

Development of a Service-Learning Component in a Required Course in Fiscal Management

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ABSTRACT. This paper describes the development and implementation of a new service-learning (SL) component in an existing, required pharmacy course in fiscal management along with lessons learned from the experience. Students volunteered at a local health department to take medication histories and provide financial counseling to patients regarding appropriate medication assistance or insurance programs. Learning was assessed using a reflective journal and group presentation and both students and the community partner were administered an attitudinal survey at the conclusion of the project. Based on a review of reflective writings, most students valued the SL experience. Results of the survey were mixed but indicated that in general, students and the health department both felt that SL was worthwhile and should be continued in the course. doi:10.1300/J060v14n02_03 [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2007 by The Haworth Press. All rights reserved.]

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The authors gratefully acknowledge Heather Hogue, Pharm.D., Director of Pharmacy, Jefferson County Department of Health, Birmingham, AL, and her staff for assistance in the service-learning project described in this article.

This study was supported by a grant from the Samford-in-Mission program, Samford University.

KEYWORDS. Service-learning, financial management, public health

INTRODUCTION

The role of the pharmacist has evolved from one of simply providing medications to one of delivering direct patient care.^{1,2} The provision of such services requires not only a strong knowledge base but also effective interactions with other health-care providers and patients. Indeed, it requires the pharmacist to connect with each patient on a level beyond the barriers of societal and cultural differences^{3,4,5} Thus, it is imperative that pharmacists learn the caring component of our profession along with the ability to understand and apply scientific knowledge. Service-learning (SL) is an appropriate andragogy for facilitating such caring among pharmacy students because it provides an opportunity for them to apply “relational skills” and interact with a diverse array of people, including those in underserved populations.^{2,6}

In SL students learn through serving others by participating in and reflecting on activities that meet an identified community need.^{7,8,9,10} SL experiences should also be designed to increase students’ knowledge and understanding of specific course content.^{4,11} As of early 2007, Campus Compact reported that over five million students from 1100 different American universities participated in SL courses, including many students in the health professions.¹² SL differs from other forms of learning in that the goals of the learning and the service are equally important and a “reciprocity” exists between those performing the service and those being served.^{10,11,13,14} Thus, by actively engaging with each other, students and the community develop a relationship in which they mutually benefit.⁷ In addition, reflection is an essential element of SL because it allows students to integrate what is learned from the service experience into course content as well as to examine their own feelings related to issues such as cultural diversity, personal responsibility, and their own role in the local community.¹⁰ The major differences between SL and other forms of learning are summarized in Table 1.

Value of Service-Learning in Pharmacy Education

The literature reports that SL has the potential to improve pharmacy students’ communication and interpersonal skills, self confidence, professionalism, cultural sensitivity, understanding of social issues related to the provision of health care, critical thinking, civic responsibility, and

TABLE 1. Differences Between Service-Learning and Other Forms of Learning¹⁰

Type of learning	Focus	Primary beneficiary
Volunteerism	Service being provided	Service recipient
Community Service	Service being provided	Service recipient
Internships	Hands on experience	Student
Service-Learning	Community needs Student learning needs	Service recipient, community, student

awareness of the role of the pharmacist in society^{1,2,4,6,13-22} While SL is thought to have a positive impact on students' attitudes and learning, student resistance has been reported. For example, some students have complained about "forced volunteerism",¹⁴ course requirements that occur outside of a traditional classroom,²⁰⁻²² and concern for personal safety related to off-campus travel.⁴ In addition, authors have found that pharmacy students had difficulty connecting the SL experience with either course objectives or future practice^{4,18,19,22} and felt that SL should not be required for all students.^{17,21} Despite these concerns, SL has been described as particularly helpful in challenging pharmacy students to "rethink how they best serve citizens who must cope with poverty, social devaluation, and marginalization"^{2 (p.1)} and to realize that individuals often experience social problems beyond their own control.²³ Perhaps most useful for a future pharmacist, SL has been noted to improve students' ability to identify patients who are in need of our assistance.^{6 (p.163)}

Use of Service-Learning in Pharmacy Education

The incorporation of SL into a pharmacy management course such as ours (i.e., one that is primarily didactic and focuses on financial issues in health care) has not yet been reported in the literature; however, the use and value of SL have been well described in other pharmacy courses.^{2,4-6,13,15-20,22,24-34} In 1999 Murawski et al. found that 42% (17) of respondent b pharmacy schools reported utilizing some form of SL in their curriculum (52.5% response; n = 78).⁶ Peters and MacKinnon reported that this number had increased to 75.7% of respondents (28 schools) in 2004 with about half of these schools requiring SL activities (46.3% response; n = 38).¹³ Results of this study indicated that students spent an average of about four quarters or two semesters in SL courses;

courses incorporating SL were reported in all four years of the curriculum with the majority (~65%) occurring in the first professional year.¹³ However, the extent and nature of SL courses varied greatly among those schools that offered it, ranging from purely experiential courses to thoughtfully integrated components of didactic courses.¹³ Examples of SL activities described in the pharmacy literature appear in Table 2.

Use of Service-Learning to Meet Educational Standards

The American Association of Colleges of Pharmacy (AACP) has emphasized the need for incorporating SL into pharmacy curricula for at least a decade. For example, the 1997 AACP Janus Commission report recommended that schools of pharmacy require student participation in community outreach³⁵ and called for the integration of SL into the traditional curriculum as a way to facilitate an attainment of the “spirit of caring for patients, populations, and communities.”³⁶ In addition, curricular outcomes developed by the AACP Center for the Advancement of Pharmaceutical Education (CAPE) in 1998 and revised in 2004 include a number of critical skills for pharmacy graduates that may be obtained or augmented by SL.³⁷ Finally, the 2004–2005 AACP Argus Commission report noted that involvement in community partnerships while in school is one way to produce pharmacy graduates who are caring citizens engaged in their local communities.³⁸

The 2007 Accreditation Council for Pharmaceutical Education (ACPE) accreditation standards include SL as an acceptable format for Introductory Pharmacy Practice Experiences.³⁹ ACPE defines SL as a structured learning experience with clearly defined objectives that combines performing service in the community with preparation, reflection, and discussion.^{39(p. xv)} For a didactic course in financial management, SL may be used to help meet ACPE guidelines for suggested topics such as “indigent care programs,” “strategies to improve continuity of patient care”, “communicating with diverse patients, families, pharmacists and other health professionals in a variety of settings, both individually and as a team,” “strategies for handling difficult situations,” and “pharmacy as a patient-centered profession.”^{38(p.ix)} In general, involving pharmacy students in their community using SL projects may be the key to developing the professional skills and attitudes that cannot be learned in a didactic setting.¹⁴

TABLE 2. Example of Service-Learning Activities in US Schools and Colleges of Pharmacy^{2,4,5,14,16,18-20,22,24-27,32-34}

School	Course description	Nature of project
Wayne State University	Experiential; 2 credit SL elective social worker and pharmacist	Provided 12-16 hours/semester of non-pharmacy service to elderly and culturally diverse populations in a public housing project
Massachusetts College of Pharmacy and Health Sciences	Experiential; 2 credit required SL course in P1 year	Provided 20 hours/semester of healthcare and other general assistance at 30 different sites such as tutoring and working with the homeless
University of Pittsburgh	Experiential; required SL course in P1 and P2 years; elective SL course in P3 and P4 years	Provided 25 hours/semester of service in a variety of social programs such as homeless shelters and drug and alcohol prevention centers
University of Pittsburgh	Experiential; required SL course in P1	Provided 24 hours of service/ semester in P1 year and 4 hours of service/semester in P2 year in various social programs
Mercer University	Experiential; required SL course in P1, P2 and P3 years	Provided 16 hours/semester of service at 37 different sites such as a disease management camp, health screenings, and literacy education
Northeastern University	Experiential; elective SL component of P4 ambulatory care APPE	Provided 1 week of basic medical care to 8-12 year olds at a camp for children with asthma
University of Utah	SL component of a required didactic course in Social and behavioral aspect of US Health Care in P1 year	Provided 1-2 hours/week of service to homebound senior citizens via 3 non-profit agencies
Nova Southeastern University	Experiential; required SL course in P1 year	Provided 74 hours/semester of service at one or more of 15 community sites
University of Colorado	SL component of a required, 1 credit hour, didactic course in P1 year focusing on nutrition and physical activity	Provided 7 hours/semester of education on health and nutrition to students at low-income elementary schools
University of Montana	SL component of a required didactic course in P3 year on Public Health and Pharmacy	Groups of 8-10 students designed and delivered 1 of 7 identified projects for local organizations ^{a, b}

TABLE 2 (continued)

School	Course description	Nature of project
Duquesne University	SL component of a required, 1 credit hour, didactic course in P1 year on US Health Care Systems	Provided 16 hours of service/semester at chosen site such as animal shelters, mental health centers
Duquesne University	Experiential; elective topic in a required 1 credit hour SL APPE	Development and delivery of drug abuse prevention program for local high schools and middle schools ^b
Drake University	Experiential; required SL component of an IPPE in P1, P2, and P3 years	Assisted local Visiting Nurse Services organization with multiple diabetes screenings ^b
University of Cincinnati	Experiential; required SL course for P1; elective SL course for P2, P3, P4	Provided 20-60 hours of service/semester at a charitable pharmacy
University of Southern California of Pharmacy	Experiential; SL integrated into a required 2-semester sequence in the P2 year	Designed and delivered two local health fairs ^b
University of Texas at Austin	Experiential; required SL course in P1 year	Provided 18 hours of service/semester in a local agency ^a
University of Georgia	SL component of didactic, 3 credit hour, elective course in P3 year in community outreach	Provided 15 hours of service/semester to local organizations ^a

^a Project was not necessarily pharmacy-based

^b Hours/semester/student spent on project were not identified

Key

SL Service learning

P1 First professional year

P2 Second professional year

P3 Third professional year

P4 Fourth professional year

IPPE Introductory Pharmacy Practice Experience

APPE Advanced Pharmacy Practice Experience

COURSE DESCRIPTION

Taught in the third professional year of the curriculum, Fiscal Management for Pharmacists is a three credit class that addresses health care costs at the systems, pharmacy, and patient level. A list of general

course objectives appears in Table 3. The course is taught in one section of 120-125 students with one course coordinator and is offered during the fall semester. The course has been taught by the current instructor (Monk-Tutor) eight of the last ten years and has traditionally been delivered using a variety of active learning strategies, including modified problem-based learning, group projects or posters, group discussions, and course portfolios. In 2006, the course format was revised under the Samford-In-Mission (SIM) initiative to include a SL component. Funded by a two million dollar grant from the Lilly Endowment in 2002, the SIM program was created to “establish programs that engage students in making connections between faith, liberal learning, social realities and needs, and vocational choices.”⁴⁰ As a result, 37 courses at the university have thus far been developed or redesigned to include SL as a required component.

Justification for Use of Service-Learning in the Course

Although SL had not been formally used in the pharmacy curriculum prior to this, it had been used successfully at the university for several years in the undergraduate core curriculum (described elsewhere by Borden⁴¹). SL was expected to be a good fit for this didactic management course for several reasons. First, previous use of active learning strategies in the course had been more successful than had traditional lectures in helping students to better understand and value the course content. Thus, it was felt that the students’ learning would be further im-

TABLE 3. Major Course Objectives for Fiscal Management for Pharmacists

1. To expose students to basic issues in the financial management of health care systems and pharmacies, including financial analysis, patient insurance, third party payer contracts, and pharmacoeconomics, so that they can better understand the relationship between the financing of health care and its delivery.
2. To help students apply this knowledge in a real-world setting and increase their awareness of the importance of the community context in which health care services are delivered by developing a partnership with a local health care organization through which the community, patients, and students will all benefit.
3. To help students improve their knowledge base as well as analytical, decision-making, reflective learning, reflective and interpersonal skills.
4. To allow students to demonstrate social/civic responsibility and gain self-awareness of their perspective on social responsibility.

proved by actively engaging them in the identification and resolution of real financial problems faced by individual patients in our community. Second, the concepts taught in the course are typically ones that students will use in the future (as opposed to perhaps being used in their current jobs as pharmacy interns) and therefore, are sometimes viewed as less relevant to their current education than are other courses. Use of skills learned in the course to assist real patients was expected to improve this perception among students. Third, incorporation of a SL component was expected to better link course objectives with real pharmacy practice. Finally, successful implementation of a SL project in a required, didactic course of over 100 pharmacy students had been reported in the literature.²⁶

Development of the Service-Learning Project

The SL project was designed by the authors with the assistance of the Samford-in-Mission program director after identifying an unmet need in the local health care community. Two of the authors (Monk-Tutor and Patel) attended a Samford University Service-Learning Institute prior to course development. The course was structured similarly to that described by others in that it included a SL activity, a reflective journal, reflective group discussions, and a summative group assignment.^{2,4} A description of the project as it was given to students appears in Appendix A.

The local health department, the Jefferson County Department of Health (JCDH), was chosen as the community partner for the project. Pharmacy practice faculty from Samford University working with JCDH identified that five pharmacies within the JCDH, known as the Jefferson Health-Systems Pharmacies (JHSP), needed assistance with patient interviews to complete medication history reviews. It was determined that management students could provide this service and use it as an opportunity to speak with patients about drug-related financial needs as well as learn an essential step in the Medication Therapy Management process. The personal medication record (PMR) form developed by the American Pharmacists Association (APhA) and the National Association of Chain Drug Stores (NACDS) Foundation⁴² was chosen for use in the project.

All five sites were located in the greater Birmingham area within a 30 minute drive of campus. Students spent at least six hours during the semester at a JHSP pharmacy during which time they interviewed patients about their drug therapy. They completed a PMR for patients to

take to physician appointments, pharmacy visits, and other healthcare encounters and attempted to assist patients in decreasing their costs for medication by making appropriate therapeutic suggestions and/or informing patients about the availability of various insurance and patient assistance programs for which they might be eligible. In addition, if students identified opportunities for therapeutics alternatives that could reduce a patient's drug costs they discussed this with both the patient and the pharmacist in the facility in which they were providing the service.

Project Logistics

Students received a detailed written description of the project as well as a verbal overview and orientation during the first two weeks of class by one of the authors (Hogue), a clinical faculty member who practices at the JCDH. Students were provided with written driving and parking directions along with suggested patient interview techniques and a copy of the APhA-NACDS PMR form to be used. Additional copies of the form were available on site to be used during actual interviews. During the second week of class pairs of students signed up for all JHSP visits for the entire semester. Times identified that corresponded with both JCDH operating hours and open hours in the third year curriculum were 8am to 11am on most Tuesday, Wednesday, Thursday and Friday mornings. Although not directly supervised while on site, students could obtain assistance from JHSP pharmacists if needed. Students were also instructed to call the course coordinator if any problems occurred.

Pharmacists at JCDH clinics who participated in the project were provided with student sign-in sheets at the beginning of the project using the organization's inter-office mailing system as well as verbal instructions by one of the authors (Hogue) and the JHSP pharmacy director. As part of this orientation, pharmacists were told that while we would like them to be available to assist students if necessary, they would not be involved in assessing student performance and that if necessary, students should be located in a private area adjacent to the pharmacy so that the project would not be disruptive to the daily workflow.

Assessment of Student Learning

Assessment activities were designed to help students link what they learned at the JCDH/JHSP with course content and to their own future

goals as a pharmacist. Grading was based on evidence of the learning that occurred from completing the service, not for doing the service itself. More specifically, learning was assessed in two reflective class discussions (attendance required but not graded), an individual reflective journal that was turned in at three points during the semester (25% of grade; see Appendices B and C for a description of journal assignments and a journal grading rubric) and a group presentation at the end of the course (25% of grade; see Appendices D and E for a description of the presentation assignment and a presentation grading rubric). Structured reflective assignments and assessments were based on others found in the literature.^{12,43-46} The remaining 50% of points in the class were divided between two multiple-choice exams that covered course content.

Assessment of Project

Based on previously published work,^{2,5,20-22} a 44-item, Likert-type survey was developed by the authors to assess students' perceptions regarding the value of the SL experience. Section one of the survey contained four demographic questions; section two included 25 questions designed to gather students' opinions about their experience with SL, including how well they thought it facilitated their learning in the course; and, section three included 15 questions designed to gather information on how the project influenced students' attitudes towards working with a culturally diverse population. A community partner survey was also developed based on that published by Campus Compact⁴⁴ to assess JHSP's perceptions regarding the project and its continued use. This survey contained three demographic questions, 10 Likert-type items designed to gather pharmacists' opinions regarding the value of the SL experience for students, and five open-ended questions regarding how to improve the experience in the future. Both surveys were reviewed by the authors and the SIM program and approved by the Samford University Institutional Review Board. At the conclusion of the project the student survey was administered during one class session and the community partner survey was sent electronically to the Pharmacy Director at JHSP, who then forwarded it to the pharmacist at each of the pharmacies/clinics used in the project. Data was entered into an Excel[®] database and analyzed using descriptive statistics. Copies of the surveys used are available from the authors.

OUTCOMES

Assessment of Student Learning

All 116 students in the class completed a SL component, although one student was allowed to use a site other than the health department for personal reasons. Required reflective writings and group presentations indicated that the SL component of the course positively influenced most students' perceived understanding of civic responsibility, diverse patient populations and their needs, and personal attitudes and biases. Formative results from journal entries indicated that after only one or two visits, some students had already experienced a shift of perspective and insight regarding the patient population served, as well as improved their understanding of how financial issues affect health care of individual patients. At the conclusion of the project, most students indicated in their reflective journals that they had improved their knowledge about assisting patients to decrease medication costs, communication skills, and attitude about underserved populations.

Regarding knowledge, one student stated "I have learned ways to intervene for my future patients that may enhance their ability to afford medications." Another student reported "Because of my visits to the health department, I have gained the experience of how to provide optimal care for a minimum price." A third student wrote "This experience makes the class's application more realistic, and I see more clearly the direct implications of understanding the financial network behind healthcare systems in relation to providing patient care."

Regarding communication skills one student noted that "In the last summary I talked about wanting to improve my interviewing skills. I think I have achieved this goal throughout the past clinic session visits." Another student expressed that she needed "to improve . . . [her] general demeanor in being an approachable, non-threatening person." Many students also expressed feeling more confident in their ability to initiate and carry on a conversation with patients after completing the project.

Regarding attitudinal changes one student wrote "I have always felt sorry for the indigent, but I have always thought that their situation was their own fault. After being around these people, I have learned to stop placing blame and start worrying about their well-being." Another student expressed that "Before seeing these patients I regret to admit that I thought many people in this type of situation were people who just didn't try to work. However, now I realize that this is a very wrong misconception." One insightful student said "I go through the day not realizing

the poverty that surrounds me, the situations that people are born into, how hard it is to break generations and generations of poverty, and what it feels like to actually be in need of something.”

Regarding general issues one student said “I do not think that before this project I realized how important it is for me as a student pharmacist to get practice working with different patient populations.” Another student wrote “this project has helped me remember why I want to be a pharmacist” and “I went home knowing that I made a difference today.” Finally, one student expressed that “This project has, without a doubt, increased my desire to accurately and compassionately help patients receive the best available outcomes of care.”

Assessment of Project

A response rate of 75.9% (88/116) was achieved for the student survey and a response rate of 50% (2/4) was achieved for the community partner survey. Because of the small sample size of the community partner survey, specific results are not presented here. However, in general, pharmacists indicated that they felt the project improved the connection between JCDH and the university, that SL was beneficial for students, and that more projects should be done in the future. Suggestions made for improvement included having students spend more time per day on site (but less days overall) and providing a more detailed orientation for JSHP pharmacists.

Student survey results appear in Tables 4 and 5. The student sample was comprised of 35.2% (31/88) men and 64.8% (57/88) women with a mean age of 24.1. Due to the methods used to collect the data, it was not possible to relate demographic characteristics with survey responses. Mean scores indicated that students “strongly agreed” with only one item: “It is important for pharmacists to understand the financial problems faced by patients” (Item 12). Based on an examination of the means, students were generally in agreement with 13 other statements and generally neutral regarding the remaining 11 statements; no items had a mean score indicating that students “disagreed” or “strongly disagreed” with the statement. However, examination of percentages of responses indicated that a majority of students agreed or strongly agreed with seven items, were neutral regarding 9 items and disagreed or strongly disagreed with 9 items. Based on percentages, the majority of positive responses were related to SL and the public health department and the majority of negative responses were related to connection between the SL and the course content.

TABLE 4. Results of Student Attitudinal Survey: Course-Related Items (5 point scale where 1 = strongly agree and 5 = strongly disagree)

Item	Mean Score	% Agree/ Strongly Agree	% Neutral	% Disagree/ Strongly Disagree
1. The service I did through this class helped me to see the importance of the financial aspects of health care problems.	2.97	30.59	40.00	29.41
2. The service helped me better understand the basic concepts and theories of the subject covered in lectures and readings.	3.62	9.41	24.71	65.88
3. I would have learned more from this class if there was more time spent in the classroom instead of doing service in and/or for the community.	2.70	38.82	34.12	27.06
4. The service activities I performed in this class helped me to understand the importance of having a fiscal management course in the pharmacy curriculum.	3.52	8.24	32.94	58.82
5. The service activities I performed in this class made me more interested in the coursework.	3.51	11.77	24.71	63.53
6. This class helped me to gain a better understanding of the real world financial problems faced by pharmacists.	2.96	28.24	40.00	31.76
7. The service I did through this class helped me to see how the subject matter covered in class is crucial in everyday practice.	3.36	18.82	27.06	54.12
8. The class helped me gain an understanding of the definition of service learning.	2.81	38.82	29.41	31.76
9. I would like to have service learning integrated into future pharmacy coursework.	3.03	29.41	30.59	40.00
10. The course activities helped me to as understand social problems as well economical problems that affect health care.	2.69	40.00	44.71	15.30
11. This class helped me to gain a better understanding of the real world financial problems faced by patients.	2.70	36.47	47.06	16.47
12. It is important for pharmacists to understand the financial problems faced by patients.	1.70	84.70	8.24	7.06
13. The service activities I performed in this class have helped me to understand how a pharmacist can truly make difference in other people's lives.	2.65	41.17	38.82	20.00
14. Pharmacy schools should require coursework that focuses on financial management issues faced in the real world.	2.57	45.88	29.41	24.71

TABLE 4 (continued)

Item	Mean Score	% Agree/ Strongly Agree	% Neutral	% Disagree/ Strongly Disagree
15. Service learning should be practiced in more courses at our school.	3.11	21.18	42.35	36.47
16. The service I did through this class helped me to better understand the relationship between the financing of health care and its delivery.	3.30	15.29	41.18	43.53
17. The service I did through this class increased my awareness of the importance of the community context in which health care services are delivered.	2.87	32.94	45.88	21.18
18. The service activities I performed in this class improved my awareness of my own perspective on a pharmacist's social responsibility.	2.85	34.12	42.35	23.53
19. The service I did through this class improved by analytical and decision-making skills.	3.28	16.47	40.00	43.53
20. The service activities I performed in this class improved my reflective learning skills.	3.12	23.53	38.82	37.65
21. The service activities I performed in this class have motivated me to pursue future service activities in community.	3.16	23.53	34.12	42.35
22. Patients found the personal medical profile I developed of value.	3.03	35.30	23.53	41.17
23. My understanding of roles of a health department has improved through this experience.	2.37	58.82	29.41	11.77
24. I felt that health department clinics were a safe place to work.	2.41	55.30	30.59	14.12
25. The pharmacists I worked with were willing to answer my questions.	2.27	63.53	27.06	9.41

Mean scores indicated that students reported a response of “agree” on only three of 15 attitudinal items related to cultural diversity (Item 11: “People often are in need of public health services primarily because of circumstances beyond their control”; Item 13: “If I understand the needs of the patients I work with I will be better able to demonstrate caring”; and, Item 14: “This experience taught me not to stereotype groups of people”). Mean scores were generally neutral on the remaining 12 statements regarding working with diverse patient populations; no items had a mean score indicating that students “disagreed” or “strongly disagreed” with the statement. However, examination of percentages of responses indicated that a majority of students agreed or strongly agreed with the same three items noted above, were neutral regarding 11 items, and disagreed or strongly disagreed with only one item (Item 9: “The

TABLE 5. Results of Student Attitudinal Survey: Cultural Diversity-Related Items (5 point scale where 1 = strongly agree and 5 = strongly disagree)

Item	Mean Score	% Agree/ Strongly Agree	% Neutral	% Disagree/ Strongly Disagree
1. It is important for pharmacists to speak a language other than English.	3.01	24.70	42.35	32.94
2. This experience has made me feel more comfortable speaking with someone of a race different from my own.	3.17	25.88	41.18	32.94
3. This experience has made me feel more comfortable speaking with someone of a cultural background different from my own.	3.12	28.24	38.82	32.94
4. This experience has made me feel more comfortable providing pharmacy services to someone of a race other than my own.	3.18	27.06	38.82	34.12
5. This experience has made me feel more comfortable serving the needs of racial minorities.	3.21	25.88	37.65	35.47
6. This experience has made me feel more comfortable providing pharmacy services to elderly people.	3.14	29.41	37.65	32.94
7. I am uncomfortable speaking with someone who is extremely poor or on welfare.	3.40	18.82	37.65	43.53
8. I am uncomfortable speaking with elderly people.	3.28	21.18	40.00	38.83
9. The services activities I performed in this class have taught me to be less judgmental about other people.	3.04	25.29	28.24	36.47
10. People receive care from public health centers primarily because they expect the government to provide for their needs.	3.14	21.18	42.35	36.47
11. People often are in need of public health services primarily because of circumstances beyond their control.	2.65	44.71	40.00	15.39
12. Health professionals are too much into curing and not enough into caring.	3.17	21.18	42.35	36.47
13. If I understand the needs of the patients I work with, I will be better able to demonstrate caring.	2.03	71.76	21.18	7.06

TABLE 5 (continued)

Item	Mean Score	% Agree/ Strongly Agree	% Neutral	% Disagree/ Strongly Disagree
14. This experience taught me not to stereotype groups of people.	2.90	37.65	36.47	25.88
15. The service activities I performed in this class changed my perspective on the role of the pharmacist in the community	3.14	24.71	37.65	37.64

service activities I performed in this class have taught me to be less judgmental about other people”).

LESSONS LEARNED

Time Requirements

The greatest challenge to the implementation of SL was the time required to set up and manage the SL project, which has been noted by others as a major limitation of incorporating SL into the pharmacy curriculum.^{6,15,16,21} During the first three weeks of class the course coordinator spent over 75% of her non-teaching time managing the project. Much of this was because of the logistics of scheduling a total of 696 volunteer hours for 116 students with the community partner, communication with JHSP pharmacists, and trouble-shooting problems. In addition, during the semester one of the five pharmacy sites had to be dropped because of internal problems at the community partner organization resulting in the need to reschedule approximately one-fifth of the class (23 students). Additionally, one practice faculty member (Hogue) spent approximately 40 hours during the semester assisting with project set-up, student questions, and trouble-shooting.

During the rest of the semester, 20-25% of the course coordinator's non-teaching time was devoted to project maintenance. This was consistent with other reports of faculty time requirements^{16,19,34} Time required for the SL project is expected to decrease with additional offerings; however, this may be overly optimistic for a project of this

scope unless additional personnel become involved. Others have reported that at least two to three faculty members are needed to manage a SL project for a class size over 100^{4,15} and that it takes at least three years to fully integrate SL into an existing course.^{4,19}

Time requirements were also a challenge for students, who had limited free time in which to schedule site visits because of existing course loads and work schedules. However, extra time for the project and related travel was made available to students by dropping one hour of class time per week for 12 weeks. In the past this time had been dedicated to active learning in the classroom (course met four hours per week for three hours credit). Still, we found, as did Globe,¹⁴ that it was difficult to match times that students were available to times they were needed by the community partner. In fact, one of the greatest frustrations expressed by students was that on many days, few patients were at the health department during the early morning hours that were available in the students' schedules.

Student Frustration/Emotional Discomfort

Like Carter and Cochran, we found that students viewed real world experiences with patients as extremely frustrating.¹⁵ As mentioned above, a primary source of students' frustration was their perceived lack of time in their schedules to participate in SL activities. Another frustration (discovered in the first set of reflective writings) was that most students did not feel confident in approaching patients and initiating a conversation with them even though they were currently working in a pharmacy. As a result, they feared that they did not have the required skills to complete the project or that patients would not be willing to speak to them. Prior to the first visit one student wrote in his journal that "As a student pharmacist, this project inspires a number of fears. For many of us, this project serves as the first real-world one-on-one encounter with patients." Another student expressed the concern of "What if I overlook something because of my ignorance and as a result the patient has to pay more for their drugs than is necessary?". Reflective writings indicated that most students felt much more confident and comfortable in approaching patients by the end of the semester.

Piper noted that students were not comfortable performing SL activities with patients unless they were under the direct supervision of a pharmacist²¹ and Murawski noted that students are often uncomfortable with the various types of difficult situations in which they may be placed when participating in a SL experience.⁶ We found this to be true

with our students as well. For example, one student expressed that “It is a hard transition to make from not having anyone care about what you say, or think anything you say is right, to a position of authority.”

Although pharmacists were available on site if needed, not all students took advantage of this despite their feelings of discomfort in approaching patients without direct supervision. In particular, many students were uncomfortable speaking with patients about issues related to money because they felt this was “rude.” In addition, pharmacists observed that some students simply did not attempt to talk with patients even when they were available to be seen for an interview. Students were not challenged on their behavior in these circumstances; however, reflective comments indicated that some students did not feel confident in engaging patients in discussion by themselves and thus, chose not to do so. However, after a site visit or two, the majority of students learned that most patients at the health department were used to discussing their personal finances with health care professionals and that they were usually willing to speak with and take advice from a student. Some students also felt frustrated because they found that there were patients they simply could not help—either because the patient was not willing or because the patient was already receiving as much financial assistance as possible to help pay for their prescription medications. This realization, while difficult for students, is an important part of their acculturation into the profession and thus, could be viewed as one goal of the project.

Communication with Community Partner

Communication with and within the community partner was challenging at times. Initial arrangements between the school and JHSP were made primarily via phone, email, and the internal mail system of the health department. After students began making visits it was discovered that not all pharmacists had received information about the project as expected. In addition, because only one pharmacist was on duty at a time at each site, we found that JHSP relief pharmacists were unaware of the project on the first day they came into work after the project had begun. Similar to that reported by Murawski,⁶ we also found that not all pharmacists at the community partner had the same expectations of students as we did. For example, some pharmacists expected students to perform at a higher clinical level than their abilities or than were required by the course. Surprisingly, students reported that one pharmacist discouraged them from trying to assist patients with financial issues

because he felt that the project was not worthwhile himself. Having a staff person at the school of pharmacy to help manage communication would be helpful in the future, as would having a detailed onsite orientation for all pharmacists and technicians at the community partner organization.

Student Resistance

In addition to general frustration or discomfort described above, some students openly expressed resistance to the project when it was first described. As has been reported by others, this may have occurred simply because it was something new in the curriculum.^{4,6,21,26} For example, one student stated in her first journal entry that she was uncomfortable about the project because “this is the first time that it has been attempted. We all have many questions and we are just waiting to see how this project will ‘pan out’”. Other reasons for resistance expressed by our students included having to travel to urban neighborhoods with which they were not familiar, time required outside of class, fear for personal safety, and lack of understanding of the connection with the course content. In addition, some may have negatively perceived the work needed for this course because no other course in the third professional year required students to complete an off campus or SL learning activity. Based on reflective writings, it appeared that much of the early resistance was largely related to students’ preconceived (and inaccurate) ideas of the public health department and the patient population treated there. However, by the end of the semester, most students had become actively engaged in the project and expressed in their journals that they felt the project was a success for them because they knew they had helped at least one patient.

Initial negative perceptions of the SL project by some students were not unexpected. However, it was surprising that a few students became more resistant to the SL project as the semester progressed. These students reported in their journals that the project was a waste of their time because they had not spoken with a single patient. Interestingly, comments from the community partner after the project had concluded indicated that during site visits a few students stayed in a counseling room with the door closed and did not make an attempt to interview patients. Perhaps those students who felt that the project was a failure were the ones who did not make an effort to learn anything from the experience. In a SL environment, the student must “seek opportunities to serve,” which in turn provides “ample opportunities to learn.”^{4(p.7)} Unfortu-

nately, those students who refuse to become engaged in SL, whatever the reason, will not realize its benefits. As stated by one student in her journal, “the impact that this project has had on patients, JDPH, and students depends on our attitudes...Overall, the project has been a success if you have chosen to make it a success.”

Perceived Lack of Relevance to Course Content

Desselle et. al. reported that at the conclusion of their course, “many students either [had] not perceived or conceded value” in SL even though their reflective writings contradicted this opinion in many cases.²⁶ We also found this to be true for our course. In discussions, the class as a whole seemed to be unsure of the relevance of the SL project to the Fiscal Management course content. This was frustrating to the authors because connections between the project and course content had been explicitly made during lectures on the topics of insurance coverage, patient assistance programs, and public health. Ironically, many students stated in their journals that the SL project was “only” related to the three topics mentioned above. Apparently, students felt that for the project to be relevant it should have included every topic addressed in the course during the semester. In addition, some students had difficulty conceptualizing the pharmacist’s role in assisting individual patients with financial issues; their reflections indicated that they would have been much more comfortable with a project that addressed financial issues of an independent pharmacy instead, even though this was not the focus of the course. Still, the project demonstrated one way that SL can be incorporated into a pharmacy management course.

In contrast, the reflective writings of the majority of students indicated that they had made important connections between what they were doing at JSHP, what was learned in the classroom, and their future role as a pharmacists. For example, a number of students wrote about how excited they were to be able to use the knowledge learned in lectures on insurance and patient assistance programs to help patients at JSHP and/or in their own workplace. Over the course of the semester, reflective writings also indicated that the attitudes of some students had changed drastically as they began to see their own biases and better understand why patients use the health department for their medical services. For example, some students met patients who had insurance and could have gone to almost any pharmacy yet chose to use JCDP because of its perceived level of caring, convenience, and services. Others students encountered a patient who was a health care professional herself

but due to personal issues, had fallen on financial hardships and could not afford other avenues of health care. Indeed, these students were amazed to discover “the thinness of the veil separating those living in luxury from those living in crisis”^{23(p.32)} and are not likely to forget this lesson.

Some students may have had difficulty seeing the relevance of SL in this course because this was their first experience with SL in the pharmacy curriculum or because results were not necessarily seen at the time the service was provided.^{15,21} One of the limitations of SL is that “the full impact of a project on the community is not always apparent at the time of completion”.^{15(p.316)} We feel this was the case with our project and that this may have decreased students’ overall perception of the relevance of SL. For example, a patient was more likely to have benefited from the student intervention the next time they visited their physician or had their prescriptions filled than they were on the day of the interview. Murawski reported that students who expressed resistance to SL later felt that these experiences were worthwhile and meaningful.⁶ It is our hope that those students who could not make or did not value connections between SL and course content at the time of the project will begin to do so as they complete their advanced practice experiences in the next year.

Assessment of Project/Experience

A valid assessment of SL is difficult because students do not all have the exact same experience.²¹ In addition, “altering the beliefs and attitudes of students” is more of a challenge than is increasing knowledge.^{21(p.160)} Although surprising, the large number of neutral mean scores on our attitudinal survey has been reported by others when using such measures to assess SL projects.²² One reason may be that the positive attitudes of some students were neutralized by the negative attitudes of others. Evidence of this was seen in the journal reflections in that while many students described the project as a success, others described it as a complete failure. Because we did not administer a pre-test it is not possible to draw a conclusion, but another reason for so many neutral results may be that our students did not have negative opinions regarding the attitudinal statements prior to the SL project and thus, the project did little to change their views. Another reason may simply be that attitudinal assessments are not the most appropriate gage of the success or benefits of SL experiences.²² Finally, had this course or the SL component of the course been elective students would have likely had a

more positive view of the experience.^{18,28} Still, the positive news for us was that although students' attitudinal scores were not extremely positive, they also did not reflect the amount of complaint that was voiced during the semester nor were they supported by the majority of reflective writings.

Others have also found inconclusive results from attitudinal surveys regarding SL. Coffey et. al. reported that the majority of their students felt SL only "somewhat" enhanced their learning.²⁴ In addition, students' attitudes towards community service dropped significantly after the project was completed.²⁴ Possible reasons for this included a general negative response to SL because it was new, required additional work, and because the community partner only operated from 8am to 4:30pm on weekdays (as did our community partner).²⁴ Mabry also noted that students felt SL was most effective when they had at least 15 hours of service.⁴⁷ This might also have contributed to our students' neutral or negative opinion of the SL experience because they only had six hours of contact with the community partner during the semester. The project was originally designed to include at least 12 hours of service per student, but it was not possible to schedule this many hours for each student at the community partner. Interestingly, some students wrote in their reflective journals and discussed in class that they thought six hours was too much time to be devoted to a SL project. Other students felt that the project would have been more appropriate in the first professional year, which is supported by Carter who concluded that SL courses may be better received early in the pharmacy curriculum.¹⁵ Still, the power of SL is in its ability to "humanize problems"²³ and in this respect, we feel that the project was a successful learning experience for our students. As one student wrote in her journal, "Often we students focus too much on the financial rewards of our profession. Helping the community gives a personal touch to the profession and serves as a great reminder of how much people rely on you and your knowledge."

CONCLUSIONS

Integrating SL into the Fiscal Management for Pharmacists course at the McWhorter School of Pharmacy provided students with an opportunity to "live the mission" of Samford University while simultaneously learning to apply knowledge and skills learned in the course to the real world. By working with the local health department, most students were

able to experience first hand the impact that the costs of prescription medications have on patients. Although some logistical problems were experienced, the majority of students reported that the project helped them to better understand social responsibility, improve self-confidence when talking to patients, and gain self-awareness of their own perspective on the role of the pharmacist in the community. In addition to helping students apply content information learned in class about insurance coverage, patient assistance programs and public health, this fiscal management project provided students with an opportunity to interact with a diverse patient population, develop caring skills, and deepen their sense of responsibility to serve others. Despite the limitations of the project, it demonstrated that SL can be incorporated into a non-clinical, non-experiential course.

Received: March 9, 2007

Reviewed: April 13, 2007

Revised: May 7, 2007

Reviewed and Accepted: May 14, 2007

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doi:10.1300/J060v14n02_03

APPENDIX A. Description of Service-Learning Project from Syllabus

A. Overview:

Each student will volunteer at the Jefferson County Department of Public Health (JCDH) for a minimum of 6 hours during the semester. Your role will be to interview patients regarding their medication history and how they pay for their drugs. These hours can be completed at your choosing, but must be signed up for in advance. We will use reflective discussions in class, a personal reflective journal, and a group presentation to assist you in linking what you are learning at the JCDH to the course content and to your own future goals as a pharmacist.

B. Goal:

The goal of the project is to allow you to apply knowledge and skills learned in the course to the real world as well as to expose you to the health care-related financial needs of under- insured and uninsured patient populations.

C. Community partners:

Students will volunteer in one of five JCDH clinics that are serviced by Jefferson Health-Systems Pharmacies (JHSP). All clinics are located in the Birmingham area within a 30 minute drive of campus.

D. Community needs addressed by the project:

JHSP pharmacists need assistance obtaining accurate and up-to-date medication histories from their patients, including medication compliance and insurance information.

E. Role of students:

Students will spend a minimum of 6 hours during the semester meeting with patients presenting to JHSP and/or to the adult health clinics of JCDH in order to complete personal medication records. Per JCDP policy, all students will be required to complete confidentiality agreements and provide written proof of receipt of a tuberculin skin test within the previous 12 months.

F. Role of JCDP/JHSP:

A faculty member who practices at JCDH will come to class to provide an orientation to the JCDH and the project itself, including suggested interview techniques and forms to be used. Students will have access to a JHSP pharmacist if assistance is needed (all JHSP pharmacists hold adjunct faculty status with the school).

G. Grading:

Course credit for this project will be given for the learning that occurs from the service, not for doing the service itself. Learning will be assessed in reflective class discussions, an individual reflective journal (25% of final grade) and a group presentation (25% of final grade).

H. Attendance at site:

Each student must make at least 4 different visits to the site for a minimum of 6 hours total hours on site during the semester. Students must sign an attendance log at the time of each visit; absences will be reported to the course coordinator. Note that if you have not attended your site visit you will not be able to make an entry into your journal for that date.

APPENDIX B. Description of Reflective Journal Assignments from Syllabus

Guidelines for Reflective Journals and Discussions

Journal Entry 1. Write *prior* to your first clinic visit

Length: 3-5 typed paragraphs (minimum)

Content: Identify/describe the following:

1. What type of people/patients do you expect to be in contact with at the organization and what types of problems do you expect them to have?
2. What expectations do you feel a community has a right to place upon pharmacists as individuals?
3. What fears or concerns do you have about this project?
4. What excites you about this project?
5. What will you do to prepare for your first clinic visit?
6. Anything else you want to write about related to this course

Journal Entry 2. Write after your first visit but *prior* to first discussion session

Length: 3-5 typed paragraphs (minimum)

Content: Identify/describe the following:

1. What did you do at the site and with whom did you interact there?
2. What was your strongest impression of the site itself and why?
3. What challenged or surprised you and why?
4. What did you learn about yourself today? How can you be more prepared for next time?
5. How does this experience connect to what we are discussing in class? Your future?
6. Anything else you want to write about related to this course.

Journal Entries 3-7: Write after each subsequent clinic visit

Length: 3-5 typed paragraphs (minimum)

Content: Identify/describe the following:

1. What did you do at the site and with whom did interact there? How was this experience different from your other clinic visits?
2. What was the best/worst thing that happened today and why?
3. What excited you most today? What discouraged you most?
4. How can you make your interactions with staff/patients more productive?

5. How does this experience connect to what we are discussing in class? Your future?
6. Anything else you want to write about related to this course

Journal Summary 1: Due at first discussion session

Length: 1-2 typed pages

Content: Review your previous journal entries and discuss the following:

1. Thus far, what impact has this project had on patients? JDPH? yourself? Has the project been a success?
2. What was the best/worst thing that happened and what did you learn from it?
3. What skills have you improved? What skills do you still need to improve?
4. What did you do that worked well? What did not?
5. How has the experience changed your thinking? That is, how have your own ideals, biases, prejudices, philosophies, openness, caring, etc. been challenged by this experience?
6. How will the experience affect your career choice or the way you use your skills and knowledge in the future?
7. Anything else you want to write about related to this course

Journal Summary 2: Due at second discussion session

Length: 1-2 typed pages

Content: Review your previous journal entries and discuss the following:

1. Thus far, what impact has this project had on patients? JDPH? yourself? Has the project been a success?
2. What skills have you improved? What skills do you still need to improve?
3. After working in the community, how have your initial impressions been altered? Why? (Refer back to initial comments). If they have not changed, why not?
4. How do you explain suffering or illness in terms of your philosophical or religious beliefs?
5. Do you believe that the patients are at least partially responsible for their problems?
6. How has the experience added to your knowledge about community involvement, civic responsibility, pharmacists' role in society?
7. Anything else you want to write about related to this course

Journal Summary 3: Due after last clinic session

Length: 1-2 typed pages

Content: Discuss each of the following:

1. The Public Health Department was developed in response to one or more "public" problems. What are the problems that you think are being addressed at your site? Why do these problems exist? What makes them "public" problems?

Journal summaries: 3 summaries @ 10 points each (graded for completeness of answer, personal insight, spelling, grammar)
2 points/question if there are 5 required questions
1.67 points/question if there are 6 required questions

Total possible points: 100 points

APPENDIX D. Description of Group Presentation Assignment from Syllabus

Objectives:

1. Link course content to the care of individual patients
2. Improve understanding of systemic social conditions that contribute to individual health care problems
3. Think critically about how the experience has changed you as a person and as a pharmacist and about the appropriate civic role of a pharmacist in his or her community
4. Practice planning, developing and giving a public presentation with your colleagues

Task:

Students will work in self-selected groups of 4-6 people to develop a 15-20 minute documentary-style Power Point® or multi-media presentation that includes all of the items listed below. Not all group members are required to have a speaking part, but all must make a significant contribution to the final project. Creativity is encouraged, but presentations must be tasteful, professional and represent work that you would be proud to share with the Jefferson County Department of Health.

Grading: 100 points total as divided as below; all group members will receive the same grade.

Grade **Presentation Content:**

- | | |
|-----|---|
| 15% | 1. Summary of your group members' personal experiences at the service learning site along with specific examples of your most memorable interactions with patients (~5 minutes; 15% of grade) |
| 25% | 2. Identification of societal health care or civic issues that you feel contribute(d) to the health-related financial problems faced by your patients (~5min) |
| 25% | 3. Reflection on at least 2 of these questions: (~ 5 minutes)
A. How has the experience changed your thinking? That is, how have your own ideals, biases, prejudices, philosophies, openness, caring been challenged by this experience?
B. After working in the community, how have your initial impressions of this patient population or site been altered and why? If they have not changed, why not? |

- C. What was the most rewarding part of this experience? The most challenging?
- 25% 4. Reflection on how your service-learning experience connected with the course content (~5 minutes)
- Presentation Delivery:
- 10% 1. Professionalism, creativity

APPENDIX E. Group Presentation Grading Rubric

Date: _____ Group: _____ Group members: _____
 Start time: _____ Stop time: _____

Grading: 100 points total as divided as below; all group members will receive the same grade; not all group members are required to have a speaking part, but all must make a significant contribution to the final project

<u>Grade</u>	<u>Max Grade</u>	<u>Presentation Content:</u>
_____	15	1. Summary of members' personal experiences & specific examples of most memorable interactions with patients (~5 min)
_____	25	2. Identification of societal health care or civic issues that you feel contribute(d) to the health-related financial problems faced by your patients (~5 min)
_____	25	3 Reflection on at least 2 of these questions: (~5 min) A. How has the experience changed your thinking? That is, how have your own ideals, biases, prejudices, philosophies, openness, caring been challenged by this experience? B. After working in the community, how have your initial impressions of this patient population or site been altered and why? If they have not changed, why not? C. What was the most rewarding part of this experience? The most challenging?
_____	25	4. Reflection on how your service-learning experience connected with the course content (~5 min)
_____	10	5. Presentation skills: Professionalism, creativity, communication, clarity, slides, other

TOTAL: _____/100

Comments: