



INDIANA UNIVERSITY

SCHOOL OF DENTISTRY

IUPUI

**Indiana University School of Dentistry
Report to the IUPUI Program Review and Assessment
Committee
AS Dental Hygiene
2013**

Indiana University School of Dentistry

Dental Hygiene

PRAC Report, 2012-2013

Overview of Programs

The Indiana University School of Dentistry (IUSD) offers a certificate in Dental Assisting, an Associate of Science in Dental Hygiene, a Doctor of Dental Sciences (DDS) and post-graduate Advanced Education and Specialty programs in Periodontics, Pediatric Dentistry, Oral Surgery, Endodontics, Prosthodontics, Orthodontics, Operative Dentistry, Dental Materials and Preventive Dentistry.

This report contains the review of the Dental Hygiene program. Dental Assisting, as a certificate program, does not complete a PRAC report, but does engage in substantive, competency-based student assessment and is an accredited program.

Introduction: Dental Hygiene Program

Since 1999, dental education in the U.S. has been competency-based. Specific learning outcomes must be demonstrated independently by each student in order for that student to successfully complete the requirements of the degree. Since that time, IUSD has maintained student-level tracking of competencies via its Outcomes Measures documentation. In addition, institutional and program level outcomes assessment, which tracks the progress of the school in achieving the Goals and Objectives as stated in the Mission, Goals, and Vision Statement , <http://www.iusd.iupui.edu/about-us/mission-and-goals/>) also takes place annually and is ongoing. During the 2012-2013 Academic Year, two events impacted the assessment and evaluation efforts of the school. In July of 2013, the Commission on Dental Accreditation (CODA) implemented new accreditation standards under which Dental Hygiene programs in the United States and Canada are accredited. In September of 2013, the **IUSD Dental Hygiene program was the first dental hygiene program in the country to be accredited utilizing these new standards.**

Accordingly, the academic years of 2011-2012 and 2012-2013 saw a major effort at the school to engage in self-study. The Dental Hygiene Curriculum Committee scrutinized the program from the standpoint of curricular content, course structure and sequencing, assessment tools and mechanisms, and student learning outcomes.

Using information from course syllabi, data from course review forms, CoursEval student evaluations, analysis of student performance in courses, clinics, competency examinations, and Board results, a systematic curriculum/program review was completed to identify areas in need of improvement in student learning outcomes, and to strengthen the program in several key areas, including those represented by new accreditation standards.

Program-level Assessments, Recommendations and Actions

Dental hygiene accreditation standards mandate that the school have stated goals in the areas of teaching, research, patient care and service. At IUSD, each of the goals in these areas has

multiple associated measures, which are evaluated regularly and used for continuous improvement. Student outcomes are used as evidence of student learning and as indicators of the quality of aspects of the program from admissions through graduation.

Additional Assessment Information for the 2012-13 academic year: A program-wide self-study was completed and submitted to the ADA Commission on Dental Accreditation in June 2013, based on the program description, curriculum, and measured outcomes for the 2012 academic year. The site visit was in September 2013. Based on the self-study report and the preliminary site visitor's report, there were no suggestions or recommendations indicating program deficiencies related to professional accreditation guidelines for Dental Hygiene Programs. Also, in the spring and summer of 2013 a Dental Hygiene Task Force was charged with doing an environmental scan of current workforce issues in the state and educational issues, opportunities, and best practices to *frame* recommendations for future strategic planning of the existing Dental Hygiene Program at IUSD. Those recommendations were forwarded to the Dean of the IU School of Dentistry in early September 2013 for his review and feedback. It is likely that the findings will significantly impact the program going forward.

The following table lists the Dental Hygiene competencies, related PUL's, assessment tools, outcomes for 2012-2013 and planned changes for 2013-2014.

DH Competency	Related PUL's	Assessment Tools	2012-13 Outcomes	Planned Changes for 2013-14
1. Apply a professional code of ethics in all endeavors.	PUL 6	Course Completion rates (esp.H218 & H344); Student Self-assessment of competency at graduation; Clinic grades SPCC cases involving DH students; daily clinic grading; clinic procedural management reports	No student progress issues related to professionalism; No SPCC reports related to DH students; no AxiUm clinic professionalism grade issues; 2 DH2 students had procedural management grade deductions due to non-professional incident related to inappropriate focus on clinic requirements over patient needs. Evaluation of 2012 changes: curricular changes implemented in 2012 continued; use of standardized syllabus component on civility has adequately addressed cell phone disruptive behavior.	Class of 2014 given instruction on professional behavior as it related to ethical code principles and asked to relate ethical principles to their clinical practice and record on grade sheet with faculty confirmation to improve their ability to apply professional ethical principles to clinical decision-making.
2. Adhere to state and federal laws, recommendations, regulations and safety practices in the provision of dental hygiene care.	PUL 6	Course Completion rates; Student Self-assessment of competency at graduation; Clinic grades (professionalism) Satisfactory completion of IN law exam for licensure; Infection Control	satisfactory achievement of this competency as determined by all associated assessments	no changes recommended

		Reports, reported HIPAA violations, clinical grades		
3. Provide dental hygiene care to promote patient/client health and wellness using critical thinking and problem solving in the provision of evidenced-based practice.	PUL 2, 3 4	Course Completion rates (esp. H252); Student Self-assessment of competency at graduation; Clinic grades; clinical competencies; CODA Self-Study	identified need to document elements of critical thinking in all clinical competency exams as part of self-study documents	Clinical competency exam criteria were evaluated for those that may provide measures critical thinking in written clinical competency exams, e.g. perio eval written paper, dietary counseling paper and caries risk/management competency so changes can be documented. Faculty will identify specific curricular areas for increasing instruction of critical thinking concepts and principles.
4. Assume responsibility for dental hygiene actions and care based on accepted scientific theories and research as well as the accepted standard of care.	PUL 2, 3 4	course completion rates; clinic grades, clinical competency exams	satisfactory achievement of this competency as determined by all associated assessments	no changes recommended
5. Continuously perform self-assessment for life-long learning and professional growth.	PUL 4	H218, H219, H301, H302, H347 self-assessments, competency self-assessments	No consistent self-assessment activities incorporated in clinic competency exams; this is being done verbally but not consistently as a means of clinic skill assessment.	Added self-assessment component to all clinical competency exams - to be completed by student before student evaluation by faculty. Planning for reflective assignments related to use of eportfolio in progress.
6. Advance the profession through service activities and affiliations with professional organizations.	PUL 4 & 6	community outreach reports; service learning participation, SADHA membership	SADHA membership could still be increased to achieve the 80% benchmark	Continue to encourage participation in SADHA-- consider mandatory membership option.
7. Provide quality assurance mechanisms for health services	PUL 2, 3 & 4	Chart audits; process clarified and faculty evaluators calibrated.	Improved chart management by graduating class due to chart audit procedures in 2012-13.	Continue chart management procedures for 2013-14
8. Communicate effectively with individuals and groups from diverse populations both orally and in writing.	PUL 1 & 5	H311 course outcomes, clinic grades, clinic competencies; record of treatment of special needs patients	New curricular content had been added to H219 to enhance introduction of students to restorative dental procedures and how to explain them to patients. All students completed these lessons. Exit survey revealed that 95% of class was satisfied or very satisfied with their competency in dental charting; no mention of additional instruction in area	Continue to monitor student satisfaction with restorative dentistry knowledge for patient education purposes.

			of recommending restorative treatment to patients	
9. Provide accurate, consistent and complete documentation for assessment, diagnosis, planning, implementation and evaluation of dental hygiene services.	PUL 1,3	Clinic competency exams; success on Clinical Licensure Exam	Only 2/37 students cited dissatisfaction with clinical detection of caries - a decrease in % from previous years. Faculty raised concern of calculus detection skills for those students who were unsuccessful on the NERB clinical exam (n=4)	Calculus detection on Axlum electronic charting form will be recommended for all patients to provide more feedback to students and faculty regarding students' calculus detection skills; calculus guidelines for NERB exam will be emphasized when students are selecting patients (although sometimes students must sacrifice having a "perfect patient" due to limited patient availability for the exam.
10. Provide care to all clients using an individualized approach that is humane, empathetic, and caring.	PUL 1, 5, 6	Clinic grades, clinic competency exams, patient satisfaction survey	Student success on all assessments indicates no problems in this area of the curriculum.	no changes recommended
Health Promotion 1: Individual. Provide planned educational services using appropriate interpersonal communication skills and educational strategies to promote optimal oral health.	PUL 1, 2, 3, 4, 5, 6	Clinic competency exams; consistency of students in acquiring DDS treatment plans for new patients when needed	Student success on all assessments indicates no problems in this area of the curriculum. Efforts to ensure that all patients had current tx plans in the AxiUm chart improved consistency in this area.	Issues with treatment planning discrepancies will continue to be monitored and addressed with clinical faculty and students as they occur.
Health Promotion 2: Community: The dental hygienist should be able to initiate and assume responsibility for health promotion, health education and disease prevention activities for diverse populations.	PUL 1, 2, 3, 4, 5, 6	H347 course grades and assignments	community outreach activities remain high in number; opportunities to broaden scope of community outreach to include more adults and special needs populations should be sought; Students' clinical records of their treatment of special needs patients showed significant improvement over those of the last class-- 100% of students provided documentation of their frequency of tx of special needs patients in the student record manual.	Identify community-based programs that focus more of addressing the needs of adult and special needs populations in addition to the children's programming currently in place; increase participation in Special Olympics event; based on average and minimum #s of pts with special needs treated by Class of 2012, reasonable minimum #s of special needs patients required to complete clinical program for 2013-14 will be established.
Patient Care 1: Assessment. Systematically collect, analyze and record data on the general, oral	PUL 1, 2, 3, 4, 5, 6	Clinic achievement reports, H219, H221, H301, H302 course grades; clinical competency exams	Salivary testing still not incorporated into curriculum due to lack of clinical supplies/equipment; clinical assessments related to intra-extra oral palpation	Continued efforts to incorporate salivary testing into clinical curriculum; Additional interested faculty to take CITI training.

and psychological health status of a variety of patients/clients using methods consistent with medico legal principles.			indicates desired improvements due to last year's increase in instruction.	
Patient Care 2: Diagnosis. Use critical decision-making skills to reach conclusions about the patient's/clients' dental hygiene needs based on all available assessment data.	PUL 2 & 4	Clinic achievement reports, H219, H221, H301, H302 course grades; clinical competency exams	Curriculum enhancements to support students' identification of patients for whom smoking cessation should be included in health education were put in place. Students were given introductory lessons in H219 so that they could address these needs in their first semester of clinic.	No additional changes identified.
Patient Care 3: Planning. Collaborate with the patient/client, and /or other health professionals to formulate a comprehensive dental hygiene care plan that is patient/client centered and based on current scientific evidence.	PUL 1, 2, 3, 4, 5, 6	Clinic achievement reports, H219, H221, H301, H302 course grades; clinical competency exams	Clinic assessment forms were modified to facilitate more consistent faculty feedback to students on treatment planning; success of dental student and DH student collaboration in Comp Care Clinic remains problematic due to lack of enforcement of dental student responsibilities by their faculty.	New text on clinical case studies added to H301 course to provide additional learning opportunities for students to plan effective treatment approaches based on case study assessment information. Dh Clinic coordinator will continue to work with IUSD Comp Care Directors to improve the acceptance of responsibility of all dental students to provide patients for their DH partners during Comp Care rotations.
Patient Care 4: Implementation. Provide specialized treatment that includes preventive and therapeutic services designed to achieve and maintain oral health. Assist in achieving oral health goals formulated in collaboration with the patient/client.	PUL 1, 2,3, 4, 5, 6	Clinic achievement reports, H219, H221, H301, H302 course grades; clinical competency exams; student success on NERB Clinical Licensure Exam	Four graduates were unsuccessful on their first attempt at the clinical licensure exam. This number is high for our program. Three students retook the exam and were successful on their second attempt. The third individual has not retaken the exam. Reasons for their unsuccessful results were mixed--involving appropriate patient selection and calculus removal skills. Baseline data on frequency of opportunities to administer local anesthesia during pt tx was collected. Student feedback indicated that students desired more opportunities to practice this skill prior to graduation. Students must complete a minimum of 2 of each type of block injection on patients. Some students	Efforts to increase student experience in local anesthesia: students will be encouraged to recommend local anesthesia more frequently to patients, especially periodontal cases; faculty encouraged to facilitate these discussions as part of gaining informed consent and tx planning; additional opportunities for practice will be sought in other clinical areas of the school. Placement of Arrestin will be considered a "supplemental" rather than a required experience for students due to difficulty in identifying patients who would benefit from this procedure. All students will receive didactic and lab instructions but clinical requirement for experience is not considered realistic.

			had to complete this requirement on student partners. Uniform experience for students in placing Arrestin continued to be problematic for numerous reasons.	Continue to try to increase students' number of experiences in treating periodontally-involved patients to increase skill levels necessary for successful completion of the clinical licensure exam. Efforts to accomplish this goal have a long-standing history and are ongoing. Exact reasons for students' lack of success are uncertain and can only be inferred from reports they receive from the examiners. Students are provided with opportunities for remediation and additional clinical practice prior to re-taking the exam.
Patient Care 5: Evaluation. Evaluate the effectiveness of the implemented clinical, preventive and educational services and modify as needed.	PUL 1, 2,3, 4,6	Course Completion rates; Student Self-assessment of competency at graduation; Clinic grades; clinical competencies, especially Periodontal Written competency and Perio 3 clinical competency, Nutritional Counseling written competency.	student assessment of stated treatment goals, as indicated in AxiUm treatment notes is not being recorded consistently	Increase student and clinical faculty reminders to assess AxiUm treatment notes for inclusion of students' written inclusion and evaluation of treatment goals in those notes. Consider a random audit of student records during chart audit procedures to ensure that goals are recorded and evaluated in treatment notes at the time of completion of treatment.

Assessment of Student Support (Advising), Student Self-Assessment, Competency Assessment.

- Each full-time faculty member is an advisor to an assigned group of first and second year hygiene students. The faculty meets, at minimum, twice a semester with each of their advisees. Students have continuous access to their advisors via email. Students who are having academic difficulty, or who express a desire to do so, meet with their advisors more frequently.
- Faculty meeting occur at least once a month. Faculty discuss issues related to student achievement, professionalism, attendance, etc. During the faculty meetings we also discuss clinical and didactic achievements to see if there any patterns in behavior or knowledge deficiencies that need to be addressed with the advisor or respective clinic director.
- Our program completion benchmarks are consistently being met on-time.
- Students self-assess in the form of writing assignments, including reflective journaling, clinical competencies and self-assessment surveys throughout the curriculum.

- Clinical competencies are tracked to determine how many attempts were made before the clinical competency was successfully completed. Students who are not successful in a competency participate in remediation with selected faculty as needed prior to an additional competency examination attempt.

Assessment Findings

- We have a program level benchmark set at 85% passing for our National Board Dental Hygiene Exam (NBDHE). The class of 2013 achieved a 100% pass rate on this exam, indicating that students are well prepared for the Board.
- We have a benchmark set at 85% passing for our North East Regional Board Dental Hygiene Clinical Exam (NERB). The first time pass rate for the class of 2013 was 90%. 3 students passed the Board on the second attempt.

Actions Taken in Response to NERB Assessment Findings

- The dental hygiene program director went to the NERB educators meeting after the NERB exam to identify areas where improvement in our outcomes could be made.
- Reasons for unsuccessful results were mixed--involving inappropriate patient selection and calculus removal skills. Exact reasons for a given students' lack of success are uncertain and can only be inferred from the reports they receive from the examiners. Students are provided with opportunities for remediation and additional clinical practice prior to re-taking the exam.
- In 2012, IUSD Dental Hygiene had a 100% pass rate on this Board. Going forward, tracking Board outcomes and reasons for failures will continue to determine if 1) trends exist across classes and 2) if curricular components require adjustment to improve student success.

