Introducing Pharmacy Students to Patient Pathographies

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The traditional disease-centered approaches of the practitioner-patient relationship have historically neglected the impact of the patient in treatment. More contemporary, patient-centered approaches have recognized the important role that patients play in their therapeutic regimen. In this article, the authors advocate the use of the patient pathography as an additional or alternative teaching tool for the medical history record. The patient pathography is seen as a way of restoring the patient; to patient care. In order to begin to teach students the concepts of patient caring as well as empathy, the pathography represents an effective tool.

INTRODUCTION

This article describes two pharmacy courses that have incorporated patient experiences in the first quarter of the first professional year. The patient pathography is included as an integral part of the patient assignment for these courses. Pathographies, as defined by Hawkins(1), are a personal account of illness written by the patient, a friend or relative. In addition, the pathography is described as an extended narrative documenting the author’s experience of illness as it relates to the meaning of his or her life. This article will contrast the patient pathography with the biomedical record and then describe the use of the patient pathography in these courses.

According to Gurwich(2), the medication history has been discussed as a clinical pharmacy practice activity since the late 1960s. “The taking of a drug history is an accepted part of clinical pharmacy practice,” states Badowski, Rosenbloom, and Dawson(3). The medication history is a useful tool because it serves multiple purposes. The medication history as described by Ranelli, Svarstad, and Boh(4) involves an interaction between a health care professional, usually a pharmacist, nurse, or physician, with a patient concerning his or her past and current therapeutic regimen. The researchers explain the various purposes of the medication history as follows: “to acquire information about the patient’s medication-taking experiences; to assess the patient’s understanding of past and current medication-taking experiences; to assess the patient’s motivation for complying with the medication regimen; and to evaluate possible changes in the regimen if the information gathered warrants such an action”(5).

The medication history serves important functions. According to Badowski, et al., it serves as a “crucial source of information” for pharmacists(6). The researchers further explain that the information obtained from the medication history can be incorporated into subsequent therapeutic interaction to affect beneficial outcomes for the patient(6). The medication history provides benefits for the pharmacist beyond therapeutic outcomes. Prosser, Burke, and Hobson(7) state that the medication history has implications for the practice of pharmaceutical care. The researchers state, “to practice pharmaceutical care, pharmacists will need to communicate and document their recommendations in the medical record”(8). Badowski, et al. state, “Medication history interviews frequently provide pharmacists with the opportunity to begin professional relationships with patients”(9). In this regard, Prosser, et al., suggest that pharmacy students should be taught how to write in the medical record(8).

Despite the various functions and potential benefits that

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the medication history provides within the medical arena, it has been criticized. The current use of the medication history has been punctuated by an emphasis on the clinical elements of treatment steeped in the biomedical approach to health care. Churchill and Churchill(10) offer the following assessment: “Medical histories are stories about patients or their diseases constructed by physicians with the taxonomy of the biological sciences.” Health care providers historically have focused on the “disease” rather than the patient. “In order to know the truth of the pathological fact, the doctor must abstract the patient...,” states Foucault(11). The traditional disease-centered approaches of the practitioner-patient relationship tend to subtract the patient from health care. These models neglect the impact of the patient in treatment. Hawkins(12) explains that the medical history fails to convey any “genuine sense” of the patient’s experience. Donnelly(13) surmises, “Astonishingly, the voluminous records of previous hospitalizations, clinic visits, and the like usually contain little or no information about what these patients understand and feel about their major diagnoses and how they are coping with the effects of chronic disease and disability, the treatment, and, in some cases, their impending death.” Flood and Soricelli(14) sum the criticisms of the medical history. The researchers state, “The case history, for all its striving to present a clinically accurate picture of the patient...,” states Foucault(11). The traditional disease-centered approaches of the practitioner-patient relationship tend to subtract the patient from health care. These models neglect the impact of the patient in treatment. Hawkins(12) explains that the medical history fails to convey any “genuine sense” of the patient’s experience. Donnelly(13) surmises, “Astonishingly, the voluminous records of previous hospitalizations, clinic visits, and the like usually contain little or no information about what these patients understand and feel about their major diagnoses and how they are coping with the effects of chronic disease and disability, the treatment, and, in some cases, their impending death.” Flood and Soricelli(14) sum the criticisms of the medical history. The researchers state, “The case history, for all its striving to present a clinically accurate picture of the patient, is incomplete in terms not just of the patient’s humanity but the physician’s as well. . .”

More contemporary, patient-centered approaches allow the patient to play an active role in his or her therapeutic treatment. More recent approaches have advocated that the health care provider gather medical histories from the ‘patient’s perspective.’ Medical schools are encouraging their students to learn to use methodologies, which document the patient’s voice in the medical record. Dunnely(15) proposes that educators teach medical students how to construct medical histories that are stories rather than chronicles. Monroe, Holleman, and Holleman(16), reiterate Donelly’s assertion by stating; “The case report should not be viewed as an assembling and presentation of medical data, but as the construction of a story- a story that incorporates the patient’s own metaphorical language”(17). Charon(18) states, “When we ask the student to write from the point of view of the patient, we are asking him or her to take on new powers of observation and conjecture.” Charon estimates that writing from the patient’s perspective works as a humanizing influence in medical education(19). Churchill(20) reiterates the argument that the pathography belongs in the medical arena. “Far from being artificial, the conjointing of literature and medicine is natural and even essential,” states Churchill(21). In this regard, the patient pathography is proposed as an additional or alternative patient-data collection method.

Patient pathographies are being used to provide the psychosocial components of the patient to assist health care providers in treating the whole patient. The patient pathography can be utilized to assist pharmacists in achieving optimal therapeutic outcomes. Chewning(22) states, “The pharmacist is a consulting partner in the decision process influenced by the client’s desires and abilities, generating options based on these desires as well as the pharmacist’s expertise.” Therefore, pharmacy schools should teach students about the patient pathography and promote its use in this process. Wiedeholt and Wiedeholt(23) conclude, “Pharmacy educators must incorporate a patient or client perspective about illness, its treatment modalities and quality of life into the curricula and experiential clerkships.”

**Pathographies: Emphasis on the Patient’s Voice**

Hawkins points out, “Unlike their medical counterparts, these lay writings privilege the phenomenological, the subjective, the experiential side of illness”(24). In addition, Monroe, et al.(25) assert, “The paradigm of storytelling or narrative performance offers a way of revisioning and “personifying” the case report, a way to put the person back into the case.” Churchill and Churchill state, “Storytelling is a way of placing oneself in the world, of signaling the meaning of events, of locating one’s life and death”(26). In this regard, the pathography serves to restore the patient to “patient” care.

Hawkins outlines the distinctions between the medical history and the pathography(27). The distinctions between the genres illustrate how effectively the pathography complements the medical history. The pathography differs from the medical history in that the subject is illness as endured from the patient’s perspective. In contrast, the subject of the medical history is a particular biomedical condition(28). Monroe, et al., assert that recording the patient’s perspective of illness transforms the patient from a biomedical body to a cultural text(29). The genres also differ in purpose. The purpose of the medical history is to record diagnosis and treatment. Hunter(30) contends that biomedical science and technology have reinforced an emphasis on diagnosis in the medical history. Whereas, the purpose of the pathography is to illicit the patient’s experience and meaning of the diagnosis and treatment. Churchill and Churchill point out, “A patient’s history of his or her illness concerns the meaning of that illness”(31).

The two approaches differ in that the medical history is reported in a detached, depersonalized manner, whereas the pathography represents an intimate, personal account. Churchill and Churchill illustrate that storytelling is marked by intimacy due to the personal stake we take in the actions we describe(32). Charon(33) and Donnelly(34) contend, that documenting the medical history as “story” and “narrative” facilitates empathy in care givers. In addition, the two approaches differ in that while the medical history omits emotions in its references to the patient and/or provider; the pathography often details the emotional, subjective components. “The preference for the objective (the test) to the exclusion of the subjective (the history) has become solidly embedded in the culture of modern hospital medicine,” assesses Monroe, et al.(35). Contrastly, the pathography advocates a position for the inclusion of the subjective components of healing. Monroe, et al., explains the role that subjectivity plays in the medical arena. “Emotions, beliefs, values and desires, as well as bodies, are elements of the healing process, and physicians, and others work together to perform a narrative healing,” state Monroe, et al.(36).

Whether it’s the pressure of group practice or perceived constraints imposed by managed care, many physicians have limited their patient contact to as little as fifteen minutes per patient. In many settings, much of the patient’s information is gathered through a questionnaire completed by the patient while he or she waits to be seen by the physician. Under these circumstances, physicians have surrendered their opportunity to elict pathographies thereby forfeiting opportunities to capture the patient’s perspective. Capitalizing on the trust relationship of pharmacists and their patients, pharmacists could make a major contribution to the conventional medication history by adding the pathography. Pharmacists are in a unique position to assume a leadership role in this regard. Although information gained in the pathog-
 interceptions could benefit any health care professional, the pharmacist could use that information to tailor the medication regimen to the patient’s lifestyle and needs. The benefits from this practice are far-reaching but not limited to improving adherence and possibly reducing hospitalizations or emergency department visits. If a patient pathography is not currently part of a routine patient interview, only minor modifications in the interview scheme would allow the pharmacist to capture the pathography. Capturing the patient’s voice, may be facilitated by merely increasing the pharmacist’s observational skills.

INTERVIEWING

Several teaching methodologies may be employed to teach students to use the patient pathography as a tool for gathering data from patients. One approach involves teaching students interviewing skills. This basic skill is a useful tool for data collection, because its effectiveness is not compromised due to the nature of the information collected. The effective interviewer will elicit adequate information regardless of whether or not it is objective or subjective, qualitative or quantitative, or biological or psycho-social. Therefore, interviewing skills involve a technique of data collection that may be applied to either the patient pathography or the medical history report or a combination of both.

Traditionally, interviewing skills have been taught using lectures or readings concerning specific verbal and nonverbal skills(37). But researchers have found that patient simulators as well as real patients may be used to teach and evaluate physical assessment and interviewing skills(38). This approach offers advantages for the student that the lecture/reading approach doesn’t. While the lecture/reading approach can evaluate the student’s conceptualization of interviewing from a cognitive perspective, this approach fails to test, assess or evaluate student performance. This represents a major disadvantage for the lecture/reading technique. Teaching methodologies that incorporate experiential techniques offer students an opportunity to practice one or several skills simultaneously. Given that the interviewing process, relies on the participant’s ability to successfully manage several verbal and nonverbal skills at once; experiential techniques offer more realistic opportunities for the development of interviewing skills. Therefore, researchers advocate the use of experiential techniques, such as patient simulator interviews for teaching historical data gathering. According to Gardner et al., “Patient simulator interviews offer the most comprehensive evaluation of the student’s ability to obtain historical information (interview process) and of the data obtained (interview skill)”(39). Once students possess a conceptual understanding of the pathography and how it differs from the medical history report, interviewing skills as a teaching method helps to develop students’ understanding of pathographies beyond a cognitive, conceptual framework. This approach symbolizes a comprehensive model for teaching pathographies which encompasses didactic and experiential perspectives.

At Auburn University two courses have introduced students to the concept of medical histories, the patient pathography, patient interviewing and practice with real patients. Prior to the beginning of the Fall Quarter, during course planning sessions faculty teaching the PCS 351 course and the PC 350 course recognized similar educational outcomes in some of the assignments. The professors collaborated to reduce repetitiveness and increase congruency across the courses. The next sections will describe these activities as related to these two courses.

DESCRIPTION OF PC 350 COURSE.

Patient Assessment and Monitoring I (PC 350) is the first in a two part series of courses dedicated to teaching students the elements of interviewing, assessment and monitoring. This required course is offered in the first quarter of the first professional year. Early course assignments focus on increasing observational skills, rather than on early interviewing assignments which if unsuccessful could hinder students’ enthusiasm and willingness for patient contact. These early observational skill development assignments require students to begin by noting observations of classmates and progress to documenting statements of general appearance. During this time, classroom lectures highlight the magnitude of messages conveyed through non-verbal means. Additionally, students are asked to document factors of their environment (lighting, background activity, furnishings) which could enhance or detract from an effective interview.

Ultimately, students are taught interviewing skills that will encourage patients to tell their story. Throughout this time, specifically defined interview assignments are completed on a variety of individuals from classmates, upperclassmen and faculty, to family members, roommates, neighbors, persons who volunteer as candidates in our early practice experience activity and the volunteer patients from the PCS 351 course.

Following the completion of each lab assignment, students are given the opportunity to discuss their successes and difficulties experienced during the previous weeks’ assignments. With the collective support of class members, students begin to overcome shyness and their reluctance to interview and begin to accept the mantle of professionalism.

DESCRIPTION OF PCS 351 COURSE.

Pharmaceutical Care (PCS 351), a ten-week course, is designed to provide students with an overview of the social, economic and political environments in which pharmaceutical care is currently being delivered to the patient. The course is required in the first quarter of the first professional year. The pedagogical approaches used in the course comprise small and large group discussions, projects, various lecture formats and early patient experiences. This paper describes the project which required students to work in small groups(5-8) to prepare a patient pathography, then use the information to identify a drug-related problem and recommend a pharmaceutical care plan.

Project Description

The objectives of this team project were to:
1. increase student awareness of patients’ beliefs and views about the health care system;
2. give students the opportunity to formulate questions, to further develop information-gathering skills, interviewing and communication skills, as learned in PC 350;
3. identify the behavioral variables that relate to the patient’s health and illness; and
4. use the above information to develop patient pathographies.

Project Outline

I. Patient Selection

One month before the first day of class, the PCS 351 course instructor worked with community churches and health centers to obtain patient volunteers for the project. The requirements for a volunteer patient were: (i) someone who was tak-
Table I. Student interviews: Examples of student generated questions

<table>
<thead>
<tr>
<th>Patient perspectives and background information</th>
<th>Patient behaviors related to illness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographics</strong></td>
<td><strong>Health Beliefs</strong></td>
</tr>
<tr>
<td>1. What is your occupation?</td>
<td>1. Do you trust your physician to provide the best possible health care?</td>
</tr>
<tr>
<td>2. Is your job stressful or enjoyable?</td>
<td>2. What does he/she do to keep your confidence in his/her abilities?</td>
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<tr>
<td>3. Has your condition ever kept you from enjoying your work, a hobby, or other activity?</td>
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<tr>
<td><strong>Medical History</strong></td>
<td><strong>Adherence</strong></td>
</tr>
<tr>
<td>1. Can you describe your condition?</td>
<td>1. Have you ever had difficulty following the treatment schedule for your medication(s)?</td>
</tr>
<tr>
<td>2. How long have you had this condition?</td>
<td>2. If so, what is/was the problem?</td>
</tr>
<tr>
<td>3. Have you ever had to change treatments?</td>
<td>3. What do you do to remember to take your medicines?</td>
</tr>
<tr>
<td>4. How long have you been on this treatment?</td>
<td></td>
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<td>5. How often do you have check-up’s?</td>
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<tr>
<td><strong>Access to Healthcare</strong></td>
<td></td>
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<tr>
<td>1. Where do you go for health services?</td>
<td></td>
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<tr>
<td>2. Is that nearby or do you have a longdrive?</td>
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<tr>
<td><strong>Social Support</strong></td>
<td></td>
</tr>
<tr>
<td>1. Is your family supportive and/or helpful?</td>
<td></td>
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<tr>
<td>2. Do you depend on others to help you with special needs related to your illness?</td>
<td></td>
</tr>
<tr>
<td><strong>Socioeconomics</strong></td>
<td></td>
</tr>
<tr>
<td>1. Do you mind us asking about your income and health insurance?</td>
<td></td>
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<tr>
<td>2. Has your health care or illness put a financial burden on you?</td>
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</tbody>
</table>

III. Patient Interviews

Prior to conducting the interviews with the volunteer patients, students were instructed to read the entire pathography assignment and develop lists of questions corresponding to each section of the assignment (Table I). The students generated between 20-50 questions per team. Next, students conducted two interviews per volunteer patient. The purpose of these interviews was for pharmacy students to gain insight into patients’ experiences with their illnesses and the health care system. As a general outline for the first interview entitled Patient Perspectives and Background, students gathered the following information from both patients: (i) demographics; (ii) medical history; (iii) access to health care; (iv) social support; (v) socioeconomics; and (vi) other related behavioral variables (Table I).

For the second interview, Patient Behaviors Related to Their Illnesses, students gathered from both patients information assessing the patients’ beliefs about health care, illness and health care professionals. Additionally, students gathered information related to the patients’ adherence with medicines (Table I). Table I lists examples of student generated questions designed to gain a better understanding of the impact that illness has had on the patient.

As stated earlier, the information contained in a pathography and the traditional medical history varies based on whose perspective is being portrayed. Although students gathered data for both the pathography and medical history; they were directed to only report the data from the patient’s perspective.

For example, one particular patient suffered for years in tremendous pain. After several misdiagnoses, she was told that she was a hypochondriac. This patient grew increasingly overwhelmed with feelings of frustration, desperation, hopelessness, and distrust. Haphazardly, after years of traveling from physician to physician with no relief in sight, a dentist finally discovered that the patient suffered from TMJ. This whole experience negatively colored this patient’s attitudes about the healthcare system inevitably affecting her relationships with health care professionals and ultimately compliance. This example tells the patient’s story shedding light on the patient’s behavior that could not be explained by the traditional medical history.

IV Pathography Written Reports

Finally, students were required to write a patient narrative...
Table II. Pharmaceutical care plan

1. Assumptions: Excerpt

Q.S. has had problems with angina for almost 20 years. Her attacks do not occur very frequently, but they have gotten progressively worse over the years. Q. S. was diagnosed with diabetes mellitus about 10 years ago, but she has this condition under control. In fact, her diet can be considered unhealthy because she eats things like cornbread, pizza, and fried chicken. She also snacks and eats late at night. Q.S. is a very relaxed person and is under virtually no stress. Despite a few missed doses, she is almost always compliant.

2. Learning Issues: Excerpt

Angina pectoris means “choked chest” and is characterized by thoracic pain, tight chest, and numbness in the upper extremities. There is a deficiency of blood to the cardiac muscle, and therefore, a lack of oxygen to the heart muscle. Angina is caused by stress-induced spasms of coronary arteries or from atherosclerosis. This condition can be treated with antianginal agents, calcium channel blockers, and beta blockers. These drugs can be used individually or in combination to treat angina in different patients.

3. Drug-related Problems: Excerpt

Q.S. takes Ismotol, Cardizem CD, Tenormin, Lasix, Mevacor, Humulin N, and Humulin R. However, to achieve the same results, she could take a stronger beta blocker combined with an antianginal agent and exclude the calcium channel blocker.

4. Desired Goals: Excerpt

Several changes need to be made in Q.S.’s life. The first of these is an elimination or reduction of the number of her symptoms. Her angina and diabetes should be under control and maintained at a desirable level. Another goal is a reduction of the number of medications that she is presently taking. A healthy diet and simple exercise program should also be implemented into Q.S.’s lifestyle in order to prevent a decline in her condition.

5. Therapeutic Plan: Excerpt

Because of the complexities of Q.S.’s condition, Trandate would be the better choice when selecting an alternative. This is because Trandate has fewer side effects and costs less than the current drug regimen. This alternative would also reduce the number of medications Q.S. is currently taking. In Q.S.’s special condition, a dietary and exercise plan would need to be provided to help reduce the symptoms of angina. Finally, this new drug regimen will help increase compliance because the number of medications will decrease. Overall, all of these changes will help improve her health and create a better quality of life.

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OUTCOMES AND DISCUSSION

There were 40 volunteer patients (15 males and 25 females) with average ages of 45 (range 11 to 96 years). Students encountered a total of 17 specific conditions/diseases among this population including disorders such as diabetes mellitus, hypertension, asthma, and epilepsy. During the next quarter (approximately six weeks after the fall term ended), a focus group was held with a random selection of the students from these two classes. The purpose of the focus group was to discover students’ continued understanding of the patient pathography concept, obtain their reactions to the early patient exposure and gather additional feedback that could improve these assignments. To alleviate any instructor bias, two graduate students who were trained in focus-group techniques conducted the two-hour focus group session.

Students gave the following feedback regarding the concept of early patient exposure:

- Introduces students to the usefulness of a patient pathography,
- Allows the student to interact with patients during the first professional year,
- Introduces the student to the ‘patient-caring’ aspect of the profession.

Furthermore, students found that illness could dominate an individual’s life. This perspective could put a “face” to material covered in drug therapy lectures. They discovered that patients apparently form theories and make decisions concerning their health, often through trial-and-error. This insight may be useful to help students understand compliance and health behavior issues. Finally, exposure to pathographies should help students acknowledge the patient as a partner in his or her own health care.

Students offered the following suggestions to improve the class assignment: (i) interview one patient instead of two and have between group comparisons; (ii) have students from pre-
viorous classes give advice about how to complete the project, interact with the patient and prepare the report; (iii) utilize an equitable reward system to improve peer evaluation; and (iv) provide group dynamics techniques.

CONCLUSION

In this article, the authors have attempted to outline practical and easy to use methodologies for incorporating the patient pathography into the early didactic experience of pharmacy students. Emphasis has been placed on exposing students to simulated and “real patient” experiences early in the curriculum. Additionally, during these formative years great care has been given to developing and designing courses, assignments and activities that begin to teach the concepts of patient caring as well as empathy. The patient pathography can be utilized as a tool in facilitating these objectives.

In conclusion, this discussion has offered an argument for the use of the pathography as a teaching tool for historical data collection. Student outcomes assessed by focus group sessions provided evidence that didactic objectives of the patient pathography assignment were met. Students reported that the pathography assignment helped them to put a face to the disease and begin to understand how disease effects an individual’s whole life.

Either as an addition or alternative to the medical history record, the pathography represents an instrument whereby the patient’s voice is heard in a medical environment that has historically silenced it. Hawkins surmises, “Pathographies . . . are useful because, in restoring both patient and doctor to the story of illness and treatment, they not only guide medicine toward a more humane enterprise-in itself a worthy goal—but also alert us to issues in the medical enterprise that powerfully affect the patient-physician relationship, treatment, and possibly the course of illness”(41). In essence, the patient pathography can be utilized to assist pharmacists in achieving optimal therapeutic outcomes.

References

(19) Ibid. (18),p.70.
(21) Ibid. (20), p.35.