Reasons Behind the Need for Senior Advanced Practice Experiences Reassignment and the Associated Workload: One Institution's Experience

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Senior advanced practice experience assignments are made for the entire academic year using a computer based selection process. Each year the academic programs section staff of the department of pharmacy practice spends a great deal of time reassigning students to new sites. The purpose of this analysis was to gain insight into the reasons behind the need for reassignment and to determine the workload associated with this component of experiential education management. A log detailing requests for senior advanced practice experience reassignment was maintained for the 1997-98 academic year. The rationale behind why reassignment was necessary was analyzed. A total of 255 reassignment requests were evaluated. One-hundred eighty-nine (74 percent) of those requests were granted. The majority (63 percent) of reassignments were made as a result of the dynamic nature of faculty availability. An estimated 0.33 of a full-time equivalent faculty was required to complete the reassignment process.

INTRODUCTION

As the requirements for accreditation of entry level doctor of pharmacy programs change, in July of 2000, to include early experiential components in the curriculum, workload demands for experiential curriculum management will also increase(1). Individual programs have internally projected the workload associated with placing students in advanced practice sites, thereby determining the number of full-time equivalents (FTE) they believe are required to complete the task. Yet, little has been done to systematically document the workload associated with management of the current experiential components of our pharmacy education curriculums. A computerized search of the Educational Resources Clearinghouse Database identified no documented studies that address the impact that day to day management of the program has on faculty workload and productivity.

Historically, the externship component in most bachelor of science pharmacy curriculums was easily managed by one individual who was often recruited from the ranks of the experiential preceptors. These individuals were charged to maintain "good relations" with predominately community and traditional hospital practitioners in order to assure that these practitioners would continue to accept students within their practices. Externship coordinators were often based out of the Dean's office and were viewed as administrators rather than faculty. The management of the clinical training components of the typical post-baccalaureate doctor of pharmacy program were under the direction of a senior clinician within the Department of Pharmacy Practice. The numbers of students requiring placement was small and the programs were typically self-contained, relying only on full time College-paid faculty as preceptors. Over the years, as bachelor degree programs were required to provide a clinical experience and as entry-level doctor of pharmacy degree programs began to emerge in greater numbers, the need to recruit and maintain large numbers of non-College-based sites has grown. So, as our experiential curriculums and the "business" of health care have become more complex, so has the effective management of experiential education. Today, the majority of experiential education coordinators are housed within departments of pharmacy practice. These individuals are now viewed as members of the faculty and expected to effectively manage the experiential education components (both early and advanced practice experiences) and at the same time contribute in a productive manner to the three-part mission of the faculty.

The change in the accreditation standards, the ongoing transition toward the doctor of pharmacy as the sole entry level degree, and the change in expectations for experiential coordinators have combined to create a dynamic and challenging time for pharmacy education. It therefore seems appropriate that we begin to systematically investigate the amount of faculty resources required to carry out the experiential education component of our curriculums.

The University of Illinois at Chicago (UIC) offers both a traditional entry-level (EL) doctor of pharmacy program and a nontraditional doctor of pharmacy program which we internally call the Continuation Curriculum Option (CCO). Senior level students in each program complete the advanced practice experiences simultaneously. Each EL student's advanced practice experience placements are made during a single registration procedure for the entire year (seven - six-week rotations) using a computer based selection process. The placement process is completed in April each year for the following advanced practice experience academic year which runs from the middle of June to early May. Availability information for all practice sites who have agreed to participate in the program is loaded into a computer data base and students select their own practice sites and sequence under a lottery system. Students in the CCO track who will be starting their advanced practice experiences at any point during the following academ-

Table I. Reassignments evaluated for the 1997-98 academic year

Request Type	EL	CCO	Total
Faculty reassigned to other responsibilities or otherwise not available	112	7	119
Student dropped from rotation and/or program	5	4	9
New site and/or student's interest changed	19	10	29
Location problem	20	5	25
No contract	7	0	7
Reassignment denied	53	13	66
Totals	216	39	255

Table II. Steps involved in the reassignment process

Request for reassignment
- student initiated (requested in writing)
- site or preceptor initiated

Contact student (if preceptor initiated)

Discussion with student
- reason for change
- possible alternatives[a]

Contact alternative sites regarding availability

Inform all appropriate parties of the change
- current ("old") site of student drop
- reassignment ("new") site of student add
- student
- University records office to modify enrollment records[b]

[a] Since assignments are completed annually any changes require approval of the new site [b]

[b] Each clerkship course carries its own unique rubric therefore when a student requests a change which involves switching from one course to another it is handled like any other drop/add.

ic year are hand placed immediately preceding the registration process for the EL students. So while all placements are completed in a timely manner (over a two-day period,) students are selecting site placements that are scheduled to occur six months to a year after their selection and therefore this process generates a need to reassign students to alternative practice sites throughout the year.

The purpose of this study was twofold. We sought first to systematically evaluate the reasons behind why students' advanced practice experience sites were changed after initial placement. This was followed by an attempt to place a realistic figure for faculty resource allocation to this small, yet significant, aspect of the day to day management for experiential education.

METHODOLOGY

A log detailing all requests for advanced practice experience reassignment at UIC was maintained during the 1997-98 academic year. Each entry included a detailed description of the circumstances surrounding the need for reassignment. At the end of the academic year, all entries were coded into one of six categories. These categories were defined as: (*i*) faculty reassigned to other responsibilities and/or otherwise not available; (*ii*) student dropped from either the rotation or the program overall; (*iii*) a new site became available and/or the student's interest changed; (*iv*) the currently assigned site posed a location problem; (*v*) the site had not yet completed a signed contract with the College; and (*vi*) the student's request for reassignment was denied. The data was analyzed using basic descriptive statistics.

Projection of workload associated with this small component of clerkship management was made using a best guess estimate of the time associated with the average reassignment. In an attempt to determine the extent of faculty resources committed to the reassignment aspect of clerkship program management, we calculated an associated workload.

RESULTS

For the 1997-98 academic year, a total of 1276 student placements (not including reassignments) were made for the senior level advanced practice experience component alone. This included 162 full-time entry-level (EL) students times seven rotations each, three part-time EL students times one rotation each, and 41 continuation curriculum option (CCO) students accounting for 139 rotations. An additional 612 student placements were made for the students in the first year of our revised entry-level curriculum which includes the required early practice experience component. Table I displays the number of reassignment requests evaluated for the study period. Data are displayed separately for our traditional EL students and those students within our non-traditional CCO programs.

A total of 255 reassignment requests were evaluated. One-hundred eighty-nine (74 percent) of those requests were granted. The majority (63 percent) of reassignments made were made as a result of the dynamic nature of faculty availability. Fifteen percent of the reassignments made were associated with the availability of a new site and/or the students practice interest changed. An additional 13 percent were attributed to the initial site assignment causing a location problem for the student. The student either dropping the individual rotation or dropping from the program and the institution's inability to deliver a signed contract in time for students to begin their course work accounted for five percent and four percent respectively.

Sixty-six student requests for reassignment were denied. The reasons for denial were the following: (*i*) site was not available; (*ii*) budgetary constraints (*e.g.*, site requested monetary compensation for precepting students and no additional monies were available); (*iii*) student request for reassignment was submitted too late; (*iv*) student was asked for additional information prior to approving the reassignment and the student failed to follow through; and (*v*) it was deem educationally not to be in the best interest of the student to approve the reassignment.

Table II defines the activities involved in the reassignment process. Each step of this process requires varying amounts of time depending upon the circumstances surrounding the need for reassignment. For example, a student's request for reassignment based on their already identified availability of an alternative site frequently requires less faculty time than a reassignment resulting from a preceptor leaving the program on either a permanent or temporary basis. Our best estimate of the time required to complete all steps in the process is on average three hours of personnel time per reassignment. Given that we made 189 reassignments, this translates into 71 work days of faculty time spent in the reassignment process alone. If we assume that the average FTE faculty works 220 days per year, then the reassignment process required 0.33 of a FTE.

DISCUSSION

Management of the experiential component of a contemporary pharmacy education curriculum is increasing in importance as the number of quality sites available to precept students is

Table III. Activities associated with the management of a clerkship program

- Site Identification
  - site contacts the College or School requesting inclusion
  - program faculty use available resources to identify potential sites
    - students
    - other sites
    - faculty
    - association mailing lists
    - attendance and networking at professional meetings
- Site Visitation
- Execute Contract
  - papers mailed to site
  - negotiation between legal councils[a]
  - copy of agreed upon contract mailed to site
- Faculty Appointment for Site Faculty
  - papers mailed to appropriate site faculty
  - papers received and processed in accordance with University policy
  - periodic reminders to site faculty regarding need to process appointment
  - annual review of appointments
  - annual processing of reappointment as appropriate[b]
- Placement of Students
  - annual determination of site availability[c]
  - placement of students[d]
  - mailing of student placements to preceptor/sites[e]
  - reassignment of students after placements completed
- Daily Management of Clerkship Experiences
  - spontaneous student feedback[f]
  - spontaneous preceptor feedback/requests[g]
- Evaluation
  - individual site/preceptor evaluation
    - student feedback
    - experiential program faculty feedback
  - overall program evaluation
- Preceptor Development
  - one or more formal preceptor development programs per year
  - spontaneous preceptor development as a result of identified need

[a] may include a member of the experiential programs faculty as a "middle man."

[b] annual reappointment of faculty includes mailing of certificate indicating appointment period and title.

[c] includes mailing of site description and availability materials to all current and potential sites; generation of site description "notebooks" for students to review prior to site selection; generation of actual data base indicating which sites will be available for each rotation period.

[d] computer based student selection process (2 days).

[e] schedule of students along with corresponding student resumes mailed to each site.

[f] daily interaction with students regarding quality of learning environment (complaints to praise).

[g] daily interaction with preceptor regarding environment (complaints to praise); request for information/assistance with faculty responsibilities (e.g., evaluation procedures).

declining and the number of student placements required is on the rise. Transition to the all entry-level doctor of pharmacy degree, along with changed accreditation standards that require early experiential courses, as well as the push to make health care environments "do more with less," have all combined to create a challenge for programs to identify and maintain quality sites for experiential training of students. Despite this challenge, little systematic analysis has been done to attempt to define just how much work is involved in maintaining a quality experiential program.

Table III defines the activities associated with the overall management of our senior advanced practice experience program. The list includes activities from as simple as completion of necessary paperwork to process the site, to as complex as arbitrating a grade dispute or conducting preceptor development seminars.

Addition of early practice experience site placements into the curriculum intensifies and prolongs the effort in many of these areas. However, sufficient overlap prohibits one from concluding that each additional year of experiential learning requirements creates a proportional increase in faculty workload. At UIC, early experiential student placements are still carried out manually. To date, we have not identified an easily implementable way to automate this activity. Like any other component of faculty workload, the demands on experiential programs faculty are unevenly distributed throughout the academic year. And, each day can contain unexpected events that consume large chunks of faculty time.

The reasons for reassignment are numerous, but can be lumped into one of five categories. The largest percentage of reassignments were made for reasons associated with either faculty (both University based and practitioner preceptors) being reassigned responsibilities or otherwise not available for teaching. Factors motivating these reassignments included: (*i*) faculty being removed from service responsibilities for a finite period of time; (*ii*) faculty transferred to another service area; (*iii*) faculty being promoted; (*iv*) faculty taking a maternity leave; and (*v*) faculty leaving their places of employment. One

may argue that placing the students in clerkship sites on an ongoing basis, rather than an annual basis, would eliminate some, if not all, of the time and effort associated with this reassignment category. However, often these events occur spontaneously and can not be predicted far enough in advance. Therefore, a more frequent assignment process would increase the time allotted to the initial assignment procedures but would not completely eliminate the reassignment workload requirement.

A comparatively small percentage of reassignments made were due to new sites requesting to take students after the start of the senior advanced practice experience academic year and/or a change in student interest. We chose to combine the new site availability with the change in student interest because more often than not these two issues were linked. When a new site was announced, students requested a change stating their rationale as a change in their practice interests.

We have found historically that transportation is a problem for a subset of our student population. Thirteen percent of the reassignments made were attributable to this issue. Since the metropolitan Chicago area, where most of our clerkship sites have historically been, is relatively accessible using public transportation many of our students have successfully completed our curriculum without owning a transportation vehicle. With our increasing need to identify sites, we have expanded farther into the Chicago suburban areas and the transportation issue is becoming of increasing concern. Despite our policy that transportation is required and that lack of transportation will not be used as a criteria for preferential practice site assignment, we continue to hold discussions and field requests for changes based on this issue.

Failure to execute a signed contract and students dropping a rotation or withdrawing from the program each accounted for a very small percentage of reassignments. While students dropping from a rotation or the program is not in the strictest of definitions a reassignment, it still requires a fair amount of faculty time to notify the affected site(s) and therefore we chose to include that category in this analysis. In addition, these situations typically involve rather emotionally charged student centered issues which can, and often do, require a great deal of faculty time to resolve.

Historically, we knew we were investing a great deal of energy in reassigning students to new practice sites, yet we had no objective data to confirm that suspicion. Careful tracking of the reassignment requests and outcomes allowed us to project that in any given year our College invests approximately 0.33 of a faculty FTE in the reassignment process alone.

Our analysis shows that whether they are identified at the beginning of the clerkship placement process or on an ongoing basis through out the academic year, we need approximately 15-20 percent more site placements than it would take to accommodate the required number of rotation slots for the senior class. A site placement is defined as the ability for a participating site to take a single student. Therefore, a site which can accommodate more than one student accounts for multiple site placements. With the decline in sites and preceptors interested in participating in the education of students, the added demand of early experiential site placements, and the increasing competition from other Colleges and Schools of pharmacy, maintenance of our advanced pharmacy practice experience programs will continue to be a growing challenge.

STUDY LIMITATIONS

While we anticipate that our best estimate of the average time to complete all the steps required in the reassignment process is reasonable, we recognize that time motion studies to confirm this estimate would have been appropriate. Attempts were made to validate this number by tracking aliquots of time associated with a few reassignments following collection of this study data. In all cases, time dedicated to this process was close to our estimated figure. Future studies which evaluate workload associated with experiential education should include time motion studies in their design.

CONCLUSION

As our pharmacy curriculums become more complex and the integration of experiential learning into the traditional didactic years of training occurs, the workload associated with running the experiential programs will increase. Traditionally, we have allocated faculty resources to that portion of our curriculums with little, if any, objective data to support the decisions regarding the numbers of individuals it requires to do a good job. Since faculty assigned to these roles are expected to do well in the areas of teaching, service, and research if they expect to be promoted, perhaps it is time that we begin to systematically evaluate the workload associated with this rapidly growing portion of our educational training of students. This study attempted to start that systematic process of evaluating what it takes to maintain a state of the art experiential learning program in pharmacy education.

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Reference

(1) Accredited Professional Programs of Colleges and Schools of Pharmacy, ACPE, Chicago IL (1997.)