

Information Literacy Skills of First Year Pharmacy Students: Focus Group Results

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Abstract

To assess the information literacy skills of incoming first year pharmacy students using focus groups. The findings from the focus group will be used to develop a tool for assessing information literacy skills of all entering students. Two focus group sessions were held with a total of fourteen student volunteers in the second semester of their first professional year. A series of nine open-ended questions were given with follow-up probing questions. Each session was fifty-five minutes and was held during lunch. Both sessions were audio recorded for accuracy, transcribed, and analyzed. These students had skill levels ranging from low to high. The typical search strategy was first using Wikipedia, then PubMed and then MD Consult. Students indicated they did not use physical resources, but relied on electronic resources. If an article was not available electronically, they would not retrieve it. They also had trouble understanding the difference between types of databases and how to search them and would often rely on Google. Insights provided by the students will allow both the librarians and the instructors to make adjustments in their instruction of information seeking skills and will help in creating a survey tool for incoming first year students prior to starting fall courses to determine their information literacy skills. Being able to address deficiencies and strengths in their skills through effective instruction will benefit future students in their competency skills as they enter rotations and ultimately professional practice.

Purpose

Phase one of this project used focus groups to assess the information literacy skills of first year pharmacy students. Data collected from the focus groups will be utilized to create an assessment tool in phase two to measure the information literacy skills of incoming first year pharmacy students.

Background

- Information literacy skills are a critical component of pharmacy education
- Students are expected to locate, evaluate, and use information effectively
- ACPE Standard No. 12 indicates that graduates must be able to retrieve, analyze and interpret the scientific literature to provide drug information and counseling to patients
- Effectively locating information from the beginning of pharmacy school can provide a foundation through the program and ultimately professional practice
- Librarian is embedded within the College and provides instruction throughout their didactic coursework

Methods

- Two focus groups were conducted over lunch
- Participants answered preliminary questions prior to attending the focus group
- A series of 9 open-ended questions were asked during the course of 55 minutes
- Probing questions were also included to generate discussion
- Each session was audio recorded, transcribed and analyzed for common themes

Table 1: Preliminary Questions

| |
|------------------------------------------------------------------------------------------------------|
| Where are you from? |
| Did you attend a university or 2 year college? |
| Have you earned your bachelors, masters or PhD prior to coming to pharmacy school? If so, which one? |
| What year did you earn your degree? |
| What was your major? |

Table 2: Focus Group Questions

| |
|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. What kind of experience did you have locating information and conducting research before you came to pharmacy school? |
| 2. Describe your experience with locating resources for your case studies course? |
| 3. What stood out as the most valuable/useful in the library lecture to you? |
| 4. If you could go back in time to the beginning of your first semester, what do you wish you knew about finding information for your courses? |
| 5. If you were asked to conduct a literature review on a topic, how would you begin your search and where? |
| 6. Did you ask for help finding information? If so, who did you ask? |
| 7. What are the top three resources, in order of preference that you turn to most often? |
| 8. What resources outside of e-resources do you use? |
| 9. Is there anything else you would like to add about finding information in the library? |

Results

Table 3: Class of 2014 Demographics

| | |
|--------------------------|----|
| Class Total | 98 |
| Men | 37 |
| Women | 61 |
| Average Age | 23 |
| Bachelor's Degree | 44 |
| From a Community College | 17 |

Table 4: Data from Preliminary Questions

| | |
|------------------------------|-----------|
| Total Participants | 14 |
| Men | 6 |
| Women | 8 |
| Bachelor's Degree | 10 |
| Associate's Degree | 1 |
| No Degree | 3 |
| Range of Date Degrees Earned | 2004-2010 |

Quotes

- "PubMed works pretty well. Sometimes if I can't find the information, I will go to a tertiary resource to find some of the background. Most of the time I get what I need from PubMed."
- "If we had spent more time on other databases, I would have known them better and maybe used them more."
- "The lecture was showing us how to use PubMed and the MeSH database was excellent, pretty great and how to narrow down the results"
- "If I can't find something I will usually ask a peer and if they can't find something then I will go and ask the professor."
- "I think the problem I have had with librarians in the past, they don't know what I am talking about."
- "It's probably just me, but I learned a lot just from this small discussion group about the resources. I know where (the librarian is) now. I know (the librarian) is there to help me in person."

Outcomes

Experience

- Many students were experienced with using library resources
- Few had previous undergraduate coursework that required locating a specific resource in the library
- Few were familiar and comfortable with using PubMed
- Prior to pharmacy school, many had little experience in using library databases
- Few knew the difference between databases in locating specific information

Process

- Many were unfamiliar with the process of using PubMed, MeSH, and MD Consult prior to the library lecture
- Found step-by-step instruction helpful and useful throughout their first semester of their case studies course
- Frequent starting point for any search began with Wikipedia or Google
- Students were comfortable with using familiar databases such as PubMed and MD Consult
- Ease of access to electronic full text was important, if could not access, would not bother to locate the print copy
- Some students knew to utilize review article's reference section to locate other relevant articles

Resources

- Top databases utilized: 1) Wikipedia 2) PubMed 3) MD Consult
- Top non-electronic resources utilized: 1) Peers 2) Textbooks 3) Professors
- Many were familiar and comfortable with using PubMed and MD Consult
- Students regularly relied on peers during their case studies course
- Students were unfamiliar with the services of the embedded librarian
- Students found the lecture from the librarian helpful and relied on resources that were covered in the lecture for their course

Conclusion

- First year students have a wide variety of experience in using library resources in their first semester. Many were unfamiliar with resources beyond Google Scholar and Wikipedia and indicated that library instruction on the use of PubMed and other information resources was beneficial. This was particularly true for more specialized resources such as StatRef, whose advanced search features allow for retrieval of specific data related to course work assignment. Accessibility of an information resource was more important than its relevance: students by-pass services such as Interlibrary Loan and library print collections in favor of immediately available online resources. There were also perceived barriers in accessing the services of the librarian, which prevented students from asking directly for assistance. Instead, students rely heavily on their peers when needing help locating information.
- Feedback from students about improving librarian services and providing instruction included the following:
 - During orientation reassuring them that a more focused library lecture will be provided during the case studies course
 - Provide more information on other databases earlier in the semester
 - Searching step-by-step method was helpful during the lecture, helped retain information
 - Repetition was helpful and students suggested another refresher course during their second semester
 - Online tutorials that will allow them to practice searching in databases on their own time
 - Workshops during lunch on other resources

Future Direction

- Results will be used to develop an assessment tool to measure information literacy for incoming first year pharmacy students
- The tool will be given to student prior to taking any coursework during orientation
- A follow-up focus group will be held with student to help obtain more information that was not gathered from the tool
- The tool developed will be used as a post test at the end of the year

Limitations

- Both library liaisons conducted the focus group sessions, which may have affected the feedback from the students on some questions.

Acknowledgement

- Supported by the AACP New Pharmacy Faculty Research Awards Program