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COVID & the Curriculum: Faculty Perspectives

Curriculum in the Time of COVID: The Old Woman and the 'C'

by

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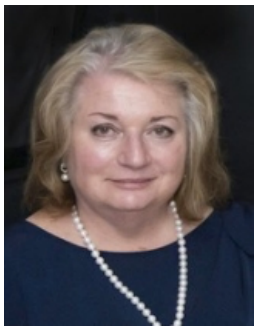

Introduction

> ***Adapt or perish … it's nature's inexorable imperative.***
> – H.G. Wells

In January 2020 when "corona" was more commonly recognized as a beer than a virus, when many of us were blissfully unaware of what spike proteins were, when "Zoom" was something you did with your camera, and when "pandemic" conjured up images of a medieval plague – *The Old Woman and the C* (with apologies to Ernest Hemingway) was the title of a presentation to the NYU Dentistry faculty that introduced a plan for curriculum revision with the dual goals of integrating the foundational, clinical, and behavioral sciences, and improving clinical efficiency, while delivering on our mission to provide truly patient-centered care. It was a radical plan that involved revising, reorganizing, and resequencing many courses, developing new courses, restructuring our clinical and academic schedules to improve patient care and the students' educational experiences, and redefining how competency at the College would be assessed. The prospect of presenting this plan to a group of seasoned educators and highly respected colleagues and convincing them that it was both feasible and necessary was, quite frankly, daunting. I expected a bit (a lot) of resistance as changes on such a massive scale – especially in an institution as large as ours – are rarely welcomed. We had four years to implement the plan and document outcomes before our next accreditation site visit in 2024, and we would need every minute of that time to accomplish these goals.

Six weeks later, a few days before the Spring Break in March 2020, “corona” took on a whole new meaning and the College quickly adopted short-term protocols developed by the University. Patient care and onsite education were suspended in order to check the spread of the virus in our community. Initially, the intention was for the plan to run through the third week of April 2020, but soon these “temporary” changes were extended through the remainder of the Spring semester and beyond. Suddenly, as the extent of our new reality unfolded, the changes proposed in *The Old Woman and the “C”* appeared less daunting as we now faced an entirely new and unanticipated set of challenges.

A New Lexicon

The COVID pandemic has introduced a new lexicon; the frequent appearance of words and phrases that attempt to describe and define our current experience. We hear of "challenging or extraordinary times," "unprecedented and unique circumstances," "staying safe," "resilience," and "mask mandates," to name just a few.

The goal of this essay is to provide an overview of the College’s approach to ensuring a robust curriculum during the pandemic while maintaining compliance with third party regulatory and accrediting agencies, as well as our commitment to provide unparalleled education and patient care. *Curriculum in the Time of COVID* (with apologies to Gabriel Garcia Marquez) builds on *The Old Woman and the “C”* presentation, and serves as an introduction to the articles in this edition of JADE that focus on the innovative curricular adaptations developed by our faculty authors to address these new challenges.

In spring 2020, there was no expectation that we would still be dealing with the impact of the pandemic two years later. Decisions were, and continue to be, made based on best available evidence and within the recommendations and guidelines of local, state, and federal health and regulatory agencies. While this issue of *JADE* focuses on curricular change and innovation, it is important to note that the success of those revisions is inextricably linked to adaptations made to the College’s facilities and clinical operations that supported and were essential to the success of these educational changes. Finally, while this essay focuses on the predoctoral program, similar types of adjustments to curricula and assessment methodologies were made by the Advanced Education and Dental Hygiene programs.

Challenges and Changes

> ***I would challenge you to a battle of wits, but I see you are unarmed.***
> – William Shakespeare, *Much Ado About Nothing*

> ***Progress is impossible without change, and those who cannot change their minds cannot change anything***
> – George Bernard Shaw, *Pygmalion*

The pre-pandemic curricular challenges and the changes that were planned to address them reflected the College’s response to both internal and external factors.

The internal factors were identified by the College's academic leadership as follows:

- "Curing curriculomegaly" by eliminating outdated and/or redundant course content
- Substantively addressing curricular integration by ensuring that we both teach and test in an integrated manner
- Improving the efficiency of patient care.

The external factors involved include complying with mandates set by the University and U.S. Department of Education, as well as with anticipated changes in accreditation standards.

Compliance with the University mandates entailed ensuring that:

- All didactic courses started and ended within a semester
- All clinical courses start and end within a year
- Compliance with University graduation certification deadlines.

These mandates had a significant impact on course content and sequencing, exam schedules, academic decision making, awarding mid-term grades for clinical courses, ensuring that clinical requirements did not extend beyond the academic year, and ensuring that D3 clinical incomplete ("Y") grades were cleared early in the D4 fall semester. Ensuring compliance with both new and existing accreditation standards centered on enhancing the integration of curricular content and preparing our students for the Integrated National Board Dental Examination (INBDE), because the National Board Dental Examinations Parts I and II were to be phased out by 2022. In this regard, increased focus on self-directed learning, problem solving skills and demonstration of professional values and behaviors were also to be addressed.

Compliance with these internally and externally induced changes to curriculum content, sequencing, and scheduling did not abate with the emergence of the pandemic. Instead, the impact of the pandemic posed new challenges and required that additional adjustments be made to our educational programs. All pandemic-related changes to our eight accredited programs (predoctoral education, dental hygiene and six advanced education programs) required approval by both the Commission on Dental Accreditation (CODA) and the NYS Department of Education. CODA issued guidelines for reporting temporary interruption of education that required description of specific temporary modifications to curriculum content, length, and/or sequence, as well as changes in delivery methodology for didactic, clinical and pre-clinical education, and demonstration of continued compliance with the CODA accreditation standards. These reports were submitted and temporary flexibility for those modifications was approved for the Classes of 2020 and 2021 for all eight accredited programs.

Preparation, Priorities, Policies and Processes

> ***By failing to prepare, you are preparing to fail***
> – Benjamin Franklin

The pre-pandemic planned curricular changes summarized above required the preparation of new procedures, policies, and processes. The Senior Academic Leadership Team (SALT), comprised of up to three

members from each department, supported by the Office of Academic Affairs with input from both the Scheduling and the Educational Technology Teams, was created to lead this effort. SALT facilitated curricular review and reform and established standardized examination and grading policies. The SALT team was charged with leading the curricular integration initiative, which involved the identification of curricular integration themes for each level of training **(Table 1)**, the creation of new shared courses such as the D1 and D2 Multidisciplinary Patient Care courses, the transitions to D3 and D4 Clinics courses, and the INBDE preparation courses in D1-D4.

TABLE 1: Curriculum Integration Themes

In March 2020, the College was charged with establishing educational priorities because of the University and NYS Department of Education mandated transition to remote teaching and learning, as well as the limitation, and ultimate cessation, of clinical patient care experiences at NYU Dentistry. Graduating the Class of 2020 in accordance with CODA standards was identified as the College's top priority.

When the education program was interrupted, the Class of 2020 had completed more than 80% of the program's scheduled curriculum. The vast majority of the Class of 2020 had completed most – and in a few cases, all – clinical requirements and were focusing on addressing outstanding requirements, competency assessments, and case completions. The changes to the clinical portion of the program focused on ensuring that each student completed all course requirements, rotations, and competencies in accordance with the goals and learning objectives of each course. To that end, the curricular hours that were traditionally spent engaged in clinical rotations for both comprehensive care and specialty clinics/rotations, were addressed utilizing NYU Zoom conferencing. Student attendance and participation were monitored and assessed for each of these sessions. Students who had not completed specific rotations because of their individual schedules, spent the same amount of time in these rotations, albeit remotely, with the course faculty, discussing and presenting cases and analyzing treatment alternatives and outcomes as applicable. In this way, faculty were able to ensure that the goals of these rotations were met.

Individual evaluations for the 376 members of the Class of 2020 were performed by compiling data on the progress towards completing the course requirements and competencies in each discipline to be eligible for on-time graduation certification. Each member of the Class of 2020 was evaluated on 65 different performance criteria. This information, which totaled 24,440 individual data points, was carefully analyzed. In recognition of the disruption of clinical care, each clinical department established adjusted minimum clinical experience thresholds that delineated the criteria for eligibility for students to challenge remaining clinical competencies via alternate methods.

Three categories of eligibility were established:

1. Those students who *met all criteria* to complete their remaining competencies through alternate methods
2. Those students who *required additional examination through a pre-clinical skill assessment*
3. Those students whose *deficiencies required additional clinical experiences*.

Alternative methods of assessment were defined by each discipline utilizing the same evaluation criteria applied to the clinical patient care experience. These included Objective Structured Clinical Examinations (OSCEs), oral examinations, and the use of standardized patients or a combination thereof to complete the assessments. Assessments were performed by standardized and calibrated faculty for each discipline. In each case, the goals and learning objectives for each clinical course or rotation were assured.

The extension of remote education through the end of August 2020 impacted plans not only for the 2019-2020 academic year, but also the following academic year that began on July 1, 2020. As the pandemic evolved – and recommendations from the University and government regulatory agencies changed frequently – our curricula were adapted to those changes. The return to onsite, in-person education in September 2020 initially prioritized patient care and clinical education. Following the principles set for the Class of 2020, the priority for academic year 2020-2021 was to optimize the clinical experiences of the D4 Class of 2021, assure their competency and on-time graduation, while providing gradually progressive clinical immersion for the D3 Class of 2022. It soon became clear that we would be adjusting our curricula to address the "trickle down" effect of the interruption of education for the next few years.

The following actions were instituted:

- The *didactic curricula were re-sequenced and "front-loaded"* to the maximum extent feasible in order to optimize the use of curricular time during the mandated period of remote education and of limitations in building occupancy thereafter
- *A blended model for pre-clinical education* was established for the D1 and D2 classes that involved providing the students with specific equipment, including electric waxers, electric handpieces, and 3-D learning software that could be used at home in combination with Zoom-guided faculty instruction and periodic evening in-person lab sessions
- The *clinic schedule was modified* to improve efficiency in patient care while honoring building occupancy restriction protocols. Clinics were also utilized in the evenings for simulation sessions and completion of required projects for the senior level classes.

As adjustments were made to schedules and curricula, adjustments to some of our Academic Policies and

Standards were also required. These came in the form of "COVID Amendments" that were published and posted in the relevant course syllabi or policy documents, and included:

- **For the Class of 2020:** The suspension of the requirement to pass the National Dental Board Examinations in order to qualify for on-time graduation
- **For the Class of 2021:** Extension of the timeline for the Class of 2021 to clear their "Y" (clinical incomplete) grades without impacting their final course grade
- **For all classes in AY 2019-2020:** Relaxation of the eligibility criteria for remediation of failed courses
- **For all classes in AY 2019-2020 and 2021-2022:** Notification that the methodology of course delivery (onsite or blended) and the assessment mechanism for examinations or competencies is subject to change at any time in accordance with University or state or local regulatory agency guidelines.

Clinical Efficiency and Competency Assessment

> ***It is not the strongest or the most intelligent who survive but those who can best manage change.***
> – Charles Darwin

In January 2020, *the Old Woman and the C* presentation included a recommendation to change the existing clinical and didactic schedules in an attempt to optimize and improve the efficiency of patient care. Another recommendation was to "flip" the competency assessment model from one where the students practiced on patients and then were assessed for competency, to a model where students would receive initial privileges for patient care after demonstrating mastery of basic milestones that had been identified as necessary to ensure best patient care practices. Milestones are expectations for achievement in a specific area at a particular level of training: they must be specific, measurable and relevant. In a sense, milestones are the building blocks or steps towards competency. At the College, every milestone is related to a competency (general, global or discipline specific); and every competency relates to a standard of care, an accreditation standard, or both. A comprehensive description of the assessment process, the milestones, and the rationale for the changes can be found in the Competency Manual.

The competency statements and the criteria for achieving competency remain unchanged.

Three levels of competency assessment were identified:

- **Initial Patient Care Privileges:** to be assessed and granted in the "Transitions to D3 Clinic" course after successful demonstration of the milestones
- **Maintenance of Competency:** to be assessed in the "Transitions to D4 Clinic" course
- **Graduation Certification/Readiness for Independent Practice:** to be assessed and granted at the end of D4.

This transition of assessments to demonstrating mastery of milestones in order to be granted patient care privileges, followed by assessment of maintenance of competency and readiness for independent practice, aligns with the principles of patient-centered care.

Initially, in spring 2020, the Clinical Efficiency Working Group (CEWG) was established and, served to track and

document the clinical experiences of the Class of 2020, as well as their progress towards achieving competency as defined by the College. This team, which was comprised of the clinical chairs/vice-chairs as well as the leadership of the Offices of Clinical Affairs, Academic Affairs, and Clinical Operations, met weekly to track student progress and to identify logistical issues that impeded patient care and to develop solutions to expedite that care. The team continues to receive weekly data on students' patient care experiences, procedures completed in each discipline, the number of patient visits and missed appointments, etc., and meets monthly to analyze the data and identify methods of streamlining and optimizing patient care. It is expected that the CEWG, which was born out of necessity early in the evolution of the pandemic, will continue to function in the post-pandemic era.

Changes in the clinical and pre-clinical lab schedules were instituted in September 2020 in compliance with building occupancy restrictions, and have been adapted to permit increased experiences as allowed by the University and in concert with NYS Department of Health regulations. The implementation of the daily screener, COVID testing, vaccine and mask mandates, and the careful monitoring of infectivity rates both within the University and regionally has resulted in increased hands-on educational opportunities. The change from half-day clinic sessions to full-day clinic sessions, originally intended to minimize daily commutes and COVID exposure and control traffic within the College facilities, has resulted in improved clinical efficiency and increased clinical exposure by scheduling of required specialty rotations on the days that the students are not scheduled in their home comprehensive care clinics.

The pre-pandemic recommendations to change clinic and didactic schedules in order to improve clinical efficiency and to change our competency assessment processes were both adopted as a matter of necessity once the pandemic-related interruption of education was mandated.

Programs and Outcomes

> ***You don't make progress by standing on the sidelines, whimpering and complaining. You make progress by implementing ideas.***
> – Shirley Chisolm

> ***All's well that ends well.***
> – William Shakespeare

The original intent of writing *Curriculum in the Time of COVID* was to detail in retrospect what we did and what we learned during this period. Unfortunately, as of January 2022, we are 22 months into this experience and in the midst of the pandemic's fourth surge. Therefore, a true retrospective analysis of our successes and failures is still a bit premature. At this point we can only offer observations of our progress to date in addressing the unique challenges to dental education that have been posed by the pandemic.

The College continues to be engaged in the cyclical process of assessing outcomes, planning and implementing change. Prior to the pandemic, we were planning to change the clinic and didactic schedules in order to optimize clinical education and patient care. The pandemic necessitated making some of those changes sooner than we might have otherwise done, as well as making changes that differed somewhat from the original recommendation. Similarly, we were planning on modifying our competency assessment process to be more aligned with the principles of patient-centered care. Early in the pandemic, building

occupancy limitations and the re-sequencing of didactic courses necessitated changing the methodology of the milestone experience to a blended format. The current D3 class participated in a blended milestone experience and a clinical immersion program last semester; they are now initiating care for patients assigned to their own rosters. The current D1 and D2 classes are scheduled in their respective Multidisciplinary Patient Care Courses that include in-person milestone experiences. The pre-pandemic plan for ensuring an integrated curriculum and preparation of our students for the INBDE was, and continues to be, effectuated as planned despite all the course re-sequencing necessitated by the pandemic.

We have learned that our flexibility is our greatest strength, and that our curriculum can be successfully adapted to respond to an ever-changing environment. This is due in no small part to the determination, creativity, and expertise of our faculty, demonstrated by their submissions to this edition of *JADE*.

Read more in this issue of *JADE*

Message from Dean Charles N. Bertolami

A Note from the JADE Editorial Board Chair

Curriculum in the Time of COVID – The Old Woman and the C

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