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INSTRUCTIONAL DESIGN AND ASSESSMENT

Integrating Medical Humanities into a Pharmaceutical Care Seminar on Dementia

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Objective. To design, integrate, and assess the effectiveness of a medical humanities teaching module that focuses on pharmaceutical care for dementia patients.

Design. Visual and textual dementia narratives were presented using a combination of teacher and learner-centered approaches with the aim being to highlight patients' and caregivers' needs for empathy and counselling.

Assessment. As gauged from pre- and post-experience questionnaires, students highly rated this approach to teaching medical humanities. In-class presentations demonstrated students' increased sensitivity to patient and caregiver needs, while objective learning outcomes demonstrated students' increased knowledge and awareness.

Conclusions. Pharmacy students were open to and successfully learned from reading and discussing patient and caregiver narratives, which furthers the discussion on the value of integrating the medical humanities into the curricula of pharmacy and other health sciences.

Keywords: medical humanities, pharmaceutical care, Alzheimer's disease, learning outcomes, evaluation, assessment

INTRODUCTION

The German curricula of health sciences – medicine and pharmaceutical sciences alike – do not plan to integrate medical humanities modules into their syllabi, even though the study of personal illness narratives significantly improves the attitudes of health professions students toward patients,[1] and is successfully used in the training of medical practitioners and nurses in the United States and United Kingdom.[2,3] Given that the pharmacy curriculum in Germany is heavily focused on chemistry,[4] pharmacy students do not benefit from extended teaching in clinical pharmacy. During the last 2 of 8 university-based semesters, 116 academic hours are allocated to chemistry. Only 24 hours are allotted to pharmaceutical care, defined as the responsible provision of drug therapy that achieves the improvement of a patient's quality of life and involves the pharmacist's purposeful interaction with the patient and other health care professionals.[5] Furthermore, lectures in pharmaceutical care usually take into account questions such as drug interactions and contraindications, handling of small medical equipment, or issues of treatment compliance. In comparison, little attention is placed on the actual interaction between patient and pharmacist, as highlighted in a nationwide opinion survey among pharmacy students.[6] Indeed, the patient's personal situation, difficulties in everyday life, and perception of illness and self, all of which impact on how (and whether) a patient will be able to interact with the pharmacist, are neglected in health sciences education in Germany and in the training of pharmacy students, in particular.

In view of the aging population, such considerations will play an increasingly important role. The number of elderly patients (who require the most support from pharmacists) will continue to increase. Because most health care systems will not adapt quickly enough to these changing demands, they will increasingly direct the patient to the pharmacy first, thereby making pharmacists the new gatekeepers.[7] Given that pharmacists will play a central role in filtering and relaying information to healthcare staff and concerned individuals, pharmacists and pharmacy educators must find a way to make care of patients and caregivers a high priority for pharmacy. This need for a greater emphasis on "humanistic parameters" in pharmacy education has been recognized by the Association of German Pharmacy Professors.[8] As part of these efforts, pharmacy students' preparation for actual patient contact must include more focus on patients' perceptions

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of their condition. Where direct contact with patients is not possible,[9] having students read and understand the writings of patients and caregivers is an effective alternative teaching approach.

Building on the author's earlier experience with the reorganization of a physiology course to include more active learning,[10] and the integration of narrative texts into the discussion rounds of students pursuing a doctoral life-science degree,[11] a 2-hour pharmaceutical care teaching module was devised that incorporated textual and visual narratives of dementia patients and caregivers. This approach follows Thomas Couser's insight that integrating the written testimony of those who are ill, by itself, will remove the condition as well as its sufferers from the margins of societal concerns.[12] Such teaching methods critically analyse both illness and patient presentation in narrative texts, considering the kind of information given and the ways in which author-narrators choose to tell their story, with the goal being to gain a deeper understanding of how the condition is perceived.

The specific aim of the course module described and discussed here was to guide pharmacy students to understand patients not only as receivers of pills and carriers of bodily symptoms, but as human beings with psychological needs.

DESIGN

Expected Outcomes and Learning Objectives

The core aim of the medical humanities teaching module was to further the students' understanding of patients' and caregivers' individual illness experiences and consequential needs for skilled and dedicated pharmaceutical care. This article describes the design of a medical humanities teaching module and discusses its influence on the learning outcomes in the light of subjective student reception and evaluation as well as objective learning assessment, emphasizing the unrecognized gaps in the pharmacy curriculum that the medical humanities can fill. In fostering students' understanding and appreciation of the human dimensions of care, the specific learning objectives for the course module encompassed the following: (1) students develop an understanding of how societal preconceptions regarding old age, in general, and dementia, in particular, result in lowered expectations regarding the patient's performance and awareness, and how these lowered expectations impair the patient-pharmacist interaction; (2) students learn how to interact with patients in the pharmacy practice setting, in terms of the language and communication strategies to be applied; (3) students appreciate that, in addition to patients, caregivers also require emotional counselling and practical advice; and (4) students combine this heightened awareness of the need for an empathic interaction with a patient to achieve an improvement in his/her quality of life with an awareness of significant drug interactions or contraindications relevant to pharmacy practice, as well as key knowledge of the condition.

Educational Environment

The course unit on medical humanities was part of a 24-hour seminar series in pharmaceutical care (12 sessions x 2 hours) offered in the seventh of 8 semesters of the university-based part of the German pharmacy degree. In preparation for the pharmacology and pharmaceutical care teaching in the seventh semester, the curriculum offers insights into human biology in the framework of a lecture series spread over semesters 2 and 3 (84 academic hours) and a seminar series in the fourth semester (64 academic hours).[4] Consequentially, clinical considerations come comparatively late in the degree, being offered only from the sixth semester onwards. By the time students took the medical humanities course unit within the pharmaceutical care seminar series, they had completed only 1 semester of pharmacotherapy lectures (56 academic hours), with the bulk of clinically relevant lectures completed later in the curriculum.

Along with the seminar coordinator and 2 pharmacology/clinical pharmacy professors, the pharmaceutical care module was taught by several pharmacists from hospital pharmacies. The module addressed questions of care for patients afflicted by different conditions (eg, cancer, depression, asthma, diabetes, pain, hypertension), as well as specific aspects of care (eg, wound dressing, parenteral nutrition, cytostatic drug preparation) in blocks of 2 hours each.

Course Unit Preparation: Selecting Study Material

Preparation of the medical humanities teaching module required literary analysis and purposeful text selection, which were strongly supported by the broad range of literature available. For example, Greenhalgh and Hurwitz, as well as McLellan, recommend specific narratives,[13,14] while Hawkins and Couser extensively discuss illness narratives text by text.[15,16] In particular, Hawkins categorizes narratives in terms of the specific strategies used by the narrators to cope with their illness, which include, among others, their chosen avenues of therapy as well as ways to interpret their illness within their biography and images explaining their condition. Couser, in turn, looks at aesthetic presentation as well as the political intentions behind the stories of specific illnesses. In addition, Charon highlights aspects of narrative analysis especially in the medical context.[17]

These scholarly texts provide a deeper understanding of how to read illness narratives. The study of material

deliberating on various settings and conditions, where medical humanities approaches could be used (both in the medical and the humanities context and environment), further facilitates preparation.[18]

Course Pedagogy and Contents

In consideration of the students' densely packed schedule, the lecturer invited the students to read Lisa Genova's *Still Alice* (original English version or German translation) in preparation for the course unit 2 months prior to starting the module. Having a German translation available ensured that a language barrier would not add to any preconceptions students may hold regarding the study of narrative literature. At the same time, the lecturer informed the students that those who did not read the entire novel would receive a copy of the novel's core sections in advance of the course unit. In this way, students attended the session having had some preliminary (narrative contact) with an Alzheimer's patient that illuminated the patient's illness experience. All primary literature used in the course unit (photos, drawings, paintings, and textual narratives) is listed in Table 1.

During the initial 15 minutes of the seminar, the instructor delivered an interactive lecture that established the pharmaco-scientific background of the condition,[19] challenging the students as to how they would make use of this knowledge in their daily patient encounters. In the following 40 minutes, the lecturer introduced the students to different viewpoints about the condition using an interactive dialogue and PowerPoint slides.

Before details about a patient were shared, students were asked how they imagined a patient to be. Through a discussion of a series of photographs taken by caregivers, students were encouraged to consider the many preconceptions associated with the condition, such as the patient's frailty, passivity, dependence, and old age. Such insights became particularly clear from the sequential arrangement of photos (eg, students could see how the patient's hairstyle and clothes became less stylish and more practical over the course of the illness) that highlighted and virtually foreboded the patient's decline. In another case, however, the caregiver chose to share photos showing the patient's humanity, sense of humor, and emotions.[20,21]

After discussing the students' perceptions about the patient, the class then discussed the patient's and caregiver's perceptions. This was addressed by comparing drawings by a patient and caregiver. This comparison revealed that some patients have a clear awareness of their state, with one patient's impressionistic presentation leaving room for her optimism about her condition. In contrast, the caregiver's choice of muted dark colors in largely expressionistic compositions illustrates her lack of understanding and feelings of not being able to communicate with the patient.[22]

The third question addressed was what needs do patients and caregivers have, based on the patient's and caregiver's own accounts, and how can a pharmacist meet those needs? For 15 minutes, the class worked in groups of 6 to 7 students, looking at short passages taken from patient and caregiver narratives. They were asked first to identify the passage's core message; second, to voice any concerns regarding the way in which the patient or caregiver presented their case; and third, to suggest ways in which a pharmacist could assist the patient and caregiver following their claims. Student groups presented their key findings to the entire class, highlighting the factual information to be drawn from these accounts. These included strategies of communication with patients as well as the appropriate attitude towards their predicament.[23] In each

Table 1. Primary Texts Used in a Medical Humanities Seminar on Pharmacists' Role in Caring for Dementia Patients

Fictional narrative:

Genova L. *Mein Leben ohne Gestern [Still Alice].* Cologne: Bastei-Lübbe; 2011.

Caregiver narratives:

Fox J. *I Still Do: Loving and Living with Alzheimer's.* New York: Power House Books; 2009.

Grothé J. *Alzheimer: Un journal photographique [Alzheimer: A Photographic Diary].* Montreal: Les 400 coups; 2007

Spohr BB. *Catch a Falling Star.* Seattle: Storm Peak Press; 1995.

Toledano P. *Days with My Father.* San Francisco: Blackwell; 2010. See also www.dayswithmyfather.com.

Wall F. *Where Did Mary Go?* New York: Prometheus Books; 1996.

Zabbia KH. *Painted Diaries. A Mother and Daughter's Experience through Alzheimer's.* Minneapolis: Fairview Press; 1996.

Patient narratives:

Bryden C. *Dancing with Dementia.* London: Jessica Kingsley Publishers; 2005.

Couturier C. *Puzzle: Journal d'une Alzheimer. [Jigsaw: Diary of an Alzheimer's Patient].* Paris: Josette Lyon ; 2004.

Students read extracts from the German fictional narrative. Patient and caregiver narratives were all in English; the 2 French-language narratives provided photos and paintings.

case, the burdens and practical concerns of the caregiver were addressed as being equally important as those of the patient.[24] In addition, students voiced awareness of the very personal point of view, need and urgency in the confrontation with dementia that speak from the form of these texts. For example, one caregiver sets out a bullet-point–like action plan that equates the patient to a child and suggests impersonal caring, while another caregiver offers a highly candid account of the care situation and shares personal photos.

Following this learner-focused session, the lecturer summarized the key points regarding patient and caregiver needs using slides and a handout. She ended the module with a 10-minute presentation on core facts regarding pharmaceutical interactions of drugs often prescribed to elderly patients, which might exacerbate cognitive difficulties.[25] These considerations linked into the patient's and caregiver's need for expert pharmaceutical counselling in addition to emotional and quality-of-life counselling.

EVALUATION AND ASSESSMENT

Several weeks before the module was taught, a short questionnaire was administered to gauge students' expectations about a seminar that used narratives to broach the topic of dementia. Specifically, students were asked to rate their expectations on a scale from 1 (superfluous) to 5 (useful complement). Fifty-three students (93% of the class) completed the questionnaire. Eighty-five percent of students believed such a seminar would be a useful (4.0 or higher) complement to clinicopharmacological information (Table 2). When asked what they expected to learn in a course on pharmaceutical care of dementia patients, 53% selected learn about suitable behavior of the pharmacist towards patient and caregiver, 45% selected become more acquainted with the patient's individual illness experience, and 36% selected learn how to show empathy to patients and caregivers (Table 3).

Immediately following the course unit, students were asked to complete a second questionnaire evaluating the module. Fifty-two students (91% of the class) completed the second survey. Fifty percent of students felt they had increased their knowledge regarding suitable behavior towards patients and caregivers, and 40% felt their empathy toward patients and caregivers had increased. Thirty-one percent appreciated the patient's individuality more, and 31% felt they had been made aware of topics relevant to patient and caregiver counseling. Furthermore, 58% and 33% of the students saw cancer and psycho-neurological disorders, respectively, as being worthwhile topics to explore using medical humanities teaching approaches (Table 4). Only 21% of the students did not indicate any further topics for narrative exploration. Finally, students were invited to comment on the teaching module. Several students appreciated the introduction of the topic by means of Genova's fictional text. Others stated that they felt the patient and caregiver photos, drawings, and writings were useful for getting to know the illness and its consequences. Some requested more firsthand insight in the form of audio material or actual caregiver/patient interviews, and suggested that the group work portion of the module be expanded. Others, in contrast, felt this part of the module was too long. A few students felt the class exercise involving interpretation of paintings by patients and caregivers should be omitted.

Table 2. Pharmacy Students' Expectation About and Perceptions of a Medical Humanities Teaching Module

Question	Score, Mean (SD)
Expectations of the course	
What are your expectations of such a course unit?	4.2 (0.7)
Perceptions of the course	
Will the issues discussed help you in the daily patient encounter?	4.2 (0.7)
Should this teaching approach be used for other conditions?	3.9 (0.9)
Could these issues have been taught without narrative texts?	2.6 (1.1)[a]

Scores from 1 (negative, not at all) to 5 (positive, most certainly) could be selected.
[a] $p<0.001$

Table 3. Outcomes of a Medical Humanities Seminar on the Pharmacists' Role in Caring for Dementia Patients

Learning Outcomes	Expectation (n = 53)	Perception (n = 52)
Behaviour towards patient and caregiver	53	50
Empathy with patient and caregiver	36	40
Appreciation of individuality, sufferance and problems	45	31
Topics relevant to patient and caregiver counselling	26	31
Awareness of options for non-therapeutic intervention	17	10

Students were asked prior to (expectation) and after the course unit (perception) what they believe to (have) learn(ed) from the course unit. All students answered this open question; their answers fell into the 5 learning outcomes categories listed. Multiple answers were possible and are given as percentages.

Table 4. Students' Suggestions of Conditions for Medical Humanities-Related Exploration (n = 52)

Topics	Percentage of Students Who Suggested This Topic[a]
Cancer	58
Schizophrenia, depression	33
Parkinson's disease, neurodegeneration	12
Pain (acute and chronic)	12
Autoimmune disease, rheumatism	10
Illnesses of childhood and old age	6

[a] Students could name 1 or 2 conditions.

In addition, students rated several items on a scale from 1 to 5: whether the issues discussed would help them in the daily patient encounter; whether this teaching approach should be used for pharmaceutical care lecturing on other conditions; and, whether these issues could have been taught without using narrative texts. This latter question was, thus, deliberately inversely scaled, ie, students giving high scores for the medical humanities approach (and all other questions) would have to give a low mark for this last question, which ensured reliability of the data collected. Over 88% of students considered the module useful in terms of knowledge for future patient encounters (Table 2), scoring it 4 or 5 points; 73% of students scored the question regarding more extensive use of the medical humanities approach with 4 or 5 points (Table 2). Only 17% believed that textbook approaches would have accomplished the same purpose (Table 2; $p<0.001$). The questions used in the questionnaires are listed in Appendix 1.

Course Examination

Objective learning outcomes were assessed by means of a written examination that comprised multiple-choice and short (non-essay) open-ended questions. The 30 questions referred to all subjects taught within the framework of clinical pharmacy, ie, pharmacoeconomy, epidemiology, pharmacokinetics, and pharmaceutical care. Regarding the module on dementia care, 1 multiple-choice question addressed students' attitudes about counselling dementia patients, and 1 open-ended question asked the student to list 4 early signs of dementia. Fifty-nine students completed the examination including 2 students who had to re-sit for the examination. Only 5% answered the dementia-related multiple-choice question incorrectly, and only 24% got 50% or less points for the open question; 15% of the students failed the examination.

Statistical Analysis

The Kruskal-Wallis test was used to compare 3 or more unmatched groups (non-Gaussian distribution). Dunn's post-hoc test was used for multiple comparisons. The data collected was considered representative, given that both questionnaires were returned by over 90% of the students.[26] Although a considerable number of students (21%) did not indicate further conditions for exploration in terms of medical humanities approaches (Table 4), the sample of 52 to 53 students is considered representative, ie, a significant number of students completed the form despite not having been convinced by the teaching method *per se*. Percentage scores are specified to no more than 2 significant figures.

DISCUSSION

The core aim of this medical humanities teaching module was to guide students to perceive of patients not only as carriers of bodily symptoms and receivers of drugs, but as human beings, who in their illness experience, need psychological support from their pharmacist, as well as pharmaceutical advice and counselling.

Various challenges were associated with delivering this medical humanities module. From a practical viewpoint, a classical humanities discussion round is not easily conducted with a large group, especially if students are not used to that much interaction within an otherwise lecture-oriented seminar series. In that respect, it helped that the students knew, from previous physiology and pharmacology courses, the lecturer's highly interactive approach.[10] Beginning the session with a teacher-driven section ensured that all students focused on the subject and reached a certain level of understanding and common ground before introducing the group activity.

A core aim of this module was to expose students to actual patient experiences. The discussion of patient and caregiver photographs and paintings during class sessions helped students to appreciate the crucial impact of viewpoint and potential preconceptions. Still, a truly learner-centred section of the course in the form of assigned readings was necessary to ensure that students "literally" experienced the patient.[12] Here, the challenge was the large classroom setting: to make discussion of patient and caregiver stories easier, groups were kept small, with a maximum of 6 to 7 students in each of 9 groups. Unfortunately, the time required for students in each group to voice their findings exceeded the originally budgeted 45 minutes (about 5 minutes per group), especially as many of the groups' comments led to animated class discussions. In agreement with earlier work on the ambivalence of learner-driven teaching in large group settings,[27] some students felt this section of the module

was too long. However, other students' suggestions to expand the group-work portion of the module implies that many students truly benefitted from this section and appreciated working on narrative texts. This assumption is also supported by the students' ranking of the course reception (Table 2). Pioneering the use of narrative texts in the required curriculum for a life-science degree is further challenged by the fact that pharmacy students, whose schedules are already overloaded, may perceive reading literary texts as an unproductive and/or inappropriate use of their time. However, in light of the increasing presence of medical humanities, particularly, in US and UK medical curricula,[18,28] and its proven beneficial effect on students' understanding of the human dimension of caring,[3] such an approach seemed necessary. This is especially true for pharmacy students who have had little if any patient contact throughout the early semesters of their degree program.

Thus, the students' high expectations for the medical humanities module as reflected in their pre-seminar questionnaire responses were understandable (Table 2). Inviting students to read Lisa Genova's fictional text prior to the module was helpful. Although students were not asked whether they read the entire text prior to the seminar, formal and informal feedback from students post-seminar indicated that at least 10% had acquired and read the text.

Using dementia life-writing for the purpose of teaching in a science degree might seem rather unorthodox as such texts can hardly be analysed in terms of traditional narrative theory:[15,16] Instead of only interpreting the stories literally (factually), one must bear in mind the narrator's need for the reader to have a positive interpretation of the narrator's situation in the face of a degenerative condition – and to be perceived as fully functioning individuals (which they hope they have portrayed through the coherent narrative style in which they deliver their story). Yet these texts also draw the students' attention to the caregiver and patient's drive to learn more about their condition and its treatment options. Furthermore, the use of such texts enables a more empathic diagnosis by encouraging the student to see the illness from a different point of view,[30] sensitizes the reader to the perceived ambivalence of aging,[31,32] and highlights the value of narratives in helping health professionals understand patient and caregiver needs.[33] At the same time, this seminar raised students' awareness of this source of personal information, and hopefully, they will continue to explore illness narratives on their own (Table 4). The instructor hopes to create additional seminars in the future, even though the current design and density of the pharmacy curriculum hampers a more in-depth exploration of medical narrative. In comparison, these issues are extensively explored in postgraduate seminars spread over several sessions,[11] where students read fictional and/or non-fictional narratives about a specific condition and then discuss them.

The extent to which humanities aspects of disease can be explored in a 2-hour seminar is limited. The medical humanities approach usually includes the analysis of the structure, form, and language of narrative material (asking, eg, whether a text is organized following a chronological order or by topics of significance, and what images are included).[17] However, the demands of time and objectively assessable learning outcomes preclude the students' thorough initiation to the use of, eg, metaphorical language in relation to dementia or the mythical formulation of caregiver experience (ie, as to why one narrator describes a "journey," while another emphasizes images of "battle").[34,35] Compared with a discussion of narrative, a discussion of images is more easily achieved. Nevertheless, the ambivalence of some students to photo or painting interpretation only confirms that more time is needed to put such humanities considerations in context. Still, especially the guiding question as to whether the students had any concerns regarding the narrator's way of presenting their situation and condition solicited various comments. For example, that a dementia patient presented a coherent story in an accomplished tone led to a discussion about collaborative writing. Similarly, the caregiver's choice to offer candid photos or a sober action list encouraged students' deliberations on the ethicalness of writing about a patient. These deliberations further challenged the students to consider and value patient autonomy and self-assertion in patient encounters.

Other approaches, such as conducting patient interviews, role plays, or simulations, or engaging students in actual clinical contact with patients,[36-38] could be used to prepare students for their encounter with the patient in the pharmacy. However, such approaches are limited to institutions where clinical collaborations with patient care facilities exist. Moreover, the teaching approach described here gives students a deeper and wider understanding of patients' humanity and increases their empathy and ability to see things from the patient's point of view.

Finally, the question arises as to how to assess learning outcomes objectively when students' acquisition of empathy is the primary objective. Undoubtedly, students take away a deeper understanding of patients' humanity. Indeed, the congruence between the students' expectations regarding their learning outcomes and what they indicated they learned was striking (Table 3). Nevertheless, there were some discrepancies between students' expectations for the course and their actual experience; specifically, they anticipated more emphasis on patient counselling.

The teaching unit was intended to further students' awareness of the need for empathic interaction with patients to achieve improvements in patients' quality of life. Because the learning objectives are not expressed in directly measurable terms, determination of successful teaching is challenging. In addition, a case-based teaching approach usually demands an essay assessment,[39] while a multiple-choice examination appeals to the students' common sense.[40] Nevertheless, alterations to the pedagogy and andragogy of one course unit within a series of 12 pharmaceutical care seminars could not straightforwardly be reflected in alterations to the established structure of the examination, which assessed student learning on all subjects of clinical pharmacy. In the future, this examination could include an oral test involving patient simulation, or require students to write brief humanities essays. The true test of the effectiveness of the seminar will come when the students begin pharmaceutical practice experiences, at which point they hopefully will choose to listen and care about what patients and caregivers bring to their attention.

The instructor's impression during and following the course was that she had opened an entirely new avenue of thinking for most of the students, and she highly appreciated their challenging questions and comments as these suggested the students' critical consideration of the teaching approach used. As such, the instructor encouraged the students to continue to explore the memoir/autobiography section in book shops for additional patient and caregiver narratives. Unsolicited post-course comments from students further encouraged the instructor's positive view of the lecturing experience. That over 88% of the students believed that the module would be useful in future patient encounters and 73% of them felt that medical humanities should be taught using a similar approach in other pharmaceutical care courses (Table 2) suggests that students are receptive to the use of such teaching methods. The findings from this study should encourage other lecturers to implement similar teaching strategies for medical humanities into a curriculum that is traditionally science-based and overcrowded with textbook learning and memorization of facts.

SUMMARY

A medical humanities teaching module in clinical pharmacy that focused on pharmaceutical care for dementia patients was implemented, with the core aim being to highlight patients' perceptions of illness and self, which strongly impact how patients interact with pharmacists. Visual and textual patient and caregiver narratives were presented to students and they were asked to discern the narrators' pharmacy counselling and care needs. The pre- and post-course perceptions of students suggested a remarkable openness to and need for such teaching modules. Their objectively measured learning confirms the suitability of such medical humanities approaches. In light of the changing demands on current health care systems, these findings further the discussion of the increasing relevance of and need for medical humanities teaching within the pharmacy curriculum, in particular, as well as within all health sciences and medical syllabi.

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Appendix 1. Questions asked in the expectation and perception questionnaires administered to students enrolled in a medical humanities seminar on the pharmacists' role in caring for dementia patients (translated from German).

Expectations Questionnaire

What do you hope to learn in a seminar on "Pharmaceutical Care of Alzheimer's Patients"? Give up to four keywords.
Do you believe that the study of literary texts (e.g., novels, diaries, narratives etc.) can prepare you for the confrontation with Alzheimer's patients in the pharmacy? Rate on a scale from 1 (not at all) to 5 (most certainly).
What are your expectations regarding such a seminar? Rate on a scale from 1 (superfluous) to 5 (useful complement).

Perception Questionnaire

What do you believe to have learnt in the seminar "Pharmaceutical Care of Alzheimer's Patients"? Give 2 to 4 keywords.
Do you think these aspects will help you in the daily patient encounter? Rate on a scale from 1 (not at all) to 5 (most certainly).
Do you believe these issues could have been taught without literary study? Rate on a scale from 1 (not at all) to 5 (most certainly).
Should similar seminars be held for other topics/conditions? Rate on a scale from 1 (not at all) to 5 (most certainly).
What other topics/conditions should be considered in this manner? Give up to 2 keywords.
Comments, criticism? What do you miss in this course unit?