

**Articles on Service-Learning and Related Topics in Pharmacy Education  
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*(Re)Learning to Care: Use of Service-Learning as an Early Professionalization Experience - Nancy A. Nickman*

Future health professionals must not only be competent to practice as clinicians, they must also be competent to practice as human beings in a complex health care system in relationship with local communities. The profession of pharmacy is also at a critical crossroads with regard to establishing its place as a patient- and relationship-centered profession. To address this need, a first professional year course on the social and behavioral aspects of the United States health care system was modified in 1991 to include opportunities for students to enter into service-learning relationships with homebound senior citizens who were clients of three local not-for-profit agencies. The course format consisted of a modified student-centered, problem-based approach whereby lectures were minimized and in-class discussions with small group exercises were maximized. Service-learning opportunities involved students in pairs who served in a dyad as companions with these clients. Assignments related to the service-learning experiences included the following: three 2-3 page position papers on a relevant topic from a non-pharmacy journal such as the New England Journal of Medicine, Social Science and Medicine, or the American Journal of Public Health; reflective journals; biweekly reflection sessions with agency personnel; and a summative final report for the agency of record. Multiple course evaluation methods were also used to assess student impressions of their experiences and suggestions for course improvement. Results indicate that student response to the Service-learning pedagogy of the course has been positive.

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*Development of a Patient-Based Practice Model in Community Pharmacy Practice: Academic Practice Interface - Thomas J. Reutze, Melissa Hogan and Parisa Vatanka Karerooni*

The purpose of this paper is to describe shared faculty arrangements between a large chain pharmacy corporation and two schools of pharmacy. The two faculty members involved worked jointly on programs intended to improve the level of drug therapy-related services provided in the participating pharmacies, develop high quality experiential education sites for students, and enhance the morale and capabilities of staff pharmacists. The paper is built around two conceptual frameworks. One is a model of interorganizational relations used to organize the complexity of the relationships among the three organizational entities involved in this project. The other is a functional model of patient-based pharmacy practice that evolved along with the project and its intended and unintended turns. The paper concludes with a summary of lessons learned that may be of use to others involved in similar projects. These include the view that upgrading of community pharmacy services must begin with enhancing the skill levels of present staff. Also, patience is required after alterations to practice are made. One of the most important recommendations of this paper is that a coordinating committee made up of representatives from all involved organizations be formed prior to the start of the project and meet on a periodic basis throughout the project to iron out differences, anticipate problems, and generally enhance the productivity of the relationships. Such a body was used in the project described here and proved successful.

*Curriculum Topics in Pharmacy Education: Current and Ideal Emphasis; David R. Graber, Jean Nappi, Janis P. Bellack, Carol Lancaster, Catherine Musham and Edward H. O'Neil*

This study assessed the current and ideal emphasis for curriculum coverage of 33 generalist curriculum topics in PharmD programs and evaluated barriers to curriculum change. These topics reflect a wide range of recommendations for curriculum change in a number of health professions. This study was part of a larger study of 11 health professions education programs. A 46-item survey using a 5-point scale format was mailed to the curriculum directors at all U.S. pharmacy schools affiliated with the American Association of Colleges of Pharmacy that offer the PharmD degree (n=71). The ordinal scores for current emphasis and ideal emphasis for each of the 33 topics were compared for differences between current and desired emphasis. The ratings of barriers to curriculum change were also analyzed. The four topics rated highest for ideal emphasis by pharmacy respondents were "Effective patient-provider relationships/communication," "Patient teaching/ education," "Outpatient/ ambulatory care," and "Use of electronic information systems." Topics related to community health and health care for the underserved were not ranked highly for ideal emphasis. The most significant barriers to curriculum reform were "Limited availability of clinical learning sites" and "An already crowded curriculum". Responses indicate an awareness by pharmacy curriculum directors of the need for significant improvements in the coverage of broad, generalist competencies in the PharmD curriculum. The curriculum directors were most concerned about increasing the emphasis on "Accountability for cost-effectiveness and patient outcomes," "Health promotion/disease prevention," "Population- based health care," "Managed care," and "Use of electronic information systems." A movement toward primary and outpatient care and better relationships and communication between pharmacists and patients were evident in the curriculum directors' response

*Service-Learning and Pharmaceutical Education: An Exploratory Survey - Matthew M. Murawski, Debra Murawski and Marvin Wilson*

The University of Mississippi School of Pharmacy, prior to introduction of Service-Learning into its curriculum, decided to seek information on the status of Service-Learning in the Pharmaceutical education community. In order to accomplish this, a direct-mail survey of the AACP member Schools of Pharmacy was conducted. Forty-two of the seventy-eight schools surveyed responded. Seventeen reported some form of Service-Learning as already being in place. Respondent school's comments on the requirements for implementation and difficulties encountered are presented, as well as discussion of the benefits of Service-Learning. The broad disparity in implementations of Service-Learning and the relatively few institutions who have adopted Service-Learning into their curriculum is presented as evidence that further discussion of this educational strategy amongst the Pharmaceutical education community is needed.

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*Development of a Service-Learning Program- Grace D.Lamsam*

The University of Kansas School of Pharmacy is in the process of converting to the Doctor of Pharmacy (PharmD) as the sole professional degree and implementing a new curriculum. In anticipation of these changes and in preparation for an upcoming ACPE accreditation visit, the school conducted an alumni survey of graduates from 1986-1994. The survey focused on four major outcomes: (i) practice sites; (ii) clinical activities; (iii) postgraduate and continuing education; and (iv) service to the profession and community. The survey also asked graduates

to assess the school's contribution toward the development of several key professional skills. Of 617 mailed surveys, 437 were returned for a response rate of 71 percent. Approximately 94 percent of respondents held the Bachelor of Science (BS) degree. The majority of respondents were practicing pharmacy in chain pharmacies with a primary focus on patient care. Overall, a relatively small percentage of graduates had completed postgraduate education. Graduates are involved in a number of professional pharmacy organizations. Active participation is greatest at the local and state levels, however a few graduates have obtained national recognition. Separate analysis of the PharmD graduates suggest trends toward several important differences in outcomes. The survey provides valuable baseline data on graduate outcomes which can be used for future comparison studies.

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*Student Perceptions of a Service-Learning Experience – Brian Piper, Michael DeYoung and Grace D. Lamsam*

Pharmacy schools are adopting service-learning to foster communication and interaction skills, social responsibility, and a philosophy of caring. This study describes the extent students believed two required service-learning programs met these objectives. Students in the first year (P1) of a four year doctor of pharmacy program spent 24 hours per term at community service agencies and second year students (P2) attended clinics for the medically underserved for four hours per term. Most of the students (93.4 percent) completed the Service Experience Questionnaire, an internally consistent instrument consisting of forty-nine closed-ended items, after their experience. A majority of P1's (64.0 percent) and P2's (86.0 percent) felt that the experience was educational. These experiences enhanced their respect for the individual, awareness of others in need, confidence in interacting with others and provided them with an opportunity to improve their communication skills. These results support the utility of an experiential learning pedagogy to meet the AACP's educational objectives

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*The Need to Define "Care" in "Pharmaceutical care": An Examination Across Research, Practice and Education – Kimberly A. Galt*

The purpose of this paper is to examine the concept of "care" and how it related to pharmacy. A cross-discipline review of the literature is presented. Five areas are examined: the definition of care, care as behavior, the relationship of caring behaviors to health, the relationship of caring behaviors to outcomes, and the teaching of caring behaviors. How the prior work of other disciplines relates to the pharmacy profession is discussed. Case scenarios are included which are intended to illustrate the patients experience when caring behaviors of professionals are either absent or present. A suggested list of specific caring behaviors of pharmacists is identified which fulfill or advocate for a patient's needs. The profession is urged to adopt specific caring behaviors within the professional standards of practice and perform these routinely in patient care. Education, practice and research agendas to further the pharmacy profession with the adoption of care values and behaviors are presented..

### *Implementing Service-Learning In the Pharmacy Curriculum - Jamie C. Barner*

The purpose of this paper is to describe the structure, content and requirements of the service-learning component of first professional year pharmacy students. In addition, the paper also provides excerpts from student reaction logs describing their experiences. To fulfill the service-learning requirement, students must meet the following criteria:

(i) serve a minimum of 18 hours within a single service organization; (ii) be directly involved with the agency's clientele; and (iii) complete specific tasks that address concrete human needs. To document their activities, students must obtain a written agreement from the agency supervisor, who also documents time spent in the agency. To ensure a successful experience, students are required to submit written goals and objectives prior to starting their experience. At mid-semester, students are required to submit a reaction log that reflects upon their experiences. At the end of the semester, students submit a paper detailing their experiences and their perceptions of service to the community. Students served in a variety of settings and agencies including: elementary schools, nursing homes, AIDS hospices, Habitat for Humanity, cancer centers, Alzheimer's groups, homeless, mentally ill, and shelters. The reaction logs and the written papers reflected that the experience was enlightening and educational. Service-learning is a way to a mutually-fulfilling reciprocal arrangement where students and community members can each be learners and teachers, servers and served. Implementing this type of experiential education may help to introduce the concepts of caring and social support into the curriculum.

### *First-Year Pharmacy Students' Perceptions of Their Service-Learning Experience – Jamie C. Barner*

To determine the effects of a service-learning experience, first year pharmacy students were surveyed on the following: (i) perceptions regarding cultural diversity, the elderly, the poor, and the disabled; and (ii) perceptions regarding community service and social support. Perceptions regarding their service-learning assignment were also assessed. One hundred fourteen students were surveyed on objectives 1 and 2 prior to their service-learning experiences. Students were surveyed on all three objectives after completing their service-learning experience. Using a five-point Likert scale (1=strongly disagree to 5=strongly agree), respondents rated their level of agreement with a series of statements. T-tests were used to compare their pre- and post-test responses. A total of 112 (98 percent) students completed the survey. Comparisons of the pre and post-tests revealed that there was a significant increase in mean perception scores regarding: community service ( $P=0.02$ ), and patients' need for social support ( $P<0.01$ ). No other comparisons were significantly different. Students agreed (mean=3.8) that all pharmacy students should complete a service-learning experience, and they also agreed (mean=4.0) that the service-learning experience would be beneficial to them when practicing pharmacy. Introducing service-learning during the pharmacy curriculum may help students to: (i) better understand the future patients that they will be serving; (ii) recognize the importance of community service; and (iii) become more aware of patients' need for social support.