Barriers to and Facilitators of Dietetics Education among Students of Diverse Backgrounds: Results of a Survey

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THE UNITED STATES IS PROjected to become a majority-minority nation for the first time in 2043.[1,2] Hispanic and Asian populations are expected to experience exponential increases by 2060, while smaller increases are anticipated within the African-American, American-Indian, and Alaskan-Native populations.[1] The resulting patient base will increase demand for a racially and ethnically diverse health care workforce capable of providing time-sensitive, individualized health care that meets patients' expectations and accounts for literacy, language abilities, and levels of acculturation and assimilation.[3] Failure or inability to competently address these issues could result in bias, poor patient–provider relationship, worse health outcomes, and low patient compliance, which ultimately combine to exacerbate existing health care disparities.[4]

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The Academy of Nutrition and Dietetics, like other health professional organizations, has recognized the need for the dietetics profession to parallel the nation's increasing racial and ethnic diversity. During the last 2 decades, the Academy has implemented several initiatives, such as the Diversity Mentoring toolkit,[5] Member Interest Groups (MIGs), and extensive cultural competency resources, to enhance the diversity of its membership and the dietetics workforce.[6] Despite these efforts, only 9% of registered dietitian nutritionists (RDNs) and nutrition and dietetics technicians, registered (NDTRs) are nonwhite, including 5% Asian, 3% African American, and 1% other, with 4% of Hispanic heritage.[7] The lack of diversity begins early; according to the 2015 Accreditation Council on Dietetic Education and Nutrition's Dietetics Education Program Statistics, only 31% of dietetics students in any program type were nonwhite. Although there has been a 133% increase in the number of Hispanic students and an 85% increase in Asian/Pacific Islander students enrolled in dietetics programs since 1998, the gains among African-American and Native-American students have been much smaller (4% and 41%, respectively) (personal communication, Accreditation Council on Dietetic Education and Nutrition, March 2016). Several studies have noted a similar disparity in the demographics of other health professions.[8-10]

The Academy's Council on Future Practice, which is charged with setting the direction for the future of the profession, has reiterated the need to find new and innovative ways to recruit and retain students of diverse backgrounds and those underrepresented in dietetics education programs, as well as ensure their adequate educational preparation for professional careers in dietetics.[11] These practitioners may be more likely or willing to work in underserved communities to which they belong and therefore provide care relative to patients' cultural norms, values, belief systems, and behaviors. Patients, in turn, are also likely to indicate higher satisfaction and greater compliance when their health care providers are from the same ethnic background.[12-14] At the organizational level, RDNs from diverse and underrepresented groups can be excellent role models, providing mentorship as well as informing policy decisions in dietetics education and practice.

To this end, dietetics educators and clinical preceptors play a critical role in ensuring adequate academic training, mentoring, internship and volunteer experiences, and encouraging students to be involved in dietetics-related organizations that lead to professional success. Pipeline programs can serve as a vehicle to ignite an early interest in students from underrepresented groups at the kindergarten through grade 12 level by giving them opportunities to learn about the profession and its academic requirements early on. "The pipeline for ensuring the training of students from diverse cultures rests largely within academia and, therefore, providers of dietetics education play a crucial part in providing training and opportunities for cultural awareness that ultimately reduce health disparities."[15] Dietetics educators can facilitate this by serving as mentors and role models and generating early interest in a dietetics career among students of diverse backgrounds.[16] Development of such programs necessitates an awareness of student perspectives on facilitators and

Table 1. Final scales developed for a survey on barriers and supports in dietetics education administered to Academy of Nutrition and Dietetics student members and Member Interest Group members in summer 2015

Scale/construct name	No. of items	Items	Cronbach's α
DPD[a] faculty support	5	I received adequate mentoring.	.806
		I spent adequate time networking with professionals in the field of nutrition and dietetics.	
		I had adequate opportunities and contacts for networking with professionals in the field of nutrition and dietetics.	
		I felt empowered to go to my program director for guidance.	
		I felt welcomed by faculty.	
DPD peer support	3	I was supported by family and friends in my decision to enter the profession of dietetics.	.761
		I was supported by classmates/peers in my decision to enter the profession of dietetics.	
		I felt welcomed by classmates/peers.	
DPD financial support	3	I had to use student loans.[b]	.725
		I had to work.[b]	
		I had financial worries.[b]	
Faculty support during supervised practice application	5	I received adequate support from faculty of my DPD in preparing for the DI[c] application process.	.877
		I had enough professional contacts to obtain recommendation letters for DIs.	
		Faculty members helped me determine who were good contacts for recommendation letters.	
		I received adequate help from faculty members in applying for DIs.	
		During the DI application process, I felt comfortable going to my DPD director for clarification.	
Fairness of supervised practice application/ selection	5	Race/ethnicity plays an important role in the selection of students for DI programs.[b]	.827
		The race/ethnicity of DI directors and preceptors impacts the selection of internship applicants for DI programs.[b]	
		The level of cultural competency of DI directors and preceptors makes a difference in the number of internship applicants of my race that are accepted into DI programs.[b]	
		Faculty of DPDs provide less preparation to students of my race/ethnicity regarding the internship application process.[b]	
		Students of my race/ethnicity receive lower-quality faculty recommendation letters written for DI applications.[b]	
Internship barriers	9 (max score=18)	High cost of DI programs.	.716
		Inability to relocate to a different geographical location.	
		Family obligations.	
		Limitation of the spots available.	
		No stipends or scholarships available for living expenses during DI.	

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Table 1. Final scales developed for a survey on barriers and supports in dietetics education administered to Academy of Nutrition and Dietetics student members and Member Interest Group members in summer 2015 (*continued*)

Scale/construct name	No. of items	Items	Cronbach's α
		Difficulty in navigating DICAS.[d]	
		Lack of adequate support from DPD program director or other DPD faculty on applying for DI.	
		Lack of self-confidence and self-efficacy for applying for DI.	
		Lack of opportunities to visit DI programs or open houses before applying to DI.	
DI support	6	I felt welcomed by other students.	.729
		I felt welcomed by program staff.	
		I spent adequate time networking with professionals in the field of nutrition and dietetics.	
		I had adequate opportunities and contacts for networking with professionals in the field of nutrition and dietetics.	
		Preceptors had strict standards for me.	
		I was able to work with peers to successfully complete projects/assignments.	
Job-seeking success	3	It is difficult for me to find a job as an RDN[e].[b]	.497
		I feel equipped to succeed in dietetics.	
		I receive a low salary.[b]	
Cultural competence	3	I am skilled at cultural competency.	.547
		I value cultural competency.	
		My patients are receptive to my advice.	

[a]DPD=didactic program in dietetics.
[b]Statement was reverse coded.
[c]DI=dietetics internship.
[d]DICAS=Dietetic Internship Centralized Application System.
[e]RDN=registered dietitian nutritionist.

barriers that can impact the success of such efforts. Therefore, the goals of this survey were to describe barriers and facilitators to dietetics education and careers perceived by students and new RDNs, and to determine whether perceptions of barriers and facilitators vary among students and new RDNs of diverse backgrounds.

DESIGNING AND IMPLEMENTING THE SURVEY

The survey was initially developed by members of the National Organization of Blacks in Nutrition and Dietetics (NOBIDAN), an MIG of the Academy. The draft survey from NOBIDAN was revised and questions were added by a working group that included representatives of the Asian Indians in Nutrition and Dietetics MIG, the Muslims in Dietetics and Nutrition MIG, and Academy research staff. Questions covered demographic information; facilitators and barriers to undergraduate dietetics education, supervised practice application and completion, and practice as an RDN; reasons for entering the dietetics profession; use of community college or international universities to complete requirements; and study habits for the RDN exam. Facilitators and barriers in the survey were based on the literature about facilitators and barriers to success in college and health professional education among students of diverse backgrounds.[8,10,17] For questions about facilitators and barriers, respondents rated both their own experiences during dietetics education and their perception of how members of their racial/ethnic group are treated as a whole, on a 5-point Likert-type response scale. All authors extensively reviewed the survey for face and content validity. In addition, 10 RDNs and students were invited to serve as beta-testers. Revisions were made based on comments from both groups. Institutional Review Board approval was obtained from the American Academy of Family Physicians Institutional Review Board and participants agreed to a written statement of consent without signature before entering the online survey. The survey link was e-mailed to 12,905 members of the Academy who were members of National Organization of Blacks in Nutrition and Dietetics, Muslims in Dietetics and Nutrition, Asian Indians in Nutrition and Dietetics, or the Thirty & Under in Nutrition & Dietetics MIG, or were a student member in August 2015. The survey was open for a total of 21 days and a reminder to complete the survey was sent on day 11. The survey was hosted online at surveymonkey.com and responses were

collected anonymously. As an incentive, at the conclusion of the survey, respondents could enter a separate survey for the chance to win one of four $100 gift cards. Questions could be skipped by choice and/or automatically based on responses to previous questions, so the number of respondents varies by question. Each section of dietetics education was addressed separately so that only individuals who had completed that step saw the relevant questions; for example, current didactic program in dietetics (DPD) students did not see questions about supervised practice application or completion.

Data were downloaded from surveymonkey.com into SPSS (version 20.0)[18] software for statistical analysis. Respondents were categorized as white, non-Hispanic African American, Asian, Hispanic (white or write-in race), and other/not specified. Responses identifying as Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other Asian, Native Hawaiian, Guamanian or Chamorro, Samoan, or Other Pacific Islander were grouped together as Asian because there were not enough respondents from each individual group to divide these groups for analysis. The African-American category includes all individuals of African descent, including those from the Caribbean and African countries. The coding was developed so that respondents of multiple races including white would be assigned to the nonwhite racial group they identified.

Scales were created to assess 10 constructs: supportive nature of historically black colleges and universities, faculty support in DPD programs, peer support in DPD programs, financial support during DPD programs, faculty support for supervised practice application, fairness of supervised practice application and selection, barriers to dietetics internships, support during dietetics internships, job seeking barriers, and cultural competency. Except for dietetics internship barriers, all scales were based on questions that were on a Likert-type response scale for frequency with never=1 (meaning that a higher score on a scale indicates better support). This required the reverse coding of some items compared to how they were worded in the survey (superscript "b" in Table 1). All scales used the responses regarding how individual respondents were treated except for supervised practice fairness, which used responses about group perceptions because only the group-perception questions dealt directly with fairness. Nine potential barriers were included for respondents to consider. They were scaled so that: not a barrier=0, minor barrier=1, and major barrier=2. Scales were created based on the opinion of one author and Cronbach's α was tested. If Cronbach's α could be improved through the removal of items, then it was done, provided that the item's inter-item correlation was $<.4$.

Frequency distributions were used to describe the demographic characteristics of the sample. Comparisons were made between racial/ethnic groups using χ^2 tests with Bonferroni post hoc corrections. The mean score on each scale was compared among the five racial/ethnic groups using analysis of variance and Bonferroni post hoc corrections. Frequency distributions were used to describe reasons for entering the dietetics profession, use of community college or international education to fulfill requirements, and RDN exam study strategies, among the entire sample.

Themes and definitions were developed and applied by one individual for the write-in responses to the questions on what program directors in dietetics academic and supervised practice programs could do to better support students. The frequency of the themes was analyzed. Themes that did not achieve a frequency of at least 2% in both program types are not presented here, unless they were judged to be extremely salient to the topic of the survey (eg, bias, needs of students of diverse backgrounds).

RESULTS

Demographics

Seventy-nine respondents were RDNs who had been registered for >5 years. These individuals were removed from the sample to focus on the opinions of recently educated RDNs. The sample of 1,805 responses from students or RDNs with ≤5 years of experience was used for the analysis. This represents a 14.0% response rate. Demographic characteristics of the respondents are found in Table 2. The racial and ethnic composition of the sample reflects the profession as a whole, which is 5% Asian, 3% African American, 1% other, and 4% Hispanic.[7] Slightly more males were represented in this survey (6.8% male) than in the profession as a whole (5% male).[7] The majority of respondents were in the 18- to 25-year-old age group; this reflects the sampling strategy that was undertaken to reach current students and new practitioners. This is also reflected in the distribution of respondents with a Master's degree, which is lower than the profession as a whole, due to many respondents being current students.

Only 1.6% of respondents reported being most comfortable speaking Spanish, from choices of English, Spanish, or other (data not shown). Hispanic respondents were much more likely to select Spanish as their preferred language (18.0%) compared to 6.2% of African-American respondents and 2.6% of other/unspecified respondents, which represents statistically significant differences. Attainment of Master's and Associate's degrees also varied significantly across races. The group with the highest Master's degree attainment was Asian (29.9%) and the lowest proportion was Hispanic (12.2%). White and African-American respondents did not vary significantly from each other in their Master's degree attainment (17.0% and 20.0%, respectively). The largest proportion of respondents with attainment of Associate's degrees as the highest degree was among Hispanic respondents (13.8%) compared to 2.9% of Asians, 7.1% of white, and 9.2% of African-American respondents.

Perceptions of Barriers and Facilitators Measured by 10 Constructs

The final construct scales and their Cronbach's α are in Table 1. All of the scales except job-seeking success and cultural competency had Cronbach's $\alpha > .7$, indicating good internal consistency among the scale items. White respondents had the highest mean scores on all construct scales except DPD financial support, internship support, and job-seeking success (Table 3). White respondents identified the highest level of DPD faculty support (19.0±3.6), with statistically insignificant differences to Hispanic and other students. However, the DPD faculty support was lowest

among African-American respondents (17.2±3.6), which was significantly different at the $P<0.05$ level compared to white respondents. Asian students were also significantly lower in their rating of DPD faculty support (17.7±4.0) compared with white students. This same pattern was identified in perceptions of fairness of the supervised practice application process, with white respondents having the highest perception of fairness (20.5±3.5) and African-American respondents having the lowest (16.6±3.9) (Table 3). Asian respondents' fairness rating was middling (18.5±3.9), but statistically lower than white respondent perceptions. Asian respondents had the highest mean number of reported barriers to dietetics internships (9.6±3.3), which was statistically different from Hispanic respondents, who had the lowest number (7.6±3.7) (Table 3).

Other Educational Characteristics

Respondents had been influenced by professors or RDNs and NDTRs and family members to join the profession of dietetics (Table 4). High school teachers and counselors were infrequent influencers, as were professors of the same race/ethnicity as the respondent (40.3% and 32.2% strongly disagreed, respectively). The variety of job options and prestige of the profession was important to 44.8% of respondents (Table 4).

Use of community college courses to complete dietetics or general education requirements was common (Table 5). The most common reasons were financial or location.

Of the respondents who had completed their undergraduate requirements (n=827), 84% applied for dietetics internships, 12% applied to graduate school separately from an internship, and 2% took the exam to become an NDTR. Of those who had applied to dietetics internships (n=695), 86.4% had applied to only one internship cycle; 9.8% to two; 2.6% to three, and 1.2% to four or more cycles. The mean number of programs per application cycle was 3.7±2.1 (median=4), with 32.4% applying to five or more programs.

More than 90% of respondents who applied for internships had done so using the Dietetic Internship Centralized Application System. This is logical, given that the Dietetic Internship Centralized

Table 2. Demographic characteristics of respondents (n=1,805) to a survey on barriers and supports in dietetics education administered to Academy of Nutrition and Dietetics student members and Member Interest Group members in summer 2015

Characteristic	All respondents, n (%)
Female	1,682 (93.2)
Race	
American Indian or Alaskan	9 (0.5)
Asian Indian[a]	15 (0.8)
Asian[a]	141 (7.8)
African American	70 (3.9)
Native Hawaiian/Pacific Islander[a]	8 (0.4)
White	1,556 (86.2)
Prefer not to answer	31 (1.7)
Other (included Arab, Hispanic)	50 (2.8)
Selected multiple races	83 (4.6)
Hispanic origin	138 (7.6)
Age (y)	
18 to 25	1,075 (59.6)
26 to 40	607 (33.7)
41 to 65	118 (6.5)
Highest completed degree	
High school diploma/general education development	91 (5.0)
Some college or technical school	224 (12.4)
Associate's	131 (7.3)
Baccalaureate	1,012 (56.1)
Master's	320 (17.7)
Doctorate	12 (0.7)
Professional (MD[b], JD[c], etc)	12 (0.7)
Member Interest Group affiliation	
Asian Indians in Nutrition and Dietetics	9 (0.5)
Chinese Americans in Dietetics and Nutrition	14 (0.8)
Fifty Plus in Nutrition and Dietetics	15 (0.8)
Filipino Americans in Dietetics and Nutrition	3 (0.2)
Jewish Member Interest Group	11 (0.6)
Latinos and Hispanics in Dietetics and Nutrition	23 (1.3)
Muslims in Dietetics and Nutrition	10 (0.6)
National Organization of Blacks in Dietetics and Nutrition	33 (1.8)
National Organization of Men in Nutrition	25 (1.4)
Thirty & Under in Nutrition & Dietetics	208 (11.5)
Credentialed practitioners (<5 y) only (n=303)	
Nutrition and dietetics technician, registered	4 (0.2)
Registered dietitian nutritionist	298 (16.5)

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Application System was implemented in the April 2011 match cycle, and the earliest cycle of respondents was 2009. Fifty-eight percent of respondents reported receiving assistance navigating the Dietetic Internship Centralized Application System, with the most frequent source of help being the DPD director (76.7%), followed by another student (57.0%).

Among respondents who reported completing a dietetics internship (n=438), 72% had attempted the RDN exam; 96% of those who had attempted (n=315) had passed it and 97% passed on the first attempt. While 73% reported studying alone; the remainder studied both alone and with others. The most frequent method of studying for the exam was a study guide (63.5%), followed by a structured in-person or recorded review course and Commission on Dietetic Registration's Study Guide for the Registration Examination for Dietitians (Table 6). The most frequent response to questions about the timing of the exam was that they spent 1 to 2 months actively preparing for the exam (52.4%) and took 1 to 2 months between completing the internship and attempting the exam (61.8%) (Table 6).

Barriers and Supports Identified by Write-in Responses

The most frequent themes from the write-in responses for actions to support students were: explain internship application expectations (25.0% in dietetics academic programs) and provide individual student support/mentorship/modeling (19.9% in dietetics academic programs and 22.9% in supervised practice programs) (Table 7). The most frequent themes from the write-in responses for actions to avoid were: not advising or assisting/monitoring students (11.1% in dietetics academic programs and 14.9% in supervised practice programs), discouraging/pressuring students (12.3% in dietetics academic programs and 9.7% in supervised practice programs) (Table 8). Perceptions of racial bias appeared in some write-in responses (3.3% of dietetics academic programs and 3.1% of supervised practice programs) (Table 8). Favoritism, which may be intertwined with racial bias, was a theme seen with similar frequency. An interesting dichotomy

Table 2. Demographic characteristics of respondents (n=1,805) to a survey on barriers and supports in dietetics education administered to Academy of Nutrition and Dietetics student members and Member Interest Group members in summer 2015 (*continued*)

Characteristic	All respondents, n (%)
Current employment status	
Full-time (≥30 h/wk)	176 (58.1)
Part-time (<30 h/wk)	56 (18.5)
Not working in dietetics	71 (23.4)
Looking for work (of those not working in dietetics)	48 (67.6)
Current practice area (n=229)	
Business and industry	4 (1.7)
Clinical nutrition	83 (36.2)
Communication/publication	2 (0.9)
Community nutrition	31 (13.5)
Consult and private practice	9 (3.9)
Diabetes care	4 (1.7)
Education	6 (2.6)
Food and nutrition management	6 (2.6)
Gerontology	5 (2.2)
Integrative and functional medicine	1 (0.4)
Long-term care	22 (9.6)
Nutrition support	1 (0.4)
Oncology	2 (0.9)
Pediatrics	9 (3.9)
Policy and advocacy	2 (0.9)
Renal nutrition	4 (1.7)
Research	6 (2.6)
School nutrition	2 (0.9)
Sports nutrition	5 (2.2)
Weight management	11 (4.8)
Wellness/prevention	14 (6.1)
Current employment setting (n=230)	
Clinic or ambulatory care	50 (21.7)
College/university faculty	16 (7.0)
College/university foodservice	2 (0.9)
Community public health	39 (17.0)
Extended-care facility	30 (13.0)
Food manufacturing/distribution	5 (2.2)
Health maintenance organization	1 (0.4)
Home health care primary	2 (0.9)
Hospital	71 (30.9)
School foodservice	2 (0.9)

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Table 2. Demographic characteristics of respondents (n=1,805) to a survey on barriers and supports in dietetics education administered to Academy of Nutrition and Dietetics student members and Member Interest Group members in summer 2015 (*continued*)

Characteristic	All respondents, n (%)
Self-employed (health care)	1 (0.4)
Self-employed (individual)	5 (2.2)
Self-employed (organization)	6 (2.6)
Current employer type (n=22)	
City or local government	17 (7.5)
Contract food management	27 (11.9)
Federal government	9 (4.0)
Managed care organization	54 (23.9)
Other for-profit	53 (23.5)
Other not-for profit	47 (20.8)
Self-employed	9 (4.0)
State government	10 (4.4)

[a]Groups that were aggregated for remaining analyses.
[b]MD=medical doctor.
[c]JD=juris doctor.

that appeared in the "actions to avoid" responses was the fact that some believed that standards were too low in programs, and others perceived them to be too high (Table 8). Similarly, there was disagreement about the amount of critical feedback that was supportive to student's learning. This could represent differences in programs' expectations and styles.

DISCUSSION

This survey was an initiative to inform important stakeholders within the Academy and dietetics educators about students' and new RDNs' perceptions of barriers to dietetics education and entry into the profession. In this survey, white students reported receiving a higher level of faculty support in all phases of their dietetics education than students from other backgrounds. African-American respondents had the lowest mean scores on the DPD faculty support and application fairness scales. Asian respondents had the lowest mean scores on the DPD peer support and faculty support for supervised practice application scales. Hispanic respondents had the lowest mean scores on DPD financial support, and respondents who were in the "other" group had the lowest mean scores on internship staff support. Overall, this shows that students of diverse backgrounds perceive bias or unfairness in dietetics education, but that different groups perceive it in different steps of the process.

Program directors and program faculty/preceptors should be aware that students of diverse backgrounds perceive that they receive less support and that the system of dietetics education is unfair. Research on implicit bias indicates that individuals may not be aware of their own biases.[19,20] Raising awareness through Implicit Associations Tests or other validated tools can help individuals overcome their biases,[20] and can be an important part of continuing education. Dietetics education programs should be transparent about processes so that fairness is ensured and appropriate support is provided to all students. It is important to consider the difference between equality (everyone getting the same assistance) and equity (each individual getting the assistance they require, which may mean more support for some students than others), in order to overcome previous barriers. From the students' write-in responses, it was apparent that within the dietetics academic programs, the two areas that needed immediate attention were adequate and timely academic preparation for the internship process; and the provision of adequate support systems, including mentoring, networking, and experiential learning opportunities, such as shadowing and volunteer field experiences.

Preparation for the Internship Process

Study participants noted that starting the preparation for the internship process early in the academic preparation planning would be beneficial to them and cause less anxiety. This anxiety is not unexpected, especially in a climate of limited internship opportunities, low remuneration, limited availability of preceptors,[21,22] and barriers to student presence in clinical settings.[17] Several authors[23,24] have highlighted these concerns during the past 15 years and noted the need for providing more internship and mentoring opportunities, increasing the availability of alternate pathways to registration, such as the Individualized Supervised-Practice Pathways, creation of paid clinical preceptor positions working with RDNs in diverse communities, and improved remuneration as strategies for mitigating these concerns.[17,25]

Provision of Adequate Support Systems to Ensure Student Success

Based on students' write-in responses, it is apparent that there is a need for providing the necessary academic support for students of diverse backgrounds. Dietetics educators should be mindful of the increasing number of students of diverse backgrounds in their programs,[26] but cannot stop there. Educators must continue to support these students with initiatives to ensure students' future success in the profession of dietetics. Other health professions have noted that underrepresented, culturally diverse students face unique challenges, such as negative perceptions of college attendance, lack of family role models who may have attended college, limited financial resources, and inadequate preparation in math and

Table 3. Mean scale scores of racial/ethnic groups among respondents to a survey on educational supports and barriers sent to Academy of Nutrition and Dietetics student members and Member Interest Group members in summer 2015[a]

Scale name	Maximum possible score	White[v]		African American[w]		Asian[x]		Hispanic[y]		Other/Unspecified[z]		*P* omnibus ANOVA[c]
		n	Mean±SD[b]	n	Mean±SD	n	Mean±SD	n	Mean±SD	n	Mean±SD	
DPD[d] faculty support	25	1,250	**19.0±3.6**[wx]	55	17.2±3.6[v]	117	17.7±4.0[v]	110	18.0±4.1	36	18.3±4.7	<0.001[e]
DPD peer support	15	1,275	**13.1±2.0**[x]	55	12.4±3.1	115	12.2±2.5[v]	110	12.5±2.6	37	12.6±2.4	<0.001[e]
DPD financial support	15	1272	7.1±3.6[x]	52	7.5±3.7	116	8.3±3.6[v]	111	7.0±3.5	37	**8.5±3.5**	0.002[f]
Faculty support during supervised practice application	25	542	**20.0±4.3**[x]	12	20.5±3.7	59	17.1±4.9[v]	40	19.6±4.1	11	17.6±5.2	<0.001[f]
Fairness of supervised practice application/selection	25	529	**20.5±3.5**[wx]	11	16.6±3.9[v]	59	18.5±3.9[x]	39	19.4±3.9	10	17.5±4.7	<0.001[f]
Internship barriers[g]	18	534	7.8±3.4[x]	12	8±4.4	58	**9.6±3.0**[vy]	40	7.6±3.7[x]	11	8.5±4.7	0.004[f]
Dietetic internship support	30	278	24.8±3.2	5	24.4±6.3	22	24.2±3.3	14	**25.0±2.8**	4	23.8±2.2	0.862[f]
Job-seeking success	15	254	9.9±2.0	5	10.6±2.7	21	9.3±2.4	11	10.2±1.7	2	**11.5±2.1**	0.407[f]
Cultural competence	15	256	**12.5±2.1**[y]	5	10.6±2.7	21	9.3±2.4	11	10.2±1.7[v]	2	11.5±2.1	0.005[f]

[a]Comparisons among racial groups were made using ANOVA with Bonferroni post hoc corrections. Bold type indicates the group with the highest mean score in each scale.
[b]SD=standard deviation.
[c]ANOVA=analysis of variance.
[d]DPD=didactic program in dietetics.
[e]Levene's test for equality of variance was significant and therefore Welch's *F* was used.
[f]Omnibus *F* test was used.
[g]Scores closer to the maximum possible score indicate more support in education, except for the internship barriers scale, in which a lower score is more desirable.
[vwxyz]If the omnibus test was significant, Bonferroni post hoc tests were used to identify the groups that were statistically different at $P<0.05$; these are indicated by the nonmatching superscript letters. For the two scales for which Levene's test was significant, Tamhane post hoc tests were used.

Table 4. Influences on joining the profession reported by respondents to a survey on barriers and supports in dietetics education administered to Academy of Nutrition and Dietetics student members and Member Interest Group members in summer 2015[a]

Variable	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	← n (%) →				
Family member (n=1,737)	342 (19.7)	400 (23.0)	313 (17.3)	**453 (26.1)**	229 (13.2)
High school teacher/counselor (n=1,728)	**695 (40.3)**	612 (35.4)	255 (14.8)	110 (6.4)	56 (3.2)
Professor/RDN[b]/NDTR[c] (n=1,733)	368 (21.2)	395 (22.8)	226 (13.0)	**487 (28.1)**	257 (14.8)
Professor/RDN/NDTR of the same race/ethnicity as me (n=1,725)	**555 (32.2)**	498 (28.9)	297 (17.2)	271 (15.7)	104 (6.0)
Money/competitive salary (n=1,720)	**568 (33.0)**	527 (30.6)	390 (22.7)	207 (12.0)	28 (1.6)
Variety of job options/prestige (n=1,734)	188 (10.8)	184 (10.6)	268 (15.5)	**776 (44.8)**	318 (18.3)

[a]Bold type indicates the most frequent response for each row.
[b]RDN=registered dietitian nutritionist.
[c]NDTR=nutrition and dietetics technician, registered.

science.[4,27] Consequently, there is a need for additional support in a variety of domains, starting from academic and financing education to providing psychosocial supports. Tutoring, providing encouragement and motivation, building confidence, creating shadowing and hands-on experiences, helping with networking, and building connections via peer mentoring with recent graduates are some strategies that dietetics education programs and the Academy can implement to help address these challenges.

Table 5. Use of community college and international universities to complete dietetics course requirements as reported by respondents to a survey on barriers and supports in dietetics education administered to Academy of Nutrition and Dietetics student members and Member Interest Group members in summer 2015

Variable	n (%)
Dietetics course requirements at a non-US institution (n=1,742)	
Held a dietetics credential in another country	3 (0.2)
Completed a dietetics degree in another country	16 (0.9)
Completed some coursework in another country but obtained a US dietetics degree	27 (1.5)
Course requirements at a community college (n=633)	
Dietetics courses	235 (37.1)
General education courses	99 (15.6)
Reasons for using community college (n=334)	
Started at community college and transferred	135 (40.4)
Summer classes close to home	145 (43.4)
Save money	238 (71.3)
Reputation for being easier	33 (9.9)
Improve grades from previous classes	18 (5.4)
Schedule	109 (32.6)

Role of Pipeline and Mentoring Programs

Pipeline and mentoring programs in health care professions, including dietetics, can be pivotal in providing support for underrepresented, culturally diverse students. These programs can serve as tools that increase both recruitment and retention in the field of dietetics. Pipeline programs increase awareness and exposure to the dietetics profession during the kindergarten through grade 12 learning experience.[16] Lack of awareness, the academic requirements, and the supervised practice application process were cited as barriers to being successful in the dietetics field.[10] Responses related to influences on entry into the profession suggest that efforts could be made toward making high school career counselors aware of the profession of dietetics. This also suggests that pipeline programs are an untapped opportunity in dietetics. Increasing awareness will assist students of diverse cultures in considering dietetics as a career option earlier in their academic career preparation rather than making their choice in college.[16]

The Academy's e-mentoring programs, as well as traditional mentoring programs by RDNs and preceptors, can be a valuable resource for increasing awareness of the different facets of the nutrition and dietetics

Table 6. Method of studying for the registered dietitian nutritionist exam among respondents to a survey on barriers and supports in dietetics education administered to Academy of Nutrition and Dietetics student members and Member Interest Group members in summer 2015

Variable	n (%)
Method (n=315)	
Structured online review course	76 (24.1)
Structured in-person review course	81 (25.7)
Structured recorded review course	87 (27.6)
Study guide for the registration examination for RDN[a]	88 (27.9)
Other study guide	200 (63.5)
Did not use formal materials	2 (0.6)
Did not prepare	2 (0.6)
Other	53 (16.8)
Time spent actively preparing for RDN exam (n=313)	
<4 wk	110 (35.1)
1 to 2 mo	164 (52.4)
3 to 5 mo	29 (9.3)
≥6 mo	10 (3.2)
Time between completing supervised practice and attempting exam (n=31)	
<4 wk	65 (20.7)
1 to 2 mo	194 (61.8)
3 to 5 mo	49 (15.6)
≥6 mo	6 (1.9)

[a]RDN=registered dietitian nutritionist.

profession.[28] Mentoring programs facilitate professional and personal development for both mentors and mentees, as well as help mentees relate more to individuals who have recently gone through a similar process and may be more tuned in to expectations and challenges. Leveraging professionals of the same race as students as influencers is challenging until the dietetics profession becomes more diverse. However, this may be an important role for MIGs and other groups promoting diversity to play, in providing mentors to students of the same race/ethnicity. RDNs and NDTRs from these groups can not only provide mentorship and inspirational examples, but can also take on leadership roles in important governance-related and decision-making committees in the Academy and at their employers that deal with issues such as admission criteria and financial aid.

Health care professionals, including RDNs, are in agreement that recruitment and retention of underrepresented culturally diverse health professionals is key to addressing health care disparities. In order to improve patient compliance, health outcomes, and patient confidence, RDNs should mirror the populations they serve, which is forecasted to be increasingly heterogeneous and diverse. In other health care professions, ongoing cultural competency training for faculty and staff, student exposure to under-served populations, encouraging interdisciplinary collaborative interactions, and increasing awareness of perceived barriers and challenges by underrepresented culturally diverse students have been suggested as strategies to enhance recruitment and retention of students of diverse backgrounds.[4]

Limitations

Cronbach's α for the job-seeking success and cultural competency scales was <.7, indicating that these were not as strong as other scales in the survey. This may be due to the low response rate in the practitioner portion of the survey. These scales should be retested in a survey that includes a larger sample of practicing RDNs, as this survey had the highest response from current students. The patterns of educational attainment seen in this survey may not reflect true differences in attainment across races/ethnicities in Academy membership as a whole because our sample overrepresents students and new professionals.

We attempted to oversample the populations of interest by contacting MIG members, but did not succeed; as a result, the sample size for some of the racial/ethnic groups is low and results may not be representative. The Academy does not maintain race and ethnicity data in its membership database; therefore, it is challenging to target survey invitations to certain racial/ethnic groups, although stratified sampling would improve future surveys, were this information to become available. We attempted to use MIGs to target the sampling, but MIG membership is open to Academy members regardless of background and still represents a small proportion of the population. Another limitation of this survey is that it only included students who are Academy members and members may be different from nonmembers. Future surveys should identify a sampling strategy that will allow dietetics students who are not Academy members to respond. Similarly, reaching those individuals who are not matched to internships and choose not to enter the profession of dietetics or those who struggle to pass the RDN exam is challenging. Unique methods for reaching these individuals must be developed to strengthen future work in this area. Although the response rate is relatively low, it is similar to the standard seen among online surveys of health professionals.[29] Three weeks is the standard time for Academy

Table 7. Themes and exemplar quotes from write-in responses describing actions to that help students in dietetics academic programs and supervised practice programs to support students

Theme	Exemplar quotes related to dietetics academic programs	n (%), with a related quote for dietetics academic programs (n=1,211)	Exemplar quotes related to supervised practice program supports	n (%), with a related quote for supervised practice programs (n=1,026)
Explain internship application expectations (early in process) (costs, process, matching system, back-up plans)	Start teaching about the internship process as soon as possible Meet with students early on (freshman/ sophomore year), so they do not become overwhelmed by the DI[a] application process later in their education	303 (25.0)	Guide in the choosing of an internship/ graduate school program Clarity of expectations for applications and in the field Walk students through the application process	34 (3.3)
Emphasize elements to improve DI applications, grades/work experiences	Show us what we need to be competitive in selection for DI Provide ways to improve resume for DI	71 (5.9)	Give advice on volunteer experiences to boost a student's chances of getting into a DI Reinforce different types of experiences we should become involved in to be a more competitive DI applicant	10 (1.0)
Assistance with DICAS[b]	Provide guidance on applying through DICAS Provide a class for students to attend solely describing the internship process and DICAS navigation	42 (3.5)	Help student navigate DICAS system so they have the best chance of getting a match Be familiar with how DICAS works	6 (0.6)
Increase accessibility and availability of internships/ preceptors/DI spots	Provide more internship opportunities in my area Try to create more internship position(s) through the program	8 (0.8)	Make programs flexible and affordable Advocate for increases number of students accepted into DIs Be a preceptor!!	27 (2.6)
Job preparation/ opportunities	Get community support in hiring (NDTRs[c]) Encourage getting jobs related to nutrition	29 (2.4)	prepare students for interviews and finding a job after completion of the program Assistance in finding a full-time job	56 (5.5)
Exam preparation and expectations (early in process)	Truly teach interns information to prepare for exam Provide information on program requirements and preparation for RDN[d] exam	14 (1.2)	Begin preparing for RDN exam at the start of the program so students can take the exam and find a job more quickly after completing a DI Prepare students for the RDN exam while still in the internship	42 (4.1)

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Table 7. Themes and exemplar quotes from write-in responses describing actions to that help students in dietetics academic programs and supervised practice programs to support students (*continued*)

Theme	Exemplar quotes related to dietetics academic programs	n (%), with a related quote for dietetics academic programs (n=1,211)	Exemplar quotes related to supervised practice program supports	n (%), with a related quote for supervised practice programs (n=1,026)
Provide realistic description of nutrition profession (all career options, salary, job descriptions)	Expose students to the wide variety of fields that an RDN can work in after completing the degree Be honest about the profession	90 (7.4)	Encourage students to find their passion within the wide scope of dietetics Welcome them to the profession, don't scare them away! Show interns what career paths are open to them	30 (2.9)
Understand/explain academic program expectation/organization	Have a clear roadmap of necessary classes Make them fully aware of the process and what programs entail	49 (4.0)	Understand requirements and expectations Provide structure and organization along with communication	86 (8.4)
Provide individual student support/mentorship/ modeling	Be happy, encouraging, and open to help students Make you confident that you are able to succeed	241 (19.9)	Be available for support and guidance in addressing challenges that may occur during the internship Be a resource and friend so interns feel comfortable discussing issues and concerns	235 (22.9)
Good communication/ open/answer questions	Being approachable Ask students if they have questions and/or need help	90 (7.4)	Communicate effectively Be available for the intern to ask questions	127 (12.4)
Motivating, knowledgeable, skillful educators/good education	Encourage learning and try to make course work as relevant as possible Emphasize the importance of the subject matter and try to tie it into everyday life.	96 (7.9)	Pairing students with preceptors that are eager to teach Prepare interns to become successful and competent RDNs	74 (7.2)
Diversity and cultural awareness/erase racial bias	Encourage diversity and support Talk more about cultural experiences and encouragement of minorities coming into the profession	7 (0.6)	Cultural awareness	3 (0.3)
Treat students fairly	Treat all students equally and create an inclusive environment. Don't pick favorite students	8 (0.7)	Hold all interns to the same standards Not pick favorite students	8 (0.8)

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Table 7. Themes and exemplar quotes from write-in responses describing actions to that help students in dietetics academic programs and supervised practice programs to support students (*continued*)

Theme	Exemplar quotes related to dietetics academic programs	n (%), with a related quote for dietetics academic programs (n = 1,211)	Exemplar quotes related to supervised practice program supports	n (%), with a related quote for supervised practice programs (n = 1,026)
Provide networking opportunities/encourage conferences and professional memberships	Helping make connections/networking opportunities Networking abilities and connections, how to effectively network and prepare your resume for internship applications	93 (7.7)	Support/encourage/find opportunities for the intern to networking Make connections to people and resources Coordinate experiences to meet and/or volunteer with RDNs	95 (9.3)
Uphold academic standards/ high expectations	Hold students to higher and more professional standards Stop compromising standards	38 (3.1)	Make it challenging Try to make your program the most rewarding it can be for your students in an effort to produce skilled, intentional RDNs	32 (3.1)
Discuss finances, promote scholarships; work/study balance	Financial guidance Thorough discussion of the internship program and paying for internship	26 (2.1)	Understand the financial burden students have Help to make the most financially sound placements Scholarships	13 (1.3)
Address need of nontraditional students	It is imperative that a DPD faculty member would help minorities Knowing how to help someone who has to work full time throughout schooling	11 (0.9)	Adapting program for students who are on their second, third career path and may not be clinically oriented More support and flexibility for those who may need to work part-time or have family restrictions	3 (0.3)
Experiences that fit student interests/variety	Encouraging engagement in professional experiences before the internship Inform on volunteer opportunities in desired area.	19 (1.6)	Be flexible and help interns get the type of exposure they prefer. Allow for a wide variety of experiences and have each student spent a rotation in an area of their choosing so that when they apply to jobs they will have experience in that area	94 (9.2)

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Table 7. Themes and exemplar quotes from write-in responses describing actions to that help students in dietetics academic programs and supervised practice programs to support students (*continued*)

Theme	Exemplar quotes related to dietetics academic programs	n (%), with a related quote for dietetics academic programs (n=1,211)	Exemplar quotes related to supervised practice program supports	n (%), with a related quote for supervised practice programs (n=1,026)
Provide practical applications of knowledge-hands on learning/shadowing	Opportunities to get hands on experience outside of the classroom More hands on learning	147 (12.1)	Showing you how instead of telling Patience, encouragement, and hands on training	74 (7.2)
Provide resources	Provide resources in order for students to have a better understanding of career options. Know resources available	25 (2.1)	List of resources to prepare for exam and rotations Ensure interns have the necessary resources during the internship and while looking for jobs	16 (1.6)
Allow independence/ flexibility	Be more [flexible] with rotation assignment process when allowing nontraditional students into a [programming] Work together with students as opposed to taking an authoritative stance	15 (1.2)	Independent interaction with patients and clients Provide opportunities for the student to work independently Freedom of making mistakes and letting you be on your own	53 (5.2)
Better supervision/ structure	Monitor students' progression To keep students studying and on track with the material	5 (0.4)	Stricter supervision Walking us through step by step	22 (2.1)
Provide honest feedback/evaluation	Provide good feedback Support, reinforcement, constructive criticism	12 (1.0)	Provide good feedback to allow for growth Support the student: give qualities and things to improve	44 (4.3)
Personalized learning needs	Understanding that every student is unique and learns differently One on one teaching	5 (0.4)	Show students to use their unique talents to be a part of and contribute to projects Take the time to get to know students in program to understand how to best meet their individual needs	25 (2.4)

[a]DI=dietetics internship.
[b]DICAS= Dietetic Internship Centralized Application System.
[c]NDTR=nutrition and dietetics technicians, registered.
[d]RDN=registered dietitian nutritionist.

Table 8. Themes and exemplar quotes from write-in responses of actions to avoid in dietetics academic programs and supervised practice programs to support students

Theme	Exemplar quotes related to dietetics academic programs	n (%), with a related quote for dietetics academic programs (n = 1,211)	Exemplar quotes related to supervised practice program supports	n (%), with a related quote for supervised practice programs (n = 1,026)
Discouraging/ pressuring students	Discouraging students from reaching for opportunities Avoid negative attitudes and lack of confidence in students	111 (12.3)	Adding additional unnecessary pressures onto students Shaming interns for not being exposed to a particular subject area related to dietetics Shaming	72 (9.7)
Not advising or assisting/ monitoring students	Not being willing to help the student in their studies, network, etc Uninterested in helping students	100 (11.1)	Taking on too many interns and eliminating the ability to individualize experience Not correcting the students' mistakes and letting them continue doing something wrong	111 (14.9)
Not respecting students/ patient/ judgment	Impatience with questions To be dismissive and judgmental toward students' questions and concerns Don't talk down to us	47 (5.2)	Inability to be open to students'/interns' work styles Sarcasm when asked questions Treating interns like children, not just actions but also the way interns are spoken to	53 (7.1)
Unprofessional/ disorganized	Drama, gossiping, nonconstructive criticism Unprofessionalism, like talking about students behind their backs	26 (2.9)	Being unapproachable and disorganized Being late, impolite Humiliation in front of others if a student doesn't do something correctly	36 (4.8)
Poor communication	Not being willing to answer any and all questions Avoid providing too much information at once; make it clear and concise and easy to follow	45 (5.0)	Lack of communication Not responding in a timely manner Be uncommunicative or unavailable for support	52 (7.0)
Not available to students	Neglecting students Being too busy to help	54 (6.0)	Showing disinterest/lack of commitment toward DIs[a] Not being involved enough with students' experiences during internship	67 (9.0)

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Table 8. Themes and exemplar quotes from write-in responses of actions to avoid in dietetics academic programs and supervised practice programs to support students (*continued*)

Theme	Exemplar quotes related to dietetics academic programs	n (%), with a related quote for dietetics academic programs (n = 1,211)	Exemplar quotes related to supervised practice program supports	n (%), with a related quote for supervised practice programs (n = 1,026)
Tarnishing image of RDNs[b]/ negativity about profession	Complain about the low pay scales Don't tell us you don't like your job	20 (2.2)	Seeming jaded with the profession Not showing enjoyment of their current job	11 (1.5)
Bias/racial generalizations	Apply standards equally to students from different backgrounds Constantly showing statistics that prove that only minorities are poor and are struggling nutritionally because it makes students like us feel ostracized	30 (3.3)	Apply standards equally to students from different backgrounds Don't have the mindset of "a student like you," going into our interaction	23 (3.1)
Favoritism	Pitting students against each other Having favorites/biased grading	26 (2.9)	Avoid the appearance of favoritism Avoid denying students the same help as others if grades are considered too low for DI application	23 (3.1)
Lack of knowledge/ incorrect information	Remaining static and not adapting lesson plans to the most current research or trends in practice Reinforcing outdated nutrition information	21 (2.3)	Not adapting to new research, or most updated recommendations, ie, using old nutrition practices Allowing outdated information to persist; discouraging innovation	8 (1.1)
Micromanaging	Meddling in minor class activities Too much hand-holding	8 (0.9)	Being overly controlling/not letting the student work independently Nitpicking errors, micromanaging	26 (3.5)
Too easy/low standards	Awarding verification statements to incompetent students Don't be too lax on assignments and homework; we need the challenge	42 (4.7)	Not challenging interns enough Not having high enough standards Expecting too little of the intern The directors should keep students under pressure in order to make them the best RDN possible	27 (3.6)

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Table 8. Themes and exemplar quotes from write-in responses of actions to avoid in dietetics academic programs and supervised practice programs to support students (*continued*)

Theme	Exemplar quotes related to dietetics academic programs	n (%), with a related quote for dietetics academic programs (n = 1,211)	Exemplar quotes related to supervised practice program supports	n (%), with a related quote for supervised practice programs (n = 1,026)
Too strict/high standards	Being way too hard on students Setting high bars that 50% of student can't pass	15 (1.7)	Too high of expectations Being too strict in ways things are done	24 (3.2)
High program costs/financial concerns	Assuming all students can afford the program Not knowing routes for students to pay for internships	7 (0.8)	Not addressing financial and emotional stress encountered while in the program Stop putting such a stigma on working during internship	7 (0.9)
Unclear expectations of program	Always give specific information about assignments and grading expectations Being unclear about the timeline necessary for dietetics students during undergraduate study	38 (4.2)	Avoid leaving students not knowing what is to be expected in terms of paperwork, ethic, and other issues Not making expectations clear	31 (4.2)
Focus on only a few practice areas/ discouraging certain practice areas	Avoid giving emphasis only on one or two out of three sections (community, food service, clinical nutrition) so students can have well-rounded experience Avoid portraying clinical dietetics as the only acceptable career option	34 (3.8)	Limiting areas of nutrition to explore Pushing us a certain direction to go within the dietetics field Not give diversity into the program with different sites	22 (3.0)
Limiting hands-on experience	Not providing students opportunities to gain experience in the field Only lectures, no hands on opportunities to practice	21 (2.3)	Not giving students enough opportunity to participate and be active during their supervised practice Just having the interns shadow; they need to be involved, so principles and concepts/ experiences stick	19 (2.6)
Busy work without practical application	Assignments that have no real-world application Give students busy work rather than hands-on experience	26 (2.9)	Requiring too much extra book work Tasks with little relevance to typical jobs in dietetics	31 (4.2)

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Table 8. Themes and exemplar quotes from write-in responses of actions to avoid in dietetics academic programs and supervised practice programs to support students (*continued*)

Theme	Exemplar quotes related to dietetics academic programs	n (%), with a related quote for dietetics academic programs (n = 1,211)	Exemplar quotes related to supervised practice program supports	n (%), with a related quote for supervised practice programs (n = 1,026)
Not supporting nontraditional/ international students	To assume I know everything because I am an older returning student Lack of knowledge/awareness of guidance for international students	10 (1.1)	Not to be aware of the required steps for international students to take in order to become RDNs Avoid discounting personal and real-world experience from nontraditional students when determining coursework requirements	5 (0.7)
Discouraging application to DI[b]	Discouraging students from applying to certain DI programs Encouraging students to not apply	28 (3.1)	Being negative about DI chances Avoid discouraging students to apply to certain internship programs	9 (1.2)
Not explaining internship application process/ inappropriate advice	Lack of info about funding DI Lack of guidance, assumption that students know how to apply	60 (6.7)	Not giving adequate/correct advice on applying to internships Assume we understand DICAS[c]	17 (2.3)
Unclear/unrealistic expectations of DI	Lack of emphasis on preparedness for the internship experience and reality that it's not easy to obtain an internship Giving students false hope about salary, internship expectations	23 (2.6)	The expectation that students must do whatever the supervised practice site says for fear of leaving a bad impression Just throwing students in the field without giving any information	20 (2.7)
Insufficient/poor internship sites-limited accessibility and availability	Nonbeneficial rotation sites. Sending students into unsafe locations to complete a DI rotation	3 (0.3)	Not taking into consideration the intern's needs: safety, transportation, personal interests/ goals/objectives Providing internship experiences that will not adequately prepare the student for a profession in dietetics	17 (2.3)

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Table 8. Themes and exemplar quotes from write-in responses of actions to avoid in dietetics academic programs and supervised practice programs to support students (*continued*)

Theme	Exemplar quotes related to dietetics academic programs	n (%), with a related quote for dietetics academic programs (n = 1,211)	Exemplar quotes related to supervised practice program supports	n (%), with a related quote for supervised practice programs (n = 1,026)
Poor preceptors/ instructors/ instruction	Generic, standardized testing Professors should not be so overworked they cannot provide quality instruction	73 (8.1)	Pair students with preceptors that have completely different personalities Not critiquing students on how to be better practitioners	38 (5.1)
Only encouraging RDN credential/ not explaining other careers in nutrition	Only preparing students to take one path to entering the field of dietetics Students should know of their options Offer next steps what else can you do with the degree that you worked hard to earn if you do not become an RDN	27 (3.0)	Scare tactics (ie, "Without the RDN credential, you won't be able to do much in the field of dietetics")	1 (0.1)
Unclear/unrealistic expectations of profession	To present dietetics as an easy profession Not exposing you to what the "real world" will be like	30 (3.3)	Be unrealistic about the job market or salaries Assuming students will easily find a job out of the DI	8 (1.1)

[a]DI=dietetics internship.
[b]RDN=registered dietitian nutritionist.
[c]DICAS= Dietetic Internship Centralized Application System.

surveys; we have not found that leaving surveys open longer results in any appreciable increase in sample size. Nonresponse bias is lowered by sending the invitation from a group with which the respondent is affiliated, and providing an incentive for participation. Both strategies were used in this survey to reduce nonresponse bias.[29]

NEXT STEPS

This survey was an important first step in identifying perceptions of barriers and supports in dietetics education among a broad sample of current students and recent graduates. Future work should build upon the scales developed here and work to increase the sample size of students of diverse backgrounds, as well as students who began dietetics education but did not become RDNs or NDTRs. The themes identified here, such as perceived unfairness among students of diverse backgrounds, need for early education on the dietetics internship process, and student desire for mentoring are important building blocks upon which Academy stakeholders and dietetics educators can develop programs to improve the recruitment and retention of dietetics students and, ultimately, increase the diversity of the dietetics profession.

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STATEMENT OF POTENTIAL CONFLICT OF INTEREST

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