INSTRUCTIONAL DESIGN AND ASSESSMENT

Remote Library Access for Pharmacy Preceptors

Sean Stone, MLS,[a] Denise Soltis, BS,[b] and Kathy Schott, MA[b]

[a]Cowles Library, Drake University
[b]College of Pharmacy and Health Sciences, Drake University

Objective. To institute and evaluate the response to a program providing access to electronic library resources for pharmacy preceptors.

Design. The pharmacy experiential office and the library collaborated using existing programs and technology to provide and market secure remote access for preceptors.

Assessment. Preceptor participation was tracked in the experiential office, and response to the program was assessed using an online survey instrument that included questions about use of and preference for specific library resources. Three hundred thirty-four adjunct faculty members registered, representing 34% of all preceptors with active e-mail accounts.

Conclusion. Preceptor participation in the program exceeded expectations. Some minor flaws in the logistics of delivering the service were identified and remedied.

Keywords: experiential education, preceptors, library, Internet

INTRODUCTION

A primary challenge the modern library faces is providing adequate and equal access to patrons. Online searching has become the norm, and Internet searching has changed the expectations of library users who expect Google- or Wikipedia-style access to information through the academic library.[1] Electronic resource access is a problem, particularly for remote users, including students in pharmacy practice experiences, as well as adjunct faculty preceptors. These groups of library users have experiences similar to distance users and present many of the same challenges inherent in electronic distance education. The number of "distance users" of libraries and the demand for remote access are increasing as are technologies to deliver library content.[2] It is imperative to understand remote users and their needs as thoroughly as possible, and that distance education, as a whole, does not diminish the overall quality of instruction.[3,4] This is particularly true for pharmacy faculty members and students who use electronic resources extensively (eg, databases and electronic full-text journals). Pharmacy programs benefit from the flexibility of electronic resources because remote access allows patrons to access the majority of library content from their practice sites, offices, laboratories, or homes. The model for this type of remote access can be found in remote doctor of pharmacy (PharmD) programs, which are forced to address issues of remote access to library services as part of their regular curriculum. The ability to deliver library content remotely has been a key component in the development of Web-based PharmD programs, and significant work has been done to analyze the library's role in such programs.[5-7]

Colleges and schools of pharmacy are faced with the challenge of providing adequate library access to adjunct faculty members who serve as preceptors and are located off-campus. Adjunct faculty preceptors at Drake University have the same status and needs of traditional faculty preceptors; however, due to geographical constraints, they are almost always in a position where print resources held in the library are of no use. For the preceptor, remote access is not merely a matter of convenience but an absolute necessity. Preceptor access can be hindered by campus-wide computing systems that require a university login they are often unable to acquire. Adjunct faculty preceptors, however, must be able to meet the needs of, and provide an adequate educational experience for, students. This is reflected in the Accreditation Council for Pharmacy Education (ACPE) PharmD standards which states that library access is an integral component of pharmacy education.[8] Standard 29 states:

> The college or school must ensure access for all faculty, preceptors, and students to a library and other educational resources that are sufficient to support the professional degree program and to provide for research and other scholarly activities in accordance with its mission

Corresponding Author: Sean Stone, MLS, Cowles Library, Drake University, 2507 University Ave, Des Moines, IA 50311. Tel: 515-271-2175. Fax: 515-271-3933. E-mail: sean.stone@drake.edu

and goals. The college or school must fully incorporate and use these resources in the teaching and learning processes.

Until recently, studies of the needs and motivation of preceptors have focused predominantly on medical school and health science preceptors and shown that medical preceptors were interested in access to library resources.[9,10] While library access is viewed as being important by medical preceptors, library access is potentially of greater importance to pharmacy preceptors given that half of these preceptors are community based with limited or no access to academic or hospital libraries. In studies of a variety of health science professions, preceptors and pharmacists rated library access as the most highly valued incentive for precepting. In fact, pharmacists chose access to library resources as being highly valued in greater numbers than any other incentive among any other profession.[11] Granting library access is a potential tool for recruitment and retention of participating preceptors and is viewed generally as one of the most important tangible rewards related to precepting.[12] Library access can be viewed as compensation for precepting.[10] Library access for adjunct preceptors is not only a benefit in that it enhances the ability to provide a richer learning experience for students, but it also gives preceptors an opportunity to maintain and improve their personal knowledge.

This article describes the practicality of setting up remote library access for preceptors using existing network technology, includes whether remote access was embraced and used by preceptors, and specifies their reactions to remote access.

DESIGN

Drake University's College of Pharmacy and Health Science (CPHS) experiential office coordinates all experiential activities and communicates with pharmacists registered as experiential preceptors. Adjunct faculty members have access to the preceptor education management system (EMS) through the experiential office. EMS is a secure computer system with individual user names and passwords maintained by CPHS that allows pharmacy preceptors to evaluate students on practice experiences on a regular basis, and to communicate with CPHS and be evaluated themselves. EMS access in no way takes the place of a formal university identification (ID) card, nor does it give access to features such as electronic library services to users outside of the EMS.

Preceptors are given adjunct faculty status and should have access to all resources and privileges granted to other faculty members, given the physical constraints of their location. However, preceptors were unable to access electronic library resources remotely because of the inability

to acquire a university login. Acquiring the login required the interested party to come to campus and perform an involved process. This was impossible for most preceptors given their off-campus locations (often outside the city, state, or even the country) and time constraints. Demand, however, was apparent and preceptors regularly inquired about the possibility of remote library access. Given this need, a joint venture between the experiential office and the library was undertaken to provide access without requiring acquisition of a "formal" Drake ID card. Drake University used existing network technology and interdisciplinary collaboration to create and market a service that allowed pharmacy preceptors to request and be granted regular, secure access to library electronic resources.

The experiential office regularly communicates with preceptors through group e-mails and quarterly newsletters. Also, periodic announcements are made on the experiential office's Web site. All 3 methods were used to announce the program when it began, with instructions for registering and pertinent links to access. The main link is an online form, library created and hosted, for preceptors to request library access. An announcement and Web page were added to the experiential office's Web site that included a description of the service as well as links to the electronic sign-up form and an online tutorial video. The video, created by the pharmacy/science librarian in conjunction with the experiential office, gave a brief overview of the resources available to preceptors.

The process for interested preceptors began with the online form. The information provided by preceptors (name, institution, e-mail, phone number) was automatically sent to the experiential office where it was compared with the roster of existing preceptors to make certain access was granted only when appropriate. A copy of the preceptor's information also was sent to the director of library operations and technology for recordkeeping purposes. When the preceptor was confirmed as active and having an existing EMS account, the information was transferred to another online form and the preceptor's EMS user name and password were added to the active directory by the CPHS systems administrator. Preceptors' existing login information for the EMS was used for their library access to minimize confusion and facilitate use. These forms were forwarded from the experiential office to the CPHS systems administrator who added them to the CPHS active directory in batches once a week. The experiential office then sent a form e-mail to preceptors informing them that they were able to access the library's electronic resources. The e-mail included links to the tutorial video mentioned above as well as contact information for the pharmacy/science librarian.

The library's proxy server was set up to recognize patrons listed in the CPHS active directory. This feature served as a filter which maintained security by allowing only pharmacy preceptors approved by the experiential office to have access without standard Drake University IDs. Having adequate library access supported the overall work of preceptors as well as allowed them to provide students with a potentially fuller and richer experience.

EVALUATION AND ASSESSMENT

This service was announced officially on May 23, 2008, and within 1 week, 145 preceptors had registered. Over the next 6 weeks an additional 18 preceptors signed up, for a total of 163. This represented 17% of the 975 preceptors with active e-mail accounts. Nineteen months later, 334 adjunct faculty members had registered, which represented 34%. The total number of regular faculty members at Drake, including all schools and colleges, was 272 at the time this program began. Providing access to adjunct faculty preceptors resulted in an increase of 60% in the number of faculty members able to access electronic library resources.

To assess preceptor satisfaction and use of the new library access, a survey instrument was created on SurveyMonkey (SurveyMonkey, Inc, Palo Alto, CA), and approved by Drake University Institutional Review Board (Table 1). The survey instrument was made available to the 163 preceptors who were registered, and 48 agreed to participate (29% response rate, 100% response rate for each question). The majority of respondents felt the registration process for accessing the library was simple (95.8% of responders). The majority of respondents reported accessing the library occasionally (a few times a week, 43.8%), with no responders reporting that they never used the library. An equal number of adjunct preceptors (6.3%) reported using the library frequently (several times a day) and at least once a day. Respondents reported using a variety of resources, the most popular being full-text journal articles (79.2%) and database access (64.6%). The pharmacy/health sciences subject portal (a finding aid collecting subject-specific material in 1 place) was also popular (45.8%). Surprisingly, a number of users (16.7%) used eBooks and a few (6.3%) used interlibrary loan.

Table 1. Adjunct Preceptor Survey Questions About Remote Library Access

1. Was the process of signing up for library access relatively easy?
2. How often do you access Cowles Library?
3. What services or materials do you use?
4. Did you watch the online tutorial video about the library?

Based on survey results, preceptors were using a variety of library resources. As expected, preceptors were using remote access primarily to search for and access online journal articles (79.2%). Preceptors also were using eBooks (16.7%) such as those available through AccessPharmacy (McGraw-Hill, Columbus, OH) package that the library subscribed to as well as others. In addition, many preceptors (45.8% of responders) were using the subject guides maintained by the library. These were subject and subsubject area collections of various information and library resources including books, journals, databases, and Web sites. The majority of preceptors (93.8%) indicated they did not watch the instructional video when they first registered. The 6.2% of preceptors who did watch the video, however, found it helpful.

DISCUSSION

Pharmacy preceptors are interested in remote library access. Many of Drake University's pharmacy preceptors are in remote or rural areas both in and outside of Iowa, and many do not have immediate access to academic library resources. This article chronicles an attempt to create a method to provide secure remote access to electronic library resources for pharmacy preceptors. From the institution's perspective, this was done in an efficient manner using existing resources and staff members, and the execution of this program proved to be practical. While there was no specific level of response predicted, the initial response was surprising, and the steady increase in subscribers' over time was unexpectedly positive. This has proven to be popular with 334 registered preceptors representing 34% of the total number. Based on survey responses, preceptors were happy with the process of registering (95.8%) and regularly used remote library access (56.3% used electronic resources at least once a week). Preceptors' library access varied based on the students' experiential schedule, ie, at times a preceptor may have had no students and therefore less need for library resources.

Support and services should match preceptor needs as closely as possible, so understanding the library needs of preceptors has been a critical aspect of the continuing success of this project.[11] Ironically, 1 study of medical preceptors in Iowa found that the desire for library instruction (training in accessing medical literature databases) was greater than database access itself (71% vs. 49% respectively).[10] While the basic instructional video was not popular, given the reports from medical preceptors previously mentioned, the next step of this service might be to provide remote library instruction and information literacy to preceptors.

Most problems in registering new users seemed to stem from confusion in communicating how user names

and passwords were assigned, or from frustration with the turnaround between the time a request was submitted and actual confirmation and ability to access the library. The process used preceptors' existing EMS user names and passwords, and greater care has been taken since to ensure that preceptors understand this process. An additional problem occurred when we discovered that the EMS and library's login systems allowed for different numbers of characters in logins, meaning that some EMS usernames had to be shortened. Problems with turnaround time were addressed by batching the requests. Initially, requests were sent to the College of Pharmacy and Health Sciences information technology as they were received, but due to greater than expected response, this method became unwieldy. Originally, the intention of the experiential office was to have a 24-hour turnaround for processing requests and setting up library access. This was revised, however, when overwhelming response made this task impossible. At this point the CPHS systems administrator created a form that the experiential office could use to transmit new requests to be batched and added weekly to the active directory, resulting in an easier and more efficient process. The downside was that names were collected, submitted, and could take another week to be completed, so preceptors may have waited nearly 2 weeks for access.

This new service highlighted several issues of library remote access. The introduction and increasing availability of eBooks was suited to remote access, but the majority of monographs were available only in print format (of the 448,070 books in the library catalog, 92,176 were available electronically). Nearly 7% of preceptors listed interlibrary loan as a service they regularly used, and while the majority of these requests were for articles that can be sent electronically, there inevitably were requests for print books. This leads to questioning the feasibility of providing books and other physical materials to preceptors by mail, including not only books in the library's collection but also interlibrary loan books from other libraries. Free book delivery through the mail is not a service generally provided to remote users due to limitations of personnel and budget. Procurement and providing interlibrary loan articles can be expensive and yet is generally expected by remote patrons. This is a difficult issue that requires careful consideration by library policymakers.

A related issue exists regarding physical journal collections. Often a journal article is available in print in the library but not in full-text electronic format. When a journal article is requested, the interlibrary loan office scans the article and e-mails it to the preceptor. This access to print journals is provided for clinical faculty members and students in experiential courses who may be unable to come to the library. This practice has been expanded with an official "emergency reference" policy (also available to adjunct faculty members). This policy addresses the needs of some clinical faculty members who have immediate need of a print article but cannot come to the library. Reference librarians are trained to process requests from faculty members who may need quick access to an article that the library has in print. This program is intended to provide an organized and rapid procedure for the library to use to provide remote access to print journal articles. The library is able to provide this service because the numbers of these requests are low. If they increase, however, along with the number of regular interlibrary loan requests, the library may have to reevaluate this policy and the role of the interlibrary loan office.

Overall, this service has been successful, and the College of Pharmacy and Health Sciences, Cowles Library, and the pharmacy preceptors seem satisfied with it. Issues about pharmacy education arose during the project, including providing support to distance learning as well as the use and perceived value of library services. Librarianship issues also need to be addressed as similar programs become more prevalent at other institutions. Providing secure access, marketing and communicating services to remote users, as well as being able to respond to users' needs more effectively must be considered. The best way to maintain the success of this and similar programs is to be flexible and encourage positive communication among all parties to provide services that meet everyone's needs.

CONCLUSION

The experiential office and library of Drake University used the existing pharmacy active directory and preceptor EMS software to offer and market remote access of electronic library resources to preceptors. Response was excellent, with 34% of registered preceptors registering for the service. As predicted, most preceptors used the service occasionally (a few times a week), with online journals and databases being the most popular resources.

As pharmacy programs develop and expand, both in traditional classroom settings and in online venues, challenges in providing library and information services to all parties that need them will continue. This project provides a relatively simple option for programs of any size to adapt to better equip preceptors, allowing them to give the best possible practice experience to students. However, the pharmacy school and library must work together for the program to be successful.

REFERENCES

1. Covey DT. Need to improve remote access to online library resources: filling the gap between commercial vendor and academic user practice. *Portal: Libr Acad.* 2003;3(4):577-599.

2. Henner T. Bridging the distance: bibliographic instruction for remote library users. *Med Ref Serv Q.* 2002;21(1):79-85.

3. Dew SH. Knowing your users and what they want: surveying off-campus students about library services. *J Libr Admin.* 2001;31(3): 177.

4. Allen M, Bourhis J, Burrell N, Mabry E. Comparing student satisfaction with distance education to traditional classrooms in higher education: a meta-analysis. *Am J Dist Educ.* 2002;16(2): 83.

5. Bothmer AJ, Burke JM. A Web-based PharmD pathway: a preliminary overview of one library's role. *Nebr Libr Assoc Q.* 2006;37(3):29-34.

6. Kupferberg N, Skunza B. The first non-traditional doctor of pharmacy graduates: their perceptions of library services. *J Libr Inform Serv Dist Learn.* 2005;2(1):27.

7. Dieterle U, Wanserski G. Distance library services for doctor of pharmacy students: a case study. *Internet Ref Serv Q.* 2004;9(1):173-188.

8. Accreditation Council for Pharmacy Education. Accreditation standards and guidelines for the professional program in pharmacy leading to the doctor of pharmacy degree. Chicago, Illinois: Accreditation Council for Pharmacy Education; 2006. http://www.acpe-accredit.org/pdf/ACPE_Revised_PharmD_Standards_Adopted_Jan152006.pdf. Accessed July 21, 2010.

9. Langlois JP. Support of community preceptors: what do they need? *Fam Med.* 1995;27(10):641-645.

10. Levy BT, Gjerde CL, Albrecht LA. The effects of precepting on and the support desired by community-based preceptors in Iowa. *Acad Med.* 1997;72(5):382-384.

11. Latessa R, Beaty N, Landis S, Colvin G, Janes C. The satisfaction, motivation, and future of community preceptors: The North Carolina experience. *Acad Med.* 2007;82(7):698-703.

12. Ullian JA, Shore WB, First LR. What did we learn about the impact on community-based faculty? Recommendations for recruitment, retention, and rewards. *Acad Med.* 2001;76(4 SUPPL.):S78-S85.