Bulking up COMLEX Level 1 Scores
What Preparatory Behaviors Enhance Performance?

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INTRODUCTION
Preparing for licensure examinations such as the Comprehensive Osteopathic Medical Licensing Examination (COMLEX) can be daunting, sometimes confusing, and frequently stressful task for medical students. With increasing frequency, students are seeking advice on what they can do to most effectively and efficiently prepare for the COMLEX. A better understanding of what resources students choose to use and insight into how they spend their time preparing for the COMLEX would be helpful to those that counsel students.

BACKGROUND
As early as the mid-1980s, there have been reports of licensure exams being used by medical schools and residency programs in capacities for which the tests were not designed (O’Donnell, 1993); to validate educational processes and to evaluate medical education programs (Williams, 1993; Berner, Brooks & Ermdmann, 1993). As competition for selection at highly desired residency programs increases, it is expected that COMLEX scores will be more commonly used as screening tools to determine which applicants are granted interviews and subsequently offered residency training positions.

The literature is replete with studies that correlate student undergraduate grades, MCAT scores and medical school grades; resource selection, study habits, time management, self-regulation and personality types to performance on various standardized tests and national licensing examinations, including the COMLEX (Baker et al, 2000; Ley & Young, 2001; Dixon, 2004; Zhang et al, 2004; Sefcik, Prerost & Arbert, 2009).

The National Board of Medical Examiners (NBOME) developed the Comprehensive Osteopathic Medical Self-Assessment Examination (COMSAE) series to provide osteopathic medical students with a web based tool to self-assess (http://www.nbome.org/comsae.asp). The NBOME reported that the correlation between performance on the COMSAE and the COMLEX Level 1 examination was 0.78 with students’ scores on the COMLEX Level 1 examination reported to be 26 points higher (for the timed version of the COMSAE) (http://www.nbome.org/comsae.asp). During the 2010-2011 academic year, MSUCOM students in the Class of 2013 were provided access to the COMSAE.

The goal of this study was to collect data related to a variety of student achievements, preferences and behaviors including COMLEX study aid choices, COMSAE scores, and medical school academic performance, and determine the relationship of these variables to COMLEX Level 1 examination scores.

METHODS
Subsequent to approval by the IRB at MSU, the Office of Student Services provided MCAT scores, GPA, class rank, and COMLEX Level 1 Examination scores for the Class of 2013. A web-based survey was used to collect self-reported data from students about their study behaviors, study aids and resources used to prepare for COMLEX, including use of COMSAE. They were also polled as to what resources they would recommend to the Class of 2014.

RESULTS
A total of 119 students (36.1% of those surveyed) accessed and completed portions of the survey. Of the respondents, 97 completed all items. A subset of 57 of the 97 (58.8%) took a second version of the COMSAE prior to COMLEX Level 1.

The mean scores for COMSAE first attempt and COMLEX Level 1 differed by almost 100 points (r=0.56) while the mean scores on a second COMSAE attempt differed from COMLEX scores by less than 40 points (r =0.64) (see Figure 1).

The results of this study suggest that the most important preparatory behavior leading to improved student performance on the COMLEX Level 1 examination reported to be 26 points higher (for the timed version of the COMSAE) (http://www.nbome.org/comsae.asp). During the 2010-2011 academic year, MSUCOM students in the Class of 2013 were provided access to the COMSAE.

CONCLUSIONS
The results of this study suggest that the most important preparatory behavior leading to improved student performance on the COMLEX Level 1 examination is mastery of the coursework that precedes the examination.

COMSAE scores are related to COMLEX Level 1 scores with the score on the second attempt demonstrating a stronger correlation and more accuracy as a predictor of the COMLEX Level 1 score.

Contrary to what one might expect, total study time prior to taking the COMLEX Level 1 examination was not related to scores achieved on the test.