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Integrating service-learning into dietetics and nutrition education. (Dietetic Practice Projects) *Jennifer M. Chabot; David H. Holben.*

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This article presents a review of the service-learning literature as a foundation for a discussion on integrating service-learning into dietetics and nutrition education. The purposes of this review are to (1) define service-learning, (2) discuss how service-learning can enhance dietetics and nutrition education programs, (3) explain principles and best practices for integrating service-learning into dietetics and nutrition curricula, and (4) outline practical tips for orienting students for this experience and establishing sites for service-learning activities. The information shared has pedagogical implications and is transferable to any dietetics and nutrition education program. Key words: dietetics, nutrition education, service-learning

THE Standards of Education of the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association outline entry-level dietitian education programs that must provide foundation knowledge and skills to students. The standards assume that graduates of the CADE programs demonstrate the ability to communicate and collaborate, solve problems, and apply critical thinking skills. (1) In an effort to meet these objectives and position students to receive and complete a supervised practice or post baccalaureate program, didactics and nutrition education programs may require volunteer service for admission into a program or incorporate practicums and volunteer service into the curriculum to provide more "hands-on" experience prior to graduation.

While volunteer service can be a valuable learning experience for students in courses like community nutrition, it can sometimes seem meaningless, especially if instructors do not discuss the experiences during class sessions or relate the experiences to class content. In order to effectively integrate relevant community service into course curriculum, it is imperative that faculty have a fluency in the language of the teaching pedagogy, service-learning. (2,3) The basic steps of developing a service-learning program have been previously reviewed in the dietetics literature. (4) In addition, other health professions have discussed the utilization of this pedagogy. (5-17)

A brief survey for educators, approved by the Human Subjects Committee of the Institutional Review Board of Ohio University, was sent to dietetics program directors (n = 186) in regions II (midwestern states) and V (midwestern states), as defined by Dietetic Educators of Practitioners. Fifty-six usable surveys were returned (30.1% response rate). Of those, 32 (57%) strongly agreed or agreed, 10 (18%) somewhat agreed, and 14 (25%) disagreed or strongly disagreed that they were knowledgeable about the topic of service-learning. While this survey is not representative of all dietetics educators, there appears to be a need for dietetics educators to learn more about this teaching pedagogy, since only 57% of educators agreed that they were knowledgeable about the topic. The purpose of this article is to provide the necessary language and background to assist faculty in connecting their perspective of the dietetics and nutrition education disciplines to the best practices of service-learning. We will (1) define service-learning, (2) discuss how service-learning can enhance dietetics and nutrition education programs, (3) explain principles and best practices for integrating service-learning into dietetics and nutrition curricula, and (4) outline practical tips for orienting students for this

experience and establishing sites for service-learning activities.

WHAT IS SERVICE-LEARNING AND WHY USE IT?

Service-learning is "a pedagogical model that intentionally integrates academic learning and relevant community service." (3(p1)) In fact, according to Howard, (3) academic service-learning must tie directly to the curriculum through a formalized course of study. For students, the opportunity to observe and interact with various populations in a setting related to dietetics and nutrition can offer links to the course content that goes beyond the textbook material.

Benefits of service-learning for students

As my volunteer experience at the WIC office continues, I can now see many of the client's actions and behaviors in a different light. Whether I am tallying a survey, simply helping a child walk up stairs or catering to the variety of family settings, social locations and personal identities, the developmental stages of the individuals and family are now more obvious.

The above quote is from a dietetics student participating in service-learning in a life-span human development course set in the context of the family. Her placement at a Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) clinic gave her the ability to reflect on her various experiences while working with nutritional issues in women and children. During the placement, this student created a "Quick, Fun & Healthy Meals & Snacks" brochure, an educational bulletin board of a family table with tips on sharing healthy meals together as a family, and a set of recipes to give mothers more ideas on how to use the WIC-provided foods.

The benefits of service-learning are numerous, including how this pedagogy helps students acquire both social skills and academic knowledge. (18) Giles and Eyler (19) found that experiences with service increases students' beliefs that people can make a difference with others' lives. Significant positive improvements occur among service-learning participants in their perceived social competency, cognitive complexity, and ability to work with diverse individuals and groups. (20)

When compared with traditional courses, students' learning exercises were more effective and more learning was achieved. Projects had more meaning when they were embedded in a service project, compared with other assignments, and students felt that these service-learning projects were an effective use of time. (21) Overall, students participating in service-learning courses exhibited positive academic outcomes, especially writing skills, and increased the amount of classroom time talking with other students and the professor about the service experience. (22) In addition, it appeared that students gained the most academically from service-learning courses where opportunities for written reflection and class discussions about the service placements occurred.

In addition to improving academic outcomes, students can meet community needs, helping the learners to feel more connected to their community while fostering citizenship. (23) We know that service-learning also has a positive outcome for students on their personal development, social responsibility, interpersonal skills, tolerance and stereotyping, learning, and application of learning. (24) Finally, students have an opportunity for career exploration when they are placed at agencies linked to their academic major.

For dietetics and nutrition majors, being exposed to a community or clinical setting can be beneficial in assisting them to find their niche in the profession. The opportunities for mentorship and the wide range of professional experiences available can be explored, including private practice, hospital and clinical settings, educational community outreach, and business and industry placements. In addition, skills and benefits of service-learning opportunities include having the chance to learn about dietary practices; interactions with patients and families; work in the health care environment; and develop communication, organization, human relations, and management skills necessary in the profession.

Lastly, the opportunity to network with dietetics and nutrition professionals is important for personal and professional growth.

Benefits of service-learning for faculty

Service-learning is not only beneficial to students, but also to faculty. In addition to service-learning being predictive of students' abilities to empathize with others, this pedagogy allows them to remain more open to new ideas, which can help facilitate faculty-student relationships (25) and improve student engagement in the classroom. (22) Having students actively involved outside of the classroom and bringing these experiences back into the classroom can keep the teaching experience ever-changing and dynamic for faculty.

In comparison to students who chose not to participate in a service-learning assignment, students who chose the option rated their classroom experience as being "more valuable," and reported a "stronger ability to apply concepts beyond the classroom setting." (26) Faculty have perceived that student learning increased and that students grew in cultural awareness, problem-solving ability, and inter-disciplinary learning, along with the ability to reflect critically. (27) Lastly, faculty engaged in service-learning pedagogy felt their encounters were beneficial for research and other scholarly endeavors. (23)

BEST PRACTICES OF SERVICE-LEARNING

Course design, service placements, and adequate resources are all factors that require consideration when service-learning is being incorporated into dietetics and nutrition curricula. When service-learning is well integrated into a course, students report a higher quality experience. In designing courses, educators have reported that the quality of placements, the linkage between course content and service, and the use of written and oral reflection were all predictive of student outcomes. (24) However, the research also strongly supports that faculty report a lack of resources, including limited time and absence of a service-learning center at an institution, as a barrier for incorporating service-learning into courses, despite its obvious benefits. (28,29)

Guiding principles of service-learning

Service-learning can "bring to life" course concepts, and can foster ongoing service to communities where students live. In building a service-learning component into any curriculum, it is important to keep in mind the guiding principles of this pedagogy. Weigert (30) outlines the elements of service-learning identified in the Wingspread Report (31) that are important for faculty to always keep in mind. The elements include (1) student provides meaningful service, (2) the service students provide meets a need or goal of some kind, (3) members of a community define the need, (4) the service provided by the student flows from course objectives, (5) service is integrated into the course by means of an assignment (or assignments) that require some form of reflection on the service in light of course objectives, and (6) assignments rooted in the service must be assessed and evaluated. For faculty, it is also important to remember that the academic credit is for learning, not for the service, and that the academic rigor of the course should not be compromised. (3)

Course design

Mabry (32) reported that service-learning was more effective when students engaged in at least 15 to 20 hours of service when meeting course requirements, had frequent contact with the beneficiaries of their service, had the opportunity for weekly in-class reflection, wrote about their experiences, and had access to ongoing discussions about their experiences with both faculty and agency staff. Faculty and students reported that satisfaction of their course experiences were impacted by class size, (33) thereby demonstrating the need for small group discussions even in larger classes.

Faculty are more likely to integrate service-learning successfully into their classes when certain conditions exist. (29) These conditions include (1) having the intrinsic motivation to learn more about service-learning pedagogy, (2) having specific goals on designing their service-learning courses, (3) participating in a service-learning institute/workshop experience covering key principles of service-learning, and (4) believing the institution values teaching and views service-learning as a valuable scholarly activity.

The service-learning literature has examined variables in course design, instructor characteristics, and student characteristics that might influence student achievements in their placements and their perceptions of their service learning courses. Research has clearly shown that the more a course is designed to adhere to the aforementioned principles of best practice, (31,33) the more positive the student outcomes. Dutton (33) additionally reported that when faculty do not adhere to the best practice principles as strongly as the community agencies do, students notice these inconsistencies.

Student voice

Student voices are a critical component of the service-learning process, that is, addressing what students have to say about their service-learning experiences. (34) Finding this voice can help service-learning instructors know how to strengthen their courses so that the integration of service-learning into course objectives is apparent and strong. (34) If the effort is not made to help students make the "connection" between the service and academic objectives, their experiences may not be seen as relevant. (21) Thus, it is critical that faculty facilitate this process. (2,35)

Lastly, we want to prepare students to be sponsors or preceptors and advocates of service-learning and to teach them the importance of mentoring and supervision before graduation from their respective didactic programs. Registered dietitians, dietetic technicians, nutrition educators, and others in the field are often called upon to guide and supervise undergraduate students seeking exposure to the field. Fostering this aspect of professionalism early in their tenure will undoubtedly benefit future professionals.

Where to begin

Agency voice

An important first step in incorporating service-learning into any curriculum is to build coalitions with community agencies and organizations. Collaborative design is a critical tool that involves both the agencies that will offer student placements and the faculty who are teaching the courses. (36) The authors have been involved with community and university coalitions and have heard agency/organization staff raise concerns of "being exploited because of poor planning" by faculty. These coalition members report students are sent to them without the agency/organization staff having any knowledge that their sites are being used for service-learning purposes. Communication between the university and community is vital, and the importance of student and faculty voices in designing the course needs to involve community staff.

Deciding on outcomes

Faculty need to develop what learning outcomes are desired and how they will be measured. Examples of outcomes could include the following (1) Students will have exposure to different settings in the field of dietetics, ie, a clinical setting vs a community setting; (2) Students will have an opportunity to be supervised and evaluated by an agency staff member, and participate in self-reflection; (3) Students will develop specific skills (counseling or assessment) that relate to their career. Educators will need to examine which course or courses will include service-learning and what types of service-learning projects are possible, identify agencies and/or organizations that can be

partnered with, plan how learning will be maximized and evaluated, and finally, plan how projects will be implemented and evaluated. A collaborative effort with school faculty in coming up with potential agency placements for dietetics and nutrition majors is an important component of this process.

Student orientation

Service-learning needs to be addressed in the classroom by orienting students to expectations, definitions, and potential positive outcomes of this pedagogy. Sharing definitions of service-learning with students and discussing expectations as representatives of their college or university provides a strong foundation for serving the community.

Class time should be allotted for a brief orientation to service-learning. Before students begin their placements, they should know what service-learning is, what potential benefits exist for both them and the community, and what you expect from their performance. Each class integrates service-learning differently and orientation time varies. If a service-learning center is available, often a staff member can conduct the orientation. If this is not possible, the following suggestions are made:

* Define service-learning and share examples that relate to your class, as well as examples of past placements, if applicable.

* Outline your expectations for the student at the placement (being on time, reliability, positive attitude, taking initiative). Remind students that they are representatives of the institution, department, and course, and encourage them to ask questions of the agency, find out about its mission, how it meets the needs of the community (which can be built into a writing assignment).

* Explain the reasons for service-learning, ie, the learning outcomes, and how they relate to course objectives. Other benefits related specifically to a particular course in addition to general benefits for students, should be reviewed, including

1. enhanced communication with different populations;
2. learning to face and define broader community issues;
3. fostering or developing initiative, independent reasoning, and independent learning;
4. gaining exposure to cultural and socioeconomic differences;
5. assuming civic and social responsibility;
6. building confidence with the satisfaction of helping others and providing needed services;
7. exploring values and ethical issues.

* Review the logistics of the assignment, placement examples, self-reflection, planning, and integration of assignment expectations. Often agencies will come to talk briefly about their agencies and potential placements, or previous students will offer to share their experiences with future students.

Self-reflection

Self-reflection is an important component of service-learning and offers students an opportunity to think critically about their experiences. Reflection activities designed for the course should link the experience with learning, occur on a regular basis, allow for feedback and assessment, and foster the

exploration and clarification of values. (37) There are a wide variety of reflection tools used: intentional journal writing, small group interaction, group presentations where students have an opportunity to share their service-learning experience, and the writing of integration papers that allow students to interweave their course content with their experience. Allowing students the opportunity to discuss their placement experiences during class fosters collaborative brainstorming. In small groups, students share their placement's mission and structure, where they see connections to course concepts, and identify with other group members potential links they may not have seen. An example of an integration project is a brochure that a senior dietetics major designed while working under the supervision of a registered dietitian at a health services clinic. The brochure included information on the health risks associated with high cholesterol levels and tips for dietary changes. Another integration project involved the creation of a gardening and nutrition education program at a child development center for 3- to 5-year-old children.

Tips for site selection

For service-learning to be most valuable to students and educators, an agency or organizational site must be connected to the course content. Students should have the opportunity to reflect on how the course content relates to what they are doing on site. In addition, students should have direct client contact or with the constituency groups that the agency/organization works with. The work the student accomplishes should have a clear connection to the mission of the agency. However, all students within a course do not have to have "the same" placements. For example, in a community nutrition course, students could be placed at a variety of food assistance programs, including WIC, a local food pantry, a school participating in the National School Lunch and Breakfast Programs, a food rescue agency, or a senior center that serves congregate and home-delivered meals. In fact, when students have diverse placements, they have a unique opportunity to learn from each other about the agencies and clients served.

Direct experience with a dietetics and nutrition professional can happen in a variety of clinical or agency/organization settings. Many community agency placements can be beneficial. Placements with registered dietitians are not always necessary. Placements should trigger skill-building. A student placed as an activity volunteer at a senior citizen center has an incredible chance to learn more about a population that they may some day work with dispel myths of aging, experience and knowledge about this population's dietary needs and food patterns, and foster relationship building. Tables 1 and 2 outline possible placement sites that faculty can partner with and possible learning opportunities at community sites, based upon our experience at Ohio University and that of others. (38-40)

Table 1. Examples of service-learning placements

- Local soup kitchens and homeless shelters
- Meals-on-Wheels programs
- WIC clinics
- Retirement homes, senior citizen centers, and health care facilities
- Domestic violence shelters
- Community and psychiatric hospitals
- Dietetics private practices
- Wellness programs
- Area elementary, middle, and high schools or home-school groups
- College food service departments
- Department of Social Services/Human Services
- Community centers for developmentally disabled adults and children
- Child development centers
- Head start
- American Red Cross
- American Cancer Society, American

CONCLUSION

As the following quote from the student placed at WIC illustrates, service-learning can truly enhance a classroom experience:

As the WIC office continues to guide the health, growth and sense of well being of families in non-normative situations such as poverty, teenage pregnancy and malnutrition, I am continuing to quench my desire to learn more about this area of nutrition as well as helping the agency at hand. By promoting and educating others on the many benefits of enjoying a healthy diet at the start of life, through agencies like WIC, both parents and children can be adequately prepared to confront the rest of the life stages.

Integrating service-learning into the dietetics and nutrition curricula can transform learning experiences and give students the opportunity to develop communication, collaboration,

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| <ul style="list-style-type: none"> • Heart Association, and Similar Groups • Habitat for humanity • Big Brothers/Big Sisters • National Dairy Council • County extension offices • Area agencies on aging • Local health departments |
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problem-solving, and critical thinking skills, while providing relevant experience and promoting citizenship. While faculty are required to invest resources into the development of these learning experiences that integrate academics with community service, reflective, culturally aware citizens will result and undoubtedly improve outcomes for all involved in the service-learning models.

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- * College food service departments
- * Department of Social Services/Human Services
- * Community centers for developmentally disabled adults and children
- * Child development centers
- * Head start
- * American Red Cross
- * American Cancer Society, American Heart Association, and Similar Groups
- * Habitat for humanity
- * Big Brothers/Big Sisters
- * National Dairy Council
- * County extension offices
- * Area agencies on aging
- * Local health departments

Table 2. Examples of experiences at service-learning placements

- * Assist professionals in an inpatient or outpatient clinical nutrition service
- * Work with a dietitian who designs special patient meals and restaurant menus
- * Direct meat services offered for preschool youth, teenagers, senior citizen centers, and families
- * Teach or consult about healthy foods or snacks
- * Assist with menu planning or special menus
- * Assist professional staff in implementing food projects or services in "after school community nutrition programs

- * Assist professional staff in conducting healthy eating workshops for a community-based human services agency in staff development
- * Teach children, adults, or families about food and health. Nutrition education often provides information and educational resources (displays, newsletters, calendars, and special menus) for schools, institutions, or other community groups
- * Assist soup kitchens and homeless shelters by helping to prepare and serve meals and interact with clients
- * Assist at a regional food bank by assembling food packages and interacting with food pantry managers

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