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Cover Page Footnote

I would like to thank all the student participants of this study. A special thanks to Ms Rosemary Brown, Rajesh Nayak, PhD, Ms Sherri Alarcon, Claire Kolar, PharmD, and Kristin Janke, PhD for their constructive feedback and comments on the earlier version of this manuscript.

Use of a Comic Book to Assist Student Learning of Dimensions of Patient-Centered Care

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ABSTRACT

Objective: To evaluate the use of comic books as a supplemental reading to assist student learning of the dimensions of patient-centered care. **The Innovation:** A comic book titled *Mom's Cancer* was used as a supplemental reading in a course that introduced 2nd year pharmacy students (in a 0-6-year program) to the social aspects of pharmacy practice. Students read the book and provide their reflections about the book and topic covered in it. **Critical Analysis:** A total of 100 students registered in two sections of the course provided their responses. Student responses to the comic book activity were overwhelmingly positive. More than half of the student reflections included their personal experience with the healthcare system. The comic book format helped illustrate patient experiences with chronic illness to students. The range of comic books is not enough to give a comprehensive coverage of all the topics in the pharmacy curriculum. Getting the appropriate comic book for the respective topic could be challenging. Also, the effectiveness of comics as an education tool may be limited, if readers are less likely to take information provided via this medium seriously. **Next Steps:** The positive responses from students highlight the point that pharmacy faculty could use comic books in their pharmacy courses. Further research is needed to determine topics that would be effectively addressed by comic books and best practices for comic book use in pharmacy curriculum.

Keywords: Comic(s), graphic novels, education, pharmacy, graphic medicine.

INTRODUCTION

Over the last few decades, a renaissance to a new professionalism – patient-centered care – has been much discussed in the healthcare literature.¹⁻² As defined by the National Academy of Medicine (NAM, formerly the Institute of Medicine), “patient-centered care involves providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.”² The aim of patient-centered approach to care is to focus on patient’s experience of illness and health care so as to meet individual patients’ needs.²

Gerteis et al. have identified several dimensions of patient-centered care: (1) respect for patients’ values, preferences, and expressed needs; (2) coordination and integration of care; (3) information, communication, and education; (4) physical comfort; (5) emotional support—relieving fear and anxiety; and (6) involvement of family and friends.²⁻³ Patient-centered qualities include compassion, empathy, and responsiveness to the needs, values, and preferences of the

individual patient.² Now, a major challenge in transitioning from a biomedical paradigm to a patient-centered approach is preparing the healthcare providers of the 21st century to acquire the skills of empathy and compassion, and apply these skills to new ways of relating to patients and caregivers.¹⁻²

The leading organizations in pharmacy education, including American Association of Colleges of Pharmacy (AACP) and Accreditation Council for Pharmacy Education (ACPE), through their recent reports and accreditation standards, have recognized the need for a patient-centered approach to patient care.⁴⁻⁵ The AACP’s Center for the Advancement of Pharmaceutical Education (CAPE) Outcomes, endorses educational outcomes specifically addressing the importance of educating pharmacists in patient-centered care and communication with patients, other healthcare providers, and caregivers.⁴

The aforementioned qualities of patient-centered care are abstract concepts. Traditional textbooks can provide the required information, but they may not be able to foster development of the dimensions of empathy and compassion necessary for providing patient-centered care. Pharmacy professors want to instill the importance of the patient-centered dimensions in their students, so that they will be successful in establishing rapport building and lasting working

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relationship with their patients. In this effort, pharmacy professors have incorporated different teaching methods, such as book clubs,⁶ patient scenarios,⁷ games,⁸ in courses to increase students understanding of challenges their patients face and the skills required to provide the care to address these challenges. Although many of these teaching methods have shown positive outcomes, new pedagogical tools can be used to illustrate chronic illness experiences of patients and families to help students understand the general “feelings” of empathy and compassion necessary to deliver patient-centered care.

Compared to information presented in a non-illustrated text, coupling of visual information with verbal explanations has been found to positively influence students’ creative problem solving skills,⁹⁻¹¹ reading performance,^{10,11} and information retention ability,¹⁰⁻¹² One of the most popular and yet underused forms of media that combines visual images with text is – comics. Comic books, often called “comics” for short, are diverse in content, genre, appearance, and reading audience. Comics can appeal to a wide audience across age and ethnic groups because they employ an everyday language that is almost universally understood, and can be concurrently instructive and entertaining.¹³ A sophisticated yet simple use of visuals and text generates a clear narrative for the information presented, giving comics the potential to go beyond the traditional textbook for teaching and learning abstract concepts.

Although there are a number of reasons that comics could be an asset to pharmacy education, the potential use of comic books in pharmacy curriculum has not been explored. In this paper, the author uses a comic book as a supplemental reading to assist student learning of the dimensions of patient-centered care is presented.

THE INNOVATION

Second year pharmacy students (in a 0-6-year pharmacy program) were required to take a one-credit, core course that introduces them to the social aspects of pharmacy practice. Multiple sections of this introductory course are offered. The author of this paper was the instructor for two of the six sections of the introductory course offered during fall semester. The class met once a week for an hour for 14-weeks. The role of pharmacist in patient-centered care, and chronic illness experiences of patients and caregivers were important topic areas within the course. Several different teaching methods were used in this course, such as reflection papers, videos, guest speakers. The innovative part of the course was the use of the comic book, *Mom’s Cancer*, as a supplemental reading, while covering the information on patient experiences with chronic illness and the role of family caregivers.

This award winning graphic novel, *Mom’s Cancer*, is a true story of the author, Brian Fies’, mother’s battle with metastatic lung cancer, as witnessed by her adult children.¹⁸ The story describes how a chronic illness affects patient and family, both physically and emotionally. Fies uses the comic format to capture the emotions and moments that affect a family when cancer changes their lives. Through the comic medium he provides the readers, small, personal glimpses into and thoughts of, when his mom first fell ill; how his mother both denied the severity of her illness and, at the same time, fell into the healthcare system (e.g. medical examination, radiation, chemotherapy); how he and his sisters assumed various roles in their mother’s care and, soon, morphed into “superpowers,” each defending his or her own territory.¹⁸ Through “comic images,” the readers get a visual representation of his mother as she moves deeper and deeper into the world of illness.

The book was used as a supplemental reading. Three copies of the book were kept on reserve at the Health Education Resource Center (HERC) which is a part of the University library that provides health information resources, research support, and reference services to assist the College’s students, faculty, alumni, and friends.

During the semester, students were asked to read the book and then provide their responses to the following: (1) what was the “take-home message” that you learned from the book? (2) what did you find most interesting about the book? (3) any additional comments about the book/class activity. Upon reading the book students were asked to submit a reflection paper. The length of the reflection paper was not more than two typed pages. For this assignment, students had to follow the standard format: Font: 11 or 12-point, Times New Roman; Page Setting: 1-inch margins all around, left-justified; Double-spaced. These reflection papers were due in class towards the end of the semester, on the day the faculty covered the information on patient experiences with chronic illness and the role of family caregivers. Portions of the book that covered the dimensions of patient-centered care were used as examples during the discussion of the concept in-class. This assignment accounted for 5% of their overall grade in the course.

CRITICAL ANALYSIS

The study methods were approved by the St. John’s University Human Subjects Review Committee. A total of 100 students registered in two sections (~50 students in each section) participated in this assignment. Student reflection papers were graded by the course instructor. The definition and, the dimensions of patient-centered care provided by the Institute of Medicine and, Gerteis et al., respectively were used as a framework for analyzing the student reflection papers.

Students reported that they enjoyed the use of the comic book in the course. For example, students mentioned that “I finished reading it [the book] in 20 minutes and liked it so much that I read it again,” and that “I read the book in less than half a day and it was quite interesting”. More than half of the students shared a personal healthcare experience in their reflection write-up. This shows that the comic book format might have made the patient experience more real and helped students envision patients’ needs and concerns about their healthcare. By providing their own real-life healthcare encounters and learning, students demonstrated that they could relate and empathize with the patient situation.

Student responses also demonstrated an understanding of most of the dimensions of patient-centered care identified by Gerteis et al.³

- Qualities of compassion, empathy

“I realized from a patient perspective that good healthcare and good caregivers must show empathy, must be genuinely caring, or at the bare minimum flash a smile. Reading the book made me realize how important it is to build rapport with the patient. Without rapport, the treatment becomes less effective.”

“The book helped me better understand the importance of having not only empathy, but sympathy and compassion towards a patient.”

“Reading the book exhibited the importance of compassion because as a pharmacist it will probably be hard to see the pain the families of cancer patients (as well as patients with other illness) have to deal with the entire time of the illness.”

- Coordination and integration of care

“When a patient is dealing with a certain illness or disease, caregivers are very important in helping to combat a patient’s illness, since patients often cannot deal with it alone. Caregivers, pharmacists and physicians should work together to create an ideal plan that will help the patient cope with or treat their disease.”

“Patient healthcare experience is an experience that comes from the interaction that occurs between the patient, family, and the healthcare system. The caregivers and patients’ family have a great impact on a patient’s decision making.”

- Involvement of family and friends

“Care givers are like superheroes. It is important for healthcare providers to communicate effectively not only with the patients but also their caregivers”

“Family members are the people who console patients and give them emotional strength. They devote a large part of their lives to the patient’s treatment.”

- Information, communication, and education

“The book deals with an important aspect of healthcare professionals – communication and interaction. Communication and interaction between patients – family – physicians is a key element in the treatment of patients.”

Students also acknowledged that the format helped them understand the subjective nature of the patient-provider relationship.

“The art work was crucial in helping me understand the subjective nature of the patient-caregiver-provider relationship.”

“The comic book format effectively illustrated the patients’ feelings, pain, confusion, and emotions while being treated for the illness. This is a good book for pharmacy students to learn how to empathize with patients.”

Selected students’ responses have been provided in Tables 1, 2, and 3. These responses highlight the hypothesis that the comic book format was able to illustrate patients’ chronic illness experiences to the students. The comic book format made students aware of the many general “feelings” of empathy and compassion, patient’s health concerns and, their impact on treatment decisions.

KEY FINDINGS

The purpose of this innovation was to evaluate the use of comic books to assist students in learning about the dimensions of patient-centered care.

Mom’s Cancer was selected to help students understand the issues faced by patients with chronic illness and their families, and to understand the role of family and caregivers for patients with chronic illness. A deep appreciation of the need for compassion, empathy, and responsiveness to the values, and preferences of the individual is difficult to elicit through traditional textbooks. The comic medium through the combination of pictures and words helps “put a human face on a given subject” and appeals to readers’ feelings beyond

the traditional, objective meanings of the written text.¹⁴ Student responses highlighted that they could feel the emotions of the characters described in the comic book. The use of colors, brevity of the message, and the interplay of text and visuals in the comic format made students not only find a personal connection with the characters, but also made them sympathize and empathize with the characters in their own unique ways. In an informal, out-of-class, discussion with students, they agreed that the comic book caught them off guard in a positive way, and lead them to be engaged in the reading. The format helped students visualize a particular event, person, or place.

In pharmacy education, as curriculum changes are made through incorporation of new concepts, such as patient-centered care, what also needs to be considered is the generation of students who would be undergoing this training. Comic books are easily accessible for a variety of learners; they are shorter, quick to read, and provocative in ways that are beneficial to student learning. Student comments indicated that the visual rich content of the comic books proved to be an enjoyable and, innovative tool in classroom learning.

Where traditional, text-heavy books might fall short of conveying the subjective meaning of illness and related care, a number of graphic narratives or memoirs available in the literature could serve as a window into the lives of our patients and their families, providing perspectives that are unlikely to be drawn from text alone. Pharmacy faculty could use these graphic novels as stand-alone texts or as part of a larger curriculum. Comic books could be a “fresh” way of presenting information which could encourage students to read the materials, understand it, and reflect upon it. A recent manuscript presents an overview of comic books as an educational tool and discusses the use of comic books in pharmacy education. The review concluded that the potential of this untapped resource of education could translate well as an effective instructional method in pharmacy courses.¹⁷

First, no quantitative data was collected. Results of this study should be interpreted with the following limitations in mind. The researcher wanted to explore the use of this medium by obtaining student opinions on the inclusion of comic books in their course. A study, using a pre-post test study design to evaluate the change in pharmacy students understanding of patient-centered care upon reading a related comic book, could be conducted in the future. Second, there was no control group to evaluate the differences between students understanding of patient-centered care after reading an unillustrated text-heavy book vs comic book. Third, the author used only one comic book as a supplemental reading. The world of comics is continuously changing and evolving. Different comics may have different effects.

CONCLUSIONS

Pharmacy curriculum is filled with heavy science classes which can be stressful to students. Including supplemental readings in the form of comic books would help pharmacy students enjoy the reading, relax, and learn at the same time. Faculty can use comic books/graphic novels as stand-alone texts or as part of a larger curriculum by connecting the themes. Further research is needed to determine topics that are effectively addressed by comic books and best practices for comic book use. Comics have been showed to be useful in other fields of classroom teaching and could prove beneficial in pharmacy education.

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Table 1: Select Student Responses to Question # 1: What was the “take-home message” that you learned from the book?

Student Responses
Mom’s cancer conveys the emotions patients in the healthcare system feel in what they way they are affected by healthcare providers’ communication. It made me consciously aware of what kind of mistakes healthcare professionals can unknowing make and how to address them and take notice of them.
My mind was opened to insights I had never experienced before. The pictures in the book provided a new insight on the lives and struggles of those whose relatives are diagnosed with terminal illness. I was able to understand what a family goes through in taking care of their loved ones.
I realized that in addition to the medical treatment given to patients, a patient also needs to be treated with sympathy and emotion. Hearing patients view points and making them feel a part of the treatment team is very important.
As a pharmacist I will meet patients who are scared, confused, and having personal conflict because of the various ailments that they will come with. I must attend to their needs and be there for them and speak with them with empathy and care.
As a future pharmacist, I must not only focus on distributing medication but also having compassion for what the patient may be going through or even what the patients’ family is going through.
A healthcare provider must demonstrate compassion and patience in order to ensure that patients feel that they are cared about and that they understand all of the aspects of their diagnosis.

Table 2: Select Student Responses to Question # 2: What did you find most interesting about the book?

Student Responses
The comic book format really got the message across. It is a great book to understand how patients and their families are affected by a terminal illness.
The comic book format effectively illustrated the patients’ feelings, pain, confusion, and emotions while being treated for the illness. This is a good book for pharmacy students to learn how to empathize with patients.
The illustrative work in the book helped me understand how much ups and downs, pain and agony a cancer patient and their families have to go through.
The comic book layout was a very unique approach to present a patient story in because usually we only read about empathy and patient experiences in medical textbooks or essays. The comic book approach is a good way to appropriately talk about a subjective healthcare topic.
The book format of pictures and prose helped me identify with many of the mixed feelings of frustration, anxiety, hope, and happiness that the characters, including the author felt.
I think this book was written in a way that it allowed me to connect with the characters and the storyline. The pictures add a visual element to the story. This is an advantage over regular textbooks because it allows visualizing the pain of the story easier. Rather than have to use one’s imagination, the comic book does the work for you, and allows the author to convey exactly what he wants to his readers.

Table 3: Select Student Responses to Question # 3: Additional Comments?

Student Responses

Thanks for making us read this book. This is the first graphic novel I have ever read for a class. It was interesting and refreshing to read about a topic in a creative format. The format of the novel conveyed the information well, even better than a regular non-fiction book.

The book is extremely relatable to the patient experiences we learn in our courses. It is a light read.

Mom's Cancer was an easy read that I would tell any peer pharmacy student to pick-up at their leisure.

This book should be made available to all healthcare providers to understand the subjective nature of empathy.

This would probably be a good book to keep handy in a pharmacy or doctor's office so that all patients can read it if they are interested.

I would definitely recommend this novel to not only healthcare providers but others who deal with patient issues.
