Journal of Dietetic Education

Volume 2 | Issue 1 Article 4

2024

Student Perceptions of an Undergraduate Nutrition Peer **Mentoring Program**

Sarah Hudnall

Metropolitan State University of Denver, hudnall.sarah@gmail.com

Rayanna Becker

Metropolitan State University of Denver, Rayanna.becker@gmail.com

Laura Meza Esparza

Metropolitan State University of Denver, laura_me09@hotmail.com

Sara Sanders

Metropolitan State University of Denver, ss7403@outlook.com

Ann Diker

Metropolitan State University of Denver, diker@msudenver.edu

Follow this and additional works at: https://ecommons.udayton.edu/jde

Part of the Dietetics and Clinical Nutrition Commons, Higher Education Commons, and the Nutrition

Commons

Recommended Citation

Hudnall, Sarah; Becker, Rayanna; Meza Esparza, Laura; Sanders, Sara; and Diker, Ann (2024) "Student Perceptions of an Undergraduate Nutrition Peer Mentoring Program," Journal of Dietetic Education: Vol. 2: Iss. 1, Article 4.

Available at: https://ecommons.udayton.edu/jde/vol2/iss1/4

This Research Brief is brought to you for free and open access by the School of Education and Health Sciences at eCommons. It has been accepted for inclusion in Journal of Dietetic Education by an authorized editor of eCommons. For more information, please contact mschlangen1@udayton.edu, ecommons@udayton.edu.

Student Perceptions of an Undergraduate Nutrition Peer Mentoring Program **Cover Page Footnote** Acknowledgments: Anne Hovinen, MS, RDN; Cynthia Heiss, PhD, RDN

Student Perceptions of an Undergraduate Nutrition Peer Mentoring Program

Sarah Hudnall, Metropolitan State University of Denver Rayanna Becker, Metropolitan State University of Denver Laura Meza Esparza, Metropolitan State University of Denver Sara Sanders, Metropolitan State University of Denver Ann Diker, Metropolitan State University of Denver

ABSTRACT

Background: Peer mentoring programs help students navigate challenges and stressors in their undergraduate education. There is minimal research on the effectiveness of these programs in nutrition and dietetics.

Objective: The objective was to explore the perceptions of student mentors and mentees in an undergraduate nutrition peer mentoring program.

Design: This qualitative research study utilized thematic analysis of student reflection papers. One hundred students were contacted via email to provide consent to review reflection papers. Reflection papers were collected from 33 students: 11 mentees and 22 mentors. Papers were imported into NVivo qualitative analysis software and coded for themes.

Participants: Thirty-three undergraduate students enrolled in Careers in Nutrition and Dietetics (lower division course) and Nutrition Capstone (upper division course) during 2022 provided consent for reflection papers to be analyzed. Eleven students in the lower division course had been mentees, 22 in the upper division course had been mentors.

Analysis: Reflection papers were imported into NVivo software. Each paper was randomly assigned to two researchers, reviewed, and coded for themes.

Results: Three domains were identified—perceived benefits, perceived challenges, and suggestions. Perceived benefits included the themes relationships, advice, coping, and personal growth. Scheduling, incompatibility, and lack of confidence were themes within perceived challenges. Mentors suggested program improvement in structure and student compatibility.

Conclusions and relevance: Findings suggest students valued participation in the peer mentoring program and would be interested in a longer mentoring experience.

Keywords: qualitative research, peer mentoring, undergraduate nutrition program, mentor, mentee

INTRODUCTION

Mentoring occurs when two colleagues come together to interact in a collaborative way. Mentoring programs vary by structure (formal vs. informal, group vs. one-on-one), mode (inperson vs. distance), and participants (professional-to-professional, professional-tostudent, and peer-to-peer). Within the health professions, mentoring programs are a tool used to help students adapt to professional degree programs, build skills to succeed in the program, and provide social support. In the nutrition and dietetics field, the Accreditation Council for Education in Nutrition and Dietetics (ACEND) has required a mentoring component for all accredited dietetics programs since 2017.2 Many dietetic programs nationwide meet this requirement through professionalto-student and/or peer-to-peer mentorship programs.

Professional-to-student mentorship programs have been shown to increase student knowledge and skills, provide networking opportunities and experience in the field, and develop awareness related to diversity and inclusion.^{3,4} These mentoring programs provide students with valuable insight into the nutrition profession, but mentees may also require additional support from peers. A recent survey conducted with minority RDNs and undergraduate students identified psychosocial support through peer mentoring as a strategy to increase undergraduate student success.⁵

Peer mentoring programs specifically refer to the interaction between individuals that are at similar points in their careers⁶ and are common in the health professions including medical,^{3,7-11} nursing,¹²⁻¹⁴ and nutrition and dietetics programs.¹⁵⁻¹⁷ These health professional programs are known to be academically challenging; students newly enrolled in these programs may experience elevated levels of stress, high academic workloads, and require additional support to ensure success.¹⁰ Peer mentoring is one tool to help students navigate these challenges. An

additional argument for these programs is that they are easy to implement and low cost.¹⁸

Various peer mentoring programs within the health professions have shown an impact on both social adjustment and workforce skills. In one study, researchers evaluated the PASS program, a peer-led mentoring program at Monash University in Malaysia.¹¹ The study looked at 40 participants who were in their 2nd undergraduate year in medical school; students were given both a pretest and a posttest to analyze the program in communication, leadership, and educational skills. 11 Research findings included improvement in oral and written skills for the mentors and an increase in problem solving and critical thinking capabilities in the mentees. 11 Students in baccalaureate nursing programs often experience more stress than their peers in other baccalaureate programs. 14 The competitive nature of clinical and didactic work can often lead to an increase in stress and symptoms of anxiety and migraines. 14 A quasiexperimental study using a non-randomized pre-test and post-test design looked at the effects of a peer-mentoring program on stress and adjusting to college among nursing students.¹² The study concluded that the mentoring program increased social and academic adjustment among university nursing students. The nursing students' "optimism", "self-confidence", and "seeking social support levels" increased, and their feelings of helplessness decreased after the mentoring program showing this approach can help decrease stress among nursing students. 12 Another study assessed the effectiveness and cost of a peer-mentoring program specifically addressing accelerated nursing students from culturally and linguistically diverse (CALD) backgrounds.13 CALD students were more likely to retake a course, take a leave of absence, or require additional academic support.13 Researchers determined that both mentors and mentees were satisfied with the program and found benefits in participating.¹³ All of the mentee students were retained in the program and only one student didn't complete

the courses within the desired time frame. 13 A 2021 study set out to assess nutrition and dietetic students' experiences and perceptions of mentoring. Ninety-one percent of respondents reported being interested in having a mentor and 58% of those with a mentor found them to be moderately or extremely influential. 15 Finally, a recent study at the University of Delaware conducted in the dietetics program paired students in the Introduction to Nutrition Professions course with undergraduate upper-class students who enrolled in the Peer Mentoring Seminar course. 16 The results showed mentees benefited from advice and guidance from the mentor including a better understanding of the campus and professional resources. 16 Mentors benefited by gaining leadership and communication skills as well as career development. Both groups also identified expanded social networks as a benefit. 16

Universities may incorporate peermentoring programs where upper division students provide support, encouragement, and information to new students, and to help a less experienced student improve overall academic performance. Peer mentoring programs are a tool used in the health professions to help students adapt to professional degree programs, and to build relationships and skills needed to succeed within the program while also providing social support. Although many mentoring programs exist, applications vary. Oftentimes, the peer mentoring programs are elective or extra-curricular components of a health profession program.^{3,7-14,16} There is a lack of research that investigates peer mentoring programs that are incorporated into the required coursework in health professional programs. In addition, there are few published studies examining the outcomes or themes identified by both mentees and mentors participating in nutrition and dietetics programs at higher-education institutions in the United States.

The Nutrition Department at Metropolitan State University of Denver (MSU Denver) in Denver, Colorado established a peer-mentoring program for nutrition students in 2017. In this program, upper division students enrolled in Nutrition Capstone mentor lower division students enrolled in Careers in Nutrition and Dietetics. Students enrolled in both classes write a reflection paper after the 8-week peermentoring experience. This qualitative study reviewed reflection papers from the mentee and mentor students to explore perceptions of the mentoring experience, how the mentoring experience could be improved, and to provide a framework to other universities to encourage them to incorporate a mentoring program into their curriculum that benefits the students and meets the didactic requirements.

METHODS

Study Design

A qualitative research study using document analysis was conducted to gain a better understanding of student perceptions of the undergraduate peer mentoring program within the Nutrition Department at MSU Denver. The MSU Denver Institutional Review Board approved the study protocol and all participants provided written informed consent prior to commencement of the study.

Participants and Setting

Undergraduate nutrition majors at MSU Denver enrolled in the Careers in Nutrition and **Dietetics and Nutrition Capstone courses** participating in the peer mentoring program were recruited to participate. Capstone course students mentored those in the introductorylevel Careers course. Eligible students had taken either Careers in Nutrition and Dietetics (mentee group) or Nutrition Capstone (mentor group) at MSU Denver in the 2022 spring or fall semesters. Mentor students may have been mentees years prior, but this was not a qualification for participation. Careers in Nutrition met for 8 weeks, and Nutrition Capstone was a 16-week course. The mentoring program is structured to be completed during the 8 weeks the Careers in Nutrition course meets. Mentee information

(name, email, intended future career path) was provided to mentors who selected their mentee based on that information. Mentors received training on mentoring roles as well as appropriate communication and feedback skills prior to mentoring sessions. Students in both courses wrote reflection papers at the end of their mentoring experience. Mentee reflection paper prompts included questions asked of the mentor, advice/knowledge gained, and an action plan for implementing the advice/knowledge (see Appendix 1). Mentor reflection paper prompts included discussion of the mentoring experience, the value of mentoring on personal and professional levels, and suggestions for improving the mentoring program (see Appendix 2). Mentor students were encouraged to have at least two sessions with their mentees; session one emphasized advice for degree progression and session two focused on tips for creating a strong resume. Sessions could be in person or completed virtually; each pair chose how to accomplish their sessions.

Recruitment

Lists of enrolled students were provided by the course instructors. Students were contacted via email and asked to provide consent to have their peer mentoring reflection papers evaluated and coded for themes by the research team. Four emails were sent over one month requesting permission. The email was sent to 100 students, 47 from the introductory level course and 53 from the capstone course. Consent was collected via a brief Qualtrics19 form; those who consented were then prompted to provide their full name. Several students consented but failed to type their name, therefore they were not included in the study. Thirty-six students provided consent and their full name. Two mentor papers were eliminated because students were given an alternative assignment if they were unable to connect with their assigned mentee. One mentee paper was not reviewed because the file was not found when the instructor attempted to retrieve the document. In total,

reflection papers of 33 students, 11 mentees and 22 mentors, were reviewed and coded for themes utilizing NVivo software.²⁰ Coding continued until saturation of themes was reached.

MEASURES

Demographics

Table 1 shows demographic information (gender, race/ethnicity, age) for all students enrolled in the nutrition and dietetics major at MSU Denver when these reflection papers were written. Demographic data for the mentees and mentors participating in the peer mentorship population were not collected apart from data that was self-reported by the students at the time of admission to the university.

DATA ANALYSIS

Reflection papers were imported into NVivo,²⁰ a well-accepted and commonly used qualitative analysis software, used by "qualitative researchers to collect, organize, analyze, visualize, and report their data".21 Student names were removed, and each student was assigned a number. Projects were created in NVivo by mentee/mentor role. Six papers (three from the mentee group and three from the mentor group) were reviewed together by the research team to develop an initial list of topics and increase inter-coder reliability. The remaining essays were randomly assigned, and each paper was reviewed by two different researchers to eliminate bias. After all papers were coded, the research team grouped topics into domains, themes, and subthemes. At this point, the team determined that saturation was reached.

Grounded theory was used to retrospectively assess the qualitative data in the reflection papers for common themes. This approach allowed for the coding of themes which was followed by the discovery of patterns in the themes.²² These patterns allowed the themes to be grouped into domains. Grounded theory was chosen because

it allows flexibility based on the individual data which allowed the researchers not to be influenced by predetermined theories. After identifying the themes, Social Exchange Theory provided a framework for grouping the themes and understanding the mentee and mentor experiences.²³ This theory suggests that every relationship has costs and benefits.23 Other themes were identified utilizing the NVivo word frequency function that generates word clouds with the most frequently used words across all papers.²⁰

RESULTS

After papers were coded, similar topics were grouped into domains. Domains were further broken down into themes and then even further into subthemes if

applicable. Some themes were more general than the identified subthemes and did not occur often enough to create a new subtheme. In this case, the reference was coded to the theme only and not a subtheme. Domains, themes, and subthemes varied between the mentees and mentors (see Tables 2 and 3). Representative quotes were then selected which captured the domains and themes for the mentees and mentors (see Tables 2 and 3).

Mentee Themes

Domains for the mentee group included perceived benefits and perceived challenges.

	Spring 2022	Fall 2022
Total Nutrition and Dietetic Majors Registered	157	148
Gender		
Female	79.6%	74.3%
Male	20.4%	25.7%
Race/Ethnicity		
White	49%	47.3%
Hispanic	32.5%	31.1%
2 or More Races	7.6%	6.8%
African American	5.7%	7.4%
Asian	3.8%	5.4%
International Student	0.6%	0.7%
American Indian/Alaskan	0%	0.7%
Native Hawaiian/Pacific Islander	0%	0.7%
Age Group		
40 and older	9.6%	9.5%
35 to 39	8.9%	6.1%
30 to 34	12.7%	11.5%
25 to 29	22.3%	23.6%
20 to 24	37.6%	42.6%
19 or younger	8.9%	6.8%

Themes identified by mentees in the perceived benefits domain included advice, coping and relationships. Subthemes for advice were planning, recommendations, resources, and resumes. There were no subthemes for coping. The relationship theme included the subthemes connections, networking, and professors. Themes within the perceived challenges domain included incompatibility and scheduling. No subthemes were found for scheduling and incompatibility. Domains, themes, subthemes, and selected direct quotes for the mentee group are shown in Table 2.

Table 2. Mentee data obtained from the reflection papers (n=11)

	Reflections coded to a theme or subtheme	Independent references coded to a theme or subtheme	Representative quotes
Domain: Perceived Benef	its		
Theme: Advice			
Planning	11	38	"Everything led up to them helping me plan out the next couple semesters of my college career."
Recommendations	10	43	"He said that getting an internship is very competitive and that if I want to have a leg up on the process, I should start volunteering early and networking as much as possible."
Resources	7	32	"She went above and beyond throughout our sessions and provided me with resources on campus that I can go to and mentioned they will also review and help me with my resume building down the road."
Resume	11	32	"After our meeting I created my own academic resume that I then sent over to her. She reviewed it and provided me with additional advice on making it even better. Some examples she recommended to me were not needing to supply my full address, tweaking my skills section to adding clinical experience and even providing an awards and achievement section in my resume to add in my scholarships that I have been awarded."
Theme: Coping	3	5	" recommended some YouTube channels such as Crash Course, that helped him in the course which helped alleviate my anxiety about it since I am a visual person."
Theme: Relationships			
Connection	10	34	"It was nice to know that I'm not the only one who struggled at first."
Networking	6	8	"Some of the advice for getting through the degree was networking and making good friends through the years. Networking was some of the most talked about topics during our semester as well."
Professors	3	10	"I was also curious about any professors they would suggest that I take because it can be difficult to choose between classes, so knowing which professors have been particularly influential will help me plan my schedules."
Domain: Perceived Challe	enges	-	
Theme: Incompatibility	1	z 4	"I was prepared to learn about the expense of dietetic internships but was discouraged that neither mentor was pursuing one themselves."
Theme: Scheduling	5	7	"The most difficult aspect of working with groups was scheduling times to work on projects and assignments. I experienced some of the same problem on this assignment, as it was difficult to find a time to schedule both of the mentoring sessions. This made me realize that I need to be more flexible with my schedule moving forward in my education."

Table 3. Mentor data obtained from the reflection papers (n=22)

	Reflections coded to a theme or subtheme	Independent references coded to a theme or subtheme	Representative quotes
Domain: Perceived Benefi	ts		
Theme: Advice			
Planning	8	11	"The second in person session we went over graduation planning for his final four semesters. We actually planned out all of the classes he will have to take until graduation."
Recommendations	20	37	"I think overall she found it very helpful I told her things to make sure she makes appointments with her advisor, to build relationships with professors and to make sure she listens to her body when she is stressed."
Resources	18	35	"We also verbally reviewed some of the resources he has available to him as a MSU student (tutoring, etc.) to help ensure a successful academic year, relevant to some specific challenges the student was facing this semester."
Resume	21	35	"I gave her some pointers based on notes from class, pointers and tips that I was given on my own resume from the writing center, and some things that my boss has told me are his pet peeves when he reads resumes."
Theme: Personal Growth			
Confidence	7	8	"Accepting that I have acquired at least a base understanding of dietetics was something I had been struggling to internalize but taking on a mentee, however brief the position may have been, illuminated how far I have come since the beginning of my educational career and really helped to boost my self-confidence as a future RDN."
Learning	5	6	"As a mentor, it allows you to continually learn by seeking answers to questions the mentee asked or by learning new skills or perspectives."
Flexibility	2	4	"I had to change my thought process quickly to adjust to what my mentee needed."
Listening	9	14	"Serving as a mentor helped me grow professionally and personally by teaching me how to be a more effective listener and how to connect someone with resources based on the conversations we had."
Theme: Relationships			
Connection	13	19	"I provided my personal contact information to her and hope that she will utilize it if she needs any advice along the way."
Networking	8	9	"Serving as a mentor helped me grow professionally by helping me build another connection and network with another peer in my field."
Domain: Perceived Challe	nges		
Theme: Lack of Confidence	4	7	"I felt nervous that I wouldn't be knowledgeable enough to answer her questions or concerns regarding the field and about experiences within the program."
Theme: Incompatibility	6	9	"For instance, my first meeting with the student was a little difficult. To start off it was challenging to get in touch with him and to set up a meeting time. So, right from the start I got the impression that he wasn't looking forward to our meeting and didn't value the opportunity and my experience."
Theme: Scheduling			
Remote Meetings	7	9	"I know meeting virtually was something that worked best for her schedule however we could have both benefited from meeting in-person."
Time	5	7	"If there had been more time to build a relationship with a mentee and work these skills more as well as perhaps see the outcome of where she decided to take any information given or to be available to help guide her on her next steps, that would have been more fruitful."

(Table continues on next page)

(Table continued from previous page)

Domain: Suggestions			
Theme: Compatibility	2	4	"Since we only meet twice, knowing a little more about them other than their postgraduate interests would help make the times that we do meet more valuable."
Theme: Structure			
In-person meetings	6	6	"If I could repeat this experience, I would choose to be the only mentor to the mentee and to meet in person instead of online."
Time	10	14	"My only suggestion would be to make this a semester long project. I think both the mentor and mentee would benefit from more time to establish a helping relationship and while it might be more work for both students, I think meeting three or four times would actually really benefit them."

Mentor Themes

Domains for the mentor group included perceived benefits, perceived challenges, and suggestions. Themes identified by the mentors in the perceived benefits were advice, personal growth, and relationships. Subthemes for advice were planning, recommendations, resources, and resumes. Subthemes for personal growth included confidence, learning, flexibility, and listening. The relationship theme included connection and networking subthemes. Themes within the perceived challenges domain included lack of confidence, incompatibility, and scheduling. No subthemes were found for lack of confidence and incompatibility. Subthemes for scheduling included remote meetings and time. The suggestion domain focused on structure and compatibility. Only the structure theme had subthemes of in-person meetings and time. Domains, themes, subthemes, and selected direct quotes from the mentor group are included in Table 3.

Theme and Subtheme Frequency

The advice theme was identified most often by both the mentee and mentor groups. Resumes were the most common subtheme across both groups. Twenty-one of the 22 mentor files referenced resumes and 35 different references were coded in the mentor papers. The 11 mentee papers cited resumes 32 times.

Planning (11), recommendations (10), and connection (10) were also popular subthemes among the mentees. Subthemes mentioned most frequently by the mentors included recommendations (20) and resources (18). See Tables 2 and 3 for a detailed breakdown of the number of reflection papers and independent references pertaining to each theme and subtheme. Scheduling was the most frequently cited challenge and was noted in 12 different mentor reflection papers.

DISCUSSION

This study utilized document analysis of papers written by undergraduate nutrition students reflecting on their 8-week experience as a mentee or mentor. Mentors and mentees were given an assignment prompt to guide them through the mentoring program. The prompt recommended two sessions, the first on degree progression and the second on tips for creating a strong resume (see Appendices 1 and 2). Resumes were one of the most common themes across both classes, due to the assignment prompt (Appendices 1 and 2; Tables 2 and 3). Mentors were also specifically asked to provide suggestions for improving the mentorship program; this explains why there was a suggestions theme for the mentor group but not the mentees (Table 3). The suggestions identified in this study appeared to be a direct result of the challenges noted by the students.

Social exchange theory suggests that the balance of the benefits and challenges will not only affect the mentee/mentor experience but also the students' willingness to participate in this program in the future.²³ Understanding these benefits and challenges will allow MSU Denver and other universities to tailor their undergraduate nutrition mentorship programs to meet student needs and minimize challenges. In this study, 17 different students offered suggestions for program improvement. The most frequently cited suggestions centered around time. Time included recommendations for individual meeting duration and expanding the length of the peer mentoring relationship. The program's current structure is that the two mentor/mentee meetings be conducted during an 8-week period. This was dictated by the schedule of the Careers in Nutrition and Dietetics course which is only half a semester. Mentors noted a preference to have at least the full 16-week semester if not longer (see Table 3). Both mentors and mentees expressed a desire to have an improved matching process (see Tables 2 and 3). Several mentee students specifically noted wanting to be paired with a mentor who planned to complete a dietetic internship and one other student liked being paired with a fellow transfer student to help guide them through the transfer process.

To date, there have been limited studies on peer mentoring programs in undergraduate nutrition programs. The literature also indicates that the structure of peer mentoring programs may vary greatly.1 Nutrition and dietetic mentorship programs may use practicing registered dietitian nutritionists (RDNs), professors, upper division students, or current dietetic interns to serve as mentors.^{4,5,15-17} Mentorship may be provided in a group setting and some students may report having several mentors. 16,23 MSU Denver's peer mentoring program students are paired based on the number of students enrolled in each class. If there are more mentors than mentees. some mentees will end up with 2 mentors, and the opposite may also occur if there are more students in the introductory level course. In

this study, there appeared to be some groups where two mentors were assigned the same mentee, but the mentees found scheduling difficult and did not note additional benefit from having multiple mentors (See Table 2). Most groups in this study were a 1:1 menteementor pair. Minimal research has been published regarding the outcomes of these programs in general, but more specifically, there is even less research addressing the benefits of peer-mentorship programs among nutrition students.

Although there has been minimal research, studies have shown perceived benefits. A recent study at the University of Delaware conducted in the dietetics program paired students in the Introduction to Nutrition Professions course with undergraduate upper division students who enrolled in the Peer Mentoring Seminar course. 16 Researchers concluded the peer mentoring program was beneficial for both mentors and mentees.¹⁶ Mentees noted benefiting from advice and guidance from the mentor and also benefited from a better understanding of campus and professional resources.¹⁶ Similar findings were noted by the students at MSU Denver in this study. Mentors benefited by gaining leadership and communication skills as well as career development. Both groups identified expanded social networks as a benefit.16 The study's authors also argued that mentors may have had a higher chance of acceptance into a dietetic internship program than students who did not participate. 16 Participation in the peer mentoring program is a course requirement at MSU Denver; it would be interesting to compare match rates of MSU Denver students to dietetics students at other universities that do not have a peer mentoring program. The University of Delaware study does suggest that a similarly structured program with a longer duration could yield the additional benefit of increasing matching rates to a dietetic internship. Other studies have noted beneficial themes to having a mentor similar to those found in this study, especially on topics such as advice and personal development. In this

study, advice was the subtheme cited most often by the mentor and mentee groups and personal growth was the second most mentioned subtheme by the mentors. The "relationship expectations" theme found in a recent study demonstrated the assumptions survey respondents have of mentors, including providing advice, assisting in development, and achieving goals and personal development.¹⁵ This was evident in the present study as well. Not only did the mentees and mentors often cite advice, but mentors helped with writing resumes, referring to resources, course planning, and recommendations for connections with professors. Ninety-one percent of respondents in another study reported being interested in having a mentor, and 58% of those with a mentor found them to be moderately or extremely influential. 15 These results help verify the positive effects of peermentoring. This study did not specifically evaluate the percentage of students who found having a mentor beneficial, but it could be a consideration for future research.

Evaluating the effectiveness of the MSU Denver peer-mentoring program is significant and will provide valuable information not only to improve this program's mentoring program but also other universities offering Didactic Programs in Dietetics (DPD). The DPD program prepares nutrition students for a dietetic internship and careers as Registered Dietitian Nutritionists (RDNs). DPD programs have competencies or Knowledge Requirements for Nutrition and Dietetics (KRDNs) that must be met for DPD verification. One KRDN, 5.6 requires that students "demonstrate an understanding of the importance and expectations of a professional in mentoring and precepting others".2 Many dietetics programs nationwide meet this requirement through mentorship programs; however, to the best of our knowledge, this study is the only study that examined experiences of both mentee and mentor undergraduate nutrition students as part of a required course.

Limitations

Reflection papers could not be obtained until students' final grades had been submitted which prevented the research team from contacting students while enrolled in the course. For this reason, email was chosen as the method of contact. This was a limitation of the study as most email addresses provided were university emails and some of the students had graduated or were no longer enrolled, limiting access to their email accounts. Participation may have been higher if students were contacted during the semester of the course. The researchers expected to recruit fewer mentor students as many had graduated, but there was a poorer response rate from the mentee group. One reason this may have occurred is that the professor of the capstone course let the students know about the study and that the research team would be reaching out. Additionally, the students in the capstone course also complete a research project so they know firsthand how challenging it can be to recruit research subjects which may have increased their willingness to consent to having their papers reviewed. Both mentors and mentees were given assignment prompts which guided the content and discussion of the meetings and influenced the themes identified in the reflection papers (see Appendices 1 and 2). Participation in the peer mentoring program is required by the MSU Denver program to meet KRDN 5.6. Different responses may have been noted if the students chose to participate in the program. Finally, the reflection papers were a graded assignment which may have influenced student responses.

CONCLUSIONS

Research findings suggest that undergraduate nutrition students at MSU Denver valued participation in the peer mentoring program especially related to advice, coping, relationships, and personal growth. They recommended the mentorship program be longer in duration and suggested

improvements in student compatibility. This study can serve as a pilot study regarding the implementation and best practices for peer mentoring programs as part of a required course in undergraduate nutrition and dietetics programs.

Implications

The implications of this study will be an improved nutrition peer-mentoring programs at MSU Denver and across the United States specifically with improving student compatibility which includes pairing students with similar career goals and interests and pairing those who plan to pursue a dietetic internship as well as pairing transfer students. This study will also encourage peer-mentoring programs to be longer in duration, at least 16 weeks to ensure students receive the full benefits of mentoring. Future research should continue to focus on establishing best practices for meeting the ACEND requirements and helping create supportive relationships to help students succeed throughout all levels of nutrition and dietetic education including undergraduate, graduate and dietetic internship programs. Additional studies could also look at the potential role that these mentorship programs play in dietetic internship match rates.

ACKNOWLEDGMENTS

The authors acknowledge Anne Hovinen, MS, RDN, and Cynthia Heiss, PhD, RDN.

REFERENCES

- 1. Mullen CA, Klimaitis CC. Defining mentoring: a literature review of issues, types, and applications. *Ann N Y Acad Sci.* 2021;1483(1):19-35. doi:10.1111/nyas.14176
- 2022 Standards and Templates. eatrightPRO.org. Accessed October 5, 2023. https://www.eatrightpro.org/acend/accreditation-standards-fees-and-policies/2022-standards-and-templates
- 3. Rallis KS, Wozniak A, Hui S, et al. Mentoring medical students towards oncology: Results from a pilot multi-institutional mentorship programme. *J Canc Educ.* 2022;37(4):1053-1065. doi:10.1007/s13187-020-01919-7

- 4. Hicks-Roof K, Beathard, K. A mentoring program builds the bridge with nutrition students and healthcare professionals. *J Allied Health*. 2022;51(1):31-37.
- 5. Wynn CL, Raj S, Tyus F, et al. Barriers to and facilitators of dietetics education among students of diverse backgrounds: Results of a survey. *J Acad Nutr Diet*. 2017;117(3):449-468. doi:10.1016/j.jand.2016.06.010
- 6. Mangan L. The many modes of mentoring: new spins on the classic relationship. *J Acad Nutr Diet*. 2013;113(5 Suppl):S38-S41. doi:10.1016/j.jand.2013.02.017
- Pinilla S, Nicolai L, Gradel M, et al. Undergraduate medical students using facebook as a peermentoring platform: A mixed-methods study. *JMIR Med Educ.* 2015;1(2):e12. doi:10.2196/mededu.5063
- 8. Day KM, Schwartz TM, Rao V, et al. Medical student clerkship performance and career selection after a junior medical student surgical mentorship program. *Am J Surg.* 2016;211(2):431-436. doi:10.1016/j.amjsurg.2015.10.007
- 9. Andre C, Deerin J, Leykum L. Students helping students: vertical peer mentoring to enhance the medical school experience. *BMC Res Notes*. 2017;10(1):176. doi:10.1186/s13104-017-2498-8
- 10. Cho M, Lee YS. Voluntary peer-mentoring program for undergraduate medical students: exploring the experiences of mentors and mentees. *Korean J Med Educ*. 2021;33(3):175-190. doi:10.3946/kjme.2021.198
- 11. Mohd Shafiaai MSF, Kadirvelu A, Pamidi N. Peer mentoring experience on becoming a good doctor: student perspectives. *BMC Medical Education*. 2020;20(1):494. doi:10.1186/s12909-020-02408-7
- 12. Yüksel A, Bahadır-Yılmaz E. The effect of mentoring programs on adjustment to university and ways of coping with stress in nursing students: a quasi-experimental study. *Nurse Educ Today*. 2019;80:52-58. doi:10.1016/j.nedt.2019.06.006
- 13. Lewis LS. An intercultural peer-mentoring program for prelicensure nursing students. *J Nurs Educ.* 2021;60(6):343–345. doi:10.3928/01484834-20210520-08
- 14. Wang AH, Lee CT, Pina VR. A virtual peer mentoring intervention for baccalaureate nursing students: a mixed-methods study. *J Prof Nurs*. 2022;41:33-42. doi:10.1016/j.profnurs.2022.04.006
- 15. Patten EV, Bellini SG, Meier A, Earl K. Mentorship experiences and perceptions of didactic program in dietetics students. *Top Clin Nutr.* 2021;36(1):81-89. doi:10.1097/TIN.000000000000229

- 16. Grimes ME, Baker SD, Kuczmarski MF. Peer mentoring contributes to career growth of undergraduate nutrition and dietetics students. *Creat Educ.* 2014;5(14):1286-1295. doi:10.4236/ce.2014.514147
- 17. Besnilian A, Goldenberg A, Plunkett SW. Promoting diversity within the dietetics profession through a peer mentorship program. *J Acad Nutr Diet*. 2016;116(2):198–202. doi:10.1016/j.jand.2015.07.018
- 18. Etzel AM, Alqifari SF, Shields KM, Wang Y, Bileck NB. Impact of student to student peer mentoring program in first year of pharmacy program. *Curr Pharm Teach Learn.* 2018;10(6):762-770. doi:10.1016/j.cptl.2018.03.009
- 19. *Qualtrics* [Computer Software]. January 2023. Provo, UT: Qualtrics; 2023.
- 20. *NVivo* [Computer Software]. Version 12. Denver, CO: Lumivero; 2018.

- 21. Dhakal K. NVivo. *J Med Libr Assoc.* 2022;110(2):270-272. doi:10.5195/jmla.2022.1271
- 22. Castello OG. Research Guides: Qualitative Research: Grounded Theory: How is it done Accessed September 24, 2023. https://guides.temple.edu/c.php?g=77914&p=5060
- 23. National Academies of Sciences Engineering, and Medicine, Policy and Global Affairs; Board on Higher Education and Workforce; Committee on Effective Mentoring in STEMM; Dahlberg ML, Byars-Winston A, editors. The Science of Mentoring Relationships: What Is Mentorship? In: *The Science of Effective Mentorship in STEMM*. National Academies Press (US); 2019. Accessed September 24, 2023. https://www.ncbi.nlm.nih.gov/books/NBK552775/

APPENDIX 1: PROMPT FOR MENTEES

The purpose of the assignment is to:

- Help you develop the success skills of giving and receiving feedback and mentoring
- Allow you to gain knowledge and support from a Senior level Nutrition student
- Receive feedback on your resume including your descriptions of and plans for extracurricular experiences

You will write a reflection paper discussing the three meetings with your mentor. You should include:

- what questions you went into the meetings with and why you wanted to ask those questions
- what advice and knowledge you gained from the meeting.
- how the resume review went
- what advice you received for improving your resume.

Your conclusion should be focused on an action plan which responds to the advice you were given. Include your ideas for preparing for the rest of your education, experiences you want to have, and how you plan to make them work.

APPENDIX 2: PROMPT FOR MENTORS

Each student will be required to mentor at least one entry-level student enrolled in NUT 1800 and/or HRSA Nutrition Scholar. Serving as a mentor provides an opportunity to grow professionally, expand your communication skills, self-reflect upon your own career goals, build your resume, and assist in enhancing student success at MSU Denver.

This assignment assesses student learning of KRDN 5.6: Demonstrate an understanding of the importance and expectations of a professional in mentoring and precepting others.

The reflection paper should discuss your overall experience serving as a mentor

- what you learned about mentoring,
- how serving as a mentor helped you grow professionally and personally,
- what value mentoring plays in the success of both students and professionals,
- what you might do differently if you could repeat serving as a mentor, and
- what suggestions you have for improving the mentoring program.

Include details about:

- how you prepared for each session,
- the topics discussed,
- what your mentee's response was to your insight, and
- general information about how each session went
- did challenges arise and if so, how did you deal with them?
- what went well and what did not go so well?