

Becoming a Physician: Students' Creative Projects in a Third-year IM Clerkship

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ABSTRACT

Purpose. Medical educators have only limited understanding of how integrating humanities-based components into standard curricula contributes to the medical students' professionalism. This study qualitatively analyzed how students used a creative-project assignment during their third-year internal medicine clerkships to explore various aspects of their professional development.

Method. A total of 277 students from three consecutive classes (1999–2002) at the University of California, Irvine, College of Medicine each completed a creative project reflecting on a particularly problematic or meaningful illness-related incident. Process and content analyses of the 221 projects submitted for analysis were performed.

Results. Students' projects employed a wide range of formats, tones, and styles to examine the process of socialization into medicine. Within this framework, their work tended to explore issues such as the proper relationship of medical students to patients, coming to terms with death and dying, understanding the patient's experience of illness, and coping with professional and personal stress.

Conclusion. A creative-projects course component can be a valuable adjunct to traditional clerkship activities in helping students to reflect on the process of becoming a physician.

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For more than 30 years, the humanities have been represented in the curricula of major U.S. medical schools.¹ In fact, in a recent six-year period, the proportion of schools with humanities course content rose from one third to three fourths.² Although student and faculty responses to medical humanities are generally positive,^{3,4} our understanding of what the humanities can contribute to medical education

and how their presence in the curriculum affects learners is still insufficient.

In particular, we have little information about the relationship of original creative work in the humanities and arts to students' professional development in areas such as establishing an appropriate and helpful doctor–patient relationship or discovering personal meaning in the medical school socialization experience. Almost two decades ago, Rita Charon⁵ introduced the practice of writing exercises from the patient's point of view. She argued that such writing helps students empathize without losing their objectivity and also facilitates discovery of the meaning of their interactions with patients.⁶ Other anecdotal evidence suggests that students' writing can be an effective vehicle for developing and examining professional identity as well as healing training-related traumas.^{7,8} This con-

clusion is substantiated by the work of James Pennebaker on the therapeutic uses of both expressive writing⁹ and dance movement.¹⁰ Other scholars have made the case that participating in drama helps with awareness of bodily expression in interaction with patients, and gives physicians practice altering ingrained role patterns.¹¹ While scholarship has explored the therapeutic uses of art^{12,13} and music,^{14,15} their applications in medical training have not been documented.

There have been a few previous attempts to analyze students' original work. Branch et al. reported an analysis of 100 critical-incident reports, which they defined as "short narratives of events judged to be particularly meaningful by participants in the events."¹⁶ The authors identified conflicting themes of empathy and acculturation difficulties in the students' narratives,

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and concluded that the students had used the essays to explore ways of reconciling these two issues. Poirier et al. also examined poetry as a vehicle for students to reflect on their experiences of professional development.¹⁷ Using a developmental model that extended from the preclinical to the clinical years, they also identified students' struggles to maintain idealism and compassion toward patients. Finally, Henderson analyzed three poems from "The Body Electric," a student-edited journal of poetry, art, and personal essays published by the University of Illinois School of Medicine, to consider how students used this medium to learn to interact with dying patients.¹⁸ He concluded that, through their poems, students attempted to resolve their ambivalence about simultaneously holding the patient as "both a medical object and an experiencing subject." In his interpretation, most students rejected the "relative prioritizing of intervention over caring in medical culture" and used their poems as literary memorials to the value of caring.

In this paper, we report our additional effort to describe and analyze a creative projects course component introduced as part of a third-year medicine clerkship. Specifically, from a qualitative perspective, we wished to learn in greater depth how students used the creative project to reflect on their early clinical experiences and to explore their socialization into the medical profession, and whether they thought such an activity was helpful in their professional development.

METHOD

Procedure

In 1999–2000, the third-year internal medicine (IM) clerkship at the University of California, Irvine, College of Medicine introduced a mandatory creative project that was defined as any

original creative effort, including writing (poetry, short story, essay, play), art (painting, drawing, collage, photography), music (songs and compositions), and mixed media (video, performance art). Instructions directed the student to reflect on some encounter with a patient or other personal experience during the clerkship (or during another clerkship, or simply having to do with illness generally) that had made a significant impression, positive or negative. The student was to use the project to explore some dimension of this experience. Students were encouraged to share their projects in a small-group discussion through performance, presentation, or reading, but they could also decline to do so. In line with similar group exercises,^{19,20} the students received their colleagues' projects in respectful and attentive silence, in which the "audience" practiced focusing with all their senses on the project being shared. Faculty facilitators instructed the students not to comment on the quality of individual works, but rather to disclose personal thoughts and feelings triggered by each project. A wrap-up discussion explored students' reactions to the overall experience. Attendance at the discussion group and completion of the project were required to receive a clerkship grade; however, the quality of participation in the group discussion or of the creative project itself made no contribution to the student's grade. Projects were collected for analysis from 1999 to 2002. Out of a possible 277 students completing the IM clerkship during this time, 221 (79.8%) turned in projects for analysis.

Data Analysis

One of us (JS) and an undergraduate student first used a descriptive then an interpretive content-analysis approach to the creative projects.^{21,22} Projects were reviewed to generate preliminary coding categories, which were then

discussed by the research team until consensus was achieved. We reviewed the projects a second time to determine how each project could be classified according to these categories. Ideas or phenomena were first identified and flagged (open coding), then fractured and reassembled (axial coding) by making connections between categories and subcategories. Finally, categories were integrated to form a single overarching conceptual category (selective coding). The other author (LR) reviewed, commented on, and modified the interpretation of these initial findings.

RESULTS

Our data analysis yielded eight major categories: two content categories (subject and theme) and six process categories (format, point of view, tone, empathy for patient, sympathetic understanding for self, and degree of resolution) (see Table 1). The content categories examined what kinds of topics and issues students chose to address through their creative projects. The process categories dealt with how they examined these topics and issues. We further refined these eight categories into the overarching conceptual category of "becoming a physician," which seemed to best represent the focus of the projects. We arrived at this conclusion because, regardless of content or style, in one respect or another, the vast majority of the projects grappled with what it meant to become a physician, and how that process was changing the students and their relationships with others, in ways both good and bad.

Content Categories

Subject. Our content analysis first examined the main subject matter that students selected for their projects, i.e., what the project was primarily "about." Not surprisingly, the largest number

of students focused on patients as the subjects of their creative projects, particularly dying patients. A number of students tended to concentrate on themselves and their own experiences as medical students as the subject. Finally, several students in each year chose to reflect on personal contacts with illness and death.

Theme. The content analysis also considered the relational, professional, and ethical themes that concerned these third-year students. Themes might or might not coincide with the main subject of the project, but were issues that the students addressed at some level in undertaking the project. Although the projects varied greatly, some frequently-examined themes could be identified. For example, either directly or indirectly, many students considered the nature of the doctor-patient relationship and, in particular, what qualities contribute to a meaningful, appropriate, and supportive relationship. Some specifically probed aspects of doctor-patient communication, including telling the truth to dying patients. In these projects, the students voiced their own anxieties about speaking professionally yet compassionately, and frequently commented on communication failures in their putative professional role models, i.e., residents and attending physicians.

Related to the theme of relationship were projects in which students reflected on the role of emotions in patient care, particularly empathy, caring, and compassion, and on what might be acceptable limits to these emotions. Students worried about whether they cared too much about their patients, or not enough. They generally identified with patients and felt their suffering acutely, but wondered whether this emotional sensitivity might overwhelm them and render them either unprofessional or ineffectual. Students questioned how to retain their human responses to suffering, how to deal with their own helplessness and frustration,

and how to express empathy for patients. Several students each year noted, as either an explicit subject or a touched-upon theme, both the parallels and the conflicts between the student's and the patient's roles. They expressed confusion and distress when they realized that the patient's agenda (i.e., to receive care and cure) might sometimes be at variance with the student's agenda (i.e., to finish on time, to look good in the eyes of the resident).

In a related vein, students also used their projects to better understand the patient's experience of illness and/or to remind themselves that they were treating a person, not merely a disease. A similar theme was the importance of carefully listening to and learning from patients. These projects seemed to reflect the attitude that only by paying careful attention to the totality of the patient could students truly comprehend the nature of disease and illness. Interestingly, relatively few students mentioned residents or attending physicians as teachers whom the students could emulate. A handful of students each year did present images of either contemporary or historical physicians as personal role models, but the majority of their projects highlighted "anti-role models," in the sense that the students planned to learn from them as negative examples.

Many of the students concentrated on the socialization process directly, exploring the expectations and role requirements of the medical student within the hierarchy of medicine, the stresses and, at times, brutality of medical school, and the balance between personal and professional worlds. Some students focused on the challenges of newly introduced clinical responsibilities, their limitations and sense of inadequacy, feelings of being overwhelmed by too much information and knowledge to master, and the humiliating experience of being questioned by superiors about their knowledge base in a condescending or hostile

manner. Other students expressed concerns about an encroaching desensitization, lack of humanity, and failures of empathy in themselves. They were deeply troubled that their experiences in medical school were making them less caring, kind, and compassionate human beings, and fretted about how the diminution of such qualities would affect them as physicians.

A substantial number of the students wrestled with issues of dying, end of life, and the limits of intervention. In their projects, they explored their own fears of death, their helplessness in the face of the dying process, and at times, their discomfort with the medical heroics engaged in to extend life, however briefly. They often searched for meaning in how patients died, whether through personal spiritual beliefs, through a desire to preserve the patient's dignity and humanity, or in the loving memories of family and friends.

In summary, through their creative projects, these students struggled with what, in our opinion, are perennial core issues in the socialization of physicians: the transformation from "ordinary person" to doctor, the nature of a meaningful relationship between the student-physician and the patient, the balance of personal life and career, ethical dilemmas, and difficult topics such as death and dying.

Process Categories

On a process level, we identified six categories by asking, when the students used creative projects to explore the socialization process, (1) What format did they use? (2) Whose point of view did they adopt? (3) What tone did they use? (4) To what extent did they empathize with patients? (5) To what extent did they demonstrate sympathetic understanding for themselves? and (6) Did they resolve the issues that concerned them?

What format did students use? Format refers to the artistic form

students chose to express themselves in their projects. The largest numbers of students selected either poetry or personal essays, followed by some form of artwork. Notably, a significant number of students (over a fourth in 2001–02) chose unique forms of self-expression outside these three major categories, such as song, dance, taste tests, imaginary chart notes, letters, videos, and skits.

What point of view did students adopt? Point of view indicates which perspective (i.e., one's own, the patient's, another's) the student selected, and indirectly sheds light on where the student was developmentally in the socialization process. It is reasonable to speculate that learners will use a creative project to explore their own points of view when they are still unclear what those points of view are. Learners who are more certain of their own values and beliefs might be tempted to examine the patient's point of view more often. In these projects, the students most frequently adopted the first-person point of view, possibly reflecting that third-year medical students are essentially self-focused and absorbed with their own performances and experiences. A significant number chose the third-person point of view, either to describe patients or to write critical-incident essays, in this manner attempting to retain a somewhat more detached perspective. A handful of students adopted an omniscient perspective, while a sizeable minority of students moved back and forth between the first person and the second or third person, in this way simultaneously representing both the student's and the patient's points of view. This dual style seemed to reflect these students' developing awareness that physicians must consider not only their own perspectives, but those of their patients as well. A small number of students adopted the patient's perspective exclusively, writing in the patient's voice in the first person.

Table 1

Creative Projects of 221 Third-year Medical Students in IM Clerkships, by Content and Process Categories,* University of California, Irvine, College of Medicine, 1999–2002	
Category	No. (%)
Content	
Subject	
Dying patient	55(24.9)
Difficult patient	24(10.9)
Elderly patient	8(3.6)
Inpatient	20(9.0)
Outpatient	11(5.0)
Student's experience of socialization	38(17.2)
Student–patient parallels/conflicts	17(7.7)
Role of physician	12(5.4)
Student's personal contact with illness/death	22(9.9)
Chronic illness	6(2.7)
Relationships between students, residents, faculty	5(2.3)
Miscellaneous	3(1.4)
Theme†	
Physician–patient relationship	127(57.5)
Physician–patient communication	40(18.1)
Patient's experience of illness	76(34.4)
Coming to terms with death and dying	52(23.5)
Limits of intervention	19(8.6)
Patients as teachers	40(18.1)
Whole-person focus	24(10.9)
Coping with difficult patients	24(10.9)
Coping with medical school experiences	52(23.5)
Student–patient parallels/conflicts	23(10.4)
Emotion and empathy	29(13.1)
Images of physicians	19(8.6)
Relationship between students, attending physicians, and residents	15(6.8)
Cultural issues	10(4.5)
Miscellaneous‡	24(10.8)
Process	
Format	
Artwork	38(17.2)
Poetry	66(29.9)
Personal essay	55(24.9)
Commentary	23(10.4)
Miscellaneous§	39(17.6)
Point of view	
First person singular (student's point of view)	125(56.6)
First person singular (patient's point of view)	9(4.1)
First person plural (either students' or patients' point of view: we)	8(3.6)
Second person	4(1.8)
Third person (about patient: he/she)	40(18.1)
Omniscient	10(4.5)
Mixed (first/second, first/third)	25(11.3)
Tone	
Objective	18(8.1)
Reflective	49(22.2)
Ironic/humorous	50(22.6)

Table 1

Continued	
Category	No. (%)
Sorrowful/tragic	30(13.6)
Compassionate	23(10.4)
Positive/hopeful	17(7.7)
Guilty/helpless	12(5.5)
Frustrated/angry	16(7.2)
Fearful/worried	6(2.7)
Empathy for patient	
Yes	168(76.0)
No	20(9.0)
Ambiguous	12(5.5)
Not applicable	12(5.5)
Sympathetic understanding for self	
Yes	122(55.2)
No	52(23.5)
Ambiguous	9(4.1)
Not applicable	38(17.2)
Degree of resolution	
Yes	99(44.8)
No	93(42.1)
Ambiguous	29(13.1)

*The content categories were subject (the main topic chosen) and theme (main ideas/issues explored). The process categories were format (creative mode chosen), point of view (first, second, third person, or combination), tone (style of expression), empathy for patient (understanding from perspective of another), sympathetic understanding for self, and degree of resolution (whether issues resolved at end of project).

†Numbers in the theme section add up to more than 221 and percentages add up to more than 100% because multiple themes were often explored in a single project.

‡Miscellaneous themes included sociocultural issues, abortion, spirituality, research ethics, meaning of life, and drug companies.

§Miscellaneous formats were role-playing, video, short story, chart notes, letter, journal, song, novel, parable, activity book, food, oral storytelling, sayings, survival manual, dance, and patient interviews.

What tone did students use? The tone students adopt to produce creative work provides insights into how they choose to portray themselves. Perhaps in keeping with a favored medical school coping strategy, about a fifth of the students used either an overtly humorous tone or one shaded more darkly and ironically, masking negative emotions with a sardonic twist. A similar number used what we labeled a reflective tone, thoughtfully ruminating on an event and seeking understanding and meaning. A smaller number of projects had a tragic/sorrowful tone. The remainder was fairly evenly divided among tones that could

be characterized as empathic/compassionate, positive/hopeful, objective/detached, guilty/helpless, and frustrated/angry. Overall, these projects suggested that the students drew on a broad range of tones to effectively explore issues of socialization, and did not restrict themselves to mimicking the scientific mode of expression.

To what extent did students empathize with patients? In our analyses, we defined empathy as an understanding of and emotional connection with other, in this case usually the patient or, less frequently, a family member. Empathy is generally considered a key component of medical professionalism.

The large majority of medical students in our study were empathic toward the patients whom they described in their projects. Indeed, they often used their projects to explore intense, sometimes painful, emotions about the experiences of their patients, emotions that otherwise might have had little outlet in the usual course of training.

To what extent did students demonstrate sympathetic understanding for themselves? The students tended to express somewhat less understanding and sympathy for their own situations. Even taking into consideration the larger number of projects where sympathetic understanding for self was not relevant, these students were more likely to express empathy for patients than they were to show sympathy toward themselves.

Did students resolve the issues that concerned them? Since the students had struggled with difficult aspects of clinical medicine, we wondered to what extent they had resolved their issues upon completing their projects. In other words, did the student appear to have learned a lesson, reached a conclusion, or resolved a dilemma? Some research suggests that, at least for expressive writing, progression from lack of resolution to resolution is associated with improved mental and physical health,¹³ and, therefore, may be an important criterion to examine.

On this point, the students were almost equally divided. About half the students used their creative projects to move from lack of resolution to resolution; for example, coming to a clear determination about the limits of medical intervention, or the right of the patient to be treated with dignity. But a similar number of students ended their projects still questioning and uncertain. When we compared the two most common methods of self-expression, poetry and personal essays, we discovered an inverse relationship: students who chose to write poetry were more likely to remain unresolved

about their issues, while students who wrote personal essays were more likely to reach resolution. This might have been a function of the method itself—writing an essay might be more effective in helping students resolve their dilemmas. On the other hand, it could be that students who had already reached resolution were more likely to choose a sequential, narrative form to express their thoughts.

Interestingly, across all three years of our study, there was relatively little variation in the percentages of students in the eight individual coding categories or their subcategories. The students in 2001–02 used more artwork and showed more variety in their creative projects than did those in the previous two years. They also tended to favor a humorous approach more than did the students in the other years. The students in 2000–01 relied more on first-person and less on third-person narratives than did the students in 1999–2000 or 2001–02, and were more likely to express an overall negative emotion in their work. They were also somewhat less likely to reach resolution than were the students in the other two years. These differences may have resulted from variations in the students or in the curriculum (i.e., an emphasis on point of view writing in 2000–01, and the introduction of a student art exhibit program in 2001–02), from the interaction between characteristics of the students and of the curriculum, or from other sources not identified.

Overall, it appeared that, in the students' third year of medical training, becoming a physician was still very much a work in progress. They struggled to understand perennial issues that have always concerned physicians, but were as likely to remain conflicted as they were to reach resolution. They tended to view their experiences in medicine from their personal perspectives, but demonstrated great empathy and fellow feeling for their patients as well. They seemed to have more

antagonistic or problematic relationships with residents and attending physicians. Stylistically speaking, they experimented with a range of formats and tones in an effort to adequately capture their experiences with patients.

DISCUSSION

Typically, these students were reluctant to do the creative projects, and even more reluctant to share them in a group of their peers. Some students commented initially that such an activity was "busywork," or something they could do "on their own time." What struck the faculty participant-observers most forcibly was the contrast between the students' initial resistance to the task and the subsequent quality of the projects, as well as the intense emotional responses often evoked during the group sharing. The range of creative expression itself was noteworthy, especially because medical students are sometimes stereotyped as having an excessively narrow scientific focus with little appreciation for or understanding of the humanities. In our experience, given encouragement to do so, students freely experimented with various creative forms, including the literary, visual, and performing arts, and demonstrated impressive breadth of self-expression.

Despite their initial qualms, almost all students appeared to take the assignment seriously, and put effort and thought into their projects. The students were respectful of and clearly moved by each other's work. In general, the students used this opportunity to reflect on the process of becoming a physician in a way very different from that commonly adopted in medical school training. In the wrap-up discussions, students commented that creating the projects had often produced helpful insights about their clinical experiences; sharing the projects helped them realize that they were not alone in feeling anxiety, confusion, and even

despair. As one student commented, "We talk about these things on the wards, but we don't talk about them like we're doing now. We're showing sides of ourselves that we've kept hidden til now." Of note, a quantitative, eight-item questionnaire for assessing the students' perceptions of the humanities' usefulness in professional development was administered before and after completion of the creative project to a subset of students ($n = 46$) in 1999–2000. Data from this questionnaire indicated a significant and positive effect (pre-project completion mean = 3.8 (.61); post-project completion mean = 4.3 (.52); $t = -3.95$; $p < .000$).

Faculty facilitators were impressed time and again by the painfully honest, brave, and self-revelatory dimensions of the creative projects, the emotions revealed and the tears shed. We suspect that it was the active, imaginative, and creative nature of this experience that exerted such a profound influence on students. To verify this interpretation, as well as to determine the long-range influence if any of such a curricular intervention, we need more refined research.

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