueger & Reither, 2015), it may be important to create an emotionally safe and secure environment that encourages health at every size and celebrates those who practice healthy eating and exercise yet who remain overweight. Nutrition students who feel out of place may feel isolated, which may be further compounded by the increased social isolation that study participants described as a result of pursuing an academically challenging and rigorous course of study.

The results of this study suggest that a combination of strategies to improve student persistence including: early interventions to introduce students to nutrition and career pathways, activities that motivate and support students to develop grit and agency, to expose them to nutrition in the field, and increase their knowledge of and access to on-campus educational (and other) resources may be necessary. DPD programs, particularly at public, mid-tier universities should also develop strategies to familiarize students with opportunities to reduce the financial burden of the DI, as the cost of a DI creates an additional barrier for low-income

students of color who major in nutrition—one that they would not experience in other health fields (Krueger & Reither, 2015).

Strengths

This is the first study to explore persistence in nutrition and identify differences between low-income people of color who never applied, applied but did not match, and applied and matched with a dietetic internship. Differences in persistence related to personal versus career orientation and confidence, facilitators of success like familiarity with on-campus resources, experience in the field, and barriers to success like school-work-life balance and science-based coursework are new and unique contributions to the current body of knowledge.

Limitations

Little is known about the generalizability of the findings due to small sample size and because the study focused on a single didactic program in nutrition. More research should be done with a larger sample size and with graduates from a greater number of programs.

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