Chapter 4

Planning and Developing the Survey of Chiropractic Practice

The survey questionnaire forms the basis of a practice analysis and allows a profession to be analyzed according to the professional tasks and functions performed by its members. This chapter describes the procedures followed in designing the survey instrument.

In 1991, the National Board of Chiropractic Examiners (NBCE) conducted a survey and published the data in the 1993 *Job Analysis of Chiropractic* (Christensen & Morgan, 1993). In 1998, the NBCE used a redeveloped and expanded survey instrument to conduct a new survey which was published in 2000; in 2003, the instrument was modified and reduced in length. Results were published in 2005. In 2008 and 2009, the survey was completely re-designed and the results were published in 2010. In 2013 and 2014 the survey was again modified for the 2015 practice analysis report. While this 2015 publication mainly presents the 2014 data, it also refers to the 1991, 1998, 2003, and 2009 survey data for comparison. In this chapter and the chapters that follow, all references to survey data are labeled according to the year the data were collected. For example, all data reported in the *Practice Analysis of Chiropractic 2015* are labeled as the 2014 survey data to accurately reflect when the data were obtained.

This chapter reviews the steps followed to develop the current survey form during 2013 and 2014. For details about development of the earlier surveys, one may read the 1993, 2000, 2005, and 2010 reports.

Job Inventory

In developing the various job/practice analysis survey instruments, the authors frequently used the job inventory approach, also called a Functional Job Analysis (FJA). The FJA approach was first proposed by Fine and Wiley in 1971 (as cited in Knapp & Knapp, 1995) and has been used by the U.S. Employment Service since 1977 to categorize occupations.

> The first step taken in conducting a FJA is defining the purpose and goals of the occupations. A trained job analyst then identifies what must be done to accomplish the purpose and goals, by determining what the worker does (i.e., processes or procedures used to perform a task) and how it is done (i.e., physical, mental,

> interpersonal skills required during the processes and procedures)… (Knapp & Knapp, 1995, p. 97).

These essential components were incorporated into the various forms of the NBCE job and practice analysis survey instruments.

As previously stated in this report, testing guidelines presented in the *Uniform Guidelines on Employee Selection Procedures* (Adoption of Four Agencies of *Uniform Guidelines on Employee Selection Procedures,* 1978) and by the private testing community indicate that licensure and certification test plans should be based upon a job/practice analysis documenting the characteristics of a profession as defined by the customary practices of its members.

The NBCE conducted the first chiropractic practice survey in 1991 to document the content for a potential practical examination, to provide documentation for a special purposes (post-licensure) examination test plan, and to further assess the emphasis given to the Part III examination content. The purpose of the current Survey of Chiropractic Practice (2014) is to further assess the content and emphasis for Part III and Part IV examinations, the Special Purposes Examination for Chiropractic (SPEC), and to document trends and developments in the profession.

Rating Scales

Rating scales, which are generally part of job analysis survey instruments, are important in the final analysis of the survey data. Ratings of frequency of task performance, amount of time spent engaged in a task, and the importance or criticality of a task, knowledge, or skill are the most commonly used scales on practice analysis surveys (Knapp & Knapp, 1995). Five and 6-point scales (with values ranging from 0 to 4 or 0 to 5) are frequently used in job/practice analyses and were used in the present study. Major issues addressed with 5- and 6-point scales include:

- Providing an efficient method of obtaining and processing data. In a large study with thousands of participants, it would be virtually impossible to manage unique responses from each individual.
- Matching the precision of a respondent's ability to provide accurate clinical information data with the scale on which the data are recorded. For example, practitioners were asked to recall the frequency with which they performed various professional functions and assess the risk to a patient when an activity was omitted or poorly performed. In both instances, the 5- and 6-point scales approximately matched the accuracy of practitioners' recollections.
- Increasing the likelihood of response by developing an instrument which could be completed within 45 to 60 minutes. The 5- and 6-point scales met this requirement. If individuals had been asked to provide unique responses that were not linked to

a scale, this would have required additional time on the part of the respondent and would have likely lowered the response rate.

Components of a Practice Analysis

The following is a list of procedures and/or activities followed in conducting the 2014 survey:

- Obtaining lists of licensed chiropractors in all 50 states and in the District of Columbia.
- Refining the lists to exclude those not residing in each state.
- Randomly selecting licensed chiropractors in all 50 states and the District of Columbia to complete the survey.
- Preparing a draft of the Survey of Chiropractic Practice.
- Making multiple revisions based on discussions with chiropractic staff and consultants.
- Preparing the final form of the Survey of Chiropractic Practice.
- Placing the Survey of Chiropractic Practice on the NBCE web site.
- Mailing all selected individuals a postcard notifying them of their selection and asking them to complete the survey online.
- Calling all selected individuals who had not completed the survey online.
- Printing the Survey of Chiropractic Practice in a machine-scorable format and mailing the survey to those who had not completed the survey online.
- Calling all selected individuals who had not completed the survey.
- Calling and requesting a sample of non-respondents to complete the survey to assess potential response bias.
- Machine scoring and compiling the survey data collected online or through hard-copy responses.
- Writing an analysis of the survey data.
- Developing visual representations of complex data sets.
- Preparing the 2015 practice analysis report in-house.
- Publishing the *Practice Analysis of Chiropractic 2015*.

Review of Literature

Literature pertaining to the protocol of conducting a job analysis survey was reviewed. Additionally, literature pertaining to chiropractic and other professions was considered in the preparation of the survey instrument and in the collection of the data. The bibliography at the end of this report contains a list of literature reviewed.

The Survey of Chiropractic Practice (2014)

A copy of the final 2014 survey form as distributed to the randomly selected population of licensed chiropractic practitioners throughout the United States appears in Appendix B of this report.

The Collection and Analysis of the Survey Data (2014)

Data from the online responses and the hardcopy responses were merged. A Kodak i600 Scanner was used to electronically capture data from the printed survey forms. Once captured, the 2014 data were analyzed utilizing the most current edition of IBM SPSS® — a comprehensive set of programs ideally suited for the computations necessary to analyze and report the Practice Analysis.

The Publication of the *Practice Analysis of Chiropractic 2015*

This report of the survey results was prepared by representatives of the NBCE staff and titled *Practice Analysis of Chiropractic 2015*.