Honolulu welcomes orthodontists

It’s sun, sand and syllabi at AAO annual meeting

By Sierra Rendon, Managing Editor

Between the top-notch educational program and the ortho-focused exhibit hall, the American Association of Orthodontists’ annual meeting in Honolulu provided orthodontists with knowledge, products and services aimed specifically to them, unlike most other large conventions.

More than 300 companies brought their newest, most popular and most innovative products and services to the May show, which took place at the Honolulu Convention Center, and many offered discounts and special offers.

In addition to the variety-filled exhibit hall, education was a top priority at the annual convention.

Nary an orthodontic topic was missed at this show. From extractions to Class II treatment to periodontal considerations, the program was extensive and varied.

In addition to the official scientific program, many exhibitors offered educational events on the exhibit hall floor.

See Page 6 for a special photo scrapbook from the annual meeting.

Study: Will the NBDE Part I pass/fail grading format affect student preparation?

By Hamid Barkhordar, Pooyan Nasibi
Advisor: Dennis J. Tartakow, DMD, MS, EdD, PhD

Abstract

The aim of this study was to assess how pass/fail scoring format of the NBDE Part I exam will influence Ostrow School of Dentistry of USC student motivation with regard to preparation for the exam. A multiple-choice, 11-item, web-based survey was administered through the Ostrow School of Dentistry student list.
Fallen heroes of orthodontics

By Dennis J. Tartakow, DMD, MSEd, PhD, Editor in Chief

“In order for any of us to know where we are going, we must know where we came from.”

There are many outstanding clinicians, researchers, teachers, mentors and leaders who have been referred to as the pillars of modern-day orthodontics. Many of these individuals are like fallen heroes of other walks of life—gone and forgotten, and that is a shame.

Quite possibly it is because of the digital generation, where the literature has not been able to cite these men and women, but why is that? Could it be that our educational programs are not providing residents with the historical and evolutionary data necessary to recognize these individuals who were really the pioneers of modern-day orthodontics? That is really too bad and too sad. In order for any of us to know where we are going, we must know where we came from.

As an example, numerous articles on self-ligating orthodontic brackets can be found in the literature (Self-ligating brackets, 2012). Since the early 1990s, there have been more than 20 patents for self-ligating brackets, some have come and some have gone, and some have lasted the test of time. It is interesting, and yet so sad, that many orthodontists have referred to self-ligating brackets as the “new buzzword” in orthodontic treatment when, in reality, the self-ligating bracket has prevailed since the 1960s.

Case in point: It has been more than 50 years since Drs. Maxwell Fogel and Jack Magill first introduced their original “Combination Technique” and yet they are hardly ever cited in any article, reference or bibliographic list on self-ligating bracket systems. No one is an island unto themselves or herself. “We are all merely pigmies on the shoulders of giants” (Dr. Maxwell S. Fogel, 1974). Hindsight provides us with an unequalled opportunity to review and reflect upon our own experiences. “It is at the end of a man’s life when he realizes how important his decisions were in the course of time. It is interesting, and yet so sad, that many orthodontists have referred to self-ligating brackets as the “new buzzword” in orthodontic treatment when, in reality, the self-ligating bracket has prevailed since the 1960s.”

References

Image courtesy of Dr. Earl Broker.

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Digital generation, where the literature has not been able to cite these men and women, but why is that? Could it be that our educational programs are not providing residents with the historical and evolutionary data necessary to recognize these individuals who were really the pioneers of modern-day orthodontics? That is really too bad and too sad. In order for any of us to know where we are going, we must know where we came from.
serv to individuals of the junior and senior classes. The questionnaire addressed the following: a) start date of studying, b) hours of average study, c) amount of monetary investment and d) the number of times participants went through or planned on going through Dental Decks® (the flashcard company). The survey results showed that student motivation is expected to decline with pass/fail scoring. Participants reported beginning their studies at later times in their dental student careers in addition to lower average study hours. Monetary investment for resources showed to be independent of grading format.

Introduction

On Jan. 1, a highly anticipated change occurred to the National Board of Dental Examiners Part I test. From then on, student performance on the exam would be reported as pass/fail as opposed to percentile grading. Historically, pass/fail grading systems were implemented in medical and dental programs to reduce student stress and promote group learning. It was believed that this system would allow students to focus on learning as opposed to simply memorizing to score well in courses. A variety of studies throughout the past 50 years have demonstrated that pass/fail pedagogies do, in fact, enhance student well-being, while decreasing anxiety and depression (Spring 2006). However, there is conflicting data on the affects of pass/fail grading in regards to academic achievement and student motivation. Thus, a study was conducted at the Herman Ostrow School of Dentistry of USC to analyze the influence of pass/fail grading on NBDE Part I examinees in regards to student preparation and effort.

Materials and methods

Data was gathered by administering a multiple-choice, 11-item, web-based survey to students of the junior (2012) and senior (2013) classes at the Ostrow School of Dentistry via the student list-serv (See appendix for survey). Juniors and seniors (how many students were surveyed, how many students in each class) were targeted as the population sample because they completed the NBDE Part I exam scored on a percentile basis. Respondents were first asked about their actual exam preparation tactics and efforts. In addition, the questionnaire enquired about respondent gender and future specialization plans. Next, the same variables were tested had the participants' exam been reported as pass/fail, taken on the exact same date of their actual test, and of equal difficulty. The following topics were addressed in the survey to measure and compare student motivation, preparation and study tactics: a) start date of studying, b) hours of average daily study, c) amount of monetary investment, and d) the number times the Dental Decks were reviewed. IRB guidelines were respected via informed consent, secure transmission and anonymity. Participation was voluntary, and all students were assured of confidentiality. The data was gathered, scored, charted, cross-tabulated and analyzed statistically for mean and distribution patterns. Data analysis was performed using MedCalc software.

Results

The survey was successfully completed by 207 of the 279 junior and senior students at the Ostrow School of Dentistry. Of the 207 participants, 73 reported future plans of attending a residency program in a particular field of dentistry. Start date of studying and average daily study hours were the most impacted variables with pass/fail grading. However, monetary investment for resources proved to be independent from grading format. Both respondents who reported future plans of applying for residency programs and those who reported no plans of specializing showed no significant difference in the degree of decline in NBDE-I study preparation and effort.
Monetary Investment for NBDE-I Resources

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Review of Dental Decks

Provided by authors Barkhordar and Nasiri

Discussion

Many argue that if students aren’t driven by their own intrinsic motivation to learn, they shouldn’t be in that particular field. Professor Tim Wilkinson, associate dean of medical education at the University of Otago, states “Do we want to graduate doctors who will only learn if someone pats them on the back and rewards them?”

It is clear that the goal of health professional educators is to train individuals who possess enough desire and interest in that particular field so that grades will not be the driving force in their academic success.

The frequency of dental decks reported planning to study more than nine hours/day on average. However, the shape of the responses skewed to the right with even pass/fail grading.

Analysis of the non-residency applicants across the same variables under pass/fail grading suggests that this subgroup is also within the limits of the overall respondents. Thirty-nine percent of respondents who said they reviewed or would plan on reviewing the decks three times received a score of 1, and respondents who reported planning to study more than nine hours/day during their second year or earlier. This decreased to 41 percent when participants were asked when they would begin studying if their exam performance was reported on a pass/fail basis. In addition, scoring of the responses associated with this variable reveals a mean of 3.7 with a percentile grading and a mean of 4.2 with pass/fail grading. The smaller values represent an earlier NBDE-I start date of studying. The results suggest that pass/fail grading on a board examination eliminates a sense of urgency in which scored exams inevitably create.

Average daily study hours

When assessing average daily study hours, the data illustrates another distinct drop in student motivation and preparatory tactics (Fig. 2). The survey results showed that 49 percent of the participants were studying an average of nine or more hours/day during their latter half of NBDE-I Part 1 studies. On the other hand, when asked the same question in regard to an exam that would be reported as pass/fail, only 27 percent of students would study nine or more hours/day.

There were some responses scored from 1-5, in which 1 represents less than six hours of average study hours and 5 represents greater than 14 hours of average daily studying. Analysis of this data demonstrates a mean of 2.3 percent of participants, who reported reviewing the Dental Decks three times for their actual exam, stated they would only go through them once or twice with pass/fail grading. The results to this question were also scored from 1-3 and analyzed for mean. Respondents who reported they would review or would plan on reviewing the decks once received a score of 1, and respondents who said they reviewed or would plan on reviewing the decks three times received a score of 3.

Analysis of the responses shows a mean of 2.3 percent of students who reported reviewing the decks once having a lower daily study hours. Of the 134 respondents, 57 percent of sub-

bers who wanted to specialize for residencies reported starting their NBDE-I studying between March or later. The distribution curve associated with this subgroup and variable under pass/fail grading is uniform— as opposed to the skewed left shape seen in scored grading, therefore, illustrating that both residency applicants and non-residency applicants are expected to study a shorter period of time for the NBDE-I exam with pass/fail grading.

Evaluation of average daily study hours reveals that with pass/fail grading only 20 percent of participants reported planning to study more than nine hours/day on average. However, the shape of the responses skewed to the right with even pass/fail grading.

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achievement is a “put in (on) the back.” Our results demonstrate that percentile grading, in regards to national boards exams, serves to drive students for greater achievement and superior preparatory tactics.

Although there is an apparent decline in student motivation in regards to an NBDE Part I exam graded on a pass/fail system, not all students were equally affected by this change. Many respondents reported minimal or no change at all in preparation and motivation with pass/fail grading.

Conclusion

The benefits of pass/fail grading may include “reduced stress, enhanced well-being, a less competitive learning environment and a greater focus on learning rather than on studying minutia purely for higher-grade achievement,” (Spring, 2011). Historically, problems related to the effectiveness of pass/fail grading refer to a decline in class participation, and an overall decline in academic performance and effort.

Although past studies have reported conflicting results in regard to the influence of pass/fail grading on academic performance, our study found that student preparation is expected to decline slightly. Scoring creates a competitive nature that pass/fail grading systems were designed to reduce.

Are we eliminating this driving force of academic performance and effort with pass/fail grading?

The final outcome is unknown until performances are measured throughout the next few years of NBDE testing utilizing the pass/fail method of grading. This preliminary study demonstrates that many students are expected to show a decline in NBDE-I study motivation and preparatory effort.

Respondents reported: later start date of studying, a decline in average daily study hours and no changes in monetary investment for resources.

Although the data suggests a decline in student motivation in regards to an NBDE Part I exam graded on a pass/fail system, many respondents reported minimal or no change at all in preparatory tactics and study motivation with the transition from scored to pass/fail grading.

A major limitation of this study was the sample population. Our data was limited to the population of Ostrow School of Dentistry juniors and seniors. Future studies should focus on a greater sample of dental students, including participants from other dental schools and those who took the pass/fail NBDE-I examination.

Finally, the data gathered in this study may explain future trends and changes in NBDE Part I national averages, study tactics and pass rates.

References


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