Section III: Innovative Projects From UME-21 Schools

Longitudinal Small-group Learning During the First Clinical Year

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**Background and Objectives:** Curricula in US medical schools concentrate most of their explicit teaching of professionalism, ethics, and communication skills in the preclinical years. The first clinical year, however, is the time that these topics become more relevant to “physicians to be.” Case Western Reserve University and the University of Pennsylvania each developed, as part of their UME-21 curricula, longitudinal small-group courses for medical students in their first clinical year. Each addressed topics of ethics, professionalism, humanism, and communication skills. **Methods:** This paper describes the goals of each course, as well as the context in which they were developed, their structure, implementation, and how “buy-in” from faculty and students was achieved. We compare the two programs and describe the implications for other medical schools contemplating development of such a course. **Results:** The courses were successfully implemented at both schools. Student ratings were positive. **Conclusions:** Important issues in incorporating the small-group courses into the curricula are ensuring the buy-in of clerkship directors, providing faculty development, keeping students in the same small groups if possible, fitting the new course into the existing curricular structure, and striving to evaluate the students and the course.

(Medical school curricula are replete with courses in the preclinical years that introduce students to medical professionalism, ethics, and communication skills. During the clinical years, however, when issues in these areas confront medical students in their clerkships, relevant structured coursework on those topics, with few exceptions, has been conspicuously absent.

There are several reasons to be concerned about this omission and to encourage discussion of these topics in the clinical years. The first is pedagogical. The first clinical year provides a near-perfect environment for learning these subjects and their application. In clinical settings, the content is much more relevant to students. In addition, in the clinical years, students can readily apply new skills to authentic situations. Finally, students are developing new attitudes and behaviors during the clinical clerkships as they reflect on their new role as clinicians.

Another reason to be concerned is societal and cultural. Organizations representing the medical profession have recently emphasized the increasing importance for medical students to learn and practice medical professionalism and to skillfully communicate with patients, families, and colleagues in their work. The renewed emphasis on these topics in medical school curricula is aimed at what is perceived to be the challenging and potentially deleterious effects of the current practice and clinical learning environments.

Both Case Western Reserve University (CWRU) and the University of Pennsylvania (UPenn) recognized the absence of this type of formal coursework during their first clinical years of their curriculum as a major deficiency. As part of their UME-21 activities, both schools included new curricular components to address this problem. Both added required longitudinal small learning groups that met regularly, outside the confines of the traditional core clerkships. Although differing in how they were developed and implemented, both courses shared similar content and structure and have been judged by the schools to be notable successes. Their successful implementation has important implications for other medical schools that may want to enhance their curricula related to teaching professionalism, ethics, and communication skills.

**Description of CWRU Course**

The Contemporary Learning in Clinical Settings (CLICS) course was developed in response to several
local issues. First, students reported difficulty developing meaningful mentoring and advising relationships with faculty during their first clinical year (the third year of the CWRU curriculum). Second, faculty were concerned that there was no venue for students to address difficulties in the transition to their clinical clerkships. Finally, a faculty committee identified several global topics that were integral to students’ clinical education but were not included in the curriculum of any individual clerkship. CWRU was an associate partner in the UME-21 initiative and concentrated all of its grant resources on this course.

**Major Goals**

The CLICS course’s mission statement is “to provide third-year students with a safe environment in which to discuss issues of professionalism, ethics, and communication with patients.” The stated goals of the course are for students: (1) to develop strong relationships with their faculty group leaders, (2) to address potential problems in making the transition to the third year, (3) to engage in self-reflection during the core clerkships, and (4) to learn about specific topics relevant to clinical medicine but not included formally elsewhere in the clinical curriculum.

**Course Structure**

CLICS was built on the foundation of the preclinical longitudinal Introduction to Clinical Medicine (ICM) course. ICM uses small-group learning and introduces students to the conceptual background in many of the areas that are later addressed in CLICS. CLICS then allows students to approach the same or related topics in relation to real-life situations that they have experienced or observed in the clinical setting.

CLICS groups each consist of approximately 10 third-year students who meet for 1.5 hours once during each 4-week clerkship block. Each group has one or two faculty leaders and, often, a fourth-year student co-leader. Students are generally assigned to groups in such a way as to enhance group diversity with respect to gender and minority student representation. ICM groups can stay together if they so choose. Group leaders are clinically active physicians; where there are two leaders, the second is often a mental health professional. Groups meet in diverse locations chosen by the leaders. Students come from varying clerkships and clinical sites for CLICS sessions.

Students receive all course materials prior to the first session. Each of the 11 topics has three to five learning objectives and a short reading, usually from the medical literature. Students are expected to come prepared to discuss the topic from the point of view of their own experiences in their clerkships. Groups may choose how they run the sessions, generally assigning one student per topic to lead the discussion. Attendance is mandatory unless specifically excused by the group leader(s).

**Implementation**

The CLICS course was implemented in three phases over 3 academic years (Table 1). Four pilot sessions were run in the first year, using the longitudinal learning small groups that were already established for students in the CWRU Primary Care Track (PCT). An end-of-third-year objective structured clinical examination (OSCE) tested all PCT students and a control group on the content of those four sessions, showing that students who had participated in the pilot sessions performed significantly better (Table 2).

In the second and third phases, participation in CLICS was required for all third-year students. In the second year, new sessions were developed sequentially and completed in the same order by all groups. Faculty leaders attended every 2- to 3-month meeting to introduce them to upcoming sessions. The following year, materials were revised based on student and faculty feedback, and the materials were distributed at the beginning of the year, allowing groups to cover the topics in any order. For example, a group could choose to leave the End-of-Life Care session to the end of the year, when more students had worked with dying patients. Course evaluation consisted of a short written survey at the end of each session rating the topic, reading materials, faculty leader(s), and opportunity to discuss important issues.
Table 2
Comparison of PCT and non-PCT Student Performance on CLICS Stations, June 2000

<table>
<thead>
<tr>
<th>Station</th>
<th>PCT (SD) Mean Score (n=23)</th>
<th>Non-PCT (SD) Mean (n=26)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managed Care—understanding different health plans</td>
<td>70.8 (15.1)</td>
<td>55.3 (17.4)</td>
<td>.002</td>
</tr>
<tr>
<td>Giving Bad News—how to approach a terminally ill patient</td>
<td>44.9 (18.9)</td>
<td>25.9 (15.5)</td>
<td>.001</td>
</tr>
<tr>
<td>Patient Confidentiality—giving test results over the phone</td>
<td>94.2 (6.8)</td>
<td>87.8 (14.2)</td>
<td>.045</td>
</tr>
<tr>
<td>Advanced directives—understanding Ohio’s DNR law</td>
<td>80.2 (12.5)</td>
<td>73.3 (23.8)</td>
<td>.224</td>
</tr>
</tbody>
</table>

PCT—Primary Care Track
CLICS—Contemporary Learning in Clinical Settings
SD—standard deviation
DNR—do not resuscitate

Description of UPenn Course

The Doctoring course at UPenn developed as an integral part of a generalized restructuring of the entire undergraduate medical education curriculum. UPenn was a partner school in the UME-21 initiative, with funding for a broad range of curricular interventions. The new curriculum was divided into six temporal and thematic modules, including Humanism and Professionalism (Module 6), an integrated curriculum of courses and classes related to humanism, professionalism, and bioethics across the 4 years of medical school.

A keystone for the idealized model of Module 6 was a required course on topics of humanism, professionalism, and ethics. It was based on longitudinal learning in which small groups of students and faculty preceptors functioned as learning teams. These teams were envisioned to start in the first year of medical school and continue to meet regularly through the second and third years, including the first year of clinical clerkships.

Major Goals

The Doctoring course has three goals: (1) to promote development and expression of humanism and professionalism, (2) to enhance the appreciation of cultural differences and their influences in the physician-patient relationship, in the interface with the health care system, and in beliefs about health and disease, and (3) to develop longitudinal small groups during the first and second years of medical school as a resource for support and education in bioethics, humanism, and professionalism.

Course Structure

The Doctoring course has two parts: Doctoring I, a preclinical course, and Doctoring II, coinciding with the first year of clinical clerkships at UPenn. Doctoring II classes meet for 2 hours once a month on Fridays. Fridays were chosen since it is the uniform “academic day” for all clerkships on which students must return to the medical school complex from their clerkships. Students in the same group are scattered among many different clerkships.

As stated previously, the pilot course demonstrated that students learned the content. Unfortunately, it was not practical to require the PCT OSCE of all students, so no objective outcome data were collected after the pilot year. However, student evaluation of the course has been favorable. Student evaluations of sessions use a 5-point scale, with 5 being the best score. For the first 2 years of full implementation, students rated the relevance of the topics to third-year students (4.15 in 2001, 4.41 in 2002), the skill of the faculty leader(s) (4.33 in 2001, 4.48 in 2002), and the ability to discuss issues that are important to the student (4.14 in 2001, 4.13 in 2002) very highly. These items correspond to the stated goals of the course and serve as useful benchmarks for improvement.

Outcomes

Getting Buy-in

CWRU faculty were concerned that students did not have a formal mechanism for addressing the sometimes difficult transition to the clinical clerkships and recognized specific content as missing from the curriculum. Although the clerkship directors and other educational leaders embraced the idea of the longitudinal groups, they were concerned about decreasing the time spent on other clinical and didactic activities of clerkships. Nonetheless, all agreed that no other course met the CLICS objectives. Data showing students were learning the content in the pilot year gave educational leaders a concrete reason to support the course.

Each group consists of 11–12 students and two to three physician preceptors. Students are assigned to enhance the diversity of the groups, based on gender, ethnicity, age over 30, and whether or not they are MD-PhD students. Likewise, preceptors are assigned to groups to ensure one of each gender and different medical specialties. More than 95% of preceptors assigned to small groups at the start of Doctoring I have continued with their original group for the full 2 years of Doctoring I and II.

The Doctoring II classes start with a period of unstructured time during which all students share what’s happened/happening to them on their clerkships. A structured period of time then follows with the specif-
ics varying according to the topics of the session (Table 3). Student responsibilities include reading the goals and objectives and related readings for each session as well as serving as student co-facilitator for one of the 12 sessions. Course requirements include participation in all 12 sessions, serving as a co-facilitator, and writing a personal reflections type of paper at the end of the year. The course is graded pass-fail.

Implementation
The original topics for Doctoring II were selected by clerkship directors who listed the most important issues for the students in bioethics and humanism iss-

<table>
<thead>
<tr>
<th>Class</th>
<th>Topics</th>
<th>Teaching Methods</th>
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<tbody>
<tr>
<td>1</td>
<td>Confidentiality and Privacy in the Doctor-Patient Relationship</td>
<td>Discussion of cases, student experiences, and course policy</td>
</tr>
<tr>
<td>2</td>
<td>Ward Team Relationships: Value Conflicts; The Hidden Curriculum I</td>
<td>Discussion of readings, cases, and student experiences</td>
</tr>
<tr>
<td>3</td>
<td>Conflict Resolution Skills</td>
<td>Workshop with the Thomas-Kilmann Conflict Mode Instrument</td>
</tr>
<tr>
<td>4</td>
<td>Medical Student Abuse: Is It Abuse or Just Scut?</td>
<td>Discussion of readings, cases, and student experiences</td>
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<tr>
<td>5</td>
<td>Boundary Issues I: The Nurse-Doctor Game</td>
<td>Discussion of readings, cases, and student experiences</td>
</tr>
<tr>
<td>6</td>
<td>Breaking “Bad News”</td>
<td>Interview of simulated patient in class. Discussion of readings and interview</td>
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<tr>
<td>7</td>
<td>Dealing With Your Patient’s Death</td>
<td>Discussion of student experiences, readings, and sample living will</td>
</tr>
<tr>
<td>8</td>
<td>Boundary Issues II: Sexual Harassment</td>
<td>Discussion of readings, cases, and student experiences</td>
</tr>
<tr>
<td>9</td>
<td>The Impaired Physician (due to substance abuse)</td>
<td>Discussion of readings, cases, and student experiences</td>
</tr>
<tr>
<td>10</td>
<td>Dealing with the “Difficult” Patient</td>
<td>Interview of simulated patient in class. Discussion of readings and interview</td>
</tr>
<tr>
<td>11</td>
<td>Value Conflicts and Hidden Curriculum II</td>
<td>Discussion of readings, cases, and student experiences</td>
</tr>
<tr>
<td>12</td>
<td>Lifestyle and Career Choices Balancing Professional and Personal Lives</td>
<td>Exercises, discussion of readings and student experiences</td>
</tr>
</tbody>
</table>

Getting Buy-In
Doctoring II had the strong support of the medical school leadership, helping it gain acceptance despite some clinical clerkship directors’ reluctance to lose 2 hours from their clerkship-specific didactic time. Student acceptance of Doctoring II, on the other hand, was

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<th>Table 4</th>
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Confidentiality Policy for Doctoring II Course in 2002 at the University of Pennsylvania

Doctoring II 2002
Confidentiality Policy

1. Confidentiality within a Doctoring Small Group is critically important to build group trust and solidarity so that the group can work together as a learning team.
2. Anything that a group member (student or faculty) says or does during a Doctoring Class shall remain confidential and not be discussed by other group members (students or faculty) outside the group unless they are given explicit permission to do so or except for the situations described in #3. This also applies to what students may say during their One-on-One Meetings with preceptors.
3. A preceptor may not disclose information learned during a Doctoring activity without the permission of the student who provided the information except if the preceptor reasonably believes that there is real and serious threat to the life or health of the student, of others, or of a patient. In this case, however, prior to making any disclosure, the preceptor should discuss his/her concerns with the student involved and that she/he feels obligated to make the disclosure with or without permission of the student.
4. At faculty briefings and debriefings, preceptors will not share specifics of what was discussed or occurred during their classes, and they will not share any identifying information (unless they have permission of the involved parties to do so). Instead, they will give more general statements about their group’s process, e.g., how the class went, the nature of the feedback received, pitfalls to avoid, and approaches that were successful.
5. Students may also share the same type of general information, as listed under #4, but may not share specifics or other identifying information (unless, likewise, they have permission of the involved parties to do so).
strong. After revision, the second year of the Doctoring course (Doctoring II) was better received and appreciated by the students than the first year of the course (Doctoring I). They seemed to enjoy the opportunity to socialize with their peers and share their clinical experiences. In addition, they regarded the topics in the structured part of the class as more useful and relevant to their roles, eg, breaking bad news, compared to topics presented in the preclinical Doctoring I course.

Outcomes

Doctoring II is a pass-fail course. Group leaders evaluate students in a narrative fashion and give feedback in required one-on-one meetings at the end of the course. Students evaluate the course by using the same Web-based system of evaluation, using a 5-point Likert scale that they use for all their other courses. Students rated all aspects of the course highly, especially the group leaders and the development of a functional learning group (Table 5).

Table 5

<table>
<thead>
<tr>
<th>Course Variable</th>
<th>Number of Respondents</th>
<th>Mean*</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of the topics</td>
<td>92</td>
<td>3.80</td>
<td>.98</td>
</tr>
<tr>
<td>Enjoyment of the course</td>
<td>92</td>
<td>3.80</td>
<td>1.14</td>
</tr>
<tr>
<td>How well did you understand the course’s goals and objectives?</td>
<td>91</td>
<td>3.88</td>
<td>.91</td>
</tr>
<tr>
<td>How well did the course achieve its stated goals and objectives?</td>
<td>91</td>
<td>3.66</td>
<td>1.07</td>
</tr>
<tr>
<td>Overall quality of preceptor</td>
<td>199</td>
<td>4.15</td>
<td>1.11</td>
</tr>
<tr>
<td>Preceptor’s listening skills and sensitivity</td>
<td>199</td>
<td>4.24</td>
<td>1.02</td>
</tr>
<tr>
<td>How well did your small group function as a learning group at the end of Doctoring II (December 2002)?</td>
<td>90</td>
<td>4.07</td>
<td>1.04</td>
</tr>
<tr>
<td>What was your degree of trust for such sharing in your last Doctoring II class (December 2002)?</td>
<td>89</td>
<td>3.89</td>
<td>1.16</td>
</tr>
<tr>
<td>Overall rating of course</td>
<td>91</td>
<td>3.80</td>
<td>1.13</td>
</tr>
</tbody>
</table>

*Ratings used a 5-point Likert scale, where 1=poor, 2=fair, 3=good, 4=very good, and 5=excellent

SD—standard deviation

Comparison and Implications

These two medical schools took different paths to design and implement similar courses. The lessons learned are summarized in Table 6. Both schools were motivated by a lack of formal coursework in professionalism, humanism, ethics, and communication skills in the clinical curriculum. Both strove to create supportive environments to explore these areas and both used their UME-21 funding to support course development. UPenn was a partner school in the UME-21 initiative, with the expectation of large curricular interventions, while CWRU was an associate partner school and concentrated its efforts on CLICS. Any school contemplating the addition of a nontraditional course in the clinical years would benefit from outside funding to jump-start the process.

Implementation at both institutions required the buy-in of educational leadership, particularly clerkship directors. This is important to consider at any institution considering curricular change. At CWRU, having a pilot project with outcome data made the implementation of CLICS more acceptable, and fitting it into the existing clerkship structure lessened opposition. At UPenn, having a conceptual framework that justified including the Doctoring II content in the clinical curriculum and giving it a name that announced equality

Table 6

Lessons Learned in Developing and Implementing a Longitudinal Small-group Course in Ethics, Humanism, Communication, and Professionalism in the First Clinical Year

1. Course developers must get buy-in from clerkship directors
   a. CWRU used outcome data from a pilot program
   b. UPenn used a conceptual model proposed in the literature
2. It is helpful for new courses to fit into existing structure of other learning activities
   a. CWRU used the ICM structure to recruit faculty and distribute materials
   b. UPenn named its course “Module 6,” which gave it similar status to the other five modules of its curriculum
3. Faculty development is important, even for experienced teachers, because of the unique format and goals of these courses
   a. CWRU found that having groups meet in diverse locations made it difficult to get all leaders together
   b. UPenn discovered the need for formal policies and discussion on what should be done when a group leader is confronted with sensitive information from a student
4. It may be advantageous to keep groups from the preclinical years together in this kind of course to facilitate their ability to discuss potentially sensitive issues
5. Evaluation of student learning is difficult. Without a preexisting infrastructure for testing abstract skills in ethics, professionalism, etc, evaluation has to depend on subjective ratings by group leaders.

CWRU—Case Western Reserve University
UPenn—University of Pennsylvania
ICM—Introduction to Clinical Medicine
Finally, both schools found that strong relationships among students and faculty in their small groups resulted in group bonding and trust. This in turn created a safe environment for discussion of sensitive topics that arose during the clerkships. Other institutions should consider developing similar courses to help students acquire skills for self-reflection, medical socialization, and accompanying ethical dilemmas—skills that should continue to be useful when the students become residents and beyond.

Footnote: The authors invite readers who are interested in learning further information about these courses to contact them by e-mail. Contact Dr Lewin at lolo@po.cwr.edu and Dr Lanken at lanken@mail.med.upenn.edu.

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REFERENCES