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Peer Mentoring Contributes to Career Growth of Undergraduate Nutrition and Dietetics Students

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Abstract

Peer mentoring has been shown to improve social networks and reduce the rate of failure in college classes. However, it has not been studied extensively with nutrition and dietetics majors, who may benefit from peer mentoring as a way to cultivate learning and improve communication and leadership skills. The University of Delaware's Dietetics Program recently implemented crossyear peer mentoring in the relatively large Introduction to Nutrition Professions class, a First Year Experience course. At the end of every class, the mentors, upperclassmen, met with small groups of students to answer questions, review assignments, and share their experiences. The ratio of mentor to student was 1:10. All mentors received training by the course instructor prior to the first mentoring sessions. The effectiveness of the mentoring experience was evaluated for both the mentees and the mentors of the 2012 and 2013 classes by a validated online survey. Of the 254 mentees, 176 (69%) completed the survey; of the 24 mentors, 21 responded. Approximately 75% of the mentees agreed or strongly agreed that mentoring provided them nutrition resources, and that they could ask the mentor questions about the field of nutrition. Mentees noted that they benefited from increased knowledge of university resources and nutrition careers and the valuable advice from mentors. Almost all mentors agreed that the program increased their leadership and communication skills, and that it was a positive experience. Mentor benefits included career development and favorable dietetic internship acceptance rate, higher than the national average. Roughly 35% of mentees and 8 of 21 mentors agreed or strongly agreed that the mentoring session expanded their friendship networks within the major. Based on these positive outcomes, peer mentoring is an effective method to enhance students' learning and career growth.

Keywords

Undergraduate, Dietetics, Nutrition, Peer Mentoring, Career Development

1. Introduction

Peer mentoring in an educational setting is a way for more experienced students to assist and guide less experienced students. It is a process that leads to learning and growth in both mentors and mentees (Gillman, 2006). Peer mentoring has been shown to be beneficial in the undergraduate education of a number of healthcare disciplines, although the results are sometimes inconsistent. Dental students participating in a peer mentoring program reported a positive experience, testifying that the program eased their transition into dental school and helped to relieve anxiety (Lopez, Johnson, & Black, 2010). Paramedic students reported better understanding of the material after a peer mentoring program was established (Hryciw, Tangalakis, Supple, & Best, 2013). A study on the effects of peer mentoring on nursing students showed that students who experienced peer mentoring did not have reduced stress levels as compared to students who did not; however, both mentors and mentees reported a gain in knowledge after the peer mentoring session (Li, Wang, Lin, & Lee, 2011). Peer mentoring has been utilized for overall academic advising for nutrition majors (Helm & Sebold, 2010). Our search online of accredited dietetics programs revealed that peer mentoring was used as a link between students and practicing dietitians in their respective state and between all undergraduate students and nutrition and dietetics club members in a few universities (Kansas Dietetic Association, 2014; Indiana University, 2014). However, to the knowledge of the researchers, no one has explored the use of cross-year small-group peer mentoring in an introductory nutrition and dietetics course.

One role of a Registered Dietitian is to act as a health promotion specialist. Dietitians promote positive change by assessing and diagnosing nutrition problems and then implementing and monitoring care (Lacey & Pritchett, 2003). Excellent interpersonal and communication skills are essential to future leaders in the dietetics professions enabling them to impact positive dietary behavior change. Prior to becoming Registered Dietitians, dietetics majors must complete an undergraduate program accredited by the Accreditation Council for Education in Nutrition and Dietetics and a Dietetic Internship. To be competitive for acceptance into a Dietetic Internship, dietetics majors' classroom, volunteer, and work experiences that enhance communication and leadership abilities are very important. Thus a student's chance of obtaining an internship and becoming a Registered Dietitian might be increased by serving as a mentor.

The Academy of Nutrition and Dietetics, the national association for dietetics and nutrition professionals, recognizes the benefits of mentoring (Boyce, 2014; McCollum, 2013; Lipscomb & An, 2010; Mangan, 2012) and acknowledges the need for mentoring in undergraduate nutrition majors (White & Beto, 2013; Stein, 2012; Olivares, Burns-Whitmore, & Kessler, 2014). Participating in peer mentoring can enhance the communication skills for both mentees and mentors (Topping, 1996). Although peer mentoring is not new, the use and evaluation of peer mentoring does not appear to be reported in the literature for accredited dietetics programs.

The popularity of nutrition and dietetics majors is steadily increasing which has resulted in increased undergraduate class sizes. The *Introduction to Nutrition Professions* course at the University of Delaware has steadily grown and now enrolls more than 100 students every semester. Although Ehrenberg, Brewer, Gamoran and Willms (2001) report that smaller classes lead to higher achievement and engagement of students, it is hoped that if large classes utilize peer mentors who facilitate small groups, students will connect and be successful.

This research had two objectives: first, to determine the success of cross-year peer mentoring based on reported perceptions of dietetics mentees and mentors and second, to identify strengths of peer mentoring as well as areas for future directions.

2. Method

2.1. Development of Nutrition Peer Mentoring Seminar Course

At the University of Delaware, the *Introduction to Nutrition Professions* course is taken by entering freshmen in any of the three nutrition majors: dietetics, applied nutrition, and nutritional sciences. It is also required for those who declare a nutrition major after their first semester, which means that there are sophomores, juniors and seniors enrolled in the course each semester. It is classified as a First Year Experience (FYE) course and therefore serves as an acclimation to university resources and a vehicle for building connections among freshman students. This course presents an overview of the field of nutrition and is meant to provide the foundation for success in the major. It is a one credit, pass/fail course that traditionally includes mini-lectures focusing on resources for academic success and speakers who share stories about their career paths. Students complete several assignments such as a writing a resume and personal statement of goals, gaining experience developing complete cita-

tions for publications, and completing a scavenger hunt of nutrition resources. The culminating project is the creation a professional portfolio to be used throughout their university experience.

While most FYE courses at the University of Delaware are limited to a class size of 20 - 25 students, the *Introduction to Nutrition Professions* course enrolls more than quadruple this range. To accommodate the growth in number of majors while maintaining the quality of the classroom experience, the instructor introduced peer mentoring to this course in 2012. A companion course entitled, "*Peer Mentoring Seminar*", was created with expectations for peer mentors similar to the roles and responsibilities for peer mentors identified by Minor (2007) (**Table 1**).

All peer mentors were required to attend a training session where they learned about campus resources, group facilitation skills, and their roles and responsibilities as peer mentors. They were also required to attend the *Introduction to the Nutrition Professions* class sessions. Prior to every class, the instructor sent the mentors an outline of the events for the class and a list of tasks to be completed in the peer mentoring session. They met briefly before class to review tasks, discuss ice breakers, and address any questions.

During each 2-hour class period, the majority of the time was spent in a traditional lecture with both mentees and mentors present. Then each mentor met with his or her group, which consisted of about ten students, for the final portion of the class (20 - 30 minutes). Mentoring groups remained the same throughout the semester. Mentees were grouped cross-year and alphabetically by last name. Cross-year mentoring gave an opportunity for more experienced students to share with less experienced students. The purpose of this session was to discuss material, answer questions, review homework, and establish social connections. The instructor was available during the peer mentor small group time to act as an additional resource to both mentors and mentees.

At the end of each session, mentors reported to the instructor about student participation and any questions that arose during the session. Mentors were required to send the instructor a weekly email to describe how the group went. While the peer mentors provided a first review of assignments, the instructor also evaluated assignments and finalized all grades. Therefore, students benefitted from having both peer mentor and instructor feedback.

Table 1. Description of nutrition peer mentoring seminar course.

| Component | Description | | | | | |
|--------------------------------|--|--|--|--|--|--|
| Course prerequisites: | Junior/Senior Nutrition Major, successful completion of Introduction to the Nutrition Profession course, minimum 2.75 GPA, permission of instructor. | | | | | |
| Course description: | One credit, pass/fail. Focus on developing skills in mentoring peers. Experiences under supervision of nutrition faculty member. | | | | | |
| Course objectives: | To understand, develop and employ mentoring skills in assisting <i>Introduction to the Nutrition Profession</i> students in acclimation to the nutrition major and university. As a mentor, you should be able to: • describe the nutrition majors and career opportunities • demonstrate professionalism and confidentiality in interactions • understand and explain to others resources for academic success | | | | | |
| Expectations for peer mentors: | Socialization—create an informal setting for mentees to get to know each other Orientation—familiarize mentees with University resources and procedures Mentoring—share own experiences, guide mentees in completing assignments and provide support Advising—demonstrate use of curriculum checksheet for selection of classes and encourage relationship with faculty advisor Supervision—reinforce course policies Instruction—teach mini-lecture to entire class (optional) Coordination and Leadership—facilitate small group mentoring sessions at the end of every class Role-Modeling—demonstrate the characteristics of an engaged learner | | | | | |
| Requirements for a pass grade: | Attend training session. Attend all <i>Introduction to the Nutrition Profession</i> classes. Act as a role model/mentor for group of no more than 10 students and facilitate small group discussions. Be prepared for each class by carefully reviewing course and assignment requirements. Read all emails and postings in Sakai [course management system]. Review assignments using criteria established by instructor and complete reviews within one week. Demonstrate professional behavior and always respect confidentially. Communicate weekly with course instructor. | | | | | |

2.2. Sample Population

The eligible mentee sample consisted of a total of 254 students with 100 enrolled in the 2012 section and 154 enrolled in the 2013 section of an *Introduction to Nutrition Professions* class at the University of Delaware.

Twenty-four mentors, including nine during 2012 and 15 during the 2013 semester were eligible to participate.

2.3. Survey

Two online surveys, one for mentors and one for mentees, were developed using Qualtrics® survey software (Qualtrics Labs, Inc., Provo, UT, 2014). The study methods and all materials were approved by the University of Delaware Institutional Review Board. Previously published surveys from an evaluation of a peer mentoring program (Hryciw, Tangalakis, Supple, & Best, 2013) laid the foundation for the development of the surveys. They surveys were pre-tested for clarity, timing, and reliability by several non-dietetic students and dietetic students who had completed the *Introduction to the Nutrition Professions* class prior to 2012. Content validity was demonstrated, indicating that the survey questions provided a comprehensive representation of the benefits associated with mentoring based on perceptions of college students. The surveys included three sections consisting of: six to eight demographic questions, four open-ended opinion questions, and 10 to 12 Likert scale items inquiring about the student's perception of the peer mentoring program. A five point Likert scale, where 1 indicated that the student strongly disagreed and 5 indicated that the student strongly agreed, was used. Topics in the mentee survey included: resources available at university, understanding of nutrition careers, usefulness of peer mentors, and social networks. Topics included in the mentor survey included: leadership and communication skill building, career development, and social networks. While the mentor and mentee surveys differed slightly, the same surveys were distributed to the 2012 and 2013 classes. Email and verbal messages were used to encourage survey completion, but the students were made aware that the survey was voluntary and unrelated to their grade in the class.

2.4. Statistical Analysis

Statistical analysis was performed using the Statistical Package for the Social Sciences (IBM SPSS Statistics for Windows version 21, 2012). Simple descriptive statistics and frequencies were performed. Also, paired t-tests were used to determine if there were any significant differences in the demographic characteristics or the responses about perceptions for the mentees by year enrolled. Since there were no significant differences found, data from 2012 and 2013 classes were merged into one dataset and analyzed. For mentors, visual examination of the demographic data revealed no notable differences between 2012 and 2013.

Responses to open ended questions were tallied by the authors. Similar responses were aggregated into larger categories. Students could provide more than one response for a single question; the percentages reported are based on the number of students who made that response out of the total number of student responders, rather than out of the total number of responses.

3. Results

3.1. Survey Participants

Of the 254 eligible mentees, 176 (69%) completed the survey. Almost all (93.8%) were female and 81.8% were dietetics majors. The remaining 20% of students were either applied nutrition or nutritional science majors. Since the majority of students were dietetics majors, in this paper the mentees will be referred to as dietetics students. With respect to class rank, 24.4% reported that they were freshmen, 29.5% were sophomores, 20.5% were juniors, and 25.6% were seniors or post graduates.

Of the 24 mentors, 21 completed the survey. Of these respondents, 20 were females and all were dietetics majors.

3.2. Perceptions of Mentees

The questions about the mentees' perceptions of peer mentoring and responses to the Likert scale items are provided in **Table 2**. Over 60% of the responses were categorized as agreement to all but two statements. The questions are provided in **Table 2**.



Table 2. Responses to perception questions by mentees (n = 176).

| Question | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|----------------------|----------|---------|-------|-------------------|
| Increased Knowledge of University and Nutrition Major | | | | | |
| Through the mentoring portion of the class, I learned new information that is/will be useful to me here in college. | 2.9% | 7.4% | 18.9% | 45.1% | 25.7% |
| I felt this mentoring program gave me resources I can use during my time spent in the nutrition and dietetics major. | 2.9% | 11.4% | 12.0% | 48.6% | 25.1% |
| This mentoring program made me feel more prepared to continue with the field of nutrition, both in college and afterwards. | 3.4% | 12.6% | 15.4% | 49.1% | 19.4% |
| I felt that this mentoring program helped me learn the material presented in class. | 3.4% | 14.3% | 17.7% | 50.9% | 14.4% |
| Benefits of Peer Mentors | | | | | |
| I felt that I could ask my mentor questions about the field of nutrition. | 1.1% | 5.1% | 11.4% | 42.9% | 39.4% |
| I felt that my mentor had useful information about the field of nutrition. | 1.1% | 4.5% | 13.6% | 51.7% | 29.0% |
| Having a mentor enhanced my experience in Introduction to Nutrition Professions. | 2.3% | 11.0% | 25.4% | 37.6% | 23.7% |
| Looking back, I would consider the mentoring program as a positive experience. | 0.6% | 4.0% | 22.7% | 49.4% | 23.3% |
| Expanded social networks | | | | | |
| I spoke to another member of my mentoring group (including my mentor) outside of class time, either electronically or face-to-face. | 12.1% | 33.3% | 9.8% | 30.5% | 14.4% |
| This mentoring session expanded my friendship networks within the major. | 4.5% | 31.8% | 33.0% | 22.7% | 8.0% |

tion with the highest percent of "Agree" or "Strongly Agree" responses was "I felt that I could ask my mentor my questions about the field of nutrition" (82.3%). All three of the questions with the strongest agreement involved distribution of information. Approximately 75% of the students polled agreed or strongly agreed that the mentoring program provided them nutrition resources, that they could ask the mentor questions about the field of nutrition, and that the program was a positive experience that enhanced the class.

The question with the lowest percent of "Agree" or "Strongly Agree" responses was "I spoke to another member of my mentoring group (including my mentor) outside of class time, either electronically or face-to-face" (45.1%). Two of the three questions with the weakest agreement involved social experiences. Roughly 30% agreed or strongly agreed that the mentoring session expanded their friendship networks within the major. When students were asked if they would be interested in becoming mentors in the future based on this program, 83% said yes.

Students who did not take the class as freshmen were asked if they believed that peer mentoring would have been more helpful if they had. Four of every 5 students agreed or strongly agreed.

The most common mentee responses for the short answer question "List three things you have gained in this mentoring session" were: new information about the nutrition field (22.7%), review of class assignments (19.3%), advice from mentors (11.3%), and meeting other people in the nutrition majors (10.8%). Less common answers included: information about volunteer opportunities (7.3%), a place to ask questions (7.9%), and upperclassman contact (3.9%). Students noted that they felt more comfortable asking questions in the small group as opposed to the large lecture hall.

The most popular suggestions for the future for peer mentoring included: longer meetings (9.1%), having a set discussion topic (5.1%), and facilitating closer connections between students and mentors (5.1%). Other suggestions included grouping mentees by age or major, rather than alphabetically (4.5%), and setting up one-on-one mentoring rather than group mentoring (4.5%). A few suggested switching groups throughout the semester (1.2%). Many students had no suggestions for change (8.0%).

3.3. Perceptions of Mentors

The mentor perceptions about this mentoring program are presented in **Table 3**. Similar to the mentees' perceptions, there was generally more agreement than disagreement to the Likert style items. The question, "Being a mentor was a valuable experience for me." was ranked highest among all the questions. Almost all mentors agreed or strongly agreed that this program was a valuable experience, improving their skills, namely communication (18 of 21) and leadership (19 of 21). This perceived benefit of leadership was also demonstrated in the short answer questions. When asked about the most important benefits of mentoring, leadership was free-texted by 12 of the 21 mentors. The fewest "Agree" or "Strongly Agree" responses were for "This mentoring session expanded my friendship networks." Only eight of the 21 mentors felt that the program expanded their friendship networks.

When asked in the short answer questions how their role as a mentor benefitted them, mentors pointed to improved leadership skills (n = 12), the ability to support underclassmen (n = 8), improved public speaking skills (n = 7), review of class material (n = 6), and improved communication skills (n = 6). One mentor commented, "When the students look to you for advice, you finally realize that you have a lot more to share and give than you previously thought." 18 out of 21 mentors said that they would participate as a mentor again in the future. When asked why they would participate, students said they enjoyed helping people and appreciated the knowledge they gained. Future improvements suggested by mentors included more time to meet with groups (n = 3), more resources during training (n = 2), and grouping students based on age (n = 1).

Since admission to a post-undergraduate dietetic internship is the ultimate goal of most dietetic majors, the rates of mentor admission to dietetic internships was reviewed. Dietetic students who served as mentors for *Introduction to Nutrition Professions* were more likely to be admitted to a dietetic internship than those who did not serve as mentors. Nationally, only about half of those who apply secure a dietetic internship match (White & Beto, 2013). **Figure 1** shows the rates for University of Delaware students. Mentors were accepted at a higher rate compared to students who did not serve as a mentor. Although the influence of being a peer mentor in the acceptance decision cannot be determined by this study, it is recognized that acceptance to an internship program is based on several criteria with strong leadership and communication skills valued.

Table 3. Responses to perception questions by mentors.

| Question | | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|--|----|----------------------|----------|---------|-------|-------------------|
| Confidence in skills | | | | | | |
| Being a mentor increased my confidence in my leadership skills. | 21 | 0 | 1 | 1 | 11 | 8 |
| Being a mentor increased my confidence in my communication skills. | | 0 | 1 | 2 | 11 | 7 |
| Being a mentor increased my confidence in my public speaking skills. | | 0 | 0 | 5 | 10 | 6 |
| Career development | | | | | | |
| Being a mentor was a valuable experience for me. | | 0 | 0 | 1 | 14 | 6 |
| I feel like I benefitted the students I mentored. | | 0 | 2 | 2 | 12 | 5 |
| Being a mentor increased my knowledge of the field of nutrition. | | 0 | 0 | 7 | 10 | 3 |
| Expanded social networks | | | | | | |
| I communicated with my mentees outside of class, through email or other means. | 21 | 0 | 1 | 1 | 14 | 5 |
| Talking to other mentors helped me in this mentoring session. | | 1 | 0 | 4 | 12 | 4 |
| I felt a sense of closeness with my mentoring group. | | 1 | 3 | 7 | 9 | 0 |
| This mentoring session expanded my friendship networks. | | 1 | 4 | 8 | 8 | 0 |

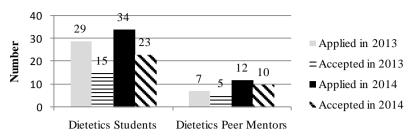


Figure 1. Acceptance to dietetic internship.

4. Discussion and Conclusion

To our knowledge this is the first study to document the beneficial effects of cross-year peer mentoring in a relatively large FYE course focused on introductory nutrition and dietetics. For mentees, the main advantages were advice and help directly from the mentor and recognition of campus/university and professional resources, and expanded social networks in the major. For mentors, the main benefits were enhanced leadership and communication skills, and career development. Social networks were expanded by both groups. However the expansion was smaller than anticipated. Another possible advantage was the higher chance of acceptance of peer mentors into a dietetic internship programs.

4.1. Mentee Benefits

Overall, the dietetics mentees responded favorably to the peer mentoring program. The noted benefits fell into three categories: increased knowledge of resources and nutrition careers, appreciation of peer mentoring, and some expanded social networks.

Students noted increased knowledge both in school resources and in the field of nutrition. Having knowledge of such school resources as faculty advisors, the library, and student career services was a goal of the course. By recognizing these resources, it is hoped that students will use them to their benefit to become stronger dietetics students. Increased knowledge of the field of nutrition will be helpful to students in the ever changing world of health care. Knowing a dietitian's role and the jobs he or she is capable of will be important in shaping the field of dietetics in the future. Interestingly, it seems that there is no indication that peer mentors diluted the role of the instructor. Actually, it seemed to enhance it and give students an additional resource, as shown by students reporting that mentors helped them learn the material presented in class and citing review of class work as an important benefit.

Mentors are unique from professors in that they are closer to the students' age and life stage. They are well-suited to give the help that students need because they have recently searched for the same advice. Students felt that this help and advice was an important benefit to the peer mentoring, strengthening the fact that mentors and professors are separate entities.

Although this study did not focus on the stress levels of students, as did Lopez, Johnson, and Black (2010) and Li, Wang, Lin, and Lee (2011) in dental and nursing studies, it is hoped that the advice and help from mentors, along with increased knowledge, would help students feel more confident and less anxious about their futures. Future research on nutrition peer mentoring could include a measure of student stress before and after the mentoring.

The benefit of expanded social networks is a piece that needs to be further explored in students. Less than one third of mentees felt that the mentoring program expanded their friendship networks within the major in a Likert style item, and only 45% of mentees reported talking to a member of their mentoring group outside of class; however, in the short answer questions, meeting new people in the nutrition majors was one of the most recognized benefits of the program, and several people cited contact with upperclassmen as an important benefit. This contradiction may be explained by students having different definitions of the term "friendship network". It is possible that they met and shared ideas with new students in the major, but did not consider these new acquaintances as friends. Future surveys could further define the idea of networks, social interaction, and friendship to obtain more conclusive results.

Although these results are positive, it is possible that the mentoring sessions may have been more helpful for some students than for others. Most upperclassmen agreed that the class would have been more helpful to them

if they had taken it as a freshman. Given this class is designed as an introductory course to give basic information about the university and the nutrition field, which many upperclassmen already knew. Also, the mentoring was not cross-year for many seniors taking the class; some students were farther along in their studies than their mentors. This type of mentoring might be described better as reciprocal mentoring, in which both students have the chance to ask and answer questions for each other (Topping, 1996). Reciprocal peer mentoring was not the focus of this study, and further research would have to be done on its effectiveness.

4.2. Mentor Benefits

The mentors perceived several benefits of the mentoring program including but not limited to improved confidence in leadership and communication skills, career development, and somewhat expanded social networks. Improved leadership skills could be translated by mentors to the professional world. The majority of mentors agreed that networking with fellow mentors helped them succeed in the program; working and communicating in groups is a skill that is often required of professionals in all fields. Not only were communication skills enhanced but level of confidence was raised among mentors. This finding was also reported in the paramedic peer mentoring study, which found an increase in communication skills, understanding of the material, and confidence (Hryciw, Tangalakis, Supple, & Best, 2013). The hope is that mentors will use these skills in their internships and jobs, enhancing their success in the nutrition field.

In a review of the literature, Topping (1996) found the peer mentors gain as much or more than the mentees as they learn by teaching. With a national rate of only about 50% of dietetics students matching for a post-undergraduate dietetic internship, students need every advantage not only in grades but also experiences to prepare them and set them apart as they apply for dietetic internships. The mentors who applied to dietetic internships had about a 20% higher match rate compared to the group as a whole who applied to dietetic internships. The leadership and communication skills honed through serving as a peer mentor could be advantageous for students as they apply to internships and prepare for their career. The Academy of Nutrition and Dietetics has devoted recent journal articles to the benefits of mentoring (Boyce, 2014; McCollum, 2013; Lipscomb & An, 2010; Mangan, 2012). Developing mentoring relationships at an undergraduate level could benefit an individual throughout his/her career as he/she learns to build rapport, and model as well as learn from others. In fact the skills gained can be used to implement peer mentoring with clients. For example, peer mentoring has been successful in breast feeding and weight loss programs as well as outreach nutrition programs such as the expanded Food and Nutrition Education Program and the Special Supplemental Nutrition program for Women, Infants, and Children (Rossman, 2007; Cawley et al., 2011).

Like the mentees, the social aspect of mentoring was less important to mentors than other benefits, although mentors reported enjoying giving feedback and advice to their mentees, and most respondents felt that they truly benefitted their mentees. Again, further probing regarding students' perceptions of social networking and friendships could be useful in explaining the difference in results between Likert style and short answer questions. Considering that social networks are a large part of today's workplace, any change to the mentoring program that could increase a student's social network or networking skills could be a valuable improvement.

4.3. Future Directions

When asked about improvements to the mentoring experience, students had varied suggestions. Both mentees and mentors suggested grouping students based on age rather than alphabetically. In this class, mentoring groups were a mix of ages, from freshmen to post-graduates. Some students felt that seniors and other upperclassmen should be placed in separate groups so they may discuss issues that relate to them rather than to the freshmen. Although it may be true that upperclassmen have previous knowledge of certain topics, it may be disadvantageous to the freshmen and sophomores if the seniors were segregated to a separate group. Mixed age groups are uncommon in many college classes, and the knowledge of the upperclassmen may be valuable to freshmen. The upperclassmen themselves may benefit from acting as informal mentors for the freshmen in their group.

Some mentees suggested shuffling the mentoring groups, rather than keeping them the same throughout the semester, as a way to meet more people in the class. Although this would increase the number of introductions, it is possible that this system would obstruct the relationship between mentors and their group. Past research has shown that the longer and more consistent the relationship between mentor and mentee, the more benefit the mentee will receive (Rhodes & DuBois, 2008). It seems that the students agree that stronger relationships are

better as evidenced by the fact that two of the three most common suggestions for improvement were longer meetings and closer relationships with mentors. An alternative suggestion to switching groups in order to meet more people might be to have two mentoring groups meet together at scheduled times. This arrangement would allow students to meet a greater number of people but maintain the foundation of having the same mentor every class. One student recommended starting a Facebook page for peer mentoring, which is another way that students could increase social interactions without decreasing group bonding.

A few of the mentors requested more resources during the training session. As a result of this study, the instructor plans to include more instruction for the mentors in the future. The upcoming training sessions will include more role plays, including ice breakers. Now that this *Peer Mentoring Seminar* class is established, there is greater interest among students to serve as peer mentors. Thus, a more comprehensive application process for choosing mentors will be implemented. A nutrition-kinesiology peer mentoring program established an eightweek training program in which the mentors are trained for the first half of the semester and then meet with their groups for the second half (Khan, Nasti, Evans, & Chapman-Novakofski, 2009). Although this arrangement is not feasible for our program, it is possible to include more training before the mentoring sessions begin, possibly during the semester before mentoring.

4.4. Strengths and Limitations

The strengths of this research are the relatively large sample size of mentees, the high response rate (69% of mentees and 21 of 24 mentors), and the fact that the data were consistent over two years of mentoring. The survey was validated and reliable. The study is limited because data were only taken from one university. These students may not be representative of all nutrition students nationwide; therefore the results may not be applicable to other samples.

In conclusion, the study findings document the successful implementation of cross-year peer mentoring in dietetic curriculum, as evidenced by the majority of both mentees and mentors considering peer mentoring a positive and valuable experience. The benefits of the study have led the University of Delaware to continue with the peer mentoring program with the *Introduction to Nutrition Professions* course and to explore other courses where peer mentoring could be implemented. Other nutrition undergraduate programs should be encouraged to develop peer mentoring programs.

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