

A Relevant New Undergraduate Track in Retail Pharmacy Management

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An undergraduate track in retail pharmacy management was designed to better prepare pharmacy students for the future responsibilities of retail pharmacy management. The curriculum was developed so that it would meet every day needs that exist in community pharmacy. Several types of curriculum assessment were utilized to assure that there was a bridge between procedural and outcome dimensions of the new curriculum. Multiple teaching approaches were used and student involvement in the learning experiences was maximized. Student responses to the track course offerings were quite positive and, as a result, enrollments in the track have substantially increased in recent years. A survey was sent to students who graduated from the track and their responses were extremely positive. Their recommendations on course improvement were minimal. The College of Pharmacy is dedicated to the continued implementation of the new track.

INTRODUCTION

The traditional role of the pharmacist is rapidly changing. Seldom do we witness the pharmacist working in the nostalgic, small local pharmacy. Rather, the current practice of pharmacy places much greater emphasis on health care delivery and requires a good working knowledge of managed care, reimbursement, outcomes research, and a sophisticated knowledge of management. Currently, the curriculum in Schools of Pharmacy concentrates primarily on the scientific and technical knowledge the pharmacist must have in order to counsel patients and gives limited attention to the practical management skills. While there has been an attempt by a few schools to effect a change, this inclusion has been slow and thus most pharmacy graduates are not adequately prepared for managerial responsibilities. Further evidence of this deficit was gathered by the authors during informal conversations with many chain drug executives. Their frequent lament was that pharmacy graduates had little or no understanding of basic retail management concepts.

The educational need identified by the chain drug executives was echoed by community pharmacy owners who besieged the college with requests that the education and training of pharmacists be re-oriented so that, upon completing their studies and passing State Board Examinations, graduates can assume a more managerial role in community pharmacy. For these reasons, a new undergraduate track in retail pharmacy management was developed and implemented at our college of pharmacy. Following are desired outcomes of the program. Upon completion of the undergraduate track in retail pharmacy management, the student shall be able to:

1. conduct a site analysis for a community pharmacy; conduct a demographic survey of a defined neighborhood; prepare a store floor plan and merchandising plan; know what the elements of, and how to negotiate

- a lease; and complete and submit all necessary applications and permits;
2. establish and efficiently manage pharmacy purchasing and inventory control systems;
3. supervise cash flow, discounting of bills, return on investment, double entry accounting systems, capital budgets, operating budgets, federal and state mandated business income and withholding fillings, and long and short term financing.
4. effectively recruit, select, and train personnel; understand compensation, benefits, and motivation in the workplace;
5. be able to demonstrate applications of computer technology and how it relates to record keeping, DUR, DUE, and third party processing. To be able to analyze switch technology, on-line transmissions, community health information networks, electronic data interchange, software/hardware platforms, pharmacy informatics, and access channels; and
6. to demonstrate needed communication skills and know how they impact on customer and professional relations, effective management, and external marketing.

The courses are taken in the third, fourth, and fifth years of study, comprising an elective portion of the undergraduate curriculum. Appendix A contains the curriculum and the course outlines for the track in Retail Pharmacy Management.

Curriculum Development

Chickering(1) noted that, if curriculum should be related to everyday life in a broad sense, then "... it is necessary to forge links between that life and actual curricular components." Levine(2) states that a successful curriculum change is more likely when the recipients believe that they will directly or indirectly receive something valuable from their

participation in it.

The curriculum for the track in Retail pharmacy Management was developed along these principles. It was designed to be comprehensive but practical in nature and related to real life experiences each student would undergo after graduation.

FORMULATION AND APPROVAL SYSTEM

The curriculum was formulated as a result of a team effort in which faculty members of the Pharmacy Administration department, the Dean of the College, the President of the Retail Drug Institute(1), three practicing community pharmacists who serve on the College's Council of Overseers and are active in state and local pharmacy associations as well as the College's continuing education programs, and one student officer from each of the three professional years, collaborated to prepare a curriculum designed to meet the needs of the students aspiring to enter either independent or chain community practice.

DEVELOPMENT OF THE CURRICULUM

The curriculum was developed according to the six curricular dimensions expressed by Berquist(3), namely:

Time. The duration and the schedule of the instructional units. The track was assigned 15 credit hours of instruction based upon the time it was felt would be necessary to have the students achieve the aforementioned competencies. This determination was largely based on the comparisons with similar free standing electives given at both our College and other colleges of pharmacy.

Space. The use of areas of instruction that are located both on and off the college campus. Off campus sites include: independent and chain community pharmacies, pharmaceutical manufacturers headquarters, regional wholesalers, and a variety of college libraries.

Resources. The instructional use of people, materials, and situations on and off campus. Some class sessions are held in practice sites and the academic is made experiential by having the students perform management and marketing activities.

Organization. The arrangement and the sequencing of instructional units and the arrangement of the academic units.

Procedure. The planning, implementing, evaluating, and crediting of educational units.

Outcome. Clearly defining the desired end results of a particular instructional unit or an academic part of the program. These outcomes correlate to the stated outcomes previously discussed.

The curriculum has a certain uniqueness in that it was developed and taught not only by faculty members of the College of Pharmacy and Health Sciences, but also by practicing community pharmacy practitioners and selected faculty from the School of Business and Public Administration and Accountancy. All instructors in the track combined lecture, discussion, and on site role simulation in their instructional methodology.

The curriculum developed is a combination of the competency-based, experience-based, and student-based curriculum innovations. The students were required to acquire and demonstrate specific competencies in pharmacy management prior to graduation: educational experiences were to be provided both on the campus and in pharmacies; and

Table I. Student enrollments

Year	Enrollment in all courses	Number who completed the track
1991-1992	110	NA
1992-1993	245	27
1993-1994	395	64

conditions were created for students to acquire knowledge, skills, and attitudes appropriate to their future work in pharmacy. The demonstration of these competencies by the students was accomplished by written examinations, research reports, situational role playing and its evaluation, and the students anecdotal observations.

INVOLVEMENT OF THE INSTITUTION

The institution had been aware of the need for an undergraduate track in retail pharmacy for many years and actively encouraged the College of Pharmacy to take the steps necessary to develop the track.

In order that the project not be accomplished in isolation, a broad participation by key members of the institution in the development of the curriculum was encouraged. Members of the faculty, administration, trustees, overseers, and outside practitioners, who had expressed an interest in serving on a steering committee, were contacted and asked to serve because of their expertise and willingness to participate.

PLANNING THE NEW PROGRAM

The planning of the new track involved the design of the track and then the plans for implementing the new program for the college. It included determination of the key members of the team, the approval system to be followed, and the assignment of the initial responsibility for implementing the program. Students who expressed a strong interest in the track were included as part of the planning group.

The nature of the students, the objectives of the curriculum and the student learning experiences were carefully considered in the planning process. This consideration took the form of balancing in course design the academic and experiential components. Students expressed a preference both from learning and utility perspectives to have the courses as experiential as possible. This preference was acknowledged and was carefully interwoven with the requisite academic considerations.

Appropriate leaning methods (*i.e.*, lectures, class workshops, video presentations, demonstration, role-playing, case studies, field visits, field research projects, and other) were designed according to the type of course to be taught and the determined learning behavior to be achieved. For example, in the Personnel Planning & Management Course (PHA 587), students review actual applications (identity blinded) submitted to a retail drug company. They learn to evaluate and critique applications and then fill out their own applications. These applications are used during role-play-

¹The Institute is a unit of the College which was established to provide students and practitioners with training in the economic, financial, and managerial aspects of community pharmacy; additional information about the Institute can be obtained by contacting the College. The President of the Institute was an administrative position created to oversee the activities of the organization. Currently, these duties are performed by the Director of the Pharmacy Administration Division.

ing interviews among the students. In the same course students do field research projects at a variety of community pharmacy sites to evaluate the effects of proper and improper training. The course in Communication Skills in Pharmacy Practice (PHA 384) contains two role-playing patient counseling sessions which are video taped to provide corrective feedback to the student participants.

An evaluation group, consisting of team faculty members, faculty, and outside practitioners was formed to develop an objective analysis of the programs. The group decided that this analysis would be most accurate if it surveyed students after they had completed the program and determined whether or not it had any applicability to their current work situations, and also surveyed the employers for whom the graduates of the program were working. Both written and anecdotal methods were employed in the evaluation process.

EVALUATION STRATEGIES

Of equal importance was the evaluation of teaching strategies for the courses taught. Student learning was evaluated using teacher-designed evaluation mini-forms and one-minute papers(4). These techniques enabled the instructors to get immediate and frequent feedback to at least 60 percent of the class sessions and to use this feedback to determine the effectiveness of the teaching methods used and the relative degree of student understanding.

Track Revisions

The student analyses, tests, workshops, role playing, field achievements, and class observations by the track teachers revealed fewer needs for changes in the courses taught than had been assumed. Student evaluations by instructors, employer reviews, and written and anecdotal reports by student graduates revealed that the stated learning outcomes were being achieved.

Survey of Students Who Graduated from the Track

Opinions were sought from the graduates of the track to determine the impact the track had on their actual practice of pharmacy. Selecting the sample proved more difficult than anticipated because many of the former students had moved from their original residences and could not be contacted. However, of the surveys returned, the vast majority had high praise for the program and its salutary affect on their careers. While this survey in no way represents a valid empirical study, it seems to indicate that we are heading in the right direction. A future statistically sound survey is planned.

SUMMARY

The development of the new undergraduate track in Retail Pharmacy Management was a useful first step in introducing this material into the curriculum. Student response to the courses offered was excellent and substantial enthusiasm for the track was generated among the student body. The first course offerings of the track were over-subscribed by students and this trend has continued. Since that time, student enrollments in the track have dramatically increased. Some of this enrollment is due to interest in individual courses, but there has been a steady increase in the number of students who have completed in the entire tract (see Table I).

A climate for teaching of track courses was created in order to make the experience enjoyable and rewarding to the teaching staff. Openness, trust and mutual collaboration were created primarily by giving all involved a sense of proprietorship about the project. Multiple teaching-learning techniques utilized in teaching the track courses were positively assessed by the students who are learning approaches to the practice of pharmacy unavailable to pharmacy students in previous classes. The students who complete the track are awarded a certificate in Retail Pharmacy Management by the Retail Drug Institute at the College's Commencement.

Am. J. Pharm. Educ., 59, 284-290(1995); received 8/8/94. accepted 5/26/95.

References

- (1) Chickering, A.W. et al., "Developing the College Curriculum -A Handbook for Faculty and Administrators," Council for the Advancement of Small Colleges, Washington DC (1977) p. 51.
- (2) Levine, A., Handbook on Undergraduate Curriculum, Jossey-Bass, San Francisco CA (1978) pp. 432-433.
- (3) Berquist, W.H. et al., Designing Undergraduate Education - A Systematic Guide, Jossey-Bass San Francisco CA (1981) pp. 250,270.
- (4) Cross, K.P. and Angelo, T.A., "Classroom Assessment Techniques: A Handbook for Faculty," National Center for Research to Improve Postsecondary Teaching and Learning, Ann Arbor MI (1988)

APPENDIX A. THE UNDERGRADUATE TRACK IN RETAIL PHARMACY MANAGEMENT (COURSE DESCRIPTIONS)

PHA 384 Communication Skills in Pharmacy Practice

A basic communications course for pharmacy with special emphasis in managerial communications. Topics include: the communication process, management through communications, communication criteria and message effectiveness, the planning, organization, and development of business messages and communication of ideas, feelings, and attitudes. Three lecture hours. Three credits.

PHA 486 Pharmacy Marketing Management

This course is designed to develop an in-depth understanding of retail marketing in pharmacy. Topics include: analyzing market potential, the product mix in pharmacy, consumer behavior, merchandising, advertising and promotion, and the development of price structure strategies. Three lecture hours. Three credits.

PHA 585 Pharmacy Operations Management I: Planning and Establishing a Community Pharmacy

This course provides a comprehensive introduction to the fundamental decisions and actions required of management in planning the establishment of a community pharmacy. Topics include: location analysis, space and fixture needs, capital requirements and sources of funding, lease considerations, and pharmacy layout. Three lecture hours. Three credits.

PHA 586 Pharmacy Operations Management II: Purchasing, Inventory Control, Financial Analysis and Control

This course focuses on the key issues of financial and inventory management in community pharmacy. Topics include: record-keeping systems, financial systems and their analysis, budgeting and cash flow, internal control procedures, criteria for selecting suppliers, and inventory control. Three lecture hours. Three credits.

PHA 587 Pharmacy Operations Management III: Human Resources Management

This course focuses on the human resources management aspects of community pharmacy. Topics include: staffing needs, recruitment, selection, orienta

tion and training, motivational theory, evaluation and compensation, employee relations and rights, and legal policies and procedures. Three lecture hours. Three credits.
