Letters to the Editor

To the Editor:

The Fall 2010 edition of *The Journal of Chiropractic Education* (JCE) contained two articles[1, 2] that, in part, cited the National Board of Chiropractic Examiners' (NBCE) current test programs and exam orientation as impediments to innovation in chiropractic education, and therefore leaves an impression of the NBCE that begs correction. Johnson and Green state that the NBCE examinations are an impediment to educational innovation and curricular improvement.[1] Further, Mr. Ward states that NBCE examinations are designed around basic science silos and prohibit horizontal integration of information.[2] We wonder if Drs. Johnson, Green, and Ward are aware of recent program changes that demonstrate the NBCE's dedication to development of exams that reflect changes in curricular design.

The NBCE met 2 years ago to address one aspect of our testing program that was perceived as being problematic to some students' entrance into practice immediately following graduation. Specifically, successful completion of part II was a requirement of registration for part IV. In direct discussions with chiropractic college representatives, a solution was developed and implemented to change eligibility. Formerly, passing part II was a prerequisite to registration for part IV; this was discontinued and replaced. Now undergraduates need only college approval to sit for the exam. This change placed the responsibility of ensuring a candidate's readiness to take part IV on the college, exactly where we think it should be.[3]

The positive curricular effect of unlinking the part II and part IV exams is the ability for senior students to attempt all parts of the NBCE examinations in their senior year. This addresses Mr. Ward's suggestion of horizontal integration of the basic science curricula. A senior candidate should be prepared for entering a clinical experience, an environment that requires the ability to synthesize information, arrive at a diagnostic conclusion, and establish an effective management plan. The current NBCE test schedule also satisfies Drs. Johnson and Green's suggestion that the desired educational innovation may be a modular teaching design.

The NBCE remains committed to the protection of the public through continued excellence in testing and assistance to licensing authorities in identifying competent chiropractic physicians. We can only achieve this goal by thorough assessments of material taught in chiropractic colleges (parts I and II) and testing to the contemporary practice of chiropractic (parts III and IV). Importantly, the only way NBCE remains a relevant, viable testing organization is through regular contact and collaboration with the constituencies the NBCE serves—an honor and a duty we have had for the past 47 years.

Doctors Johnson, Green, and Ward are to be commended for encouraging innovation in chiropractic education. The NBCE eagerly anticipates educational designs structured to advance chiropractic education and is confident that current best practice guidelines in place at the NBCE allow for significant innovation to follow or coincide with these changes. In closing, be assured that the NBCE commits to remaining responsive to the needs of chiropractic education now and in the future.

Dr. Richard Cole, NBCE Director
Mr. Horace Elliott, NBCE Executive Vice President

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2. Ward KP. Horizontal integration of the basic sciences in the chiropractic curriculum. J Chiropr Educ 2010;24(2):194–7.
3. Part IV eligibility updates. Greeley: National Board of Chiropractic Examiners; 2008. Available at: http://www.nbce.org/press/pdfs/partiv_sept_2008.pdf.

In Reply:

We thank Dr. Cole and Mr. Elliott for the opportunity to further clarify our discussion of the need for continued improvement in curricula and competency assessment as discussed in our article.[1] First, we wish to clearly state our admiration of the work that the NBCE continues to provide for the profession. The tasks are not easy nor without challenges. The mention that part I must be taken before part II in the editorial was in error, for which we apologize. According to the NBCE website, this should be corrected to state that now eligibility is up to the colleges to determine, "… upon proper authorization by the dean or registrar."

Having developed and taught innovative curricula at two chiropractic colleges, we have seen firsthand how national standardized exams can be a challenge to innovative curricular design. This is not to say that this is unique to the NBCE; the United States Medical Licensing Examination (USMLE) experiences similar challenges, criticisms, and calls for change. The challenges relate to how information is siloed (by discipline), how departments are established, and how teaching and testing methods can become pedantic, instead of patient centered and clinically relevant.[2] Sometimes these actions occur accidentally, but sometimes they are done purposefully to address the pressures generated by board exam pass rates. Our current models mimic the Flexner model of education and one that was reinforced by basic science laws that were meant to contain and eliminate the chiropractic profession.[3, 4] We still are burdened by the antiquated format as proposed by Flexner.

The concerns about timing and siloed information on standardized exams remain. If a college developed a systems-based curriculum, basic and clinical sciences information would be learned concurrently and in an integrated manner. This innovative curriculum would put students at a potential disadvantage compared with those taking more Flexner-based curricula (basic science taught as separate disciplines, followed by clinical sciences). Delivery in the curriculum would delay students from being allowed to sit for the NBCE part I exam until very late in their programs. As well, the disparity between format of how the skills and knowledge were learned and the standardized exam would create an even greater challenge.

We recognize that we state a problem without offering a practical solution. We are simply asking the chiropractic profession to rethink its approach to education and not rely on an external force (eg, Flexner report) to influence our destiny. We need to evolve in our educational foundation, not only in content, but in methods of delivery.

The NBCE wears a great mantle of responsibility for the profession and we appreciate the continued improvements it applies to its methods and exams. Whether it intends to or not, the NBCE drives to some extent what happens at our educational institutions. How we test determines how we teach. This is neither a unique challenge for chiropractic nor a weakness of the NBCE. This is something with which all health care professions struggle.

We thank the NBCE for their continued efforts to improve the uniform high standards of excellence for the chiropractic profession.

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1. Johnson C, Green B. 100 years after the Flexner report: reflections on its influence on chiropractic education. J Chiropr Educ 2010:24(2):145–52.
2. Ward RW. Editorial: is the tail wagging the dog? J Chiropr Educ 2000;14(1):vii–iii.
3. Johnson C. Reflecting on 115 years: the chiropractic profession's philosophical path. J Chiropr Humanities 2010;17:1–5.
4. Keaing, J. Chiropractic history: a primer. Available at: http://www.philosophyofchiropractic.com/primerall72.pdf.

In Reply:

I thank Dr. Cole and Mr. Elliott for their interest in my article published in *The Journal of Chiropractic Education* and the opportunity to dialogue further on this issue. The NBCE examinations are designed to reflect chiropractic colleges' curricula. For example, part I of the NBCE examinations is organized around domain-specific basic science silos (eg, anatomy, physiology, biochemistry, etc.). This organizational structure is not conducive to horizontal integration of basic science material. Consequently, links between disciplines, which could help in attaining a comprehensive understanding of the human body, are often neglected.

The separation between parts II and IV may have some advantages, but it still does not address the lack of integration between the basic sciences. Neither the NBCE nor chiropractic educators are at fault for this problem, as part I does reflect the course content as taught in most chiropractic schools. The curricula at most schools reflect the discipline-specific model around which textbooks are written and most academic departments are organized.

The currently prevailing domain-specific model causes several problems for students as they matriculate into the clinical sciences. These problems would be lessened if both NBCE part I questions and chiropractic college curricula were horizontally integrated. I would personally welcome the opportunity to participate in problem-solving discussions with members of the NBCE and college representatives after I complete parts III and IV of the NBCE examinations.

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