

Current Literature Summary

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The Board of Certification, Inc. (BOC®) Standards of Professional Practice identifies professional responsibility (Code 5) of the AT as using his/her knowledge and skills to positively impact the community. Service learning incorporates community service into a curriculum with specific learning outcomes, preparation, and reflection. A broad range of learning outcomes may be achieved through service learning for the student and instructor alike. We will provide brief synopses of current research on service learning and discuss possible applications to athletic training.

Furze J, Black L, Peck K, Jensen, GM. Student perceptions of a community engagement experience: Exploration of reflections on social responsibility and professional formation. *Physiother Theory Pract.* 2011;27(6):411-421.

Reviewed by Hal C. Strough, The College of St. Scholastica

Summary of research context and methods: Physical therapists are viewed to have both a public duty to act professionally as well as a moral and civic responsibility to address social injustices. As a result of their professional preparation, they are positioned to help address societal needs among people classified as being medically underserved, uninsured, and requiring assistance from community clinics. Community engagement, or service learning, is a pedagogical approach combining specified objectives and structured reflection that is thought to promote social responsibility. Forty-seven first and second-year physical therapy students enrolled in a professional development seminar course series participated in this qualitative study. Data consisted of responses to a reflection questionnaire and focus group interviews. Data from one-time-only community engagement participants were compared to more-than-one-time community engagement participants. Open and axial coding methods were used for data reduction and analysis.

Summary of research findings: Participant perspectives on the value of community engagement evolved as a result of participation in a community-based outreach program targeting obese children interested in lifestyle changes. For those participated 1 time, 3 themes emerged: (1) increased self-awareness, (2) contemplation of change, and (3) self-recognition of service capacity. More-than-one-time participants referenced (1) professional transformation,

(2) sense of community impact, and (3) increased awareness of impact on others. The main outcome that differentiated level of participation in community engagement was that the more-than-one-time participants transcended personal benefits to begin to consider the impact on society as a whole. The belief that they should advocate for those unaware of the benefits of exercise and eating properly was reinforced in both groups.

Implications for athletic training education/research: Traditional athletic training settings (ie, college, high school) tend to segregate athletic trainers from other health care professionals. That is, with the exception of some settings, the potential to interact with a variety of other health professionals is limited. Further, the model of health care delivery may be “socially unjust” in that student-athletes often receive free and more expedient health care than the average citizen. A purposeful community engagement activity may offer numerous benefits to the professional preparation of future athletic trainers. One, it may help mainstream athletic trainers in the delivery of health care by fostering a commitment to the greater community. Two, it may offer additional opportunities for promoting and enhancing the prevention mindset that athletic trainers possess. Third, it may provide an alternative model for a “general medical” experience while promoting several tenets of the Foundational Behaviors of Professional Practice as outlined in the 5th edition of the NATA Education Competencies, most notably primacy of patient and team approach to practice. Research on community engagement in health professions in general, and athletic training curricula specifically, is needed to determine what elements are most effective and how to best integrate it into professional preparation models of the future.

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DeHaven M, Gimpel N, Dallo F, Billmeier T. Reaching the underserved through community-based participatory research and service learning: Description and evaluation of a unique medical student training program. *J Public Health Manag Pract.* 2011;17(4):363-368.

Reviewed by Ben Towne, University of Southern Maine

Summary of research context and methods: Educators of medical students have long advocated that medical care improvements must first be addressed during the educational process. In response, researchers developed and implemented a Community Health Fellowship Program (CHFP) to meet the apparent and increasing need of community-based participatory research (CBPR). In essence, the course was designed to immerse the student within the community directly to gain practical knowledge of specific community needs. This 9-week CHFP assigns fellows annually to a course which combines both lectures and service learning, along with an applied research experience. The purpose of this study was to assess the effectiveness of the CHFP from the perspective of fellows and community partners. The fellows completed two 5-point Likert scale program evaluations to assess: (1) satisfaction with the community project, mentor, and overall program (1=not favorable; 5=very favorable) and (2) a pre-posttest level of research knowledge (1=not knowledgeable; 5=very knowledgeable). The community partners completed posttest evaluations of the CHFP and fellows using a 5-point Likert scale (1=not favorable; 5=very favorable).

Summary of research findings: The CHFP consisted of 25 separate research projects completed with 19 different community partners. Fellows completing the program reported favorable attitudes towards their mentors, the program, and community projects while also reporting that their research knowledge significantly increased across the spectrum, most specifically in their ability to develop a concise research question and perform a formal research presentation. Similarly, community partners reported favorable attitudes regarding the fellow's level of responsibility, cooperation, and familiarity with the needs of the medically underserved. Perhaps most importantly, an increased knowledge of application of local solutions to relevant health problems was noted.

Implications for athletic training education/research: The findings suggested that a CHFP may be an effective teaching strategy to both develop and foster relationships with those in the community. Service learning is currently utilized sparsely in athletic training education. Service learning can occur in many forms and has long been shown to be highly favorable to both students enrolled in health care education programs as well as community partners. If implemented correctly, service learning can provide education to the student on a local and global level simultaneously. Similarly, incorporating service learning into viable research can serve to enhance the athletic training students' understanding of both local and global health care, as well as aid in preparing them for post-graduate level research.

Trad M. Increasing radiation therapy graduates' employability through service learning. *Radiation Ther.* 2011;20(1):18-26.

Reviewed by Scott Heinerichs, West Chester University

Summary of research context and methods: Obtaining a job immediately after graduation is a difficult task in a competitive employment market. Given accreditation standards, graduates from health care professional education programs are comparable with respect to clinical experiences and didactic coursework. Educators should think of unique and creative ways to help increase their students' employability, such as service learning. Service learning is defined in the literature as a structured learning experience that combines community service with explicit learning objectives, preparation, and reflection.

The purpose of this study was to determine if service learning impacts radiation therapy students' employability upon graduation. A researcher-developed survey was administered to a convenience sample of 82 human resource personnel (directors, managers, and generalists) from a variety of hospital settings in the state of Texas. The survey contained yes/no questions, Likert-scale rankings, and a question asking individuals to indicate the top 5 qualities they look for in potential employees.

Summary of Research Findings: The top 5 qualities respondents look for in potential employees were: Education (81.7%, n=67/82), experience (80.5%, n=66/82), tenure of previous employment (61%, n=50/82), communication skills (28%, n=23/82), and community service (16%, n=13/82). When asked whether or not they deem potential applicants' employability more favorably over others if they participated in volunteer projects, more than half (62.2%, n=51/82) of the respondents had a positive response (agree or strongly agree). Nearly half (48.4%, n=40/82) of the respondents indicated that they look for community service when reviewing resumes and determining which applicants to hire. Thirty-nine percent (n=32/82) of respondents also indicated that a candidate's community service had an impact on their decision to invite an individual for an interview and 63% (n=52/82) indicated an applicant with community service hours would be chosen for an interview over an applicant who had an identical resume but without community service. Results from this study demonstrate that community service is viewed favorably by human resource professionals when evaluating potential applicants. However, it is unclear if the participation in service learning can be directly linked to employment.

Implications for athletic training education/research: Service learning is gaining increasing popularity within academia. This type of learning enables the student to give back to their community while also applying what they are learning in the classroom. Similar to athletic training, education level was rated as the top quality potential employers look for in applicants. Athletic training education programs should consider utilizing service learning in their curricula to enhance athletic training students' real-world experience beyond clinical education. This may increase athletic training students' employability in the future. Significant planning should occur to ensure the service learning project supports the needs of the community while utilizing the appropriate skill sets of the students.

Future research in athletic training may examine the perceptions of clinicians responsible for hiring potential applicants with respect to service learning and employability. Though human resource personnel are instrumental in the hiring process, their view may not be applicable with respect to the decision-making process of potential employees within athletic training professional settings.

Kazemi D, Behan J, Boniauto M. Improving teaching strategies in an undergraduate community health nursing program: Implementation of a service-learning preceptor program. *Nurse Educ Today*. 2011;31(6):547-552.

Reviewed by Alison Gardiner-Shires, West Chester University

Summary of research context and methods: Traditionally, service learning programs arise by identifying a need within a community. Once identified, the service learning program aims to address the existing need via student-based educational activities. At the conclusion of the service learning program students reflect upon and provide feedback about their experiences. In this mixed method descriptive study, a service learning component was added to an existing nursing preceptor clinical education site. Similar to an Approved Clinical Instructor in an athletic training education program, the nursing preceptor aims to decrease the gap between the classroom and clinical setting.

The purpose of this study was to enhance the existing school health nursing clinical site with a service learning component. The research questions included identifying the preceptors' perceived benefits and rewards of the service learning program, the cost effectiveness of the service learning program, and the relationship between the preceptors' perceptions of benefits and rewards and the nursing student service-learning outcomes. The sample included a convenience group of 27 female undergraduate nursing students and 33 preceptors. The practicum program included 2 consecutive 7-week clinical rotations. During this time students were required to attend for 1 day a week. To examine the research questions, the authors developed a preceptor and nursing student survey which contained open-ended and Likert scale items. Percentages, means, standard deviations, and rankings were used to analyze the data.

Summary of research findings: All research questions were supported. The majority of preceptors (77%, $n=25/33$) stated they benefited from being a clinical instructor; cost effectiveness was demonstrated; and the activities rated as good (> 4.0 on 5 point Likert scale) by the students were generally the same as those rated useful (> 3.0 on 4 point Likert scale) by the preceptors. Thus, the researchers concluded that the addition of service learning to an existing preceptor program resulted in a positive, meaningful, and beneficial experience for students and preceptors alike.

Implications for athletic training education/research: Often service learning programs are developed independent of current clinical experiences. The current study demonstrated that service learning is an effective way to supplement an already existing preceptor clinical program. The perceived benefits and rewards identified can aid students in understanding the tasks performed, strengthen community-based relationships, and increase preceptor satisfaction. Thus, athletic training education programs should consider creative ways to infuse service learning into existing clinical sites. For example, educators and clinicians could collaborate with an existing high school district to develop an injury prevention program for underserved students.

Vogt MA, Chavez R, Schaffner B. Baccalaureate nursing student experiences at a camp for children with diabetes: The impact of a service-learning model. *Pediatric Nurs*. 2011;37(2):69-73.

Reviewed by Jennifer Doherty-Restrepo, Florida International University

Summary of research context and methods: Camp nursing provides a non-traditional clinical learning experience for students in an immersion-type, service-learning setting. Service-learning fosters the development of collegial relationships and a sense of civic responsibility while promoting learning through purposive reflection. Research indicates that camps for children with chronic diseases, such as diabetes, have a positive impact on the campers but the impact on the camp health care team members has not been sufficiently studied. The purpose of this study was twofold: (1) to examine the impact of an immersion service-learning experience on nursing students' knowledge of childhood diabetes and (2) to describe the nursing students' camp experience through the use of reflective journaling.

A total of 26 nursing students enrolled in an elective course on camp nursing. The course consisted of an 8-week didactic portion, then a 1-week immersion at the summer residential camp for children with diabetes, and a 2-week reflective journaling debriefing period. The Diabetes Knowledge Test, a 23-item multiple choice exam was administered pre- and post-camp to assess the nursing students' knowledge of the disease process, treatment protocols, insulin use, and side effects. The reflective journals were analyzed through coding, content analysis, and theme development to describe the nursing students' camp experience.

Summary of research findings: The average score on the Diabetes Knowledge Test at pretest and posttest was 18/23 (78.3%) and 19/23 (82.6), respectfully. This change in knowledge was not statistically significant ($t=1.78$, $p=0.055$). Analysis of the reflective journals indicated that all students felt that they learned a great deal about diabetes. Consistent themes were identified in the reflective journals noting negative reactions (ie, anxiety, fatigue) early in the week followed by positive reactions (ie, confidence, empathy) later in the week. Students also reported additional learning in the areas of leadership, organizational skills, critical thinking, and time management.

Implications for athletic training education/research: There was not a significant improvement in students' knowledge of diabetes following the camp nursing experience. The immersion-type of service learning described by these authors may parallel the experience of a novice athletic training student during preseason football camp. Perhaps it is reasonable to think that a high volume of injuries occurring during preseason provides athletic training students with numerous learning opportunities. However, knowledge acquisition of athletic training students in a given content area (ie, acute care) following a preseason camp has not been studied.

The students' reactions to the camp nursing experience as identified in the reflective journals may parallel the experience of a novice athletic training student during preseason camp. Empirically, athletic training students report feelings of anxiety and fatigue during preseason. Athletic training students' reaction to the preseason experience has not been studied nor has the effect these reactions have on learning been examined. Researching the efficacy of immersion-type service learning (preseason) in athletic training is warranted and could provide insight for enhancing clinical education.