Current methods used to teach the medication history interview to doctor of pharmacy students

Andrea Michelle Ellington, Candace W. Barnett, Diane R. Johnson and Diane Nykamp

Southern School of Pharmacy, Mercer University 3001 Mercer University Drive, Atlanta GA 30341-4155

Current practices used to teach the medication history interview to Doctor of Pharmacy students were examined. An online survey was emailed to curriculum committee chairpersons at all 91 schools of pharmacy in the United States and Canada. Responses numbered 45 (48.9 percent). Respondents answered questions regarding how medication history interview skills are illustrated, practiced, and evaluated at their schools. Lack of consistency in interviewing skills taught at different schools was found. A mean of 8.62 ± 2.94 skills of 13 recommended skills was being taught. As schools introduce practice experiences earlier in the curriculum, an early introduction of the medication history interview may be beneficial. At 48.4 percent of the schools, the medication history interview was taught before the end of the first year. An interest was expressed by the respondents (97.8 percent) for a CD-ROM of a simulated medication history interview for use as a teaching tool.

INTRODUCTION

The medication history interview is a vital tool the pharmacist can use to gather information and improve overall patient outcomes. It affords the pharmacist insight into the patient's medication taking experiences (home medications, allergies, adverse drug reactions, etc.), patient understanding of their medications, patient motivation for compliance, and potential changes that could be made to the patient's medication regimen. When pharmacists share this valuable information with other health care professionals they make important contributions to the health care team.

It is important that the medication history interview is conducted effectively and efficiently to be of value. The pharmacist must be trained to properly use the communication techniques necessary to direct the interview and obtain accurate information from the patient. These techniques are typically learned as a student and perfected through practical experience.

The American Council on Pharmaceutical Education (ACPE) Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree (8) gives guidance on when this skill should be taught. Standard No. 10, titled Professional Competencies and Outcome Expectations, delineates professional competencies that should be achieved through the College or School of Pharmacy's curriculum in Pharmacy... Among others, these competencies include "communicate with health care professionals and patients regarding rational drug therapy, wellness, and health promotion;" "monitor and counsel patients regarding the purposes, uses, and effects of their medications and related therapy;" and "...counsel and monitor patient use of nonprescription drugs." Furthermore, in Standard 11, titled Areas and Content of Curricular Core, Guideline 11.5 states, "The Introductory Pharmacy Practice Experiences should be offered in various practice settings during the early sequencing of the curriculum for purposes of providing transitional experiential activities and active learning." While these guidelines do not mandate introduction of the medication history interview early in the curriculum, the guidelines seem to encourage early introduction of this and similar practice skills. Despite these guidelines, there is little information in the literature regarding how the medication history interview should be taught to pharmacy students. A study published in 1977 discussed use of videotaping final year students performing a medication history interview in order to provide feedback to the students. Three studies published in the 1980s reported the use of simulated patients to provide pharmacy students an opportunity to practice medication history interviewing. The first study concluded that using simulated patients provided a controlled environment with immediate patient feedback for the student. The second concluded that practicing with simulated patients allowed for better ease of personal interaction with actual patients. The final study showed that students improved their technique and the amount of pertinent information obtained through practice interviews with simulated patients. In 1993, an organized form for taking a medication history interview was published. This served as a template for students and pharmacists alike to

1Corresponding author.
2Steinberg, J.R., "Goals of implementing an inpatient medication history and interview by Pharmacists at a Comprehensive Cancer Center," ASHP Annual Meeting (June, 1996).
6Am J Pharm Educ., 66, 103-107(2002); received 10/29/01, accepted 3/8/02.
<table>
<thead>
<tr>
<th>Skills</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal form of address</td>
<td>Use patient's title and last name</td>
<td>&quot;Good morning Mr. Smith.&quot;</td>
</tr>
<tr>
<td>Rapport</td>
<td>Use active listening skills to confirm interest in a patient and help gain respect</td>
<td>&quot;It's not easy being in the hospital away from friends and family.&quot;</td>
</tr>
<tr>
<td>Active Listening/ Empathic Responding</td>
<td>Reflect on a patient's feelings or identify a patient's underlying message</td>
<td>&quot;You sound unsure.&quot; OR &quot;Are you saying&quot;</td>
</tr>
<tr>
<td>Open-ended questioning</td>
<td>Patient is free to answer in any manner.</td>
<td>&quot;How are you taking your blood pressure medicine?&quot;</td>
</tr>
<tr>
<td>Closed-ended questioning</td>
<td>Patient can answer with a single word, usually yes or no</td>
<td>&quot;Do you take your blood pressure medicine in the morning?&quot;</td>
</tr>
<tr>
<td>Transition</td>
<td>Verbally closing off one subject and introducing a new one allows the patient to make a mental transition</td>
<td>&quot;We have just talked about the prescription medications you take. Now let's talk about any nonprescription medications you may take.&quot;</td>
</tr>
<tr>
<td>Verbal Following</td>
<td>Technique to get the patient to elaborate on a subject without asking more questions, but simply repeating the patient's last few words</td>
<td>&quot;....dizzy spells?&quot;</td>
</tr>
<tr>
<td>Avoidance of leading questions</td>
<td>Leading questions prompt the patient with a particular answer</td>
<td>&quot;You don't smoke, do you?&quot;</td>
</tr>
<tr>
<td>Avoidance of &quot;why&quot; questions</td>
<td>&quot;Why&quot; questions can cause patients to get defensive. Rephrase questions to start with, &quot;for what reason&quot;</td>
<td>&quot;Why were you taking the medicine in the morning?&quot;</td>
</tr>
<tr>
<td>Timing</td>
<td>Warn a patient that a series of questions will follow</td>
<td>&quot;I am going to ask you a series of questions now.&quot;</td>
</tr>
<tr>
<td>Clarify Conflicting Information</td>
<td>Always accept the blame for inconsistent information that the patient may tell you or write</td>
<td>&quot;I must have written it incorrectly, I thought you had said....&quot;</td>
</tr>
<tr>
<td>Silence</td>
<td>Allows the patient to show emotion, digest information, or gather thoughts</td>
<td>Maintain nonverbal facilitation and stop speaking.</td>
</tr>
<tr>
<td>Answering Patient Questions</td>
<td>Avoid definitive answers until a final drug therapy plan is devised</td>
<td>Patient asks, &quot;Do you think I should stop taking...?&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pharmacist says, &quot;Well, I'll make a note and evaluate it with Dr. Smith.&quot;</td>
</tr>
<tr>
<td>Mentioning Previously Answered Questions</td>
<td>If a patient answers a question you were going to ask later in the interview, jot it down</td>
<td>&quot;You mentioned earlier that you occasionally take ibuprofen for headaches. Do you ever take anything else for aches or pain?&quot;</td>
</tr>
</tbody>
</table>

prompt questions and record patient answers (12). A study conducted in 1999 documented that pharmacy students liked the use of computer-assisted modules in learning the medication history interview and the students would recommend its use in the classroom\(^5\). In the past two years no other suggestions for tools to teach the medication history interview to pharmacy students have been documented in the literature.

The purpose of this article is to report current practices used to teach the medication history interview to Doctor of Pharmacy students. Information was collected about: (i) where in the curriculum the medication history interview is being taught; (ii) methods used to initially illustrate, apply, and evaluate student performance of the medication history interview; (iii) coverage of specific communication techniques used in medication history interviews; and (iv) instructor interest in using a simulated interview on CD-ROM to illustrate the medication history interview. No hypotheses were tested.


RESULTS

Questionnaire Distribution and Analysis

The questionnaire was placed online and an email message was sent directly to the curriculum committee chairpersons of 91 pharmacy schools in the United States and Canada. A second email was sent to chairpersons who were unresponsive. The data was entered and analyzed using the STATISTIX program (21). Respondents answered questions regarding how instructors illustrated the medication history interview, how students were evaluated on their medication history interviewing experience. At 21 (46.7 percent) schools the students read about medication history interviews in a textbook, and at another 21 (46.7 percent) schools live medication history interviews were conducted for the students to observe. At 17 (37.8 percent) schools students watched a pre-recorded medication history interview (Table V). At 28 (61.2 percent) schools, no pre-recorded video or CD-ROM was used. Of these, 27 (96.4 percent) respondents would consider using such a teaching tool. Once the students were instructed, 44 (97.8 percent) schools followed this up with hands-on practice. This practice most often included: role playing with other students (64.4 percent), role playing with simulated patients (35.6 percent), and/or conducting an actual interview (53.3 percent) (Table VI).

Students were then evaluated on their medication history interviewing experience. At 33 (73.3 percent) schools students were evaluated by completing a written medication history interview form during the interview. At 20 (44.4 percent) schools the "patient" gave feedback to the student about how
the interview was conducted (Table VII).

Information regarding 13 specific communication skills for effective interviewing was also collected. Respondents reported an average of $8.62 \pm 2.94$ communications skills were being taught with a range of 3-13. The most common interview skills taught to the students were: open- and closed-ended questions (95.6 percent), active listening (93.3 percent), and avoidance of leading questions (88.9 percent). A minority covered avoiding why questions (46.7 percent), techniques to clarify conflicting information (44.4 percent) and techniques for handling previously partially answered questions (31.1 percent) (Table VIII).

CONCLUSIONS

As schools of pharmacy introduce practice experiences earlier in the curriculum, it would be beneficial to introduce the medication history interview early in the curriculum as well. The survey indicated this is being done at approximately half of the schools. In addition, students would be better equipped to conduct an actual medication history interview if they were taught more of the necessary communication skills. The study showed no consistency in specific communication skills taught. Furthermore, no single skill was taught by all schools of pharmacy.

A need for a teaching tool to illustrate a medication history was expressed. While a number of schools opt to conduct a live interview for demonstration purposes, a scripted, pre-recorded interview would seem beneficial to ensure that all communication skills are properly demonstrated.

References


APPENDIX A. MEDICATION HISTORY INTERVIEW QUESTIONNAIRE

The questions in this survey pertain to the medication history interview NOT patient counseling. Please mark your answers accordingly.

1. During what year in the PharmD curriculum is the medication history interview initially taught?
   A. PrePharmacy
   B. 1st Professional Year
   C. 2nd Professional Year
   D. 3rd Professional Year
   E. 4th Professional Year

2. During what course in the curriculum is the medication history interview initially taught?
   A. Communication
   B. Introduction to Pharmacy
   C. Therapeutics
   D. Geriatrics
   E. Pharmacy Practice Lab
   F. Introductory Practice Experiences
G. Advanced Practice Experiences

3. Who is responsible for initially teaching the medication history interview?
   A. Pharmacy Administration Faculty
   B. Pharmacy Practice Faculty
   C. Non-Pharmacy Faculty
   D. Preceptor (Adjunct Faculty)
   E. Other: _______________________

4. When the medication history interview is initially covered, what method(s) are used to illustrate a typical medication history interview?
   A. Students read the text of a medication history interview in a textbook
   B. Students watch a medication history interview on videotape or CD-ROM
   C. Students observe a live medication history interview
   D. Other: _______________________

5. After you initially cover the medication history interview what application exercise(s) are used to aid the fellow student in gaining hands-on experience?
   A. Role playing with fellow students
   B. Role playing with simulated patients
   C. Students complete a computer-based interview
   D. Students conduct an actual interview
   E. Other: _______________________

6. What evaluation tools are used to assess the students' knowledge/performance of the medication history interview during the application exercise(s)?
   A. Students are videotaped while conducting an interview
   B. Students complete a written medication history interview form during an interview
   C. The "patient" gives feedback after the medication history interview
   D. Other: _______________________

7. If you have not used a videotaped medication history interview to illustrate this process, would you consider it?
   A. Yes
   B. No

8. Which of the following communication techniques are illustrated when the medication history interview is initially taught?
   A. Formal form of address
   B. Rapport
   C. Active listening/ empathic responding
   D. Open and closed-ended questions
   E. Verbal following
   F. Silence
   G. Avoiding "why" questions
   H. Answering patient questions
   I. Transition (closing off one topic before introducing the next)
   J. Timing (preparing patient prior to asking a succession of closed-ended questions)
   K. Mentioning previously answered question
   L. Techniques to clarify conflicting information - "accept the blame"
   M. Avoiding "leading" questions

9. At what college of pharmacy are you employed?