Use of Enriched Case Studies to Enhance Empathy in Pharmacy Students

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ABSTRACT. In the education of health care professionals, the way we communicate about patients undoubtedly influences the way our students think about patients. One goal of pharmacy education is to develop competent and empathetic clinicians. Recommendations have been made about how to maintain or increase empathy throughout the educational experience, but little attention has been paid to the tools we use to teach students about patients. The case study is one such tool. In this article, we compare a traditional case study with an enriched case study for the information that is conveyed about the patient. The additional information presented in an enriched case study gives the student a more complete view of the patient as well as the clinician-patient relationship, and provides a basis for the development of empathy by the reader. doi:10.1300/J060v13n02_02 *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2006 by The Haworth Press, Inc. All rights reserved.]*

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INTRODUCTION

For each of us, daily life is organized through narrative; the tale we tell when we observe a scene or have a personal experience (1). Different narrative forms have different objectives; each affects the reader in its own way and leads to different insights and impressions. On a daily basis, health care professionals must communicate effectively with peers, students, patients, and the community-at-large. The case study, or case presentation, is the form of narrative most commonly used when clinicians exchange clinical information about patients (2) and commonly used in pharmacy education as well as in the education of other health care professionals. However, medical journals have recently published less structured narratives and reflective writings as an alternative to the traditional case study, and there are those who advocate the use of such narrative writing in medical and health care education (2-8). For purposes of this discussion, we will refer to the classical form of medical narrative as the "traditional case study" (TCS), (Figure 1) and the less structured narrative as the "enriched case study" (ECS) (Figure 2).

The format of a TCS is defined by the medical community and is a highly stylized form of narrative (9). The TCS objectifies the patient by

FIGURE 1. An Example of a Traditional Case Study (TCS)

JS, a 20-year-old white male, was seen in the college health center for a chief complaint of pain in the neck and upper back of a few days' duration. There was no history of trauma. Pain was exacerbated by touch.

Physical examination revealed a well-developed, well-nourished man in no apparent distress. Eyes, ears, throat, lungs and heart were all within normal limits. Examination of the neck and upper back revealed redness and swelling with tenderness to touch. There were some areas of coalescence and some of the lesions appeared to contain purulent fluid.

The patient was assessed to have boils (furunculosis) and carbunculosis.

He was treated with an antibiotic (a β-lactamase resistant penicillin), and referred to a dermatologist for further evaluation and possible incision and drainage. He was instructed to follow up with the health center in 7 to 10 days.

FIGURE 2. An Example of an Enriched Case Study (ESC)

It was the middle of the semester when Jonah realized that he'd have to go to the health center. He thought that he really didn't have time for this; mid-terms were coming up and he needed the time to study, but the lower part of his neck and his upper back had become very painful in the last few days.

His girlfriend said it looked like he had some really bad pimples, but that they were really deep. She had tried to clean out the area, but it really hurt too much for her to press very hard and she said that there were lots of areas that looked like they might have pus in them.

So, he found himself waiting to see the physician at the health service, worrying about what was wrong rather than studying. After about a half hour, Jonah was escorted to a small examination room, where he was asked to remove his shirt and put on an examination gown. The assistant told him that the doctor would be in a few minutes to see him.

The doctor came in and spoke with Jonah about his general health, and about why he was at the clinic this morning. Jonah explained that there was a painful area in his lower neck that extended onto his upper back. He mentioned that the area was really painful when touched and reported what his girlfriend had told him about how the area looked. After examining Jonah's eyes, ears, and throat and listening to his heart and lungs, all of which were normal, the physician turned her attention to Jonah's neck and upper back.

The physician observed areas that were red and swollen. They were also very tender to touch. She described these to Jonah as numerous deep, subcutaneous abscesses with pus (furuncles, boils). In some places, the abscesses had coalesced into larger areas. She explained to Jonah that these were called carbuncles. Finally, she explained to him that this was indeed a serious infection. She told Jonah that she would prescribe an antibiotic (a β-lactamase resistant penicillin), but that she was referring him to a dermatologist to drain the lesions and remove the bacteria and pus. She also wanted him to return to see her in 7 to 10 days to see how he was doing.

enumerating the clinical problem(s) presented by the patient, itemizing the clinical data, and then focusing on the diagnosis and treatment. In the classroom or clinical setting, a TCS is used for two reasons: to illustrate principles in basic science, and to teach diagnostic skills to students who will ultimately be responsible for patient care.

Recently, there has been concern that our system of education is producing students who, rather than acting as nurturing health care professionals

who develop a greater capacity for empathy as they gain clinical experience, instead become less empathetic with time (10-13). This is supported by the view that professional education creates an environment in which patients' stories are little more than clues to their diagnosis and treatment (14). The use of an ECS to teach students about patients is a means of providing information that may not be in the patient's chart, it may lead to a better understanding of the professional's role in patient care (3) and it may also increase empathy among students and health professionals (14).

Empathy, the ability to understand the feelings, thoughts, and experiences of another person, has three components that are specific to the health care provider: understanding the perspective of the patient, imagining oneself as the patient, and indicating his or her understanding when speaking with the patient (15, 16). It is generally accepted that effective clinician-patient communication can improve clinical outcomes and that empathy, as a cornerstone of effective communication, can enhance patient adherence to recommended therapy (17-19). Therefore, empathy is a desirable trait among health professionals (20-22). Literature about medical education has shown that medical education itself decreases empathy in students (10-13). To address this phenomenon, medical schools have employed a variety of techniques including modeling the desired behavior, offering courses in ethics and/or empathy, use of specific teaching styles, provision of early patient experiences, role playing or standardized patients, supporting moral development, and generally creating a professional atmosphere. These have been reviewed by one of the authors (12) and the results of these interventions have been mixed, with some authors finding positive results and others reporting no change in behavior. Often, positive responses are the results of intensive and individualized interactions.

Unfortunately, pharmacy educators have placed less emphasis on empathy and are just beginning to examine its role in pharmacy education. Lonie and colleagues (23) analyzed the self-reported empathy scores of pharmacy students in a communications course. They found that empathy training resulted in significant increases among students in the areas of "perceiving feelings and listening" and "respect for others and self," but a significant decrease in the area of "openness, honesty and flexibility." In nonverbal behavior and verbal responses, there were no differences after empathy training. Other researchers have asked students to respond to statements such as "after attending camp, I have more empathy . . . " toward a specific group, using a Likert-type scale (24, 25). These papers did not measure empathy independently nor did

they have a pre-experience survey regarding empathy toward that group. The results of these two studies showed that experiential learning and game-playing could increase students' self-reported empathy toward a group of patients. Other than these reports, there is little in the pharmacy literature concerning empathy in pharmacy students.

Narrative, in the form of the ECS, has been advanced in the last 10 years as a means of teaching about patient care and enhancing empathy. Medical schools, but not pharmacy schools, are beginning to include such narrative in their curricula, perhaps in response to the recommendations of educators who have written on this subject (2-8, 10, 14, 15). The use of narrative and ECS is not intended as a single element in developing and maintaining empathy in medical or pharmacy students, but as one of a number of approaches, including modeling, role playing, and small group interactions. Each of these techniques plays a role in producing caring professionals.

Many believe that the language used in the traditional case study objectifies the patient (9). This reduces the patient to a disease state and limits the patient's story to a set of diagnostic clues (14), ultimately serving to diminish the empathetic connection between patient and practitioner (26). By using ECS, we are not teaching empathy, but providing an opportunity for the reader to recognize the patient's humanity. This recognition can lead to the development of empathy in the reader. Therefore, the use of ECS is intended to support recognition of the patient as a person and enhance the ability of the practitioner to care about the patient. By using ECS to describe patients, we would be setting the example of discussing a patient rather than a clinical problem.

In this article, we compare a TCS with an ECS of a patient with a skin infection with gram-positive bacteria. Generally, case studies written as TCS are used in basic science classes to illustrate how the concepts presented in this curriculum appear clinically, and are used in pharmacotherapy classes for diagnosing illness and determining treatment options. We generated an ECS with the same clinical features as the TCS. The ECS was written to contain the same clinical features as found in the TCS, and also to include elements found in personal medical narratives and essays about patient care. Therefore, in this situation, the construction of the ECS more closely resembles the personal medical narrative or essay than the TCS. Both forms were then compared with regard to the language structures used to convey information, their use of the active or the passive voice with or without a narrator, and their potential for emotional connection with the reader.

ANALYSIS AND RESULTS

A comparison of the types of language and information generally found in TCS and ECS is presented in Table 1. In examining the vocabulary used in the TCS and comparing it with a personal narrative or essay as embodied by the ECS, several differences are observed. The vocabulary used in a TCS varies in technicality from that used in the ECS, where the vocabulary is generally less technical (pimples, abscesses). When technical vocabulary is used in the ECS, the terms are defined (subcutaneous abscesses with pus (furuncles, boils)). In contrast, in the TCS, technical terms are used without definition (boils, furunculosis, carbunculosis). In the TCS this use of specialized language is geared toward the health professional and assumes that all readers have the same specialized knowledge.

In addition, the TCS and ECS use different syntactic structures. The TCS uses the passive voice (a 20-year-old white male was seen . . . , physical examination revealed . . .), while the ECS uses the active voice (when Jonah realized that he'd have to go . . . , his girlfriend said . . .). The passive voice is used extensively in scientific writing, but is much less common in other forms of written communication. The passive voice is once removed from the writer and participant and presents information as if it were coming from an unnamed, generalized source. With the passive voice, the writer appears in the text as more of an observer than a participant and the reporting sounds more objective.

The TCS merely reports clinical facts pertaining to the patient, and the role of the health care provider as narrator is only implied. In contrast, the ECS reports the clinical facts of the illness in the context of the patient's social and emotional circumstances. In the sample ECS, we learn that the patient is anxious about his physical symptoms, and about school work, and we also learn that his girlfriend is a source of emotional support. As a

TABLE 1. Summary of Differences Between TCS and ECS

Characteristic	TCS	ECS
Vocabulary	Technical	Non-technical or explained
Syntax	Passive voice	Active voice
Narrator	None	Often the patient or practitioner
Social or emotional information	No	Generally yes
Focus	Disease state	Patient
Information about encounter	No	Generally yes

result of this additional information, we can identify with the patient as a person. We are privy to his thoughts about his symptoms as well as some of his daily activities and personal interests. In contrast, in the TCS the patient does not transcend the words on the page. We know nothing more than that he is a 20-year-old with boils. As readers or students, we are not invited to know the patient as a person, or to see him as a fellow sufferer; he is only an object of medical interest.

Clinicians' writings may also engender different attitudes toward their patients. In the TCS, we do not know if the young man is a likable person, if he has a family, a career, or an interesting hobby (although we can surmise that he is a college student based on the setting in which he is seen). In addition, we do not gain any insight into the provider-patient relationship. The provider (it may be a physician, physician's assistant, or nurse practitioner) may have sincere concern for him and his well-being, but there is no evidence upon which to make that judgment. In the ECS, there is information about the patient, as well as information about the physician and the examination. The reader, and students, can develop an appreciation for the provider-patient relationship. The TCS and ECS elicit different responses; upon reading the ECS, we can respond subjectively and objectively, while reading the TCS is more of an objective exercise.

The TCS and ECS each have a different focus. In the ECS, the focus includes the *people* involved in the practice of health care, patients and practitioners, while the TCS focuses on the clinical problem of pain in the neck and upper back. This narrow focus is reflected in the restriction of content, the use of technical terminology, and the passive voice while the use of clinical data alone tell us what we know about the patient. The ECS supports the belief that the interactions among people are important to the practice of medicine, while the TCS emphasizes objective medical information at the expense of the patient-physician relationship.

DISCUSSION

The content of a TCS differs from that of an ECS, and each form of narrative evokes a different response from the reader. The ECS often uses the active voice, while the TCS uses the passive voice, found extensively in scientific writing, but less commonly in other written works. It is at once removed from the writer and the participant, and presents information as if it were coming from an unnamed, generalized source. By using the passive voice, the writer appears in the text as more

of an observer than a participant. This impersonal role is less conducive to the development of empathy, it leads providers to think of patients solely in the context of their diagnoses (9), and it carries the risk of relegating the clinician to the role of a disembodied problem solver (5).

The contrasting styles of the ECS and TCS elicit different attitudes toward the patient. In an ECS, the role of the clinician can be more clearly established, and this role may provide valuable insights into the clinician-patient relationship. In the TCS, the narrative is an objective report of the patient's symptoms and clinical findings. The ECS provides an opportunity to convey information regarding the patient's daily activities and personal interests, as well as his or her feelings about specific symptoms and about illness in general. In contrast, because the TCS contains so little information about the patient as a person, he or she is solely an object of medical interest that never transcends the words on the page. The clinician may be sincerely concerned for the patient and his or her well-being, but there is no evidence upon which to make that judgment.

It is important to recognize that readers respond differently to the TCS than to the ECS, and to consider the implications this has for pharmacy education. To examine this further, one of us (GGS) randomized 150 second-year pharmacy students and asked them to read a narrative about a patient with a specific medical condition that was presented in either TCS or ECS format. Preliminary results indicate that students reading an ECS are more likely to have positive feelings toward a patient when compared with those reading about the same patient presented in a TCS. Because the TCS presents the patient exclusively in clinical terms, an emotional gap is created between the patient and the reader, who can only synthesize the information in the TCS and compare it with what he or she already knows, while remaining uninvolved with–and untouched by–the human subject. The TCS presents data in the context of the basic science underlying a disease, and allows generalizations about the disease without an understanding of the person with the disease.

ECS can also provide information about the practitioner-patient interaction. ECS can be written from the perspective of either the patient or the practitioner. Therefore, this narrative form can provide students with an understanding of how patient-practitioner interactions should occur and can explain in a narrative style what the encounter was like. It can provide a framework for pharmacy students to see how a pharmacist would deal with patient-counseling and the development of patient-appropriate therapy. Information about compliance (or reasons for noncompliance) could be incorporated into the ECS, along with additional insights that

could improve patient care. As an example, if the pharmacist discovers that a patient cannot afford the prescribed antibiotic, he or she can intervene with a recommendation for a less expensive–but equally effective–drug. This type of narrative would allow the student to explore the patient's perspective, and also the way in which a caring professional can help the patient to understand the treatment goals and develop an appropriate plan to reach those goals.

The TCS objectifies the patient, neglects the human experience of illness, and distances the practitioner from the patient (3, 5, 9, 26, 27). It is believed that this objectification of the patient is, in part, responsible for the decrease in empathy observed with health care education (8, 10, 11, 13). While the ECS does not explicitly teach empathy, it focuses on the patient and the patient-practitioner interaction, and is written to describe a person who has a disease, not just a disease state. Therefore, even while being involved in the cognitive activity of reading and analyzing a case study, the student is introduced to a person. This focus serves to decrease the objectification of patients and therefore provides a basis for developing an empathetic response, and also for further discussion of empathy and caring in the context of patient care.

The ECS provides more information and a more accurate account of the patient-practitioner interaction than does the TCS, suggesting another advantage to its use. Logistically, the ECS is longer than the TCS, and therefore provides more material for students to read. However, because it tells a story, it commands the reader's attention more easily than does the TCS, as a compendium of objective patient information. Further, the ECS is more directly applicable to the reality of a patient encounter, containing objective clinical information, and also subjective patient information. In addition, it provides an opportunity to include social and economic information that would be relevant to clinical decision making. The more realistic account of patient-practitioner interaction is useful since it helps students to imagine themselves in similar situations, and provides strategies for dealing with those encounters.

CONCLUSIONS

Historically, the TCS has been important for communicating information among health care professionals in a standard and concise format. In certain clinical situations, such as those involving patients who are critically ill, the need for brevity is essential so that information can

be conveyed within a time frame that permits life-saving interventions. However, Sobel (27) has stated: "The case history negates pain, distances the physician from the patient and thus sanitizes suffering . . . [and] avoids human interest." Extensive exposure of students to this method of communication encourages them to view patients in scientific rather than human terms.

The ECS has the potential to cultivate respect for the humanity of the patient and the provider, create a broader context for their respective positions in the clinical situation, and provide a framework for development of empathy through acknowledgment and comprehension of the patient's concerns. Empathy allows the reader to understand that clinicians are uniquely entrusted with the well-being of a person and not just the diagnosis of a disease. By recognizing and acknowledging this trust, and the responsibility it entails, the student becomes a more complete practitioner, capable of providing better patient care.

The fact that we think in the narrative, that we subconsciously see a beginning, a middle, and an end, allows us to recognize the stories in other people's lives and to acknowledge our shared humanity. Thus, narrative allows an emotional connection to occur by providing an opportunity for us to be compassionate and to empathize with the subject of the story. The ECS, as a story to which the reader can more easily relate, presents a more balanced account of the clinical situation, allows the patient's voice to be heard, satisfies the reader's intellectual needs, and also permits the reader to develop a more complete response that includes an emotional connection with the patient. This connection is an essential step in training students to become empathetic practitioners and therefore is a compelling reason to consider more widespread use of the ECS in pharmacy education.

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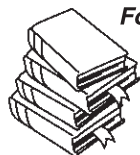
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