

THE ARTS IN HEALTH PROFESSIONS EDUCATION

Impact of a Film on Student Pharmacists' Views on Quality of Life and Aging

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Objective. To assess the effectiveness of film in providing health and quality-of-life experiences of aging to student pharmacists.

Methods. Third professional year student pharmacists enrolled in an elective course in geriatric pharmacy were shown a made-for-television movie, *To Dance With the White Dog*, which portrays elderly people experiencing health and quality-of-life issues. The student pharmacists were surveyed before and after viewing. The survey contained Likert-scale items as well as open-ended directed reflection questions. Responses to pre- and post-intervention surveys were compared using descriptive statistics and the Student *t* test for paired data. Qualitative content analysis was used to evaluate the directed reflection data.

Results. Of the 69 students surveyed, 97% completed the pre- and post-intervention survey instruments. Comparison of pre- and post-survey data revealed non-significant increases in the strength of student pharmacists' agreement with statements on film as a useful resource. Students' self-reported understanding of geriatric health and quality-of-life experiences improved significantly from pre- to post-intervention. Agreement that film was a valid alternative to a lecture decreased slightly on the post-intervention survey. Through qualitative analysis of student reflections on the film activity, the themes of meaningful experience, opportunity to consider an approach to practice, and opportunity to experience the patient perspectives of autonomy, death, self-image of aging, and medication burden were identified.

Conclusion. In pharmacy education, the combination of viewing a film followed by class discussion and written reflection was perceived by student pharmacists as a valuable method of learning about age-related health and quality-of-life experiences.

Keywords: film, aging, geriatric, pharmacy education, reflection

INTRODUCTION

A challenge in healthcare education is to provide students with the experience of illness and its management from the perspective of the patient. An often-employed teaching strategy to provide such perspective is to involve students in collecting information from actual patients, standardized patients, or virtual patients via interactive software programs. Film has been used in various health professions curricula as an alternative approach to helping students understand the patient perspective.

A review of the literature identified reports of the use of film in medical and nursing education; however, only limited reports of its use in pharmacy education were found. In 1977, Jackson cataloged the availability of films from the National Medical Audiovisual Center that might

be beneficial to use in pharmacy education.¹ The use of film in the education of professional students is documented in Champoux's review of film as an established resource to enhance the learning process.² Other studies support the use of film in healthcare education to increase students' awareness of situations that affect the health of ordinary people, thereby fostering the development of a humanistic perspective of the patients students care for.³⁻⁵ Powley and Higson noted the use of film to facilitate learners gaining an appreciation of every person's unique experience of illness.⁶ Film has been used in medical education to model professionalism, foster reflection, and provide instruction in clinical topics, and in nursing education as an effective alternative to experiential learning.⁷⁻¹⁰ Bowman noted that the illustrative power of films make them ideal adjunct tools to enrich medical students' education in the area of geriatrics.¹¹ Yahnke supported the use of film in gerontology education to recreate the experience of aging for students; specifically, to provide students with realistic examples of older people coping

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with physical, psychological, and socioeconomic crises.¹²

Courses on foundational topics in geriatrics are components of the required curriculum at Mercer University College of Pharmacy. An elective course in geriatric pharmacy is available for interested students to provide in-depth study of the socioeconomic aspects of aging and pharmacy practice issues specific to geriatric patients. Topics included in the elective are the sociology of aging, assessment of the geriatric patient, medication-related problems important to older patients, and management of clinical issues common to geriatric patients. Students participate in role-play scenarios and react to case studies in order to gain experience with the management of medication-related problems of older adults. College faculty members incorporated film, coupled with discussion and reflection, into the geriatric pharmacy elective to expose students to experiences of aging and allow for personal reflection. Films portraying older adults facing health and quality-of-life issues were identified and integrated into the course to augment class topics as appropriate. The objectives of this study were to assess student pharmacists' perceptions of the value and effectiveness of incorporating film into the pharmacy curriculum to provide health and quality-of-life experiences of aging and to identify specific themes recognized by students in these areas.

METHODS

This study took place from August 2012 through December 2012 in a two-credit hour elective course in geriatric pharmacy for third professional year students. During the second class session, students first completed a six-item pre-intervention survey. The questions measured students' perception of the value of film as a teaching resource and their understanding of an older patient's experience with several health and quality-of-life issues. Next, faculty members provided a summary of the film *To Dance With the White Dog*, in which the main characters experience health and quality-of-life issues, and explained the expected outcomes for the activity (Table 1).¹³ Students

were then shown the film. At the conclusion of the film, faculty members engaged students in a discussion of the film storyline and then administered a post-intervention survey.

The post-intervention survey contained the same six questions as the pre-intervention survey, with responses rated on a four-point Likert scale ranging from 4=strongly agree to 1=strongly disagree. The post-intervention survey also included directed reflection questions. These questions were intended to prompt open-ended responses on memorable scenes, connection to a film character, conflicts or issues noted, insight gained into aging-related issues, application to the practice of pharmacy, and their overall experience of viewing the film (Table 2).

The quantitative analysis methods of descriptive statistics and Student *t* test for paired data were reported using SPSS Statistics for Windows, version 25 (IBM Corporation, Armonk, NY). The techniques of word repetitions and keywords-in-context were used for qualitative content analysis of the reflection responses whereby study authors identified word patterns in the responses which were coded into themes (Table 3).¹⁹

The study was deemed exempt by the Mercer University Institutional Review Board and all students consented prior to participation. Student identification was required on the survey instruments in order to compare pre- and post-film data. Course grades were unaffected by participation in the study.

In subsequent class periods, additional shorter film clips were viewed and discussed to augment course topics, but students were not surveyed regarding the additional films.¹⁴⁻¹⁸ Titles and scenes of the additional films used in the course, along with synopses and teaching points, are presented in Appendix 1. Formative assessments of student learning were conducted that measured understanding of course concepts and student opinions, however these are not discussed here.

RESULTS

Survey data were evaluated for 67 (97%) students. Responses for two students were omitted because they did

Table 1. Summary of a Film Shown in an Elective Course in Geriatric Medicine to Teach Student Pharmacists the Health and Quality-of-Life Experiences of Aging

Film Title: *To Dance With the White Dog*¹³

Time Stamp: Entire movie

Synopsis: An elderly farmer becomes a widower after 50 years of marriage. Deeply grieved but continuing with life, his family becomes obsessive over his safety and his sanity.

Teaching Points: Coping with death of a spouse; managing chronic illness and medications; accepting age associated frailties and loss of independence; mental health issues

Run Time: 1 hr. 40 min.

Table 2. Survey Administered to Student Pharmacists Before and After Watching a Film With Scenes Depicting the Health and Quality-of-Life Experiences of Aging

Perception Statements in Surveys	Pre-Film Mean ^a (SD) ^b	Post-Film Mean ^a (SD) ^b	<i>p</i> Value
Films are useful teaching resources in a pharmacy curriculum.	3.2 (.5)	3.3 (.5)	NS
Films are useful to provide examples of patient care situations.	3.4 (.5)	3.5 (.5)	.03
Films are useful to provide examples of professionalism.	3.3 (.5)	3.3 (.6)	NS
Films have value in teaching overall course concepts.	3.2 (.5)	3.3 (.6)	NS
Films have value in teaching specific course concepts.	3.2 (.5)	3.3 (.6)	NS
The use of film is a valid alternative experience to a lecture on a topic.	3.1 (.7)	3.0 (.7)	NS
I have an understanding of an older patient's perception of dependence on medications.	3.0 (.5)	3.3 (.5)	<.001
I have an understanding of an older patient's experience of illness.	2.8 (.6)	3.1 (.6)	.003
I have an understanding of an older patient's experience of aging.	2.8 (.7)	3.3 (.6)	<.001
I have an understanding of an older patient's experience of taking meds.	3.0 (.7)	3.2 (.6)	<.001
I have an understanding of an older patient's experience of death of a loved one.	2.9 (.8)	3.4 (.6)	<.001
I have an understanding of an older patient's experience of loss of independence.	2.8 (.8)	3.4 (.6)	<.001
I have an understanding of an older patient's experience of loss of control of situations.	2.8 (.7)	3.3 (.6)	<.001

N=67

^a Mean score based on responses to a 4-point Likert scale ranging from 4=strongly agree to 1=strongly disagree

^b SD=standard deviation

not complete the post-intervention survey. Analysis of the survey responses revealed a significant increase in agreement that films were a useful resource for providing examples of patient care situations ($p < .05$) and to promote understanding of an older patient's experiences of illness ($p < .05$), as well as to show examples of patient dependence on medications, aging, taking medications, death of a loved one, loss of independence, and loss of control of situations (all p values were $< .001$). The 67 students provided 372 individual responses to the six reflection questions as not all students answered all questions, but all students responded to at least one question. Qualitative analysis of responses to the reflection questions revealed six major themes, each of which had two supporting themes (Table 3).

DISCUSSION

This study assessed pharmacy students' perceptions of the value and effectiveness of film in exposing them to an older adult's experience with illness. To provide such a

perspective, faculty members with a specialty in geriatrics identified a collection of geriatric-themed films by reviewing film summaries and then viewing selected films to identify relevant scenes. This use of film is similar to that by Darbyshire and Baker, who suggested a film library depicting the patient's experience with disease is useful to permit learners to build concepts on preexisting foundations.⁸ In our study, following the viewing of one film from the collection, students considered issues related to the health and quality-of-life of geriatric patients, as well as their personal approach to the care of older patients and the overall usefulness of the film to meet course goals. The increase from baseline in students' positive perception of the usefulness of films as a teaching resource, combined with the significant increases from baseline in students' positive perception that films have value in providing examples of patient care situations and the patient perspective of health issues, support the existing literature that films are valuable and effective when used in pharmacy education. The themes of

Table 3. Themes in the Film *To Dance With The White Dog*¹³ Identified by Student Pharmacists Who Viewed the Film as Part of a Geriatric Pharmacy Elective Course

Theme	Supporting Themes	Example of Student Responses
Autonomy	Loss of independence; dependence on others	<p>“...one of the biggest issues in aging is finding the balance between the desire to be independent and not feeling as though you are alone.”</p> <p>“...many issues related to independence of the old man. He was reluctant to take help from his daughters.”</p> <p>“...the man felt he was still able to do ordinary things, but his daughters disagreed and tried to limit his activity.”</p> <p>“...the issue of independence in the film was very pronounced throughout the film and it showed how the elder population has a decreased independence as they age.”</p>
Approach to pharmacy practice	Overall approach to practice; approach to practice with geriatric patients	<p>“...helped me to realize that when we are speaking with our elderly patients it is important to give them the tools to manage their medicine and health in a way that makes them feel empowered and preserves their independence.”</p> <p>“...gave me a better understanding of the issues that geriatric people face and will allow me to react with greater compassion towards their difficulties.”</p> <p>“I can be more empathetic with aging patients and be patient with them as they struggle in the aging process.”</p> <p>“...broadened my perception about aging process and aging-related issues. It helped me understand elderly people more and what they are looking for thus help me meet their needs more effectively.”</p>
Meaningful experience	Learning tool; meaningful experience	<p>“...this film was a great learning tool...”</p> <p>“...the film was a meaning experience in this course. I think that the film was an accurate depiction of some of the important issues one has to face when they age.”</p> <p>“...movies can make a class more interesting. Sometimes they can make a better point than a lecture.”</p> <p>“...film was a meaningful experience in the course. It gives a unique insight into the issue of aging.”</p> <p>“...film was a meaningful experience in this course. It was a good introduction to the course as it gave a general understanding about the problems that come with aging in an interactive way.”</p>

(Continued)

Table 3. (Continued)

Theme	Supporting Themes	Example of Student Responses
Death	Surviving death of spouse; personally facing death	<p>“...demonstrated what it is like to deal with aging and loss of a loved one from a family perspective, including that of a widower and a young grandchild.”</p> <p>“...he displayed his true love for his wife and expressed his inability to accept her death.”</p> <p>“...the death of his spouse and the need for him to live on without her after years together.</p> <p>“...on his death bed, the man exhibited so much peace before his passing.”</p>
Self-image of aging	Seniors act and/or view themselves as young and not old; yearn for youth	<p>“...the older man not wanting to admit that he is getting old and can't exert himself the same way he used to.”</p> <p>“...as people age the younger generation assumes they can no longer care for themselves and that they need help doing everything.</p> <p>“Some elderly think their bodies are still capable of doing everything they could when they were younger.”</p> <p>“He also was reluctant to use the walker even though it would probably be beneficial to him.”</p>
Medication burden	Medication adherence; coping with diseases and syndromes of aging	<p>“...the issues faced as he aged like having to take more medicine, memory loss, and physical limitations.”</p> <p>“...there are more age related issues than medication related and disease state related problems.”</p> <p>“The importance of medication compliance should be stressed with every patient encounter.”</p> <p>“I will work to adjust my counseling and education to better suit their unique needs and to help them remain as independent as possible.”</p>

autonomy, approach to pharmacy practice, meaningful experience, death, self-image of aging, and medication burden were identified in student responses to the directed reflection questions.

Autonomy was a common theme identified in the student reflections. Students commented on the film character's coping with illness and the quality-of-life issues of losing independence and control while considering what level of assistance to receive from his family. Respect for patient autonomy is a core principle of biomedical ethics and an important consideration in providing patient care, particularly to such vulnerable patients as older adults. Having student pharmacists acknowledge and consider autonomy as a result of the

watching and reflecting on the film implies a successful outcome.

A second common theme was approach to pharmacy practice as revealed in students' stated intent to use instances from the film in the development of their approach to geriatric patient care. Approaches to patient care were mentioned regarding communication, identification of specific patient needs, and having a compassionate attitude. These comments suggest that the film activity was effective in contributing to the professional development of student pharmacists, which agrees with the findings of Blasco and colleagues who report that film, when used in medical education to promote reflection, serves as a reference point for professional development.²⁰

The theme of meaningful experience was identified when students noted that the film activity made class more interesting, provided a unique insight into aging issues, and was an interactive method of presenting the problems of aging. These findings seem to support those of Masters who found that teaching with film was well accepted by students.³ Compared to baseline, the post-survey perception of the value of film as a valid alternative to a lecture remained positive, but with a minor drop. Based on this, we propose that the value of a film activity is to supplement rather than replace a lecture. It may be more effective to use short film clips to focus attention on specific issues rather than showing a full-length film that includes multiple issues and contains too much detail for students to recall. We also suggest that facilitating discussions about the film is essential to students achieving the expected outcomes. A few students commented that the film was not useful and was unrealistic in its depictions of aging; however, these opinions may have resulted from the fantasy aspect of the specific film.

The themes of death and self-image of aging appeared frequently in students' responses. Topics around death and dying are discussed our college's curriculum, but we suggest that experiencing death from the perspective of a film character may make a greater impression on students. The major storylines of coping with the death of a spouse and facing one's own death in *To Dance With the White Dog* contributed to our choice of this film for the activity.¹³ Bosch suggests that films portraying experiences with diseases and aging often omit the perspective that the aging process prepares one for the end-of-life.²¹ Students commented on the older character's reaction to his wife's unexpected death and his calmness in facing his personal frailties and impending death. Self-image of aging was identified as a theme from the students' recognition of the humanistic side to the character's health issues and overall frailty. Mentions of the character's flashbacks to previous times with his wife when they were younger, healthier, and happier were common.

Medication burden was the least frequent theme identified in the responses. Comments on the complicated medication regimens of older patients, the burden of remembering to take medication as prescribed, and the importance of appropriate counseling to ensure medication adherence were provided, all to a lesser degree than we expected from student pharmacists. The provision of personalized and effective medication counseling is an important role of pharmacists and attention is given to it in our curriculum, especially in the context of geriatric patients. In this case, the brevity of the pre-film discussion, combined with the many facets of the film and the

generalized wording of the directed reflection items on the survey instrument may not have placed appropriate focus on this intended outcome of viewing the film.

Limitations to this study include the data is from a single college, the small cohort surveyed and the high-baseline positive responses to the pre-film survey that led to limited increases in ratings. Selection bias may have existed as students interested in gaining further knowledge and skills in the areas of geriatric pharmacy practice chose to enroll in the elective. Assessment of student perceptions of all of the films used in the geriatrics elective would provide additional information. A further limitation is that the data is from 2012 and curricula, as well as students' opinions may have changed over time.

CONCLUSION

The use of film in an elective course in geriatric medicine promoted an engaged learning process as student pharmacists viewed the film, participated in the class discussion, and wrote reflections. When used in pharmacy education, viewing a film, coupled with prompted reflection, can be a valuable teaching strategy to inform students about the health and quality-of-life experiences of aging. Efforts involved in course planning, identifying appropriate films, and creating strategies for meeting expected outcomes are crucial to achieving a meaningful experience when incorporating film in pharmacy education.

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Appendix 1. Additional Films With Scenes Depicting the Health and Quality-of-Life Experiences of Aging -- Synopses, Clips and Teaching Points

*Cocoon*¹⁴ relates the fantasy story of a group of seniors who find themselves energized with youthful vigor after swimming in a pool containing alien cocoons. Selected film clips serve as teaching points to illustrate the normal life of senior adults who wish to experience youth again, the experience of saving a spouse's life, remembrance of a life well-lived, and preparing to say farewell to loved ones. The run time for these scenes is about 29 minutes.

*Grumpy Old Men*¹⁵ tells of a lifelong feud between two aging neighbors that only worsens when a new female neighbor moves to town. Selected film clips serve as teaching points to illustrate seniors' opinions about chronic illness, the wish to experience youth again, grieving the loss of a good friend, surviving a myocardial infarction, and hope for life to continue. The run time for these scenes is about 14 minutes.

*Hanging Up*¹⁶ relates the tale of three sisters who bond over their ambivalence toward the illness and approaching death of their irritable father, to whom none of them was particularly close. Selected film clips serve as teaching points to illustrate the onset of age associated memory loss, the frustrations of adult children accepting responsibilities for an aging parent, adult children's guilt for previous inactions toward their parent, frustrations of the one daughter who ultimately assumes the responsibilities, and hope for a father's life to continue. The run time for these scenes is about 20 minutes.

*Old Henry*¹⁷ depicts an elderly man dealing with the challenges of aging who forms a new friendship that brings a fresh perspective to his life. This 22-minute film-short serves to illustrate coping with age associated frailties and losses as well as the effects of a positive attitude.

*On Golden Pond*¹⁷ tells the story of an older man with age associated disabilities who is lovingly cared for by his wife of many years. Selected film clips serve as teaching points to illustrate dealing with the frustrations of old age, the onset of age associated memory loss, experiencing an unclear purpose of life in old age, the appreciation of life-long relationships, experiencing an angina attack followed by facing and accepting impending death. The run time for these scenes is about 24 minutes.
