Creating Interprofessional Student Teams

Andrea White, The Medical University of South Carolina
Donna Kern, The Medical University of South Carolina
Amy Blue, The Medical University of South Carolina
Scotty Buff, The Medical University of South Carolina
Mary Hewett, The Medical University of South Carolina
Marilyn King, The Medical University of South Carolina
Sarah Shrader, The Medical University of South Carolina
Emily Warren, South Carolina Lowcountry AHEC

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Abstract
This article describes an interprofessional service learning project designed by the Medical University of South Carolina faculty from academic programs in medicine, nursing, pharmacy, physician assisting, and health administration. Three pilot tests have been conducted providing students the opportunity to work in teams focusing on reducing obesity on an existing community service learning project with students and teachers from an underserved, inner-city elementary school. The learning and community activity sessions are described and student feedback is presented.

Delivering quality healthcare to the nation’s citizens is an extraordinarily complex process, often made more difficult because healthcare professionals train in relative isolation from one another. Newly trained healthcare professionals have had almost no interaction with other disciplines even if they attended the same healthcare university or college. Once their training is complete and they begin working, they quickly realize that they are expected to work as a team for the benefit of the patient, and yet, they generally lack the knowledge and skills to do so (D’Amour, Ferrada-Videla, Rodriguez, & Beaulieu, 2005).

Only in the last several years have health professions educators recognized that students must be given opportunities to learn about other disciplines and to learn how to interact and work together (DeMarco, R.; Horowitz, J.; & McLeod, D., 2000). The gap between realizing this need and creating and offering interprofessional educational opportunities for all health professions students can be quite expansive. This article describes the early experience of one academic health center which is engaged in just such a process.

Planning an Interprofessional Team Project
The Medical University of South Carolina (MUSC) in Charleston is a free-standing academic health center with six colleges (medicine, nursing, pharmacy, dentistry, health professions, and graduate studies). All MUSC health professions students are assigned to work in health clinics or hospitals, generally in SC, during their clinical rotations or field placement courses. MUSC’s
goal is to have all students engaged in interprofessional activities as a component of these rotations. During the past several years MUSC has initiated several interprofessional experiences for students; and concluded that although these early activities have been successful and should be continued, they are inadequate to meet the interprofessional training needs for all of MUSC students. As part of MUSC’s regional accreditation process, administration and the faculty proposed in its Southern Association of Colleges and Schools documents a Quality Enhancement Project. This initiative, known as Creating Collaborative Care is being developed to enable all of MUSC’s students to engage in substantive interprofessional learning experiences. A number of faculty committees are working on different aspects of this effort. A description of one such effort follows.

A task force of faculty members from several disciplines has designed a project which enables students from medicine, nursing, pharmacy, physician assisting, and health administration to work together addressing a community need during their clinical rotation or field experience courses. The collaborative work focuses on community-based obesity prevention projects with particular attention to childhood obesity since this issue has been identified as an increasing national problem (Dietz & Robinson, 2005; Hedley, Ogden, Johnson, Carroll, Curtin, & Flegal, 2004; Morgan, Taneffsky-Krass, Wilfley, & Yanofski, 2002) associated with serious medical conditions and psychosocial problems lasting into adulthood (Wilfley, Tibbs, Van Buren, Reach, Walker, Epstein, 2007). It is a substantial problem in SC. The project is currently being pilot tested during several month-long rotations in the academic year of 2007-2008. We hope next year to expand these experiences and include students from other disciplines across the campus. The specific learning objectives developed for this project are that health professions students will be able to:

- Recognize the value of interprofessional healthcare collaboration
- Discuss the value of a community health approach to healthcare and prevention
- Participate in an interprofessional community health services learning project
- Recognize sociocultural elements relevant to the community and individual health, and
- Discuss ways to address youth obesity through nutrition and physical fitness.

The interprofessional experience begins with an educational activity that introduces a small group of students from different disciplines during their profession-specific clinical rotation or field experience, engaging them in some common learning activities, and then having them discuss, agree, and work together to make progress on an on-going community health service learning project. In doing so, the students participate as an interprofessional health promotion/disease prevention team in a project focused primarily on youth obesity within the community. The didactic portion of the curriculum includes four web-based learning modules. The modules address the following:

- An Introduction to Teamwork
- Community Health (including working in partnership with communities and community groups)
- Sociocultural Issues in Health Care
- Youth Obesity – Perspectives on Disease Prevention and Health Promotion

Each participating student has access to the WebCT course site that houses the learning modules. Students are expected to access and read the online modules in preparation for their didactic sessions and complete a short Pass/Fail quiz on the material. MUSC students’ rotations vary in length; most are four to five weeks. During these rotations, students meet together in three weekly sessions, each lasting about 3½ hours. During the session times, students discuss the content in the learning modules and engage in learning and team-building activities intended to better acquaint them with each other and with their various disciplines. They plan together their component of the on-going community project, working as a team to carry out their plans.

An Area Health Education Consortium (AHEC) student educator works with the students to facilitate the didactic sessions, generally with one or two faculty members. MUSC and SC AHEC have partnered and worked closely together for many years. Eventually, when the plan is fully implemented, it is expected that SC AHEC will identify community sites near students’ field experience locations throughout SC and will help the students plug into existing community projects and engage community sites. Learning modules at didactic periods conducted in the th project, the next students have gained experience.

Pilot Tests of Int
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projects and engage in the common didactic curriculum described above at several different community sites. This project allows students to apply the concepts they have learned in their learning modules and sessions and then experience working as an interprofessional team. The didactic and team-building sessions occur in each of the three sessions. An evaluation is conducted in the third session determining the progress that students believe has been made on the project, the next steps they recommend for the subsequent student team, new insights that students have gained about working together, and their level of satisfaction with the learning experience.

**Pilot Tests of Interprofessional Team Project**

Three pilot tests have been conducted since October 2007. Students came together in small groups to build on the work of an existing MUSC-sponsored community project known as the Junior Doctors of Health Program. This project is an interprofessional, collaborative, community service-learning project involving MUSC students from all six colleges and the Wilmot J. Fraser Elementary School on the Charleston peninsula which serves inner-city children who are primarily African American and underserved. The purpose of the project is to provide resources and leadership to help promote health and disease-prevention and to foster research links between the two institutions. MUSC students teach elementary-age children, their parents, and their teachers about the importance of healthy eating and exercise, stressing a healthy lifestyle. Trust has been established between the school and the university over the years, and therefore, it made good sense to begin the pilot tests of this interprofessional service-learning with the Junior Doctors of Health Program in this school. The classroom sessions and community service project are described below.

**Session #1: Instructional and Community Activities**

In the first session, student teams meet in a classroom and discuss teamwork. They participate in an Assumptions Activity, led by an AHEC student educator. Each student writes positive and negative assumptions about the other disciplines. They then share their perspectives, and the member from each discipline is given a chance to respond and describe his/her actual work and challenges. This activity serves as a fun ice-breaker, but it also gives students permission to explore responsibilities and challenges of various health disciplines. Students also meet with the community liaison who introduces them to the elementary school and the existing Junior Doctors of Health Program. She outlines the ongoing projects at the school such as family exercise activities, making healthy snacks, and conducting weekly teacher exercise classes. Students then discuss with the liaison and the AHEC coordinator how they would like to contribute to this project. The students develop a plan regarding how their team can help further the project goal. Each student decides how s/he will contribute. For example, one student said she would develop an instrument asking teachers what they wanted to accomplish as they worked with the MUSC students; another student said she would conduct a literature review for validated patient education tools and search for a health assessment instrument to gain baseline data on teachers’ health status. Three other students agreed to develop pamphlets on relaxation techniques, diabetes, and high blood pressure.

**Session #2: Instructional and Community Activities**

Students meet for Session #2, which is again facilitated by the AHEC student educator. This time students engage in a team-building activity called “Team Zoo.” Each student completes a questionnaire which asks him to select characteristics that best describe him. The results place students in one of four categories represented by different animals. Discussion follows about the strengths and weaknesses of the various categories. The intent is to help students recognize unique characteristics and appreciate that an ideal team will include members with all of the characteristics. A second activity is the “Step-Back” Activity where each student presents the work he has accomplished since the first activity and responds to questions. The student then “steps back” as other students offer comments about the work. As a result of team input, products are often modified and improved. A third activity is that students revisit their plan and determine if any changes are needed. They discuss the work that must be done and how they will participate. This generally results in several changes to the original plan. For example students in the first pilot test decided they would exercise with the teachers, provide them feedback regarding the results of a self-assessment tool teachers had completed, take blood pressure.

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readings, and provide them with information pamphlets about relaxation, diabetes, and hypertension. The first teacher exercise class was held Oct. 23 after school in a classroom. The students followed their plan and evaluated the session. They thought the session was informative and helpful, but they were disappointed that only a few teachers actually participated. The participating teachers expressed confidence that others would join them for the second exercise class the following week, and indeed, more came to the second class.

Session #3: Instructional and Community Activities
During the third learning session, students present their work toward meeting the project aim. They also participate in preparing a “Learning Flow-Chart” to reflect on what they have learned about teamwork, service-learning community projects, and interprofessionalism. They make comments on Post-it notes and place them by questions written on large poster paper hanging around the room asking: (1) What did WE learn? (2) Where did WE learn it? (3) How did WE apply it? (4) How did WE work well as a team? (5) What could WE have improved? The intent of this exercise is to have students reflect on what they have learned and relate the work to the concepts to which they have been introduced. The students also discuss their contribution and the future of the community project, making suggestions for the next group of students to build on their work. This information is then made available to a new group of interprofessional students on the WebCT course site.

Student Feedback
At the end of the third session, the students are asked to give feedback to the faculty on this learning experience. Feedback is solicited on students’ perceptions of “Lessons Learned” regarding their work as part of an interprofessional team in a community service-learning project. Students have made several interesting points, such as:

When participating in “Real-Life” experiences:
- not everything goes according to plan,
- one must expect the unexpected,
- there truly is a need to offer “hands-on” healthcare education to the public in a community setting.

Regarding process, they note:
- the time constraints placed on students’ participation in this project are not necessarily a hindrance if the team is well organized and highly motivated,
- it is sometimes difficult to come to agreement when there are a lot of good ideas placed on the table,
- getting everyone on the same page can be difficult, but we “got there” most of the time,
- working as part of a team can be both challenging and rewarding.

Regarding being part of a team, they observe:
- interprofessional teams allow for a wide range of views and topics to be discussed,
- one learns a lot about other professions and what they do,
- taking an interprofessional approach to patient care is important.

Things they thought went well were:
- setting realistic goals and meeting them,
- their own group dynamics,
- receiving constant feedback,
- having everyone participate and complete their tasks,
- their communication

Things they thought could be improved were:
- communication in turning over the project to the next group,
- increasing teacher participation,
- having better communication with the community liaisons,
- more guidance about developing project aims and measures.

The 14 students (9) were asked to complete a Likert scale ranging of 1-5 students who agreed with:
- The teamwork
- Working with
- The assumptions
- Working with
- This experience
- The learning experience

Lastly, the students
- Seventy-one percent

Challenges and Opportunities
Organizing and integrating study and include thoughts about the future.

Have support for only because of ins and programs.

Create a diverse learning environment.

Find common ground.

Build upon an existing environment. Instills MUSC’s administrative support of project development. The didactic session work with a larger group made easy identification.
The 14 students (6 medical, 2 MHA, 3 PA, 3 PharmD) in the three pilot tests conducted thus far were asked to complete an evaluation of their learning experience. The results suggest they found this project to be valuable in enhancing their appreciation for interprofessional collaboration. In the evaluation, students were asked to respond to statements using a five point likert scale ranging from strongly disagree to strongly agree. The statements and the percentage of students who agreed or strongly agreed are presented below:

- The teamwork module was valuable to my learning 64%
- Working with other students improved my teamwork skills 93%
- The Assumptions activity helped me better understand other professions 100%
- Working with other students helped me better understand other professions 100%
- This experience increased my appreciation for interprofessional collaboration 100%
- The learning experience was well organized 86%

Lastly, the students were asked to rate the effectiveness of their teamwork on the project. Seventy-one percent rated it as excellent and 29% rated it as good.

**Challenges and Lessons Learned**

Organizing and implementing a learning experience that crosses academic courses of study and includes students from different professions is challenging. Below are some thoughts about the challenges encountered and lessons learned.

*Have support from higher administration:* This project’s success has been in part not only because of institutional commitment to students’ interprofessional learning, but also because of academic programs’ interest and support in this learning activity. Each of the college deans and program/course directors has approved the development of this activity and where needed, assisted in the identification of faculty members willing to work on this initiative.

*Create a diverse and enthusiastic faculty implementation team:* One of the strengths of this experience has been the diverse nature of the faculty implementation team, not only with respect to professions represented, but also individual members’ knowledge of content areas. Enthusiasm and a “let’s make this work” attitude has been essential to ensure success.

*Find common ground and work with that:* Each program has a unique academic calendar, with student rotations of varying length. Once a time period was identified common to each program, the learning sessions were created to fit within that time period, rather than insisting each program change its course of study. Although we recognize that having students work together for more sessions would be beneficial, we agreed that some time together was better than none at all. Marcek et al (2004) reported that in their rural interprofessional service learning program, students had only 10 – 12 days to develop and implement their projects, and yet program goals of introducing interprofessional collaboration skills and service learning were achieved. Their experience and ours suggest students do not need sustained, lengthy periods of time to acquire an appreciation for interprofessional collaboration and the development of team skills. While each academic program has slightly different emphases and requirements within their didactic schedules, common areas of learning were recognized as important in this service learning experience, and slight modifications were made to the broader academic program requirements.

*Build upon and use existing resources:* The ease of project implementation and its success has been greatly facilitated by reliance on existing resources within the institutional environment. Institutional commitment for interprofessional education exists through the MUSC’s Creating Collaborative Care initiative, and persons with that program have provided administrative support for this learning experience. SC AHEC has been an essential partner in project development and implementation through the presence of a student educator to facilitate the didactic sessions and provide input into project development. Additionally, the opportunity to work with a larger, existing community service effort, the Junior Doctors of Health Program, made easy identification of service learning projects for the students.
The challenges we have encountered and the strategies to overcome them are similar to others reported in the literature. The need for flexible scheduling so students can participate in interprofessional community service work was also described by Sternas et al (1999). They write that the size and make-up of the service learning team in their project was an issue. While we would like to have equal number of learners from each profession in a team and all professions represented, we have found it more practical to ensure that at least two different professions are involved in the work and that no more than two students from a single profession serve on a team. Our students have reported they would like other professions included in the activity so they can learn about them (i.e., nursing, dietetic interns), and thus we intend next year to include a broader array of learners. The success of our pilot tests provides an opportunity for approach programs not currently involved with a clear success story and a readiness to engage them early in the academic program scheduling process for next year. Sternas et al (1999) also report that differences between students in relation to the desired outcomes of their activities was at times a challenge – medical students were more goal oriented, wanting a tangible outcome, while the process of learning, even if outcomes were not produced, was sufficiently valued by the nursing students. We have not encountered this particular issue to date, perhaps in part because our activity has been structured so students have a product. Additionally, the students have learned through the experience that well laid out plans do not always come to fruition, such as when few teachers came to the exercise class.

To date, three groups of interprofessional students have tested this project using the Junior Doctors of Health Program. MUSC faculty, working with SC AHEC, are learning from these pilot teams about how to structure, facilitate, and foster interprofessional service-learning collaboration to provide community service-learning projects for the majority of MUSC students throughout the state of SC. Faculty and students believe these early pilot tests have been successful and that MUSC is off to a great start in creating interprofessional service-learning experiences for its students.

References

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