A Scholastic Appeals Process for Dental Hygiene Student Remediation and Retention


Abstract: A scholastic appeals process tailoring individualized remediation for dental hygiene students not meeting academic standards was assessed retrospectively (1999–2008) to evaluate retention and academic failure rates, nature of academic problems, type of remediation, and success of recommendations. Academic records of students (n=55) not meeting academic standards and/or withdrawing were reviewed. Overall retention (92.7 percent) ranged from 86.7 percent to 96.6 percent. Of the fifty-five students whose records were reviewed, six students (10.91 percent) withdrew for medical/personal reasons, and forty-nine (89.1 percent) petitioned for individualized remediation. The number and percentage of students in each category of reasons are as follows: four (7.5 percent) preclinical; thirty-seven (69.8 percent) clinical; eight (15.1 percent) academic/clinical/personal reasons; and four (7.5 percent) academic dishonesty. The options approved were the following: continue in the program with grade below C- (n=3), summer clinical course with individualized contract (n=11), or independent study course during the academic year plus the summer course (n=13), all without delaying graduation; repeating a course with a one-semester delay in graduation (n=7); and auditing/repeating multiple courses with a one-year delay in graduation (n=3). Twelve students were dismissed after denial of a petition requesting remediation or second failure. The scholastic appeals process was successful for 75.5 percent (n=37) of the students who petitioned after failing to meet academic standards, thereby contributing to the 92.7 percent overall retention rate. Student-specific remediation plans based on individual academic appeals are viable options for ensuring success.

Prof. Freudenthal is Assistant Professor, Department of Dental Hygiene, Idaho State University; and Prof. Bowen is Professor, Department of Dental Hygiene, Idaho State University. Direct correspondence and requests for reprints to Prof. Jacqueline Freudenthal, Department of Dental Hygiene, Idaho State University, 921 S. 8th Avenue, Stop 8048, Pocatello, ID 83209-8048; 208-282-4360 phone; 208-282-4071 fax; freujacq@isu.edu.

Keywords: dental hygiene education, academic standards, attrition, remediation

Submitted for publication 6/3/09; accepted 11/16/09

Tinto’s model for studying attrition in higher education is the most frequently cited model in the literature.1-4 This model is based on the premise that attrition is a longitudinal process influenced by individual attributes, background, and academic characteristics. According to this theory, students who are integrated both socially and academically have a stronger chance of graduating.5 A single theory cannot explain all attrition, and with changing student demographics, additional models and strategies need to be evaluated to limit student attrition.

The issue of student retention is of interest to all schools and programs, but is of special interest to professional health care programs charged with graduating qualified competent practitioners that serve to meet the health care needs of society. The term “attrition” is defined as the loss of students who leave school or fail to reenroll in successive semesters.6,7 The term “retention” is used when a student is retained from admission to degree completion and graduation. Berger and Lyon8 found similarities between retention and student persistence. “Retention” can also be defined as desire and action of a student who stays in the educational system to complete the degree.7,8 The early identification of factors affecting student success and providing support interventions can influence student persistence.3 Researchers and admissions personnel continue to discuss, debate, and seek reliable predictors of student performance.3,9 Much of the literature focuses on the correlations between the admissions process and retention. The admissions process is a competitive process for acceptance into professional health care programs. Dental and dental hygiene education admissions criteria vary among programs, but all strive to accept students who will successfully complete the program.10,11

The specific issue of student retention in dental hygiene programs has not been addressed widely in the literature. Holt2 reported entry-level associate degree dental hygiene programs graduate 83 percent of students compared to 46 percent overall student retention in most two-year institutions. The range of retention rates reported in this national survey, however, was 50 percent to 100 percent. The most recent American Dental Association (ADA) Survey of Allied Dental Education reports an 89.6 percent average retention rate for students originally enrolled in the dental hygiene class of 2006.12
Dental hygiene students enter a program with a commitment to succeed and graduate, but sometimes problems prevent that from happening. Dental hygiene accreditation standards require a published process to ensure students meet academic, professional, and clinical criteria as well as adherence to academic standards and institutional due process for remediation or dismissal. Factors most often reported as contributing to student attrition include academic and clinical challenges, dissatisfaction with career choice, family, and personal responsibilities. Multiple factors may play a role and vary over the course of the curriculum. Individualized strategies can be used to assist students in academic remediation. Clinical skill acquisition is one of the most complex aspects of dental hygiene education and includes dexterity, tactile, and visual components. Psychomotor skills are paramount for success in a dental hygiene curriculum. When a student is unable to demonstrate adequate basic skills, remediation becomes necessary. The most common clinical remediation strategy is one-on-one assistance from faculty members. Remediation occurs during scheduled clinic time or in specific remedial sessions. Faculty members involved in time-intensive clinical remediation frequently are not compensated for additional time unless students incur additional tuition and fees. Some programs provide an adjustment to clinical workloads. Students in difficulty often are identified late in the curriculum and risk dismissal if remediation is not successful. Early recognition and intervention may maximize student retention and success in dental hygiene programs. Evaluating academic and clinical progress at midterm provides an opportunity for additional remediation measures if needed.

The remediation process can require a learning contract adaptable for individual learning styles, situations, and clinical experiences. A contract should allow students to focus on strategies specific to their learning needs. A student-centered remediation process should include mutual respect; positive learning environment; clear learning objectives; evaluation based on multiple sources; timely and relevant feedback to clinical learning objectives; and a fair, just, and equitable evaluation process. Additional successful remediation strategies include early intervention, open and ongoing dialogue with students, monitoring the remedial process, individualization based on the student’s needs, use of appropriate resources, and faculty support.

A survey of associate degree, entry-level dental hygiene programs found that the academic standards of all programs responding required each student to maintain a grade of C or better in all dental hygiene courses. Of the students who failed to achieve this standard, most were placed on probation and had to repeat the course. Additionally, 92 percent of the programs reported students would have to wait a full term to repeat classes. No data reporting baccalaureate program retention rates were found in the literature; however, data are available for all programs combined. The 2007–08 ADA Survey of Allied Dental Education outcomes assessment reported national averages of 89.6 percent completing dental hygiene programs, 98.8 percent passing written national boards, and 97.7 percent passing state/regional boards for the dental hygiene class of 2006 for all schools reporting.

Due to the sequential nature of dental hygiene programs, limited options are available for students who do not meet standards for progression. Remediation methods vary depending if the failure is in an academic or clinical course or both. A common consequence of academic failure is probation or dismissal from the program with an option to petition to reenter. Requiring students to repeat the failed course in a subsequent semester or year, taking an interim course, and remediation with the course instructor are reasonable options. There is sparse evidence in the educational literature regarding the nature of problems encountered by health professions students and what constitutes appropriate remediation. The purpose of this project was to evaluate retrospectively a scholastic appeals process to tailor individualized remediation programs for baccalaureate dental hygiene students not meeting academic standards for progression and graduation. The process for petitioning academic dismissal from the dental hygiene program is depicted in Figure 1. We examined academic failure rates, nature of academic problems, type of remediation recommended, and success of various recommendations from 1999 through 2008.

**Methods**

After the Institutional Review Board approved this study for exemption status, the academic records of all students (n=55) who withdrew or failed to meet academic standards for progression and graduation between 1999 and 2008 were reviewed. Sources of data included in these records were student evaluations, official transcripts, student progress reports or descriptions of learning problems, advising and
clinical conference notes, letters pertaining to academic difficulties or dismissal, students’ petitions to be reinstated into the dental hygiene program with a formal individualized remediation program, and subsequent letters from the department chairperson denying or approving the petition and, if approved, outlining the elements of an individualized contract for continuation and successful completion of the program. The purpose of the records review was to evaluate a scholastic appeals process allowing students to petition for reinstatement following academic dismissal from the program for failures to earn a grade of C- or above in any required course in the major. We collected the data using departmental records, coding summaries for confidentiality, and recording data from the students’ academic files. No demographic data were collected because this information was not available in all students’ records. Confidentiality of the student data was protected throughout the review process. No individual students may be identified from the results.

A data extraction table was developed to record a) admission and graduation years, b) courses with failing grades, c) nature of the academic problems, d) individualized remediation programs requested in students’ petitions and approval or denial of the petition, e) remedial recommendation, and f) student outcomes of successful program completion, withdrawal, or dismissal. Successful remediation was defined as passing all subsequent courses, graduating from the program, and passing national and regional board examinations. Frequency data were examined.

**Results**

Of the students enrolled in the baccalaureate dental hygiene program between August 1999 and May 2008, fifty-five students withdrew or did
not meet academic standards. The records review indicated an overall retention rate of 92.7 percent, ranging from 86.7 percent to 96.6 percent for each class (Table 1). Overall, twenty-seven students (12.33 percent) completed an individualized remediation program without delaying graduation, ten students (4.57 percent) extended the length of the program, twelve students (5.48 percent) were dismissed, and six students (2.74 percent) withdrew.

Of the fifty-five student records reviewed, six students withdrew for medical or personal reasons without an appeal. Forty-nine students submitted scholastic appeals petitions for individualized remediation programs (Table 2). Four students submitted a second petition for a total of fifty-three petitions. The number and percentage of students in each category of reasons for these fifty-three petitions were as follows: four (7.5 percent) for preclinical courses; thirty-seven (69.8 percent) for clinical remediation; eight (15.1 percent) for a combination of clinical, academic, family, and/or personal reasons; and four (7.5 percent) for academic dishonesty resulting in academic failures. Options approved for continuation with a formal remediation program that resulted in successful completion of the program (and the number of students in those categories) were the following: continuing in the program with a grade below C- (n=3), a supplemental summer clinical course with an individualized contract (n=11), or an independent study course during the academic year plus the required supplemental summer course (n=13), all without delaying graduation; repeating a

<table>
<thead>
<tr>
<th>Years/Class</th>
<th>Number Accepted</th>
<th>Number Graduated</th>
<th>Percent Graduated (Retention)</th>
<th>Number Not Extending Program: Continue with Grade C-</th>
<th>Course Repeat: One-Year Delay in Graduation</th>
<th>Course Repeat: One-Semester Delay in Graduation</th>
<th>Number of Students Dismissed After Petitioning</th>
<th>Number of Students Who Withdrew</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999–2001</td>
<td>29</td>
<td>26</td>
<td>89.7%</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2000–02</td>
<td>30</td>
<td>26</td>
<td>86.7%</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>2001–03</td>
<td>30</td>
<td>29</td>
<td>96.6%</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2002–04</td>
<td>26</td>
<td>24</td>
<td>92.3%</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2003–05</td>
<td>27</td>
<td>25</td>
<td>92.6%</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2004–06</td>
<td>25</td>
<td>24</td>
<td>96.0%</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2005–07</td>
<td>26</td>
<td>25</td>
<td>96.1%</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2006–08</td>
<td>26</td>
<td>23</td>
<td>88.5%</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Totals</td>
<td>219</td>
<td>202</td>
<td>92.7%</td>
<td>11</td>
<td>13</td>
<td>3</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Some students petitioned more than one course. There was a total of fifty-three petitions.

<table>
<thead>
<tr>
<th>Reason for Petition</th>
<th>Number and Percentage of Students Not Meeting Academic Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical withdrawal or personal reasons</td>
<td>6 (10.9%)</td>
</tr>
<tr>
<td>Students submitting petitions for individualized remediation programs</td>
<td>49 (89.1%)</td>
</tr>
<tr>
<td>Preclinical courses (n=4; 7.5%)</td>
<td></td>
</tr>
<tr>
<td>Clinical courses (n=37; 69.8%)</td>
<td></td>
</tr>
<tr>
<td>Junior clinical courses (n=14)</td>
<td></td>
</tr>
<tr>
<td>Senior clinical courses (n=23)</td>
<td></td>
</tr>
<tr>
<td>Combination clinical/academic, family/personal (n=8; 15.1%)</td>
<td></td>
</tr>
<tr>
<td>Academic dishonesty (n=4; 7.5%)</td>
<td></td>
</tr>
</tbody>
</table>

Total number 55
course for a one-semester delay in graduation (n=7); and auditing and repeating multiple courses for a one-year delay in graduation (n=3). Twelve students were dismissed from the program due to denial of a petition requesting remediation (n=8) or a second failure (n=4) to meet academic standards after an approved program of study. The scholastic appeals process was successful for 75.5 percent (n=37) of students who petitioned due to grades below a C-. Of the 92.7 percent of students who graduated from the program, 100 percent also were successful in completing the National Board Dental Hygiene Examination and regional licensing examinations (99.54 percent).

Discussion

The academic dismissal and scholastic appeals policy and petitioning process (Figure 1) provide several opportunities for student success and retention (Table 2). The policy is published in the Department of Dental Hygiene’s Policies and Procedures Manual. The process has been successful since 1999 with retaining students (92.7 percent) and also contributed to successful completion of national and regional licensing examinations by over 99 percent of graduates including those remediated via the academic petitioning process. These outcomes exceed national averages reported in the 2007–08 ADA Survey of Allied Dental Education, although national averages also indicate successful retention rates and outcomes. Perhaps more importantly, this process helped 75 percent of students who had failed to meet academic standards ultimately succeed.

A key feature of the petitioning process is the involvement of an academic adviser to guide the student through development of an individualized remedial plan for success. Szumacher et al. argue that successful remediation strategies should include open dialogue, individualization based on a student’s needs, student-centeredness, and faculty support. Students who receive a final grade below C- are given or sent a letter of dismissal encouraging them to review the policy for petitioning for reinstatement and remediation, seek advising, and consider various options for an individualized remediation program. Subsequently, their academic adviser contacts them and encourages a meeting to discuss petitioning for reinstatement or not. Those students choosing not to petition may be referred for career counseling or provided information about other options.

Students choosing to petition discuss with their adviser reasons for the academic difficulty leading to dismissal and options for petitioning. Examples include continuing in the program and waiving the C- requirement, repeating the course out of sequence by written contract and continuing with subsequent coursework, challenging the development of the grade, substituting departmental or university requirements (e.g., an independent study course to fulfill the stated goals, requirements, and competencies of the failed course), special remediation through a formal course or other mechanism (e.g., supplemental clinical course in summer or during subsequent semester), and any other option the student may wish to consider. The student develops a petition with the adviser including an explanation of circumstances or deficiencies that might have led to the academic problem. An essential component of an appeal is the student’s reflection on why his or her performance did not meet academic standards for progression and/or graduation. In addition, the appeal should include information regarding how the student plans to improve or enhance future performance. Common options requested by students petitioning an academic or clinical course failure include a short, supplemental remedial clinical course in the first four-week summer session, an independent study course allowing extra time for clinical or academic remediation in the first half of the ensuing semester, or repeating an entire course. The supplemental summer clinical course is self-supporting with clinical faculty remunerated for additional teaching time from student fees. Students completing a remedial clinical course during a semester following academic difficulty often do so for the first eight weeks of the semester and begin the subsequent course at midterm. Completion of that clinical course requires issuing a grade of incomplete with use of the summer course for completion of those requirements. Academic courses can be completed by independent study contract, audit, or fully repeating the course for credit.

The vast majority of students petitioning are able to complete the program and graduate without extending the length of the program, with less than 5 percent needing an additional semester or year to graduate. The unique feature of a self-supporting, focused summer clinical experience between the junior and senior year of the baccalaureate dental hygiene program has been remarkably well accepted and effective. This option seems to have addressed the pattern reported in the literature of most students having to wait a full term to repeat a course.
The majority of petitions requesting individualized remediation resulted from failure to obtain a grade of C- or above in clinical courses. This finding agrees with previous literature indicating that clinical skill acquisition is one of the most complex aspects of dental hygiene education. Most commonly, one-on-one assistance from faculty members, most of whom are unpaid for the additional time, is the remediation mechanism employed to address clinical skills remediation. While this program employs that strategy during the academic year, some time for remedial teaching is awarded as part of the faculty member's workload. Additional time worked in the summer clinical enhancement course is paid beyond the normal nine-month or ten-month contract from student fees associated with the course.

A few petitions resulted from preclinical course failures. These all occurred in the last three years of this review with a concerted effort to identify and remediate students having difficulties as early as possible. Evidence suggests early intervention can influence student persistence. Frequently, students who have difficulty are identified late in the curriculum and are at risk of failure if effective interventions are not utilized. Effective interventions must be based on individual student needs if remediation is to be successful. The intervention should include well-defined goals and objectives, a realistic time frame, and how remediation will be addressed, evaluated, and documented. More than one strategy may be needed. Strategies include academic and or clinical remediation by faculty members, observations, counseling, peer tutoring, review sessions, study skills support, and mentoring. Interventions applied in the first semester can affect persistence for students who demonstrate weaknesses in academic and/or clinical areas. Multiple factors are associated with persistence. Goals, commitment, motivation, and social integration are some predictors of perseverance. Research also suggests that later identification of students leads to risk of dismissal when remediation is unsuccessful.

Following the student’s appeal for reinstatement, the chairperson and/or an academic standards committee review the student’s petition. Each appeal is reviewed on a per case basis considering the individual factors. Remediation programs will vary depending on the nature of the deficiencies and if they involve an academic or clinical course or both. Normally, a remedial course or contract for an independent study fulfills the stated course goals, objectives, and competencies not successfully completed. An individualized contract is developed and signed for each student, outlining recommendations and requirements for remediation, standards for acceptable performance, consequences of not meeting academic standards in the future, and opportunities for assistance. The student’s progress is monitored by the academic adviser, course/clinical coordinators, and the chair. Gallant et al. recommended learning contracts for remediation focusing on individual learning needs, specific objectives, and evaluation based on multiple sources.

Conclusion

This study provided a valuable perspective on the remediation process employed in a dental hygiene program over a nine-year period. The retrospective methodology generated information about the value of individualized remediation options and a well-defined scholastic appeals petitioning process. Early identification, a student-centered approach, mutual respect and faculty support, employment of a specific learning contract, and monitoring of the remedial process are all elements of the program that have contributed to high student retention rates and successful student outcomes.

References