

Perspectives in Practice

African-American Students' Perceptions of Their Majors, Future Professions, and the Dietetics Major and Profession: A Qualitative Analysis

TEENA M. FELTON, MS; SHARON M. NICKOLS-RICHARDSON, PhD, RD; ELENA SERRANO, PhD; KATHY W. HOSIG, PhD, MPH, RD

ABSTRACT

African-American professionals are underrepresented in the profession of dietetics. This preliminary qualitative study identified African-American students' perceptions of their majors, future professions, and the dietetics major/profession to understand why they did or did not enter dietetics. It was hypothesized that dietetics students chose dietetics primarily for altruistic reasons, whereas students in other fields of study did not choose dietetics due to lack of awareness of dietetics. To learn students' views, African-American college students engaged in elicitation interviews or focus group discussions. Twenty-eight women and 12 men participated. Phenomenologic analysis identified common themes and meanings: African-American students selected their majors for a variety of reasons, including desire to help people, interest in the field, recommendation from an adult, and family influence. African-American students in fields of study other than dietetics believed that the dietetics major was not selected due to lack of awareness about dietetics. Both dietetics students and students in other fields of study perceived versatility, ability to work with/help people, and to have an influence as positive qualities about their future professions. Advanced degree and training requirements, lack of diversity, and low salary were identified as nega-

tive qualities about future professions. African-American students in fields of study other than dietetics had not been exposed to the dietetics major, careers, and profession. Recruitment efforts should begin early to increase the number of African-American students in dietetics. *J Am Diet Assoc.* 2008;108:1192-1197.

African-American adults experience cardiovascular disease, cerebrovascular accidents, some cancers, diabetes mellitus, and obesity at greater rates than other racial and ethnic groups (1). The risk and severity of these conditions is well known to be modified by diet. Registered dietitians (RDs) are the allied health professionals qualified to recommend dietary approaches to prevent these conditions and, when these diseases manifest, to prescribe medical nutrition therapy for treatment.

Cooper-Patrick and colleagues (2) have shown that patients from minority groups prefer to receive care from minority physicians. Similarly, health care recipients report the highest level of satisfaction with care and trust of the service provider (ie, practitioner) when the recipient shares the same racial/ethnic background with the practitioner (2,3). Dietary intervention with African-American individuals may be most effectively administered, then, by African-American RDs.

Unfortunately, <5% of RDs are African-American (4), far below the demand presented by the health needs of the African-American population. The need for ethnic diversity among food and nutrition professionals has been acknowledged (4,5). Increasing the pipeline for African-American RDs begins at the undergraduate student level. Only a few studies (6-9) have documented facilitators and barriers to the selection of dietetics as a major among African-American students; therefore, the purpose of this exploratory study was to conduct elicitation interviews and focus group discussions with African-American students currently enrolled as dietetics and nondietetics majors at Virginia Polytechnic Institute and State University.

SUBJECTS AND METHODS**Subjects**

This study was approved by the Institutional Review Board for Human Subjects Testing at Virginia Polytechnic Institute and State University. Currently enrolled students at this agricultural/technical research intensive land grant university who declared themselves as African American, black, and/or black American participated in

T. M. Felton is a graduate research assistant and Multicultural Academic Opportunities Program scholar, E. Serrano is an assistant professor, and K. W. Hosig is an associate professor, Department of Human Nutrition, Foods and Exercise, Virginia Polytechnic Institute and State University, Blacksburg. S. M. Nickols-Richardson is an associate professor, Department of Nutritional Sciences, The Pennsylvania State University, University Park, PA; at the time of the study, she was an associate professor, Department of Human Nutrition, Foods and Exercise, Virginia Polytechnic Institute and State University, Blacksburg.

Address correspondence to: Sharon M. Nickols-Richardson, PhD, RD, Department of Nutritional Sciences, The Pennsylvania State University, S129-D Henderson Bldg S, University Park, PA 16802. E-mail: smn13@psu.edu

Manuscript accepted: November 16, 2007.

Copyright © 2008 by the American Dietetic Association.

0002-8223/08/10807-0004\$34.00/0

doi: 10.1016/j.jada.2008.04.022

this study. Subjects were required to be at least age 18 years and willing to participate in a 2-hour interview or focus group.

Subjects were recruited by word-of-mouth and posted flyers. E-mail notices were also circulated to members of African-American student organizations and scholastic programs. Eligible students were invited to participate. Upon arrival at the interview or focus group, each subject provided written informed consent before completion of the demographic survey, which was completed before participation in an interview or focus group. Each subject identified his or her major. Based on these responses, subjects were classified as dietetics or nondietetics majors.

Elicitation Interviews and Focus Group Discussions

Elicitation interviews were conducted with only one subject per interview. Focus group discussions included two to five subjects per group. A facilitator (primary investigator) conducted all interviews and focus groups, according to standard methods (10,11). For all interviews and focus groups, a description of the field of dietetics, roles/responsibilities of RDs, and curriculum requirements for the didactic program in dietetics was read for consistency of information and background. All dietetics students responded to directed "Dietetics Major" questions, and all nondietetics students responded to directed "Nondietetics Major" questions. Subjects were asked to respond to reason(s) that they chose their major, positive and negative qualities about their future profession, experiences that influenced them to remain in their current major, methods to increase African-American students in their major, and ways to increase African-American individuals in their future profession. Nondietetics students were also asked what they thought of the dietetics major and why so few African-American individuals selected dietetics as a major.

The same facilitator guided each interview and focus group using probing statements when needed. The facilitator was an African-American graduate student in human nutrition and a graduate of the didactic program in dietetics at Virginia Polytechnic Institute and State University. One cofacilitator attended each interview and focus group to maintain written records. All interviews and focus groups were tape-recorded and conducted in a private conference room. At the end of each interview or focus group, each subject was provided with a \$10 gift card to a local grocery store. All sessions were conducted during the Spring 2006 and Fall 2006 semesters.

Raw data recorded on audiotapes were transcribed verbatim. The transcriptionist (secondary investigator) did not attend interviews or focus groups and did not interact with subjects.

Data Analysis

Demographic information was used to describe subjects. Phenomenologic analysis was used to evaluate transcriptions, according to the method of Colaizzi (12). Common themes were identified by the secondary investigator and shared with the primary investigator who confirmed these themes based on original transcripts. Discrepancies

were reconciled by the investigators. Common themes and meanings of these phenomena were categorized and described in the context of directed questions.

RESULTS AND DISCUSSION

Subject Characteristics

Demographic characteristics of subjects are presented in the Table. The mean \pm standard deviation age of subjects was 21.3 ± 1.4 years. As required for participation, all subjects identified themselves as African American, black, or black American.

Reasons for Selection of Major

African-American students in fields of study other than dietetics selected their major based on a variety of reasons, including helping people, working with other people, personal interest in the field, previous experience, social interaction, and family influence. Salary was also an important reason to assist with what they referred to as "economic equity of blacks." Selection of a major that would not lead to a high salary was considered a poor choice of major.

African-American dietetics students selected dietetics as their major for altruistic reasons, including "a desire to help people." Unique to African-American dietetics students, an interest or fascination with "food," "nutrition," and "fitness" also led them to major in dietetics.

Both dietetics and nondietetics students revealed that their major was recommended to them by a high school guidance counselor or college advisor, faculty member, or recruiter. This outside suggestion was perceived to have both negative and positive tones. Students believed that these outside individuals told them to avoid certain majors because African-American individuals have not been successful in those majors or because of low grade-point average. In contrast, African-American students perceived that they were encouraged to pursue other majors because of their abilities, skills, and interests. Commercials about food and magazine articles about RDs were important for dietetics students. The decision to pursue a specific major was more often made earlier (junior high and high school and freshman year of college) rather than later (sophomore or junior year of college).

Positive Qualities of Future Professions

Positive qualities about their future profession reported by nondietetics students were those same qualities offered by a career in dietetics. Common themes for dietetics and nondietetics students included versatility; opportunity to help and work with people; and perceived potential to have an effect on the immediate work environment, the profession, and society. Advertising these positive qualities about dietetics to African-American preprofessionals is critical.

"Travel," "job security," "high salary," and "challenging work" in addition to personal growth, career advancement, and personal fulfillment were also stated as positive qualities by nondietetics students. In focus group

Table. Demographic characteristics of African-American subjects (n=40) interviewed to determine views about selecting dietetics as a major and a future profession

Characteristic	Dietetics Students		Nondietetics Students	
	n	%	n	%
Age (y)				
18-21	1	2.5	24	60.0
22-25	2	5.0	13	32.5
Sex				
Male	0	0	12	30.0
Female	3	7.5	25	62.5
Major				
Dietetics	3.5	7.5		
Biochemistry			2	5.0
Biology			3	7.5
Communications			3	7.5
Consumer Sciences			1	2.5
Crop and Soil Environmental Sciences			1	2.5
Engineering, Civil			1	2.5
Engineering, General			1	2.5
Engineering, Industrial Systems			1	2.5
Finance			1	2.5
Hospitality and Tourism Management			1	2.5
Human Development			1	2.5
Human Nutrition, Foods and Exercise, Science of			3	7.5
Interdisciplinary Studies			4	10.0
Marketing			2	5.0
Political Science			1	2.5
Psychology			8	20.0
Sociology			1	2.5
University Studies			1	2.5
Urban Planning			1	2.5
Academic level				
Freshman	0	0	2	5.0
Sophomore	1	2.5	2	5.0
Junior	0	0	7	17.5
Senior	0	0	22	55.0
Graduate	2	5.0	3	7.5
No response	0	0	1	2.5
No. of times changed major				
0	2	5.0	17	42.5
1	0	0	18	45.0
2	1	2.5	2	5.0
>3	0	0	0	0
Method of college financing				
Parent(s) only	0	0	3	7.5
Self only	0	0	5	12.5
Self along with parent(s)	0	0	6	15.0
Scholarship(s) only	0	0	7	17.5
Scholarship(s) and parent(s)	1	2.5	9	22.5
Scholarship(s) and self	1	2.5	7	17.5
Other (assistantship)	1	2.5	0	0

discussions, nondietetics students revealed that a lack of diversity in their future profession was positive, because it would present an opportunity to bring diversity to the field and to serve as a role model for others. Unique to dietetics students, “working with food” was reported as a positive quality.

Negative Qualities of Future Professions

An important concern verbalized by both dietetics and nondietetics students related to requirements for advanced degrees and/or additional training beyond the undergraduate degree. These were perceived as negative aspects of their future profession. Students believed that

this would delay their ability to earn a salary, repay student loans, or begin to build a career. Thus, African-American individuals considering dietetics as a major and career should be informed as early as possible about the movement of dietetics education toward flexible models of education and supervised practice experiences (13). Individuals may then research, carefully evaluate, and consider programs from an economic perspective to plan work and/or financial assistance pathways that support their success in undergraduate, formal internship, experiential learning, and graduate programs. Dietetic internship and graduate programs and employers of entry-level practitioners may need to consider academic support mechanisms and financial packages that promote recruitment and retention of African-American students in dietetics programs and professional positions.

A lack of diversity in the profession was also perceived as a negative quality by dietetics and some nondietetics students. Representation of African-American students and professionals on promotional posters and flyers and in textbooks at Virginia Polytechnic Institute and State University has been adequate; however, African-American faces have been missing in academic classrooms, at career fairs, and on advisory boards. Advances in these areas must be made if recruitment and retention efforts in the African-American community are to be successful in dietetics. Institutions should cultivate partnerships with African-American practitioners in the local and surrounding communities to coordinate recruitment and retention policies that are mutually beneficial.

African-American nondietetics students cited a less than ideal job location, working with a company that is disliked or not outstanding, inflexibility in the work schedule, "long hours" and "sleepless nights," "high stress," and "working in hazardous conditions" as negative qualities in addition to a lack of benefits and limited upward mobility. These nondietetics students, as well as dietetics students, believed that "low salary" was a negative quality. African-American food and nutrition professionals who are in higher earning positions should be invited to guest lecture in courses, speak at student organizational meetings, and/or serve on dietetics advisory boards to demonstrate possibilities of financial success in a dietetics career. Some of the nondietetics students indicated that there were no negative qualities to their future profession.

Experiences that Influenced Remaining in Current Major

Student retention is an important aspect of the student experience. African-American dietetics and nondietetics students indicated that faculty, staff, and academic advisors provided encouragement and assistance that motivated them to remain in their major. The dietetics profession must make a continual commitment to increasing the number of African-American faculty in dietetics at colleges and universities in the United States. Communicating the importance of having African-American individuals in the dietetics profession to provide more culturally relevant dietetics education and services is important.

Both dietetics and nondietetics students reported that classes, passion for the major, and real-world experiences also influenced them to continue their major. Other in-

fluences cited by nondietetics students included family, time already invested, challenge, scholarships, career goals, friends and peer mentors, and role models. Utilizing African-American upper classmen, graduate students, and/or alumni as mentors to enhance retention is effective (5). Specific to dietetics students, a belief that they will make a difference in the field and have an effect on society influenced them to remain in dietetics.

Methods to Increase African-American Students in the Dietetics Major

Both dietetics and nondietetics students reported that more African-American individuals would enroll in their major if the major were more widely advertised and visible. Students cited Virginia Polytechnic Institute and State University as being primarily known for its engineering, chemistry, physics, biology, psychology, sociology, interdisciplinary studies, English, and architecture programs.

Both dietetics and nondietetics students indicated that more African-American individuals would enroll in their major if there were more African-American faculty mentors, if the need for African-American students in their major were publicized, and if there were recruitment and retention practices targeted toward African-American individuals. Students specifically suggested recruiting as early as junior high and high school. One nondietetics student stated, "You can never start recruiting too early."

African-American faculty members were desired to serve as role models and mentors and to more easily form connections with faculty who share similar experiences. Hiring of African-American faculty in nutrition/dietetics is not enough. Mentoring of African-American faculty through the promotion and tenure process is critical, particularly at research-intensive universities. Moreover, systems that reward excellence in student advising and mentoring are important to retain outstanding African-American faculty.

During sessions with students in fields other than dietetics, students noted that more African-American students would enroll in their major if more African-American individuals enrolled at Virginia Polytechnic Institute and State University in general. One student commented, "If Tech [Virginia Polytechnic Institute and State University] were out to get more African Americans, then that would trickle down to whatever specific major we're talking about." In addition, nondietetics students believed that scholarships or other funding would increase students in their major. Advertising of careers that are available with a degree in the major and the need for African-American professionals in these careers was cited by nondietetics students as a method to increase African-American students in their major.

Increasing salary, establishing peer mentoring programs, requiring introductory courses, and organizing student groups were identified by nondietetics students during interviews as ways to increase African-American students in their major. Some nondietetics students were unsure and some noted that nothing would help to increase the number of African-American students in their major, because the choice depended on personal interest.

Methods to Increase African-American Individuals in Professions

Both dietetics and nondietetics students indicated that professional organizations could assist with increasing the number of African-American individuals in their profession by enhancing awareness of the profession, networking, advancement, and social interactions. Students also believed that the number of African-American individuals in their profession would increase with more active recruitment efforts, increased salary, emphasis of the influence of the profession, improved career benefits, and greater access to and affordability of advanced education. These nondietetics students also noted that having more African-American role models would increase the number of African-American individuals in their profession.

Thoughts about the Dietetics Major by Nondietetics Students

African-American nondietetics students revealed their thoughts about the dietetics major. Students called the major “interesting,” “good/great,” “hard” (math and science courses), “relevant,” “specialized,” “easy,” “credible,” and “challenging.” The dietetics major was also perceived as “cool,” “not stressful,” “manageable,” “respectable/prestigious,” “fine/neat,” and “uninteresting.” For African-American students who find the math and science requirements of dietetics as barriers, tutorial and peer mentorship services should be advertised and encouraged.

Why Few African-American Individuals Select Dietetics as a Major

These nondietetics students perceived that the dietetics major was not known to African-American individuals, citing a lack of awareness about the major, poor advertising, and poor recruitment efforts (Figure). The profession should target African-American youth, beginning as early as junior high school. Many of these African-American students indicated being introduced to their chosen major in their junior high or high school years. This recommendation supports previous findings that demonstrated that partnerships with predominantly minority high schools, community colleges, and undecided majors early in college was important to attracting underrepresented students into dietetics (9).

“Low salary,” “lack of interest,” and lack of role models were also indicated as barriers to dietetics by nondietetics students. Colson and colleagues (9) reported that job/career fairs were least effective among factors that attracted African-American professionals to dietetics/nutrition. Among a student audience of respondents, career days or fairs were also reported as ineffective in leading students to consider dietetics. However, African-American students in our study identified the lack of African-American professionals represented at career days or fairs as problematic. Specifically, dietetics students remarked that there are “not very many African-American dietitians.” As suggested by both dietetics and nondietetics students, having African-American representatives at career fairs may make the major and career more visible to African-American individuals and increase interest in the field. This visibility may allow African-American

Theme	Meaning
<ul style="list-style-type: none"> Coursework 	<ul style="list-style-type: none"> The dietetics major includes a high volume of math and science. Student would need to have skills in and/or enjoy these areas.
<ul style="list-style-type: none"> Lack of awareness and poor advertising 	<ul style="list-style-type: none"> The dietetics major, career, and profession are poorly advertised among African-American prospective students. Many had never heard of dietetics or did not know that Virginia Polytechnic Institute and State University offered the major. Students had not been exposed to dietetics or food and nutrition professionals. Recruitment efforts are needed to expose African-American youth to dietetics.
<ul style="list-style-type: none"> Irrelevant 	<ul style="list-style-type: none"> African-American community perceives healthful eating as different from most food and nutrition professionals. The need for African-American professionals in this field requires demonstration and publicity.
<ul style="list-style-type: none"> Low salary 	<ul style="list-style-type: none"> Compared to other careers, dietetics provides a lower salary.
<ul style="list-style-type: none"> Lack of role models 	<ul style="list-style-type: none"> Students did not know of any role models in dietetics.
<ul style="list-style-type: none"> Disinterest 	<ul style="list-style-type: none"> The dietetics major lacks appeal and is not the primary area of interest for African-American students. Many students did not know about the major, however.

Figure. Major themes and meanings regarding perceived barriers to entering the dietetics profession as perceived by African-American nondietetic students.

youth to witness the professional success of African-American food and nutrition professionals. One nondietetics student stated that “. . . people could see them and be like, oh that’s something I could do.”

The relevance of dietetics to African-American individuals and families was stated as a reason why so few African-American individuals major in dietetics, noting that the African-American community has a different concept of healthful eating than most food and nutrition professionals. Informing persons in African-American communities about relationships among food, nutrition, and health may need greater prioritization if the profession desires to increase the number of African-American RDs. A necessary step may be improving awareness of the relevance and importance of cultural patterns of healthful eating among African-American individuals through targeted messages.

African-American nondietetics students inquired about the “image” of dietetics and mentioned the notion that one must look physically fit to be in the major. One nondietetics student said that “you have to look the part to be a dietitian.” In a separate interview, a nondietetics student asked if the dietetics profession or major “would accept someone who is overweight and had bad eating habits.” African-American dietetics students reported concerns about the perceived image of “physically fit,” “skinny,” and “perfect” food and nutrition professionals. These dietetics students mentioned that many African-American men and women do not fully fit this stereotype.

Dietetics as a profession may need to promote the Health at Every Size concept (14-16) if the profession is to appear open to African-American individuals. If preprofessionals know about the dietetics major and profession, but cannot envision themselves in the role, then additional efforts are required to showcase dietetics as a profession inclusive of all body images and cultural eating patterns.

In interviews, nondietetics students indicated that careers that could be pursued with a dietetics degree may not be known among African-American youth. One student remarked, "I didn't know what career that a dietetics major could lead to." The multitude of career trajectories afforded by a degree in dietetics must be better advertised in the African-American population.

Limitations to this exploratory qualitative investigation existed. Approximately 4% of the nondietetics African-American student population at Virginia Polytechnic Institute and State University participated. Only three dietetics students participated in this study; however, this represented 60% of the total number of African-American dietetics students enrolled in the dietetics major. Large focus groups were not conducted due to limited participation by students. Elicitation interview and focus group findings were merged due to the small sample size. Despite these limitations, many common themes arose. One strength of this study was that only African-American students were included. As a result, students' perceptions of their majors, future professions, and the dietetics major relevant to African-American individuals were identified.

To meet the level of trust and satisfaction with care (2,3) desired by African-American individuals, more African-American RDs are needed. If recipients of nutrition interventions share the same racial/ethnic background as the food and nutrition professional, misunderstanding of the psychosocial environment, dietary patterns, and food preferences and tolerances may decrease, potentially improving compliance, health, and well being of African-American individuals, families, and communities. Enhancing cultural sensitivity of dietetics professionals not of the same race or ethnicity is also necessary as concern for and attention to the recipient of services is important.

CONCLUSIONS

African-American students in fields of study other than dietetics in this study did not select dietetics as a major for a variety of reasons, one of which was a lack of awareness of the dietetics major. African-American dietetics students selected this major due to a desire to engage in an altruistic profession, among other factors. Directors of didactic programs should create recruitment and reten-

tion strategies that are attractive to and fit the needs of African-American prospective students. If culturally competent nutrition education and guidance is to be optimally provided to an increasingly diverse population in the United States, diverse dietetics professionals are needed. Through culturally contextual targeted messages, the profession should publicize advantages of the dietetics major, careers, and profession.

This study was supported by a grant from the 2006 Improving Campus Climate to Support Diversity Research Competitive Grants Program at Virginia Polytechnic Institute and State University.

The authors thank all study subjects for their thoughtful responses.

References

1. National Center for Health Statistics. *Health, United States, 2004, with Chartbook on Trends in the Health of Americans*. Hyattsville, MD: National Center for Health Statistics; 2004.
2. Cooper-Patrick L, Gallo JJ, Gonzales JJ, Vu HT, Powe NR, Nelson C, Ford DE. Race, gender, and partnership in the patient-physician relationship. *JAMA*. 1999;282:583-589.
3. Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong O. Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Rep*. 2003; 118:293-302.
4. American Dietetic Association. Dietetics education and the needs for the future. American Dietetic Association Web site. http://www.eatright.org/cps/rde/xchg/ada/hs.xsl/governance_5079_ENU_HTML.htm. Accessed April 4, 2007.
5. Ralston PA. The MEMS program: Increasing minority professionals in the food and nutritional sciences. *J Am Diet Assoc*. 2000;100:1449-1450.
6. Greenwald HP, Davis RA. Minority recruitment and retention in dietetics: Issues and interventions. *J Am Diet Assoc*. 2000;100:961-966.
7. Kobel KA. Influences on the selection of dietetics as a career. *J Am Diet Assoc*. 1997;97:254-257.
8. Markley E, Huyck N. Factors affecting a student's choice of dietetics as a profession. *J Am Diet Assoc*. 1992;92:932-937.
9. Colson S, Smith E, Palan E. Profile of blacks employed in dietetics and nutrition. *J Am Diet Assoc*. 1992;92:1341-1342.
10. Krueger RA. *Focus Groups: A Practical Guide for Applied Research*. Thousand Oaks, CA: Sage; 1994.
11. Creswell JW. *Qualitative Inquiry and Research Design: Choosing among Five Traditions*. Thousand Oaks, CA: Sage; 1998.
12. Colaizzi PF. *Reflection and Research in Psychology: A Phenomenological Study of Learning*. Dubuque, IA: Kendall-Hunt; 1973.
13. Draft report of the Phase 2 Future Practice & Education Task Force. American Dietetic Association Web site. http://www.eatright.org/ada/files/Draft_Report_FINAL_9_25_07.pdf. Accessed November 6, 2007.
14. Friedman JM. Modern science vs the stigma of obesity. *Nat Med*. 2004;10:563-569.
15. Bacon L, Stern JS, van Loan MD, Keim NL. Size acceptance and intuitive eating improve health for obese, female chronic dieters. *J Am Diet Assoc*. 2005;105:929-936.
16. Liebman M. Promoting healthy weight: Lessons learned from WIN the Rockies and other key studies. *J Nutr Educ Behav*. 2005;37(suppl 2):S95-S100.