Developing a Group Practice Comprehensive Care Education Curriculum


Abstract: In fall 2002 the University of Illinois at Chicago College of Dentistry implemented a Group Practice Comprehensive Care Clinical Education Curriculum. The primary responsibility for patient care has shifted in this comprehensive care curriculum from the students to the faculty and staff. Students have a primary responsibility for learning. This competency-based education curriculum utilizes a variety of student evaluation methods including self-evaluation, OSCE, and portfolio to verify competence. Formative evaluation methods are utilized in daily assessment of student performance. On-time graduation rates have increased from 60-70 percent to 96 percent, and regional board first-time pass rates have been maintained at 90+ percent. Overall predoctoral clinical productivity in the first full year of the program has increased by over $300,000.

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Beginning in summer 2000, the faculty of the University of Illinois at Chicago College of Dentistry, led by the new dean, undertook an exercise to reframe the institution. Using a broad-based approach, the college set out to create a vision that would lead it to become one of the premier dental schools in North America. All faculty members participated in the process, as did other stakeholders including staff and students. While the Vision Statement addressed all the programs of the college, it specifically challenged the predoctoral program by stating:

The UIC-COD educational program will be:
• Patient-centered, evidence-based clinical care founded on the preventive and public health sciences, and
• An integrated education program based upon advanced technology.

The visioning process also went on to establish specific Mission Statements that set out the expectations for the predoctoral program. Among these statements were the following:

The college identifies the following goals to meet the mission:
• To prepare highly qualified health care professionals;
• To provide patient-centered care that is comprehensive and compassionate; and
• To provide student-oriented educational programs.

Concurrent with the vision and mission project, the Department of Restorative Dentistry began a predoctoral comprehensive care pilot program. The first year of the program included twelve fourth-year dental students who were selected based on their high clinical achievement. These students were supervised by selected restorative faculty members and received faculty support from the departments of Periodontics and Endodontics as well as a rotational support from the second-year dental hygiene students enrolled in a program that is part of Kennedy-King Community College. All other patient care experiences (Patient Screening, Urgent Care, Oral Surgery, Pediatric Dentistry, and Orthodontics) remained as prescribed rotation clinics, which required the students to provide patient care in the discipline clinic rather than the comprehensive care clinic. Staff support for the pilot program included an appointment clerk who made and confirmed appointments for the students, and a dental assistant, who provided chairside duties. All financial services for the program were identical to the regular program and were centrally handled. Students in both programs were required to have all patient balances collected prior to graduation. The remainder of the fourth-year class continued in the regular discipline-based, requirement-driven program. Student evaluation in the requirement-driven program was based on specifically delineated numerical experiences combined with
The planning group for our new clinical program decided the predoctoral program would be patient-driven, learner-centered, faculty-managed, evidence-based, competency-demonstrated, and criterion-referenced. It was further established that all patient care should be planned, delivered, and supervised primarily by generalists and dental hygiene faculty who would seek appropriate consultations from the various specialties. In order to accommo-

December 2003 ■ Journal of Dental Education 1313
date specific experiential needs of students, a decision was made that patients belonged to the faculty of the group practice, not to individual students. Further, the group practice patients would be seen by students based on 1) health care need of the patient, 2) experience level of the student, and 3) experiential need of the student.

The clinic schedule was given careful consideration. In the previous model there had been two three-hour sessions, 9:00 am until noon and 1:00 pm until 4:00 pm with bracketing lectures at 8:00 am and 4:00 pm on four days—Monday, Tuesday, Thursday, and Friday. There were no clinics scheduled on Wednesdays. There were a variety of problems with this clinic scheduling: students had difficulty ending patient care in time for the afternoon lecture; lack of activity during the last half hour of each session; lack of time for faculty to meet before clinic sessions; and lack of time for students to gather to develop treatment plans.

In our new model, clinics are scheduled from 10:00 am until 12:30 pm and 1:30 pm to 4:30 pm. The lectures for the students are scheduled from 8:00 am until 10:00 am. This creates time (1 1/2 hours) for faculty inservice sessions to discuss current issues in dentistry, standards of care in college, how to create a team environment, and clinical one-on-one teaching techniques. Purposely, afternoon patient care does not begin until 2:00 pm. This half-hour delay gives students and faculty uninterrupted time to address treatment plans and other clinic questions. In addition, each clinic closes for one afternoon per week on a rotating schedule. This schedule provides time for student- and faculty-led clinic conferences related to patient care, issues related to the group practice, current topics in dentistry, or grand rounds presentations.

Once the new clinical program was envisioned, meetings to explain the program philosophy and goals were held first with the department heads and then with each of the departments separately (including the biomedical science group). Concerns were heard, recorded, and returned to the planning group. Two courses were designed to embody the comprehensive care philosophy, appropriately named Comprehensive Care IV (for fourth-year dental students) and Comprehensive Care III (for third-year dental students). The essential elements of the courses are as follows: quarterly faculty evaluations of student performance, including the requirement that the student self-evaluates his or her performance before meeting with the faculty (this evaluation represents 40 percent of the student’s grade); performance on an OSCE examination (20 percent); a portfolio of clinical cases treated by the student, exhibiting a range of treatments with the supporting evidence for their effectiveness (15 percent); and attendance in clinic sessions (25 percent).

A major course in Restorative Dentistry (operative dentistry and prosthodontics) was also significantly restructured. All previous numerical procedure requirements were eliminated. The revised course relies on performance examinations (50 percent of the student’s grade is determined based on the quality of project and 50 percent on the concurrence of the student’s self-assessment with the faculty assessment); a group paper on a faculty-defined issue in dentistry (which is evaluated by peers and faculty); and a formal presentation (grand rounds style) of patient care delivered by the student.

The emphasis for evaluation was whether the student was at or on route to competency. Daily faculty assessment of student performance, utilizing formative evaluation, is recorded and communicated to the student as feedback following each clinic session, but there is no daily grading. Evaluation of performance is focused on diagnosing student deficiencies, planning strategies to address the educational diagnosis, and observing the outcome of the interventions. This responsibility is placed squarely with the managing partner, with advice and assistance from the assigned faculty.

This model differs significantly from the previous one in many respects. In our estimation, however, the most significant change is a major shift in responsibility. Patient care is now primarily the responsibility of the faculty and staff. Students are now responsible for learning. In the current model, students monitor and assist in managing patient financial status, but the faculty and staff are in the end responsible. No longer are students paying patient debt in order to receive “credit” toward graduation. Students are also required to do many fewer laboratory procedures (consistent with private practice) and are thus not spending late nights in the laboratory. Students are encouraged to use this newly available time for more evidence literature review and treatment planning activity.

To date, the results from the first full year of the program have been encouraging and supportive of continuation of the model. On-time graduation rates have increased from the 60-70 percent range to
96 percent (and the students who did not graduate were not held back due to lack of procedure-based requirements, but because of demonstrated and documented lack of competence). Regional board results have remained high (92 percent pass rate on the first attempt). When corrected for a 3 percent fee increase for 2002-03, clinic productivity has increased by over $300,000 (from $1,443,000 to over $1,750,000).

There have been some challenges related to budget constraints brought about by reductions in state-related revenue and delay in public aid reimbursement. There have also been some issues related to the faculty learning and comfort levels with the new technology. In addition, there have been challenges in providing the necessary information and training to allow faculty to smoothly shift from the traditional “checker” role to “mentor” concept. We have also struggled with other components of the curriculum that do not fully support the new clinical education model. These barriers are being addressed.

The managing partners, the departments, and the curriculum committee are now engaged in future planning. The IT (Information Technology) department has been enlisted to help provide more and better reporting to enable change based on data rather than intuition. All patient care activities are recorded in an electronic patient record. Organization and analysis of the patient care data have evolved with the genesis of the clinical curriculum. With improved management tools, the managing partners will be better able to balance patient care and student learning. There will be increased emphasis on the use of modeling by faculty to improve learning and patient care outcomes. The pre-patient care curriculum is also being seriously modified to include day-one entry into clinic activity, high fidelity patient care simulation (including use of electronic patient record), skill development toward routine use of evidence-based practice, and developing more earned autonomy for students. Consistent with the Robert Wood Johnson pipeline project, there is clearly a move toward significant community-based experiences and toward increasing student patient care experiences. Faculty members are engaged in ongoing continuing education especially in the areas of one-on-one clinical teaching, uniformity in evaluation, and interdisciplinary teaching.

Conclusion

A Group Practice Comprehensive Care Education Curriculum has presented the college with many new challenges. In overcoming the barriers to implementation, we have been able to structure a competency-based curriculum that is not requirement-driven and allows for real competence evaluation. Redefining roles for the faculty from “checkers” to “mentors” has presented a particularly difficult cultural shift. The increased utilization of an electronic patient record has facilitated the accuracy of information on patient care activities. Removing the emphasis from numerical procedural requirements to competency performance evaluation has increased clinical productivity, enhanced on-time graduation rates, and provided a much more accurate assessment of student performance.