

BOARD OF CHIROPRACTIC EXAMINERS

OCCUPATIONAL ANALYSIS OF THE CHIROPRACTOR PROFESSION



OFFICE OF PROFESSIONAL EXAMINATION SERVICES



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EXECUTIVE SUMMARY

The Board of Chiropractic Examiners (Board) requested that the Department of Consumer Affairs' Office of Professional Examination Services (OPES) conduct an occupational analysis of chiropractor practice in California. The purpose of the occupational analysis is to define practice for chiropractors in terms of the actual job tasks that new licensees must be able to perform safely and competently at the time of licensure. The results of this occupational analysis provide a description of practice for the chiropractor profession that can then be used as the basis for the chiropractor licensing examination in California.

OPES test specialists began by researching the profession and conducting telephone interviews with licensed chiropractors working in various locations throughout California. The purpose of these interviews was to identify the tasks performed by chiropractors and to specify the knowledge required to perform those tasks in a safe and competent manner. An initial workshop of practitioners was held at OPES in July 2016 to review the results of the interviews and to identify changes and trends in chiropractor practice specific to California. A second workshop was later held in August 2016 with additional chiropractors to review and refine the task and knowledge statements derived from the telephone interviews and the initial workshop. Licensees in both of the workshops also performed a preliminary linkage of the task and knowledge statements to ensure that all tasks had a related knowledge and all knowledge statements had a related task. Additional task and knowledge statements were created as needed to complete the scope of the content areas.

Upon completion of the first two workshops, OPES test specialists developed a three-part questionnaire to be completed by chiropractors statewide. Development of the questionnaire included a pilot study which was conducted using a group of licensees. The pilot study participants' feedback was incorporated into the final questionnaire, which was administered in October 2016.

In the first part of the questionnaire, licensees were asked to provide demographic information relating to their work settings and practice. In the second part, licensees were asked to rate specific job tasks in terms of frequency (i.e., how often the licensee performs the task in the licensee's current practice) and importance (i.e., how important the task is to performance of the licensee's current practice). In the third part of the questionnaire, licensees were asked to rate specific knowledge statements in terms of how important that knowledge is to performance of their current practice.

OPES test specialists then developed a stratified random sample of 5,000 California-licensed chiropractors (out of a total of 13,261 licensees) to participate in the occupational analysis. The sample was stratified by years licensed and by county of practice, with an oversampling of chiropractors licensed 0 to 5 years. In October 2016, the Board sent notification letters to the sample of 5,000 licensees inviting them to complete the questionnaire online. A total of 432 chiropractors, or approximately 8.6% of the licensed chiropractors in the sample (5,000), responded by accessing the online questionnaire. The final sample size included in the data analysis was 304, or 6.1% of

the population that was invited to complete the questionnaire. The demographic composition of the respondent sample is representative of the California chiropractor population.

OPES test specialists then performed data analyses of the task and knowledge ratings obtained from the questionnaire respondents. The task frequency and importance ratings were combined to derive an overall critical index for each task statement. The mean importance rating was used as the critical index for each knowledge statement.

Once the data had been analyzed, two additional workshops of licensed chiropractors were conducted in December 2016 and January 2017 to evaluate the critical indices of the task and knowledge statements and determine whether any task or knowledge statements should be eliminated. The licensees in these workshops also established the linkage between job tasks and knowledge statements, organized the task and knowledge statements into content areas, and defined those areas. The licensees then evaluated and confirmed the content area weights for the new description of practice.

The resulting description of practice for California chiropractors is structured into four content areas weighted by criticality relative to the other content areas. The description of practice specifies the job tasks and knowledge critical to safe and effective chiropractor practice in California at the time of licensure.

The description of practice developed as a result of this occupational analysis serves as a basis for developing an examination for inclusion in the process of granting California chiropractor licensure. Similarly, the description of practice serves as a basis for evaluating the degree to which the content of any examination under consideration measures content critical to California chiropractor practice.

At this time, California licensure as a chiropractor is granted by meeting the requisite education and training requirements and passing the National Board of Chiropractic Examiners' examinations (Parts I, II, III, IV, and Physiotherapy) and the California Chiropractic Law Examination (CCLE). Based on the questionnaire results, the licensees in the December 2016 and January 2017 workshops were asked to perform a preliminary evaluation of the Laws and Regulations content area and subareas to develop prospective weights for the CCLE.

OVERVIEW OF THE CALIFORNIA CHIROPRACTOR DESCRIPTION OF PRACTICE
CONTENT OUTLINE

Content Area	Content Area Description	Percent Weight
I. Patient History	This area assesses the candidate's knowledge of performing a comprehensive patient evaluation.	14
II. Examination and Assessment	This area assesses the candidate's knowledge of performing physical examinations and evaluations to guide diagnosis and management.	29
III. Treatment	This area assesses the candidate's knowledge of chiropractic treatments, including the use of physiotherapy modalities and healthy lifestyle counseling.	26
IV. Laws and Regulations	This area assesses the candidate's knowledge of laws and regulations related to chiropractor practice as documented in the California Business and Professions Code, California Code of Regulations, California Health and Safety Code, and Chiropractic Initiative Act of California.	31
Total		100

TABLE OF CONTENTS

<u>EXECUTIVE SUMMARY</u>	i
LIST OF TABLES.....	v
LIST OF FIGURES.....	vi
LIST OF APPENDICES.....	vii
<u>CHAPTER 1. INTRODUCTION</u>	1
PURPOSE OF THE OCCUPATIONAL ANALYSIS	1
CONTENT VALIDATION STRATEGY	1
UTILIZATION OF SUBJECT MATTER EXPERTS.....	1
ADHERENCE TO LEGAL STANDARDS AND GUIDELINES	2
DESCRIPTION OF OCCUPATION.....	2
<u>CHAPTER 2. OCCUPATIONAL ANALYSIS QUESTIONNAIRE</u>	4
SUBJECT MATTER EXPERT INTERVIEWS.....	4
TASK AND KNOWLEDGE STATEMENTS	4
QUESTIONNAIRE DEVELOPMENT.....	4
PILOT STUDY.....	5
<u>CHAPTER 3. RESPONSE RATE AND DEMOGRAPHICS</u>	6
SAMPLING STRATEGY AND RESPONSE RATE.....	6
DEMOGRAPHIC SUMMARY.....	6
<u>CHAPTER 4. DATA ANALYSIS AND RESULTS</u>	17
RELIABILITY OF RATINGS.....	17
TASK CRITICAL INDICES	18
KNOWLEDGE IMPORTANCE RATINGS	18
TASK AND KNOWLEDGE LINKAGE.....	19
<u>CHAPTER 5. EXAMINATION OUTLINE</u>	20
CALIFORNIA CHIROPRACTIC LAW EXAMINATION	20
CONTENT AREAS AND WEIGHTS.....	20
<u>CHAPTER 6. CONCLUSION</u>	25

LIST OF TABLES

TABLE 1	– NUMBER OF YEARS PRACTICING IN CALIFORNIA AS A CHIROPRACTOR	8
TABLE 2	– NUMBER OF CLINICAL LOCATIONS	9
TABLE 3	– PRIMARY PRACTICE SETTING.....	10
TABLE 4	– LOCATION OF PRIMARY WORK SETTING	11
TABLE 5	– NUMBER OF HOURS WORKED PER WEEK.....	12
TABLE 6	– DIPLOMATES/CERTIFICATES/DEGREES	13
TABLE 7	– HIGHEST LEVEL OF NON-CHIROPRACTIC EDUCATION.....	14
TABLE 8	– OTHER PROFESSIONAL LICENSES HELD	15
TABLE 9	– RESPONDENTS BY REGION	16
TABLE 10	– TASK SCALE RELIABILITY	17
TABLE 11	– KNOWLEDGE SCALE RELIABILITY.....	17
TABLE 12	– CONTENT AREA WEIGHTS FOR THE CALIFORNIA CHIROPRACTIC LAW EXAMINATION.....	20
TABLE 13	– EXAMINATION CONTENT OUTLINE: CALIFORNIA CHIROPRACTIC LAW EXAMINATION	21

LIST OF FIGURES

FIGURE 1 – NUMBER OF YEARS PRACTICING IN CALIFORNIA AS A CHIROPRACTOR..... 8

FIGURE 2 – NUMBER OF CLINICAL LOCATIONS 9

FIGURE 3 – PRIMARY PRACTICE SETTING 10

FIGURE 4 – LOCATION OF PRIMARY WORK SETTING 11

FIGURE 5 – NUMBER OF HOURS WORKED PER WEEK..... 12

FIGURE 6 – DIPLOMATES/CERTIFICATES/DEGREES..... 13

FIGURE 7 – HIGHEST LEVEL OF NON-CHIROPRACTIC EDUCATION..... 14

FIGURE 8 – OTHER PROFESSIONAL LICENSES HELD..... 15

LIST OF APPENDICES

APPENDIX A. RESPONDENTS BY REGION	26
APPENDIX B. CRITICAL INDICES FOR ALL TASKS.....	30
APPENDIX C. KNOWLEDGE IMPORTANCE RATINGS	38
APPENDIX D. DESCRIPTION OF PRACTICE.....	46
APPENDIX E. LETTER TO PRACTITIONERS	59
APPENDIX F. QUESTIONNAIRE	61

CHAPTER 1. INTRODUCTION

PURPOSE OF THE OCCUPATIONAL ANALYSIS

The Board of Chiropractic Examiners (Board) requested that the Department of Consumer Affairs' Office of Professional Examination Services (OPES) conduct an occupational analysis to identify critical job activities performed by California-licensed chiropractors. This occupational analysis was part of the Board's comprehensive review of chiropractor practice in California. The purpose of the occupational analysis is to define practice for chiropractors in California in terms of actual job tasks that new licensees must be able to perform safely and competently at the time of licensure. The results of this occupational analysis provide a description of practice for the chiropractor profession that can then be used as the basis for the chiropractor licensing examination in California.

CONTENT VALIDATION STRATEGY

OPES used a content validation strategy to ensure that the occupational analysis reflected the actual tasks performed by practicing chiropractors. The technical expertise of California-licensed chiropractors was used throughout the occupational analysis process to ensure the identified task and knowledge statements directly reflect requirements for performance in current practice.

UTILIZATION OF SUBJECT MATTER EXPERTS

The Board selected California-licensed chiropractors to participate as subject matter experts (SMEs) during various phases of the occupational analysis. These SMEs were selected from a broad range of practice settings, geographic locations, and experience backgrounds. The SMEs provided information regarding the different aspects of current chiropractor practice during the development phase of the occupational analysis, and they participated in workshops to review the content of task and knowledge statements for technical accuracy prior to administration of the occupational analysis questionnaire. Following administration of the occupational analysis questionnaire, groups of SMEs were convened at OPES to review the questionnaire results, finalize the description of practice, and develop the preliminary examination plan for the California Chiropractic Law Examination (CCLE).

ADHERENCE TO LEGAL STANDARDS AND GUIDELINES

Licensing, certification, and registration programs in the State of California adhere strictly to federal and state laws and regulations and professional guidelines and technical standards. For the purpose of occupational analyses, the following laws and guidelines are authoritative:

- California Business and Professions Code section 139.
- Uniform Guidelines on Employee Selection Procedures (1978), Code of Federal Regulations, Title 29, Section 1607.
- California Fair Employment and Housing Act, Government Code section 12944.
- *Principles for the Validation and Use of Personnel Selection Procedures* (2003), Society for Industrial and Organizational Psychology (SIOP).
- *Standards for Educational and Psychological Testing* (2014), American Educational Research Association, American Psychological Association, and National Council on Measurement in Education.

For a licensure program to meet these standards, it must be solidly based upon the job activities required for practice.

DESCRIPTION OF OCCUPATION

The chiropractor occupation is described as follows in Title 16, Section 302 of the California Code of Regulations:

(a) Scope of Practice.

- (1) A duly licensed chiropractor may manipulate and adjust the spinal column and other joints of the human body and in the process thereof a chiropractor may manipulate the muscle and connective tissue related thereto.
- (2) As part of a course of chiropractic treatment, a duly licensed chiropractor may use all necessary mechanical, hygienic, and sanitary measures incident to the care of the body, including, but not limited to, air, cold, diet, exercise, heat, light, massage, physical culture, rest, ultrasound, water, and physical therapy techniques in the course of chiropractic manipulations and/or adjustments.
- (3) Other than as explicitly set forth in section 10(b) of the Act, a duly licensed chiropractor may treat any condition, disease, or injury in any patient, including a pregnant woman, and may diagnose, so long as such treatment or diagnosis is done in a manner consistent with chiropractic methods and techniques and so long as such methods and treatment do not constitute the practice of medicine by exceeding the legal scope of chiropractic practice as set forth in this section.

- (4) A chiropractic license issued in the State of California does not authorize the holder thereof:
- (A) to practice surgery or to sever or penetrate tissues of human beings, including, but not limited to severing the umbilical cord;
 - (B) to deliver a human child or practice obstetrics;
 - (C) to practice dentistry;
 - (D) to practice optometry;
 - (E) to use any drug or medicine included in materia medica;
 - (F) to use a lithotripter;
 - (G) to use ultrasound on a fetus for either diagnostic or treatment purposes; or
 - (H) to perform a mammography.
- (5) A duly licensed chiropractor may employ the use of vitamins, food supplements, foods for special dietary use, or proprietary medicines, if the above substances are also included in section 4057 of the Business and Professions Code, so long as such substances are not included in materia medica as defined in section 13 of the Business and Professions Code.
- The use of such substances by a licensed chiropractor in the treatment of illness or injury must be within the scope of the practice of chiropractic as defined in section 7 of the Act.
- (6) Except as specifically provided in section 302(a)(4), a duly licensed chiropractor may make use of X-ray and thermography equipment for the purposes of diagnosis but not for the purposes of treatment. A duly licensed chiropractor may make use of diagnostic ultrasound equipment for the purposes of neuromuscular skeletal diagnosis.
- (7) A duly licensed chiropractor may only practice or attempt to practice or hold himself or herself out as practicing a system of chiropractic. A duly licensed chiropractor may also advertise the use of the modalities authorized by this section as a part of a course of chiropractic treatment, but is not required to use all of the diagnostic and treatment modalities set forth in this section. A chiropractor may not hold himself or herself out as being licensed as anything other than a chiropractor or as holding any other healing arts license or as practicing physical therapy or use the term "physical therapy" in advertising unless he or she holds another such license.

CHAPTER 2. OCCUPATIONAL ANALYSIS QUESTIONNAIRE

SUBJECT MATTER EXPERT INTERVIEWS

The Board provided OPES with a list of seven California-licensed chiropractors to contact for telephone interviews. During the semi-structured interviews, the licensed chiropractors were asked to identify all of the activities performed that are specific to the chiropractor profession. The licensees confirmed major content areas of chiropractor practice and the job tasks performed in each content area. The licensees were also asked to identify the knowledge necessary to perform each job task safely and competently.

TASK AND KNOWLEDGE STATEMENTS

OPES test specialists integrated the information gathered from prior studies of the chiropractor profession and the telephone interviews to develop task and knowledge statements. The statements were then organized into major content areas of chiropractor practice.

In July and August 2016, OPES facilitated two workshops with four and eight SMEs respectively to evaluate the task and knowledge statements for technical accuracy and comprehensiveness. The SMEs assigned each statement to the appropriate content area and verified that the content areas were independent and non-overlapping. In addition, they performed a preliminary linkage of the task and knowledge statements to ensure that every task had a related knowledge and every knowledge statement had a related task. Additional task and knowledge statements were created as needed to complete the scope of the content areas.

Once the lists of task and knowledge statements were verified and finalized, the information was used to develop an online questionnaire that was sent to, and eventually completed and evaluated by, a sample of chiropractors throughout California.

QUESTIONNAIRE DEVELOPMENT

OPES test specialists developed the online occupational analysis questionnaire to solicit licensed chiropractors' ratings of the job task and knowledge statements. The responding chiropractors were instructed to rate each job task in terms of how often they perform the task (Frequency) and how important the task is to the performance of their current practice (Importance). In addition, they were instructed to rate each knowledge statement in terms of how important the specific knowledge is to the performance of their current practice (Importance). The questionnaire also included a demographic section for purposes of developing an accurate profile of the respondent sample. The questionnaire can be found in Appendix F.

PILOT STUDY

Prior to developing the final questionnaire, OPES prepared and administered an online pilot questionnaire. The pilot questionnaire was reviewed by the Board and a group of twenty-one SMEs for feedback about the technical accuracy of the task and knowledge statements, estimated time for completion, online navigation, and ease of use. OPES used this feedback to develop the final questionnaire.

CHAPTER 3. RESPONSE RATE AND DEMOGRAPHICS

SAMPLING STRATEGY AND RESPONSE RATE

OPES test specialists developed a stratified random sample of 5,000 California-licensed chiropractors (out of the total population of 13,261 licensees) to participate in the occupational analysis. The sample was stratified by years licensed and county of practice, with oversampling of chiropractors licensed 0 to 5 years.

In October 2016, the Board sent notification letters to the sample of 5,000 chiropractors inviting them to complete the questionnaire online. The notification letter can be found in Appendix E. The questionnaire's online format allowed for several enhancements to the questionnaire and the data collection process. As part of the questionnaire development, configuration, and analysis process, various criteria were established to ensure the integrity of the data.

A total of 432, or 8.6% of the licensed chiropractors in the sample (5,000), responded to the Web-based questionnaire. The final sample size included in the data analysis was 304, or 6.1% of the population that was invited to complete the questionnaire. This response rate (6.1%) reflects two adjustments. First, data from respondents who indicated they were not currently licensed and practicing as chiropractors in California were excluded from analysis. Second, the reconciliation process removed questionnaires containing a large volume of missing or unresponsive data. The respondent sample is representative of the population of California-licensed chiropractors based on the sample's demographic composition.

DEMOGRAPHIC SUMMARY

Of the 304 respondents included in the analysis, 23.4% had been licensed as a chiropractor for 5 years or less, 21.4% had been practicing between 6 and 10 years, 21.7% had been practicing between 11 and 20 years, and 33.6% had been practicing for more than 20 years (see Table 1).

When asked to indicate the number of clinical locations where services were provided as a chiropractor, 81.9% of respondents reported providing services in 1 clinical location, 17.1% of respondents reported providing services in 2 to 4 clinical locations, and 1% of respondents reported providing services in 5 or more clinical locations (see Table 2).

As shown in Table 3, the majority of respondents (59.9%) reported working as a sole practitioner in their primary practice setting, 13.2% of respondents reported working as an independent contractor/associate, and 11.2% of respondents reported working as part of a multidisciplinary group. Of the respondents, 9.5% indicated working as part of a chiropractic group, and a small percentage indicated house calls/home visits (2.3%) or a hospital setting (0.7%) as their primary practice setting. As shown in Table 4, the

majority (56.6%) of respondents reported working in an urban setting, 29.3% of respondents reported working in a suburban setting, and 11.2% of respondents reported working in a rural setting.

Across work settings and locations, 52.6% of respondents reported working 21 to 39 hours per week, 22% reported working 40 or more hours per week, 16.4% reported working 11 to 20 hours per week, and 8.9% reported working 0 to 10 hours per week (see Table 5).

Respondents were also asked to review a list of chiropractic specialties and to select those specialties in which they possessed diplomate status, a certificate, or a degree. Of the sample, 12.8% reported either diplomate status or holding a certificate as a sports physician, 5.6% reported holding either diplomate status or a certificate in chiropractic physical and therapeutic rehabilitation, and 6.6% reported holding either diplomate status or a certificate in neurology or diagnostic imaging. Additionally, 6.0% of respondents indicated holding either diplomate status or a certificate in occupational health or chiropractic pediatrics, 5.2% of respondents indicated holding either diplomate status or a certificate in nutrition or orthopedics, 2.3% indicated holding either diplomate status or a certificate in chiropractic acupuncture, and 0.3% reported possessing a Juris Doctor degree (see Table 6).

When describing the highest level of non-chiropractic education achieved, the majority (62.8%) of respondents indicated having a bachelor's degree, while 11.8% of respondents indicated having a master's degree, and 3.9% of respondents indicated having a doctorate degree (see Table 7).

Respondents were also asked to indicate all of the licenses possessed in addition to their chiropractic license. As shown in Table 8, 36.2% of respondents hold an X-ray Supervisor license, 5.6% of respondents hold an acupuncturist license, 2.0% of respondents hold a certified athletic trainer license, and 1.4% of the respondents hold either a naturopathic doctor license or a physical therapist license.

TABLE 1 – NUMBER OF YEARS PRACTICING IN CALIFORNIA AS A CHIROPRACTOR

YEARS	NUMBER (N)	PERCENT
0 to 5 years	71	23.4
6 to 10 years	65	21.4
11 to 20 years	66	21.7
More than 20 years	102	33.6
Total	304	100*

*NOTE: Percentages do not add to 100 due to rounding.

FIGURE 1 – NUMBER OF YEARS PRACTICING IN CALIFORNIA AS A CHIROPRACTOR

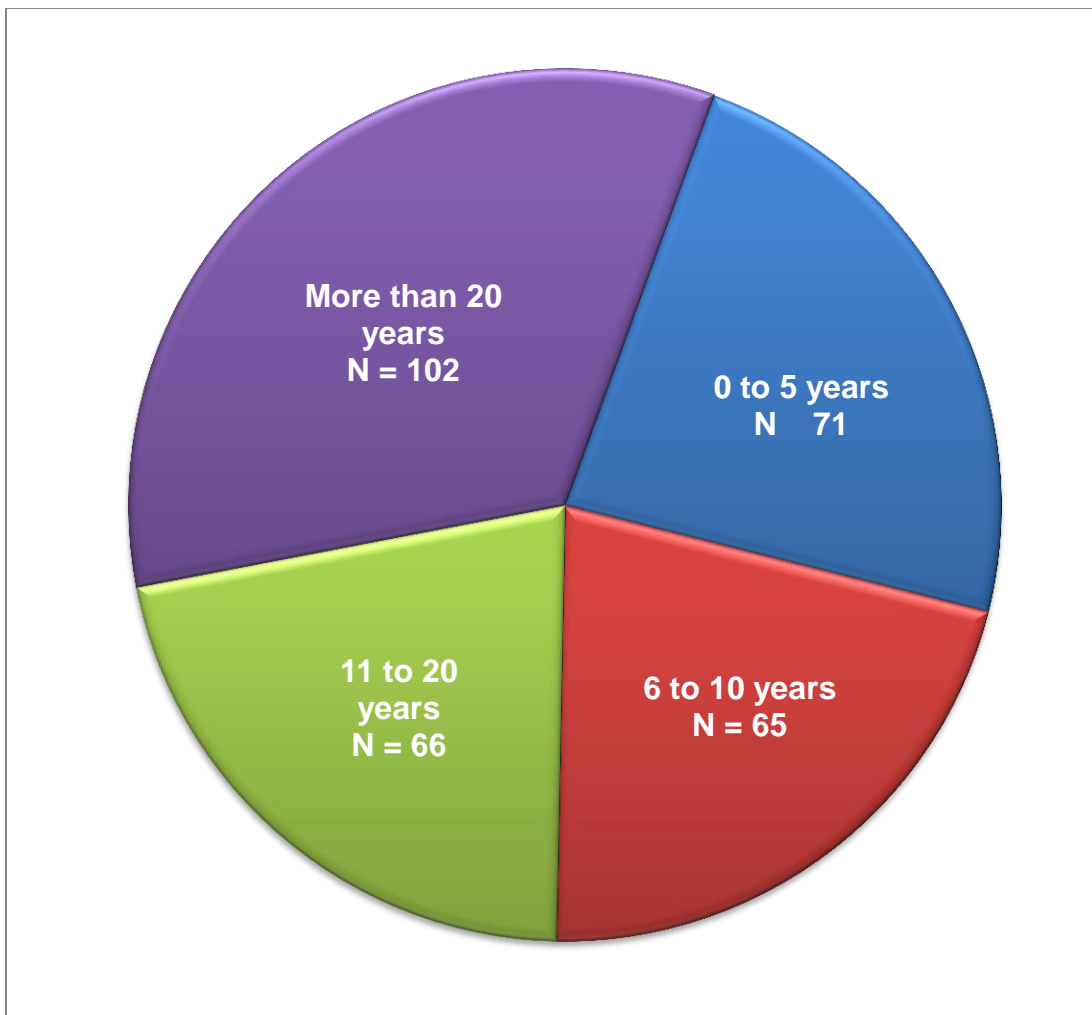


TABLE 2 – NUMBER OF CLINICAL LOCATIONS

CLINICAL LOCATIONS	NUMBER (N)	PERCENT
1	249	81.9
2 to 4	52	17.1
5 or more	3	1.0
Total	304	100%

FIGURE 2 – NUMBER OF CLINICAL LOCATIONS

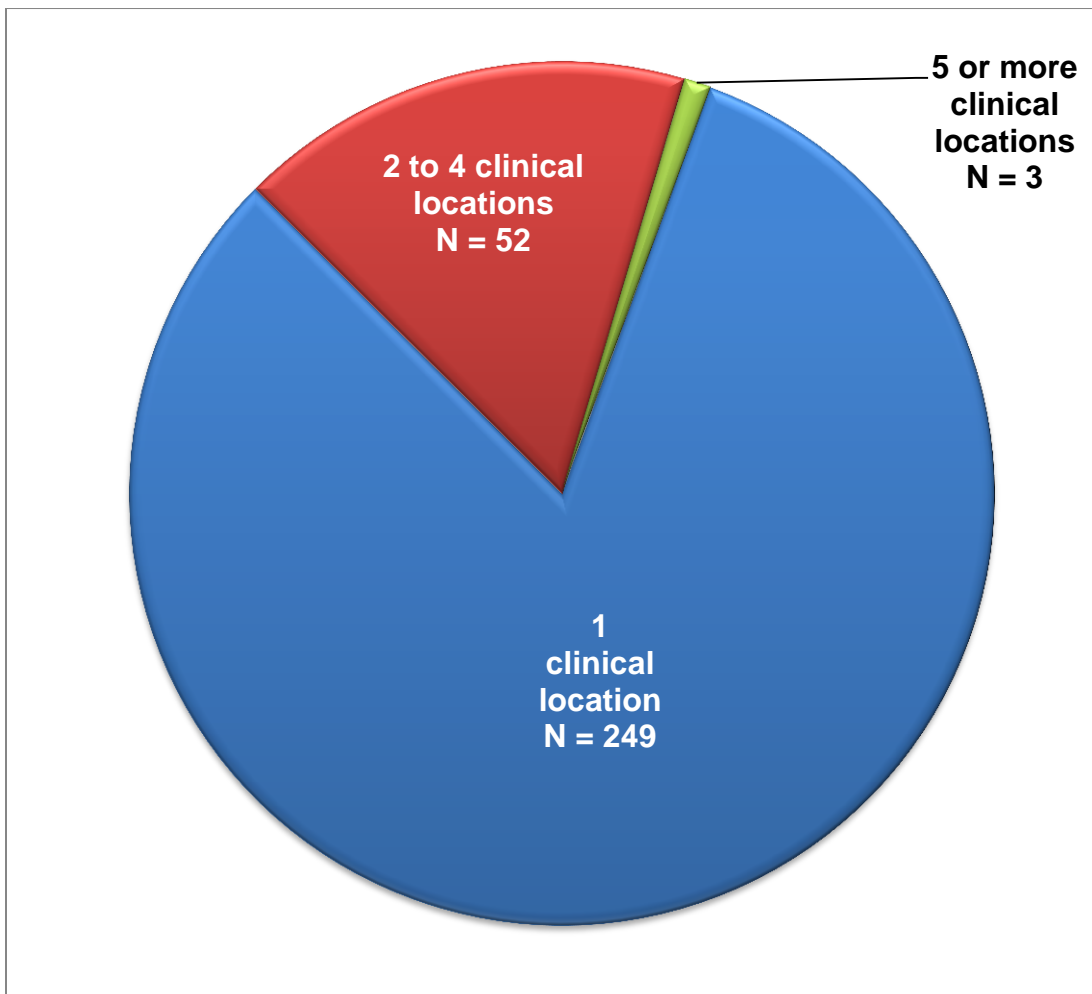


TABLE 3 – PRIMARY PRACTICE SETTING

PRACTICE SETTING	NUMBER (N)	PERCENT
Sole practitioner	182	59.9
Independent contractor/Associate	40	13.2
Multidisciplinary group	34	11.2
Chiropractic group	29	9.5
House calls/Home visits	7	2.3
Hospital	2	0.7
Missing	10	3.3
Total	304	100*

*NOTE: Percentages do not add to 100 due to rounding.

FIGURE 3 – PRIMARY PRACTICE SETTING

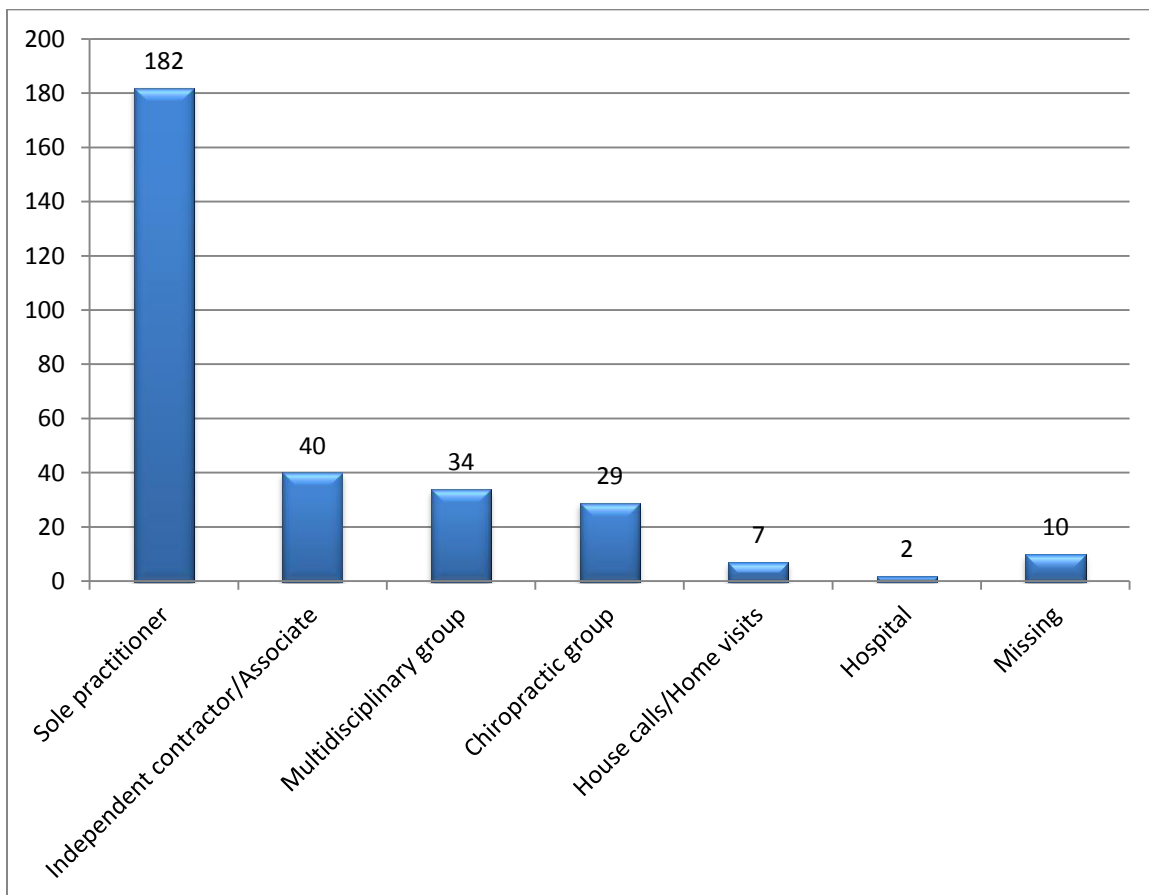


TABLE 4 – LOCATION OF PRIMARY WORK SETTING

LOCATION	NUMBER (N)	PERCENT
Urban (greater than 100,000 people),	172	56.6
Suburban (between 100,000 and 10,000 people)	89	29.3
Rural (less than 10,000 people)	34	11.2
Missing	9	3.0
Total	304	100*

*NOTE: Percentages do not add to 100 due to rounding.

FIGURE 4 – LOCATION OF PRIMARY WORK SETTING

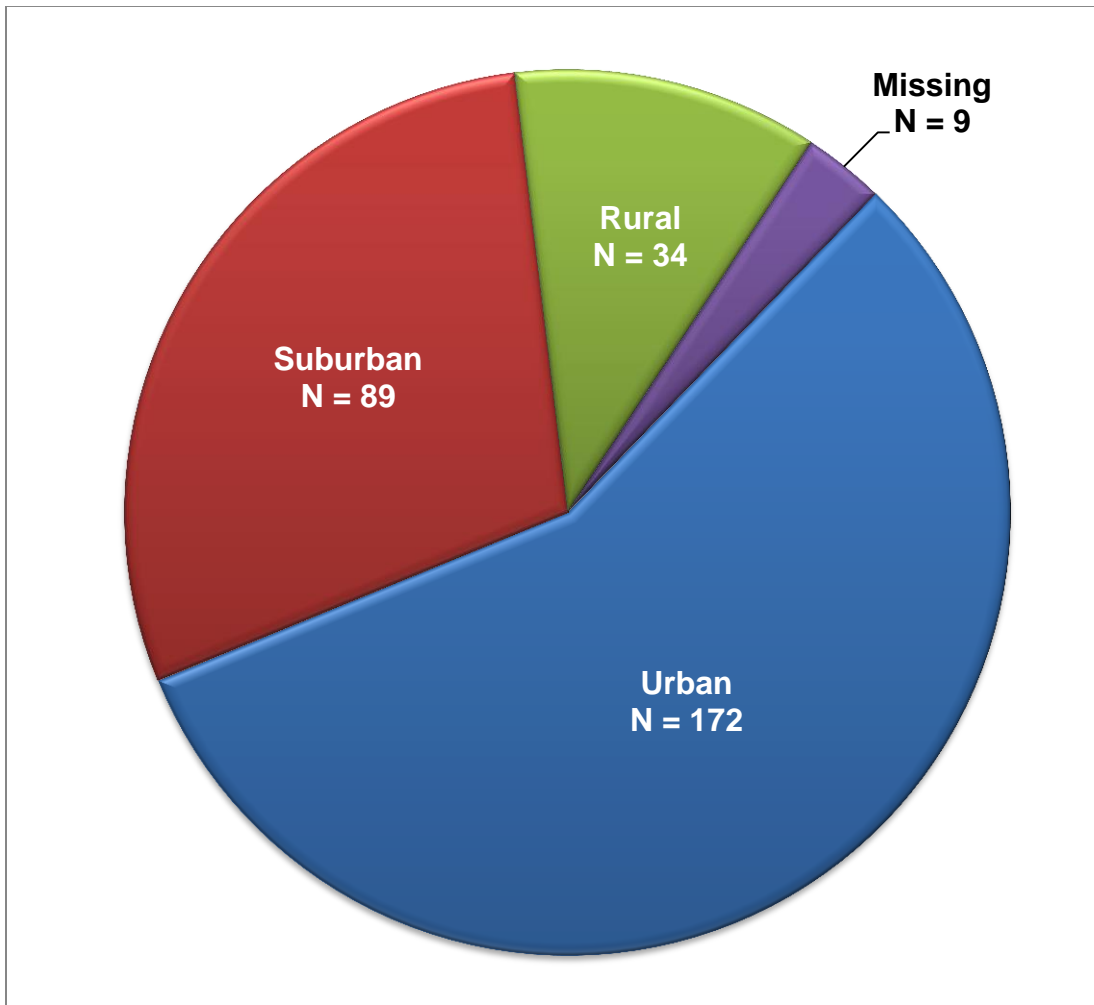


TABLE 5 – NUMBER OF HOURS WORKED PER WEEK

HOURS WORKED	NUMBER (N)	PERCENT
0 to 10 hours	27	8.9
11 to 20 hours	50	16.4
21 to 39 hours	160	52.6
40 or more hours	67	22.0
Total	304	100*

*Note: Percentages do not add to 100 due to rounding.

FIGURE 5 – NUMBER OF HOURS WORKED PER WEEK

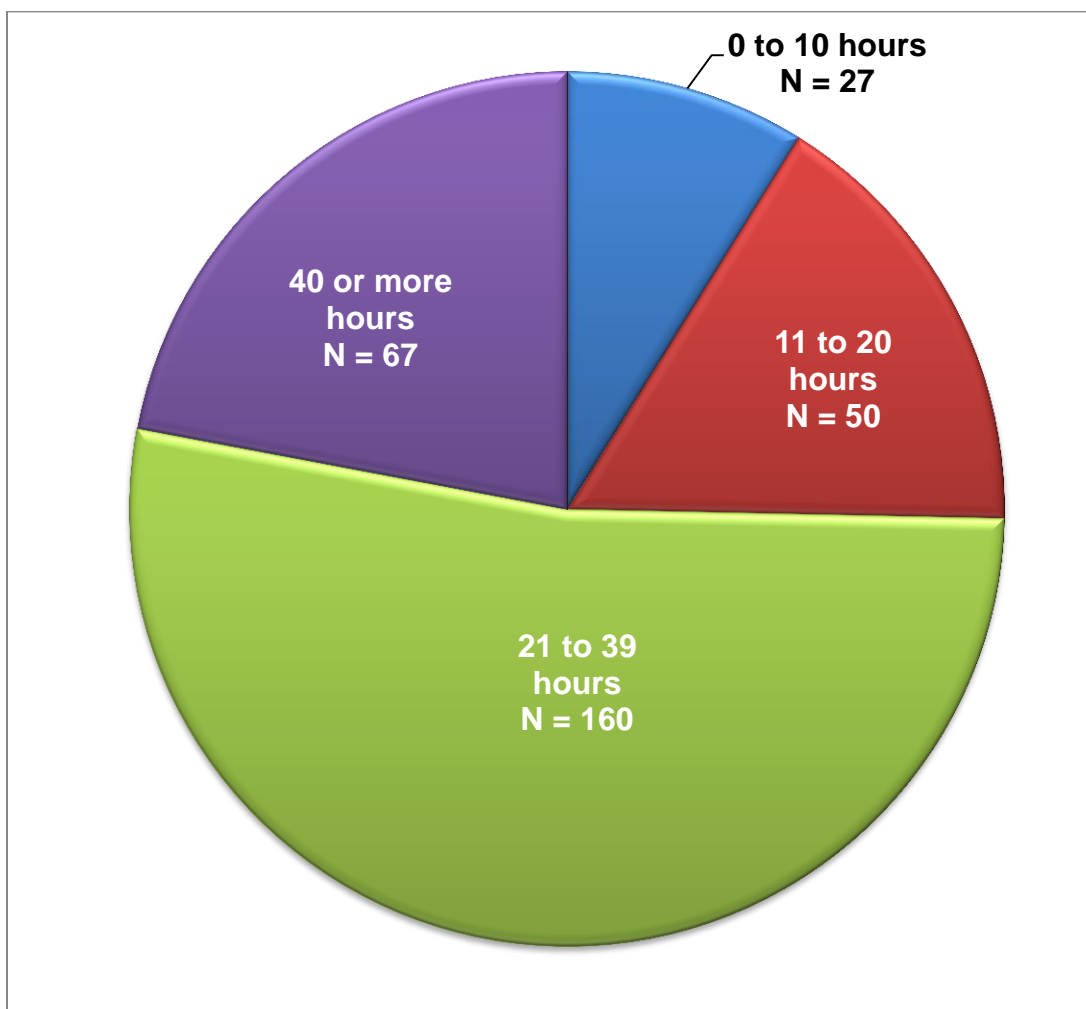


TABLE 6 – DIPLOMATES/CERTIFICATES/DEGREES

DIPLOMATES/CERTIFICATES/DEGREES*	NUMBER (N)	PERCENT
Sports Physician	39	12.8
Chiropractic Physical and Therapeutic Rehabilitation	17	5.6
Neurology	10	3.3
Diagnostic Imaging or Radiology	10	3.3
Occupational Health	9	3.0
Chiropractic Pediatrics	9	3.0
Nutrition	8	2.6
Orthopedics	8	2.6
Chiropractic Acupuncture	7	2.3
Juris Doctor	1	0.3
Diagnosis	0	0.0
Internal Disorder	0	0.0

*NOTE: Respondents were asked to select all that apply. Percentages indicate the proportion in the sample of respondents.

FIGURE 6 – DIPLOMATES/CERTIFICATES/DEGREES

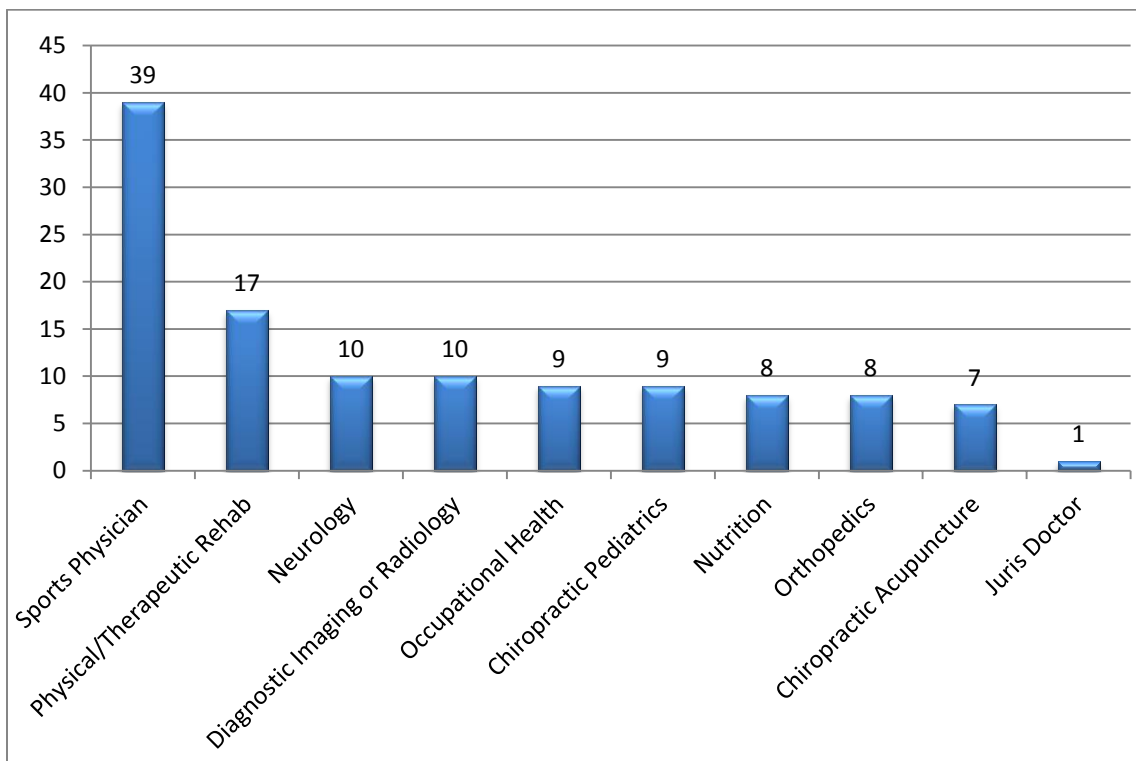


TABLE 7 – HIGHEST LEVEL OF NON-CHIROPRACTIC EDUCATION

DEGREE	NUMBER (N)	PERCENT
Associate degree	49	16.1
Bachelor's degree	191	62.8
Master's degree	36	11.8
Doctorate degree	12	3.9
Missing	16	5.3
Total	304	100*

*NOTE: Percentages do not add to 100 due to rounding.

FIGURE 7 – HIGHEST LEVEL OF NON-CHIROPRACTIC EDUCATION

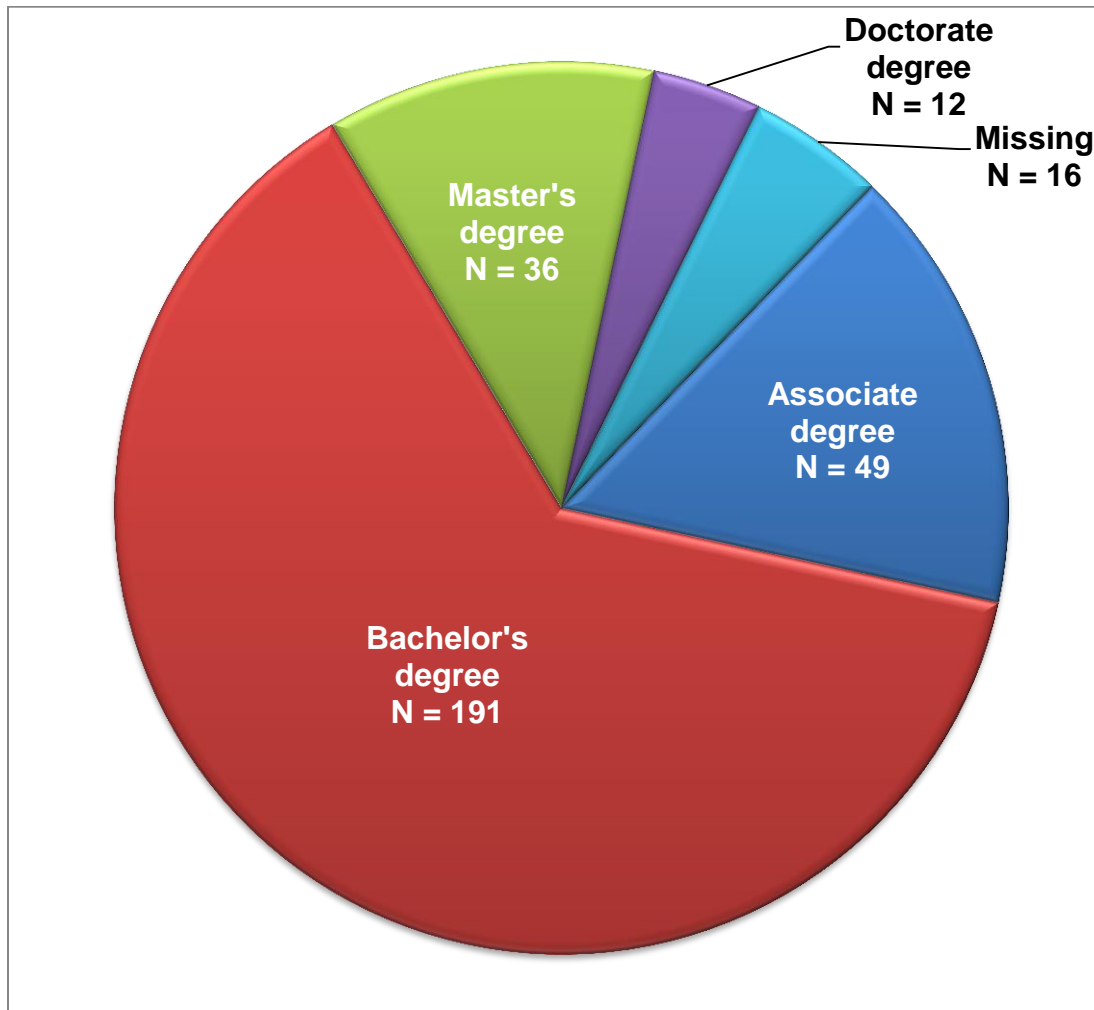


TABLE 8 – OTHER PROFESSIONAL LICENSES HELD

OTHER LICENSES	NUMBER (N)	PERCENT
X-ray Supervisor	110	36.2
Acupuncturist	17	5.6
Certified Athletic Trainer	6	2.0
Naturopathic Doctor	2	0.7
Physical Therapist	2	0.7
Medical Doctor	0	0.0
Osteopathic Doctor	0	0.0
Registered Nurse	0	0.0
Nurse Practitioner	0	0.0

**NOTE: Respondents were asked to select all that apply. Percentages indicate the proportion in the sample of respondents.*

FIGURE 8 – OTHER PROFESSIONAL LICENSES HELD

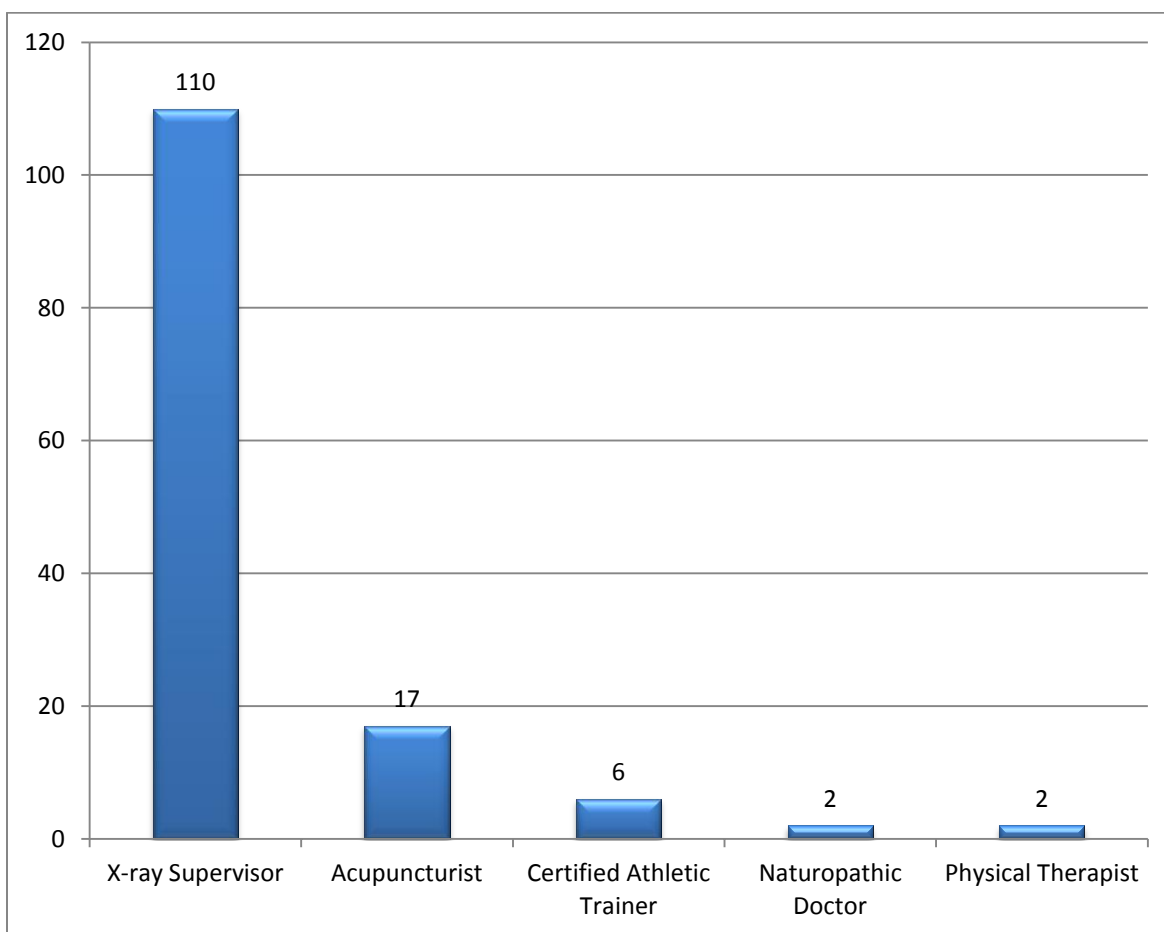


TABLE 9 – RESPONDENTS BY REGION*

REGION NAME	NUMBER (N)	PERCENT
Los Angeles County and Vicinity	81	26.6
San Francisco Bay Area	65	21.4
San Diego County and Vicinity	33	10.8
Sierra Mountain Valley	30	9.8
Sacramento Valley	19	6.2
San Joaquin Valley	19	6.2
Riverside and Vicinity	15	5.7
Shasta/Cascade	15	4.9
South/Central Coast	16	4.9
North Coast	11	3.6
Total	304	100**

*NOTE: Appendix A shows a more detailed breakdown of the frequencies by region.

**NOTE: Percentages do not add to 100 due to rounding.

CHAPTER 4. DATA ANALYSIS AND RESULTS

RELIABILITY OF RATINGS

The job task and knowledge ratings obtained from the questionnaire were evaluated with a standard index of reliability called coefficient alpha (α) that ranges from 0 to 1. Coefficient alpha is an estimate of the internal consistency of the respondents' ratings of the job task and knowledge statements. Coefficients were calculated for all respondent ratings.

Table 10 displays the reliability coefficients for the task statement rating scales in each content area. The overall ratings of task frequency ($\alpha = .95$) and task importance ($\alpha = .96$) across content areas were highly reliable. Table 11 displays the reliability coefficients for the knowledge statements rating scale in each content area. The overall ratings of knowledge importance ($\alpha = .99$) across content areas were highly reliable. These results indicate that the responding chiropractors rated the task and knowledge statements consistently throughout the questionnaire.

TABLE 10 – TASK SCALE RELIABILITY

CONTENT AREA	Number of Tasks	α Frequency	α Importance
I. Patient History	10	.89	.90
II. Examination and Assessment	27	.93	.94
III. Treatment	32	.89	.92
IV. Laws and Regulations	22	.78	.88
Total	91	.95	.96

TABLE 11 – KNOWLEDGE SCALE RELIABILITY

CONTENT AREA	Number of Knowledge Statements	α Importance
I. Patient History	23	.95
II. Examination and Assessment	40	.97
III. Treatment	57	.97
IV. Laws and Regulations	42	.96
Total	162	.99

TASK CRITICAL INDICES

Two workshops, each comprised of a diverse sample of licensed chiropractors, were convened at OPES in December 2016 and January 2017 to review the mean frequency and importance ratings of all task statements and their critical indices, and to evaluate the mean importance ratings for all knowledge statements. The purpose of these workshops was to identify the essential tasks and knowledge required for safe and effective chiropractor practice at the time of licensure.

In order to determine the critical indices (criticality) of the task statements, the frequency rating (F_i) and the importance rating (I_i) for each task were multiplied for each respondent, and the products were then averaged across respondents.

$$\text{Task critical index} = \text{mean } [(F_i) \times (I_i)]$$

The task statements were then ranked according to their critical indices. The task statements, their mean frequency and importance ratings, and their associated critical indices sorted by descending order and content area are presented in Appendix B.

OPES test specialists instructed the SMEs from the December 2016 workshop to identify a cutoff value of criticality in order to determine if any of the tasks did not have a high enough critical index to be retained. Based on their review of the relative importance of all tasks to chiropractor practice, the SMEs determined that a cutoff value of 3.0 should be set. Six task statements did not meet the cutoff value and were thus excluded from the description of practice. The exclusion of a task statement from the description of practice does not mean that the task is not performed in chiropractor practice; it was only considered not critical for testing relative to other tasks.

The SMEs in the January 2017 workshop performed an independent review of the same data and arrived at the same conclusion that was determined by the SMEs from the December 2016 workshop.

KNOWLEDGE IMPORTANCE RATINGS

In order to determine the importance of each knowledge statement, the mean importance rating for each knowledge statement was calculated. The knowledge statements and their mean importance ratings sorted by descending order and content area are presented in Appendix C.

The December 2016 workshop of SMEs that evaluated the task critical indices also reviewed the knowledge statement importance ratings. After reviewing the average importance ratings and considering their relative importance to chiropractor practice, the SMEs determined that a cutoff value of 1.5 should be established. Ten knowledge statements did not meet the cutoff value and were thus excluded from the description of practice. The exclusion of a knowledge statement from the description of practice does not mean that the knowledge is not used in chiropractor practice; it was only considered not critical for testing relative to other knowledge.

TASK AND KNOWLEDGE LINKAGE

The SMEs who participated in the December 2016 workshop reviewed the preliminary linkage assignments of the task and knowledge statements to content areas and established the appropriate linkage of specific knowledge statements to task statements. As a result of their review, the SMEs made changes to the following task and knowledge statements:

- Task statement 73 was revised to make a minor change in phrasing so that it included businesses that are not corporations. Task statement 73 was changed from “Adhere to laws and regulations related to ownership and management of chiropractic corporations” to “Adhere to laws and regulations related to ownership and management of chiropractic businesses and corporations.”
- Knowledge statements 88 (“Knowledge of procedures for administering iontophoresis.”) and 89 (“Knowledge of ionic substances used for application of iontophoresis.”) were eliminated even though their mean importance ratings exceeded the criticality cutoff value because their associated task statements were eliminated and the knowledge statements were unable to be linked to other task statements.
- Knowledge statement 127 was revised to make a minor change in phrasing so that it included businesses that are not corporations. Knowledge statement 127 was changed from “Knowledge of laws and regulations related to managing chiropractic corporations” to “Knowledge of laws and regulations related to managing chiropractic businesses and corporations.”
- Knowledge statement 163 (“Knowledge of vestibular system assessment.”) was added to the description of practice because it was considered critically important to its related task statements.

The SMEs in the January 2017 workshop independently reviewed the SME results from the December 2016 workshop regarding the established linkage of specific knowledge statements to task statements and the changes made to task and knowledge statements, and they agreed with the outcome.

CHAPTER 5. EXAMINATION OUTLINE

CALIFORNIA CHIROPRACTIC LAW EXAMINATION

The requirements for chiropractic licensure in California include passing the National Board of Chiropractic Examiners' (NBCE) examinations and passing the California Chiropractic Law Examination (CCLE). This occupational analysis was performed prior to conducting a review of NBCE's examinations and prior to performing a linkage study to determine areas of California-specific practice not assessed on the national examinations. The SMEs from the December 2017 and January 2017 workshops were asked to develop a preliminary examination outline for the CCLE by identifying the tasks and knowledge that they believed were California-specific. The examination content outline is presented in Table 13.

CONTENT AREAS AND WEIGHTS

The SMEs in the December 2016 workshop were also asked to determine the weights for content areas on the CCLE. OPES test specialists presented the SMEs with preliminary weights of the content areas that were calculated by dividing the sum of the critical indices for the tasks in a content area by the overall sum of the critical indices for all tasks, as shown below.

$$\frac{\text{Sum of Critical Indices for Tasks in Content Area}}{\text{Sum of Critical Indices for All Tasks}} = \text{Percent Weight of Content Area}$$

The SMEs evaluated the preliminary weights by reviewing the group of tasks and knowledge, the linkage established between the tasks and knowledge, and the relative importance of the tasks in each content area to chiropractor practice in California. The SMEs made minor adjustments to the preliminary weights based on what they perceived to reflect the relative importance of the tasks in each content area to chiropractor practice in California. A summary of the preliminary and finalized content area weights for the CCLE is presented in Table 12. The chiropractor description of practice is presented in Appendix D.

TABLE 12 – CONTENT AREA WEIGHTS FOR THE CALIFORNIA CHIROPRACTIC LAW EXAMINATION

CONTENT AREA	Critical Task Indices Prelim. Weights.	Final Weights
I. Records Management	26.85%	26%
II. Business Management	25.59%	26%
III. Ethics	29.59%	26%
IV. Scope of Practice	17.97%	22%
Total	100%	100%

TABLE 13 – EXAMINATION CONTENT OUTLINE: CALIFORNIA CHIROPRACTIC LAW EXAMINATION

I. Records Management (26%): This area assesses the candidate's knowledge of California laws and regulations related to documentation, maintenance, and release of patient records.

TASK STATEMENTS	KNOWLEDGE STATEMENTS
T70. Obtain informed consent in accordance with laws and regulations.	K121. Knowledge of laws and regulations related to informed consent.
T75. Document assessments and treatments for patient records in accordance with laws and regulations.	K129. Knowledge of laws and regulations for documenting patient history, examination, treatment, principal spoken language, and management.
T77. Maintain patient records in accordance with laws and regulations.	K134. Knowledge of laws and regulations regarding maintaining physical and electronic patient records.
T78. Maintain confidentiality of patient records in accordance with laws and regulations.	K135. Knowledge of laws and regulations regarding patient addendums to records.
T79. Release patient records in accordance with laws and regulations.	K136. Knowledge of legal requirements of the Health Insurance Portability and Accountability Act (HIPAA).
	K137. Knowledge of laws and regulations regarding confidentiality of patient records and test results.
	K138. Knowledge of laws and regulations regarding release of minor and adult patient records.

II. Business Management (26%): This area assesses the candidate's knowledge of California laws and regulations relating to ownership and management of chiropractic businesses, corporations, and practices.

TASK STATEMENTS	KNOWLEDGE STATEMENTS
T71. Adhere to laws and regulations regarding billing, billing codes, and documentation.	K122. Knowledge of documentation requirements (e.g., billing codes) for insurance reimbursement.
T72. Adhere to laws and regulations related to treating patients with occupational injuries or illnesses.	K123. Knowledge of procedures for receiving insurance reimbursement.
T73. Adhere to laws and regulations related to ownership and management of chiropractic businesses and corporations.	K124. Knowledge of laws and regulations regarding accountable billings.
T74. Adhere to laws and regulations related to ownership and management of a chiropractic practice.	K125. Knowledge of laws and regulations regarding discounted fees and services.
T76. Report known or suspected abuse of patients by contacting protective services in accordance with laws and regulations.	K126. Knowledge of laws and regulations related to occupational injury or illness of patients.
T91. Adhere to laws and regulations regarding display of certificate to practice.	K127. Knowledge of laws and regulations related to managing chiropractic businesses and corporations. K128. Knowledge of laws and regulations related to transfer of ownership upon death or incapacity of licensed chiropractor.
	K130. Knowledge of laws for reporting suspected abuse of children, elders, or dependent adults.
	K131. Knowledge of mandated reporting procedures of suspected abuse of children, elders, or dependent adults.
	K132. Knowledge of mandated reporting procedures of suspected abuse, firearm injuries, or assaultive action.
	K133. Knowledge of physical indicators of abuse, firearm injuries, or assaultive action.
	K161. Knowledge of laws and regulations related to displaying of certificate to practice.
	K162. Knowledge of laws and regulations regarding filing and displaying certificates for satellite offices.

III. Ethics (26%): This area assesses the candidate's knowledge of California laws and regulations of professional and ethical conduct in a chiropractic office, advertising, and examinations.

TASK STATEMENTS	KNOWLEDGE STATEMENTS
T80. Adhere to laws and regulations regarding advertising of chiropractic services.	K139. Knowledge of laws and regulations related to chiropractic advertising, misrepresentation, and false claims.
T81. Adhere to laws and regulations regarding professional conduct.	K140. Knowledge of laws and regulations regarding advertising free or discounted services.
T83. Adhere to laws and regulations regarding excessive treatment.	K141. Knowledge of laws and regulations regarding chiropractic specialty designations.
T87. Ensure professional conduct of others on the premises of chiropractic office in accordance with laws and regulations.	K142. Knowledge of laws and regulations related to use of chiropractic title.
T89. Adhere to laws and regulations regarding referral of patients.	K143. Knowledge of laws and regulations of ethical standards for professional conduct in a chiropractic setting.
T90. Adhere to laws and regulations regarding license examination security.	K144. Knowledge of laws and regulations regarding mental illness and illness affecting chiropractor competency.
	K147. Knowledge of laws and regulations regarding excessive treatments.
	K154. Knowledge of laws and regulations related to inducing students to practice chiropractic.
	K155. Knowledge of laws and regulations regarding supervision of unlicensed individuals.
	K157. Knowledge of laws and regulations regarding referral rebates.
	K158. Knowledge of laws and regulations regarding unlawful referrals.
	K159. Knowledge of laws and regulations regarding solicitation of referrals providing beneficial interest to family or self.
	K160. Knowledge of laws and regulations regarding violations of license examination security.

IV. Scope of Practice (22%): This area assesses the candidate's knowledge of California laws and regulations relating to chiropractic scope of practice.

TASK STATEMENTS	KNOWLEDGE STATEMENTS
<p>T82. Adhere to laws that define chiropractic scope of practice. T84. Maintain California chiropractor license according to laws and regulations. T85. Adhere to laws and regulations regarding use of lasers for chiropractic treatment. T86. Adhere to laws and regulations regarding radiographic imaging. T88. Adhere to laws and regulations regarding chiropractic manipulation under anesthesia.</p>	<p>K145. Knowledge of laws and regulations regarding reporting violations of the Chiropractic Initiative Act. K146. Knowledge of laws and regulations regarding professional treatment standards. K148. Knowledge of laws and regulations regarding maintenance, renewal, and restoration of California chiropractor license. K149. Knowledge of laws and regulations for maintaining accurate licensee name and address with the Board of Chiropractic Examiners. K150. Knowledge of laws and regulations regarding continuing education requirements to maintain chiropractor license. K151. Knowledge of laws and regulations regarding citations, fines, and disciplinary actions. K152. Knowledge of laws and regulations on use of lasers for chiropractic treatment. K153. Knowledge of laws and regulations regarding radiographic imaging. K156. Knowledge of laws and regulations regarding chiropractic manipulations under anesthesia.</p>

CHAPTER 6. CONCLUSION

The occupational analysis of the chiropractor profession described in this report provides a comprehensive description of current practice in California. The procedures employed to perform the occupational analysis were based upon a content validation strategy to ensure that the results accurately represent chiropractor practice. Results of this occupational analysis provide information regarding current practice that can be used to make job-related decisions regarding professional licensure.

By adopting the chiropractor description of practice and the CCLE examination content outline contained in this report, the Board ensures that its examination program reflects current practice.

The final content area weights and the examination content outline for the CCLE, as shown on Tables 12 and 13, are based on the chiropractor description of practice. The weights and the examination content outline will be finalized during the linkage study to be conducted as part of the review of NBCE's examinations.

This report provides all documentation necessary to verify that the analysis has been completed in accordance with legal, professional, and technical standards.

APPENDIX A. RESPONDENTS BY REGION

LOS ANGELES COUNTY AND VICINITY

County of Practice	Frequency
Los Angeles	50
Orange	31
TOTAL	81

SAN FRANCISCO BAY AREA

County of Practice	Frequency
Alameda	14
Contra Costa	9
Marin	2
Napa	4
San Francisco	11
San Mateo	4
Santa Clara	13
Santa Cruz	5
Solano	3
TOTAL	65

SAN DIEGO COUNTY AND VICINITY

County of Practice	Frequency
San Diego	32
Imperial	1
TOTAL	33

SIERRA MOUNTAIN VALLEY

County of Practice	Frequency
Alpine	0
Amador	3
Calaveras	1
El Dorado	9
Inyo	1
Mariposa	1
Mono	0
Nevada	6
Placer	5
Tuolumne	4
TOTAL	30

SACRAMENTO VALLEY

County of Practice	Frequency
Butte	5
Colusa	0
Glenn	1
Lake	2
Sacramento	9
Sutter	0
Yolo	2
Yuba	0
TOTAL	19

SAN JOAQUIN VALLEY

County of Practice	Frequency
Fresno	3
Kern	5
Kings	2
Madera	1
Merced	0
San Joaquin	3
Stanislaus	4
Tulare	1
TOTAL	19

RIVERSIDE AND VICINITY

County of Practice	Frequency
Riverside	9
San Bernardino	6
TOTAL	15

SHASTA/CASCADE

County of Practice	Frequency
Lassen	1
Modoc	0
Plumas	2
Shasta	11
Siskiyou	1
Tehama	0
Trinity	0
TOTAL	15

SOUTH/CENTRAL COAST

County of Practice	Frequency
Monterey	2
San Benito	0
San Luis Obispo	4
Santa Barbara	5
Ventura	5
TOTAL	16

NORTH COAST

County of Practice	Frequency
Del Norte	2
Humboldt	3
Mendocino	1
Sonoma	5
TOTAL	11

APPENDIX B. CRITICAL INDICES FOR ALL TASKS

Content Area 1: Patient History

Task #	Task Statement	Mean Freq	Mean Imp	Task Critical Index
1	Interview patient to determine history of present illness, chief complaint(s), and related symptoms.	4.84	4.81	23.48
3	Interview patient regarding characteristics (e.g., onset, duration, frequency, quality) of chief complaint(s).	4.75	4.66	22.54
4	Interview patient regarding previous diagnostic studies and treatments performed related to present illness and/or chief complaint.	4.51	4.39	20.35
10	Evaluate information gathered from patient history and relevant records to determine examinations and assessments.	4.46	4.39	20.16
5	Interview patient regarding current health and management of existing medical conditions.	4.40	4.26	19.41
7	Interview patient regarding past health and medical history.	4.34	4.22	19.05
6	Interview patient regarding review of systems (e.g., musculoskeletal, neurological, cardiovascular) information.	4.31	4.14	18.67
9	Interview patient regarding lifestyle history (e.g., social activities, diet, exercise, stress, mental health).	4.30	4.13	18.50
2	Select outcome assessment tool to obtain current baseline of pain and/or functionality.	3.90	3.60	15.33
8	Interview patient regarding family health and medical history.	3.71	3.49	14.14

Content Area 2: Examination and Assessment

Task #	Task Statement	Mean Freq	Mean Imp	Task Critical Index
36	Determine if diagnosed condition can be treated within chiropractic scope of practice.	4.78	4.73	22.95
25	Assess biomechanics of spine and extremities (e.g., palpation, muscle tone, joint mobility).	4.71	4.62	22.16
35	Develop diagnosis by reviewing results history, examination, and diagnostics.	4.53	4.49	21.00
37	Identify conditions that require referral to other health care providers.	4.38	4.70	20.84
24	Perform active/passive range of motion assessment.	4.59	4.42	20.72
17	Assess posture of patient to identify areas of dysfunction.	4.44	4.27	19.67
26	Perform orthopedic examination(s) to assess for abnormalities.	4.45	4.25	19.66
11	Observe antalgia, gait, and ambulation to assess for abnormalities.	4.38	4.30	19.44
14	Determine if patient requires urgent or emergency care.	3.98	4.73	19.12
32	Determine if imaging tests are needed before diagnosis (e.g., X-ray, CT, MRI).	4.15	4.23	18.38
22	Perform muscle strength testing to assess for abnormalities.	3.99	3.88	16.50
18	Examine skin of patient to assess for abnormalities (e.g., swelling, redness, lesions).	3.89	3.80	15.94
16	Assess current medications and comorbidities of patient to determine modifications to examination procedures and assessments.	3.79	3.86	15.72
23	Perform deep tendon reflexes (DTR) to assess for abnormalities.	3.80	3.71	15.40
15	Assess cognitive status of patient to aid in diagnosis.	3.60	3.82	15.01
20	Perform dermatomal sensory examination to aid in diagnosis of condition.	3.50	3.63	13.93
31	Perform balance and coordination tests to assess for abnormalities.	3.47	3.54	13.61
13	Obtain blood pressure and pulse of patient.	3.41	3.26	12.86
21	Perform testing for pathological reflexes (e.g., Babinski) to assess for abnormalities.	3.17	3.54	12.56
12	Obtain height and weight of patient.	3.64	3.07	12.54
33	Determine if additional tests (e.g., blood, urinalysis, EMG/NCV) are needed for diagnosis and management.	2.89	3.27	11.19
19	Examine patient with observation and circumferential measurements to identify muscle atrophy.	2.77	3.11	9.93
34	Read and interpret laboratory tests (e.g., blood, urinalysis).	2.58	3.01	9.21
28	Perform cardiovascular examination to assess for abnormalities.	2.29	2.66	7.90

Content Area 2: Examination and Assessment (continued)

Task #	Task Statement	Mean Freq	Mean Imp	Task Critical Index
27	Perform abdominal examination to assess for abnormalities.	2.32	2.52	7.46
29	Perform respiratory examination to assess for abnormalities.	2.13	2.42	6.83
30	Perform otolaryngological and vision system examinations to assess for abnormalities.	1.83	2.01	5.37

Content Area 3: Treatment

Task #	Task Statement	Mean Freq	Mean Imp	Task Critical Index
39	Perform chiropractic manipulation and/or adjustments to improve biomechanical integrity.	4.79	4.71	22.90
38	Discuss examination findings, diagnoses, treatment options, and associated risks with patient.	4.68	4.56	21.75
69	Document assessments and treatments using Subjective/Objective/Assessment/Plan (SOAP) for patient record documentation.	4.72	4.41	21.22
68	Evaluate treatment efficacy to determine next course of treatment.	4.48	4.42	20.33
63	Provide recommendations on posture.	4.39	4.29	19.52
62	Provide recommendations for home exercise program (HEP).	4.42	4.29	19.49
61	Provide recommendations on healthy lifestyle behaviors.	4.37	4.31	19.40
64	Provide recommendations on ergonomics.	4.18	4.14	18.01
49	Perform therapeutic exercises to improve strength and range of motion.	4.14	4.01	17.71
47	Perform myofascial release therapy (e.g., mobilization, trigger point) to reduce pain and improve range of motion.	4.05	3.88	16.92
66	Provide recommendations on diet and nutrition.	3.80	3.98	15.94
42	Perform neuromuscular reeducation to improve proprioception and balance.	3.56	3.68	14.64
65	Provide recommendations on relaxation techniques for stress reduction.	3.47	3.65	14.02
40	Perform spinal traction to improve biomechanical integrity.	3.24	3.13	12.79
43	Apply cryotherapy to reduce pain, swelling, and inflammation.	3.05	3.27	11.79
67	Provide recommendations on nutritional supplements.	3.19	3.27	11.72
60	Consult with other medical practitioners to co-manage patients.	2.98	3.49	11.57
48	Perform massage therapy to reduce pain and improve range of motion.	2.93	3.23	11.51
44	Apply heat therapy (e.g., hot packs, moist heat, diathermy) to reduce pain, swelling, and inflammation.	2.75	2.91	10.43
50	Apply electrical modalities (e.g., EMS, IFC, HVG, microcurrent) to reduce muscle spasm and pain.	2.48	2.57	9.41
54	Provide orthopedic supports (e.g., braces, splints, taping) for immobilization and compression.	2.40	2.68	8.18
41	Perform spinal decompression to improve biomechanical integrity.	2.00	2.50	7.72
46	Perform therapeutic ultrasound therapy to reduce pain, swelling, and inflammation.	1.99	2.24	7.14
55	Provide orthotics to improve foot function.	1.71	2.35	5.64

Content Area 3: Treatment (continued)

Task #	Task Statement*	Mean Freq	Mean Imp	Task Critical Index
45	Perform laser treatment to reduce pain, swelling, and inflammation.	1.23	1.85	4.29
59	Apply sensory integration therapy to improve proprioception.	0.94	1.45	3.07
57	Perform whole body vibration therapy to improve function.	0.60	1.01	1.89
51	Apply iontophoresis modality to reduce pain, swelling, and inflammation.	0.61	1.01	1.85
58	Apply cupping therapy to improve soft tissue function.	0.58	1.05	1.85
53	Apply paraffin therapy to reduce pain, swelling, and inflammation.	0.56	0.99	1.60
52	Provide whirlpool/Hubbard tank therapy to reduce pain, swelling, and inflammation.	0.36	0.90	1.15
56	Perform extracorporeal shockwave therapy to reduce pain and improve range of motion.	0.27	0.73	0.87

**NOTE: The task statements shaded in gray did not meet the criticality cutoff value determined by SMEs (see Chapter 4).*

Content Area 4: Laws and Regulations

Task #	Task Statement	Mean Freq	Mean Imp	Task Critical Index
84	Maintain California chiropractor license according to laws and regulations.	4.93	4.90	24.18
82	Adhere to laws that define chiropractic scope of practice.	4.95	4.84	24.02
81	Adhere to laws and regulations regarding professional conduct.	4.94	4.85	23.96
78	Maintain confidentiality of patient records in accordance with laws and regulations.	4.92	4.81	23.75
71	Adhere to laws and regulations regarding billing, billing codes, and documentation.	4.85	4.75	23.38
77	Maintain patient records in accordance with laws and regulations.	4.90	4.74	23.31
70	Obtain informed consent in accordance with laws and regulations.	4.89	4.70	23.20
75	Document assessments and treatments for patient records in accordance with laws and regulations.	4.84	4.70	22.85
74	Adhere to laws and regulations related to ownership and management of a chiropractic practice.	4.64	4.73	22.28
87	Ensure professional conduct of others on the premises of chiropractic office in accordance with laws and regulations.	4.54	4.72	21.90
83	Adhere to laws and regulations regarding excessive treatment.	4.67	4.62	21.88
91	Adhere to laws and regulations regarding display of certificate to practice.	4.82	4.47	21.71
79	Release patient records in accordance with laws and regulations.	4.44	4.74	21.23
89	Adhere to laws and regulations regarding referral of patients.	4.36	4.59	20.27
72	Adhere to laws and regulations related to treating patients with occupational injuries or illnesses.	4.18	4.58	20.07
80	Adhere to laws and regulations regarding advertising of chiropractic services.	4.25	4.50	19.99
90	Adhere to laws and regulations regarding license examination security.	3.87	4.45	19.38
86	Adhere to laws and regulations regarding radiographic imaging.	2.93	4.10	14.06
73	Adhere to laws and regulations related to ownership and management of chiropractic businesses and corporations.	3.03	3.12	11.42
76	Report known or suspected abuse of patients by contacting protective services in accordance with laws and regulations.	2.15	4.65	10.34

Content Area 4: Laws and Regulations (continued)

Task #	Task Statement	Mean Freq	Mean Imp	Task Critical Index
85	Adhere to laws and regulations regarding use of lasers for chiropractic treatment.	2.06	3.60	9.92
88	Adhere to laws and regulations regarding chiropractic manipulation under anesthesia.	0.91	3.20	4.45

APPENDIX C. KNOWLEDGE IMPORTANCE RATINGS

Content Area 1: Patient History

Item #	Knowledge Statement	Mean Importance
14	Knowledge of anatomy and physiology of musculoskeletal system.	4.79
23	Knowledge of examinations and assessments relevant for developing chiropractic diagnoses.	4.63
10	Knowledge of anatomy and physiology of neurological system.	4.60
20	Knowledge of patient's health history and its relationship to the chief complaint.	4.60
1	Knowledge of interview techniques for obtaining health history.	4.54
3	Knowledge of Onset, Palliative, Provocative, Prior, Progression, Quality, Radiating, Severity, Timing (OPQRST) method for evaluating characteristics of chief complaints.	4.44
22	Knowledge of patient's current and past lifestyle behaviors and its relationship to chief complaint.	4.29
19	Knowledge of the interrelationship between body systems.	4.20
4	Knowledge of allopathic and alternative treatments for chief complaint.	3.94
6	Knowledge of comorbidities for various medical conditions.	3.91
2	Knowledge of outcome assessment tools to measure treatment efficacy.	3.90
9	Knowledge of anatomy and physiology of cardiovascular system.	3.74
21	Knowledge of family history and its relationship to the chief complaint.	3.72
7	Knowledge of anatomy and physiology of endocrine system.	3.67
13	Knowledge of anatomy and physiology of respiratory system.	3.56
15	Knowledge of anatomy and physiology of gastrointestinal system.	3.56
5	Knowledge of methods to obtain information on medications.	3.55
8	Knowledge of anatomy and physiology of allergy/immunological system.	3.52
11	Knowledge of anatomy and physiology of integumentary system.	3.52
18	Knowledge of anatomy and physiology of hematologic/lymphatic systems.	3.40
16	Knowledge of anatomy and physiology of genitourinary system.	3.31
12	Knowledge of anatomy and physiology of reproductive system.	3.29
17	Knowledge of anatomy and physiology of otolaryngological and vision systems.	3.21

Content Area 2: Examination and Assessment

Item #	Knowledge Statement	Mean Importance
60	Knowledge of contraindications for joint manipulation.	4.78
28	Knowledge of signs and symptoms of conditions requiring urgent or emergency care.	4.73
59	Knowledge of implementing treatment plans for chiropractic care.	4.60
57	Knowledge of sites of nerve compression and entrapment.	4.59
63	Knowledge of symptoms and indicators of medical conditions that require referrals to other providers.	4.59
55	Knowledge of signs and symptoms of current presenting condition.	4.56
58	Knowledge of differential diagnoses of present condition(s).	4.52
43	Knowledge of joint biomechanical assessments and interpretations.	4.50
42	Knowledge of techniques for active and passive range of motion assessment.	4.42
24	Knowledge of antalgia, gait, and ambulation evaluation.	4.39
51	Knowledge of clinical interpretation of radiographic images.	4.39
62	Knowledge of preexisting conditions and how they affect chiropractic treatments.	4.35
44	Knowledge of orthopedic assessment and interpretation.	4.32
35	Knowledge of clinical interpretation of patient posture.	4.30
56	Knowledge of pathophysiology of inflammation.	4.28
40	Knowledge of muscle strength testing and interpretation.	4.22
41	Knowledge of deep tendon reflex (DTR) testing and interpretation.	4.19
39	Knowledge of pathological reflexes testing and interpretation.	4.10
52	Knowledge of interpretation of magnetic resonance imaging (MRI) and CT reports.	4.09
50	Knowledge of balance and coordination testing and interpretation.	4.07
38	Knowledge of dermatomal sensory testing and interpretation.	4.03
32	Knowledge of comorbidities and their effects on examination procedures and assessments.	3.93
33	Knowledge of signs and symptoms of comorbidity.	3.91
27	Knowledge of signs and symptoms of contagious diseases.	3.88
36	Knowledge of dermatological conditions requiring referral.	3.87
29	Knowledge of the physical effects of mental health conditions on the human body.	3.84
34	Knowledge of common medications and their effects on examination procedures and assessments.	3.79
26	Knowledge of vital signs measurements and techniques.	3.74
31	Knowledge of indicators of cognitive disorders.	3.66
30	Knowledge of indicators of mental health disorders.	3.58
53	Knowledge of indication for ordering blood, urinalysis, EMG/NCV, and other laboratory tests.	3.47
54	Knowledge of clinical interpretation of blood tests and urinalysis.	3.47
37	Knowledge of circumferential measurement techniques and interpretation.	3.32
61	Knowledge of obstetrics and gynecology as it relates to chiropractic practice.	3.25

Content Area 2: Examination and Assessment (continued)

Item #	Knowledge Statement	Mean Importance
46	Knowledge of cardiovascular examination techniques.	3.23
25	Knowledge of methods for obtaining patient height and weight.	3.20
47	Knowledge of respiratory examination techniques (e.g., auscultation, percussion, rib excursion).	3.15
45	Knowledge of abdominal examination techniques (e.g., auscultation, percussion, palpation).	3.12
48	Knowledge of otolaryngological and vision system examinations and interpretations.	2.88
49	Knowledge of use of tools for otolaryngological and vision system examinations.	2.81

Content Area 3: Treatment

Item #	Knowledge Statement	Mean Importance
69	Knowledge of joint adjustment and manipulation techniques.	4.68
67	Knowledge of joint adjustment and manipulation therapies indicated for presenting condition.	4.65
64	Knowledge of material risks of chiropractic treatments.	4.54
120	Knowledge of use of Subjective/Objective/Assessment/Plan (SOAP) note-taking method for documenting patient encounters.	4.45
119	Knowledge of indications for modifying chiropractic treatment plans.	4.38
118	Knowledge of time frames for chiropractic treatments.	4.24
85	Knowledge of implementation of therapeutic exercises.	4.22
112	Knowledge of therapeutic home exercises program.	4.21
70	Knowledge of procedures for operating chiropractic tables.	4.20
68	Knowledge of adjunctive therapies indicated for presenting condition.	4.14
65	Knowledge of material risks of physiotherapy treatments.	4.13
113	Knowledge of the application of posture corrections.	4.13
114	Knowledge of the application of ergonomic corrections.	4.09
66	Knowledge of treatment options available from other health care providers.	4.05
83	Knowledge of application of myofascial release therapies.	3.98
116	Knowledge of nutrition and diet effects on health.	3.98
75	Knowledge of implementation of neuromuscular reeducation.	3.78
117	Knowledge of the effects of nutritional supplementation on health.	3.73
106	Knowledge of strategies for coordinating patient care with other health care providers.	3.70
76	Knowledge of procedures for administering cryotherapy.	3.62
72	Knowledge of application of manual and mechanical spinal traction therapies.	3.60
77	Knowledge of procedures for administering heat therapies.	3.48
115	Knowledge of relaxation techniques.	3.48
111	Knowledge of effects of recreational drugs on health.	3.44
84	Knowledge of procedures for administering massage therapies.	3.43
95	Knowledge of procedures for applying orthopedic support devices.	3.41
94	Knowledge of orthopedic support devices.	3.38
109	Knowledge of effects of aberrant sleep patterns on health.	3.35
110	Knowledge of alcohol consumption effects on health.	3.34
71	Knowledge of procedures for operating spinal traction equipment.	3.21
87	Knowledge of procedures for operating electric stimulation equipment.	3.10
78	Knowledge of procedures for operating heat therapy equipment.	3.09
86	Knowledge of procedures for administering electric stimulation.	3.09
96	Knowledge of procedures for applying therapeutic taping.	3.06
97	Knowledge of application of orthotics.	2.97
81	Knowledge of procedures for administering therapeutic ultrasound.	2.94
82	Knowledge of procedures for operating therapeutic ultrasound equipment.	2.93
108	Knowledge of caffeine consumption effects on health.	2.84

Content Area 3: Treatment (continued)

Item #	Knowledge Statement*	Mean Importance
98	Knowledge of procedures for fitting orthotics.	2.73
74	Knowledge of application of spinal decompression therapies.	2.53
73	Knowledge of procedures for operating spinal decompression equipment.	2.40
107	Knowledge of smoking cessation techniques.	2.30
80	Knowledge of procedures for operating laser equipment.	2.28
79	Knowledge of procedures for administering laser therapy.	2.21
89**	Knowledge of ionic substances used for application of iontophoresis.	1.54
88**	Knowledge of procedures for administering iontophoresis.	1.53
105	Knowledge of application of sensory integration therapies.	1.51
93	Knowledge of use of paraffin therapy equipment	1.49
92	Knowledge of procedures for administering paraffin therapy.	1.44
102	Knowledge of use of whole body vibration therapy equipment.	1.31
90	Knowledge of procedures for administering whirlpool/Hubbard tank therapy.	1.27
91	Knowledge of use of whirlpool/Hubbard tank therapy equipment.	1.25
101	Knowledge of procedures for administering whole body vibration therapy.	1.20
103	Knowledge of procedures for administering cupping therapy.	1.12
104	Knowledge of use of cupping equipment.	1.11
100	Knowledge of use of extracorporeal shockwave therapy equipment.	0.93
99	Knowledge of procedures for administering extracorporeal shockwave therapy.	0.92

*NOTE: The knowledge statements shaded in gray did not meet the criticality cutoff value determined by SMEs (see Chapter 4).

**NOTE: The knowledge statements were eliminated because their associated task statements did not meet the task criticality cutoff value.

Content Area 4: Laws and Regulations

Item #	Knowledge Statement	Mean Importance
121	Knowledge of laws and regulations related to informed consent.	4.61
143	Knowledge of laws and regulations of ethical standards for professional conduct in a chiropractic setting.	4.60
137	Knowledge of laws and regulations regarding confidentiality of patient records and test results.	4.56
150	Knowledge of laws and regulations regarding continuing education requirements to maintain chiropractor license.	4.55
138	Knowledge of laws and regulations regarding release of minor and adult patient records.	4.51
148	Knowledge of laws and regulations regarding maintenance, renewal, and restoration of California chiropractor license.	4.51
136	Knowledge of legal requirements of the Health Insurance Portability and Accountability Act (HIPAA).	4.46
146	Knowledge of laws and regulations regarding professional treatment standards.	4.46
149	Knowledge of laws and regulations for maintaining accurate licensee name and address with the Board of Chiropractic Examiners.	4.45
129	Knowledge of laws and regulations for documenting patient history, examination, treatment, principal spoken language, and management.	4.43
131	Knowledge of mandated reporting procedures of suspected abuse of children, elders, or dependent adults.	4.42
130	Knowledge of laws for reporting suspected abuse of children, elders, or dependent adults.	4.36
134	Knowledge of laws and regulations regarding maintaining physical and electronic patient records.	4.36
139	Knowledge of laws and regulations related to chiropractic advertising, misrepresentation, and false claims.	4.35
142	Knowledge of laws and regulations related to use of chiropractic title.	4.33
147	Knowledge of laws and regulations regarding excessive treatments.	4.33
145	Knowledge of laws and regulations regarding reporting violations of the Chiropractic Initiative Act.	4.26
161	Knowledge of laws and regulations related to displaying of certificate to practice.	4.24
122	Knowledge of documentation requirements (e.g., billing codes) for insurance reimbursement.	4.19
135	Knowledge of laws and regulations regarding patient addendums to records.	4.19
125	Knowledge of laws and regulations regarding discounted fees and services.	4.17
132	Knowledge of mandated reporting procedures of suspected abuse, firearm injuries, or assaultive action.	4.12
124	Knowledge of laws and regulations regarding accountable billings.	4.09
140	Knowledge of laws and regulations regarding advertising free or discounted services.	4.08

Content Area 4: Laws and Regulations (continued)

Item #	Knowledge Statement	Mean Importance
144	Knowledge of laws and regulations regarding mental illness and illness affecting chiropractor competency.	4.08
133	Knowledge of physical indicators of abuse, firearm injuries, or assaultive action.	4.04
151	Knowledge of laws and regulations regarding citations, fines, and disciplinary actions.	4.00
123	Knowledge of procedures for receiving insurance reimbursement.	3.99
126	Knowledge of laws and regulations related to occupational injury or illness of patients.	3.96
153	Knowledge of laws and regulations regarding radiographic imaging.	3.83
158	Knowledge of laws and regulations regarding unlawful referrals.	3.79
160	Knowledge of laws and regulations regarding violations of license examination security.	3.79
155	Knowledge of laws and regulations regarding supervision of unlicensed individuals.	3.74
159	Knowledge of laws and regulations regarding solicitation of referrals providing beneficial interest to family or self.	3.73
141	Knowledge of laws and regulations regarding chiropractic specialty designations.	3.69
157	Knowledge of laws and regulations regarding referral rebates.	3.48
154	Knowledge of laws and regulations related to inducing students to practice chiropractic.	3.42
162	Knowledge of laws and regulations regarding filing and displaying certificates for satellite offices.	3.32
128	Knowledge of laws and regulations related to transfer of ownership upon death or incapacity of licensed chiropractor.	3.26
127	Knowledge of laws and regulations related to managing chiropractic businesses and corporations.	2.98
152	Knowledge of laws and regulations on use of lasers for chiropractic treatment.	2.97
156	Knowledge of laws and regulations regarding chiropractic manipulations under anesthesia.	2.19

APPENDIX D. DESCRIPTION OF PRACTICE

I. Patient History (14%): This area assesses the candidate's knowledge of performing a comprehensive patient evaluation.

TASK STATEMENTS		KNOWLEDGE STATEMENTS	
A. Chief Complaint (7%)			
T1.	Interview patient to determine history of present illness, chief complaint(s), and related symptoms.	K1.	Knowledge of interview techniques for obtaining health history.
T2.	Select outcome assessment tool to obtain current baseline of pain and/or functionality.	K2.	Knowledge of outcome assessment tools to measure treatment efficacy.
T3.	Interview patient regarding characteristics (e.g., onset, duration, frequency, quality) of chief complaint(s).	K3.	Knowledge of Onset, Palliative, Provocative, Prior, Progression, Quality, Radiating, Severity, Timing (OPQRST) method for evaluating characteristics of chief complaints.
T4.	Interview patient regarding previous diagnostic studies and treatments performed related to present illness and/or chief complaint.	K4.	Knowledge of allopathic and alternative treatments for chief complaint.
T5.	Interview patient regarding current health and management of existing medical conditions.	K5.	Knowledge of methods to obtain information on medications.
T10.	Evaluate information gathered from patient history and relevant records to determine examinations and assessments.	K6.	Knowledge of comorbidities for various medical conditions.
		K23.	Knowledge of examinations and assessments relevant for developing chiropractic diagnoses.

I. Patient History (14%) continued: This area assesses the candidate's knowledge of performing a comprehensive patient evaluation.

TASK STATEMENTS		KNOWLEDGE STATEMENTS	
B. Review of Systems (5%)			
T6.	Interview patient regarding review of systems (e.g., musculoskeletal, neurological, cardiovascular) information.	K7.	Knowledge of anatomy and physiology of endocrine system.
		K8.	Knowledge of anatomy and physiology of allergy/immunological system.
		K9.	Knowledge of anatomy and physiology of cardiovascular system.
		K10.	Knowledge of anatomy and physiology of neurological system.
		K11.	Knowledge of anatomy and physiology of integumentary system.
		K12.	Knowledge of anatomy and physiology of reproductive system.
		K13.	Knowledge of anatomy and physiology of respiratory system.
		K14.	Knowledge of anatomy and physiology of musculoskeletal system.
		K15.	Knowledge of anatomy and physiology of gastrointestinal system.
		K16.	Knowledge of anatomy and physiology of genitourinary system.
		K17.	Knowledge of anatomy and physiology of otolaryngological and vision systems.
		K18.	Knowledge of anatomy and physiology of hematologic/lymphatic systems.
		K19.	Knowledge of the interrelationship between body systems.
C. Medical History (2%)			
T7.	Interview patient regarding past health and medical history.	K20.	Knowledge of patient's health history and its relationship to the chief complaint.
T8.	Interview patient regarding family health and medical history.	K21.	Knowledge of family history and its relationship to the chief complaint.
T9.	Interview patient regarding lifestyle history (e.g., social activities, diet, exercise, stress, mental health).	K22.	Knowledge of patient's current and past lifestyle behaviors and its relationship to chief complaint.

II. Examination and Assessment (29%): This area assesses the candidate's knowledge of performing physical examinations and evaluations to guide diagnosis and management.

TASK STATEMENTS		KNOWLEDGE STATEMENTS	
A. Initial Assessment (3%)			
T12.	Obtain height and weight of patient.	K25.	Knowledge of methods for obtaining patient height and weight.
T13.	Obtain blood pressure and pulse of patient.	K26.	Knowledge of vital signs measurements and techniques.
T14.	Determine if patient requires urgent or emergency care.	K27.	Knowledge of signs and symptoms of contagious diseases.
T16.	Assess current medications and comorbidities of patient to determine modifications to examination procedures and assessments.	K28.	Knowledge of signs and symptoms of conditions requiring urgent or emergency care.
T17.	Assess posture of patient to identify areas of dysfunction.	K32.	Knowledge of comorbidities and their effects on examination procedures and assessments.
T18.	Examine skin of patient to assess for abnormalities (e.g., swelling, redness, lesions).	K33.	Knowledge of signs and symptoms of comorbidity.
		K34.	Knowledge of common medications and their effects on examination procedures and assessments.
		K35.	Knowledge of clinical interpretation of patient posture.
		K36.	Knowledge of dermatological conditions requiring referral.

II. Examination and Assessment (29%) continued: This area assesses the candidate's knowledge of performing physical examinations and evaluations to guide diagnosis and management.

TASK STATEMENTS		KNOWLEDGE STATEMENTS
B. Neurological Assessments (9%)		
T11.	Observe antalgia, gait, and ambulation to assess for abnormalities.	K24. Knowledge of antalgia, gait, and ambulation evaluation.
T15.	Assess cognitive status of patient to aid in diagnosis.	K29. Knowledge of the physical effects of mental health conditions on the human body.
T19.	Examine patient with observation and circumferential measurements to identify muscle atrophy.	K30. Knowledge of indicators of mental health disorders.
T20.	Perform dermatomal sensory examination to aid in diagnosis of condition.	K31. Knowledge of indicators of cognitive disorders.
T21.	Perform testing for pathological reflexes (e.g., Babinski) to assess for abnormalities.	K37. Knowledge of circumferential measurement techniques and interpretation.
T22.	Perform muscle strength testing to assess for abnormalities.	K38. Knowledge of dermatomal sensory testing and interpretation.
T23.	Perform deep tendon reflexes (DTR) to assess for abnormalities.	K39. Knowledge of pathological reflexes testing and interpretation.
T30.	Perform otolaryngological and vision system examinations to assess for abnormalities.	K40. Knowledge of muscle strength testing and interpretation.
T31.	Perform balance and coordination tests to assess for abnormalities.	K41. Knowledge of deep tendon reflex (DTR) testing and interpretation.
C. Orthopedic Assessments (9%)		
T24.	Perform active/passive range of motion assessment.	K48. Knowledge of otolaryngological and vision system examinations and interpretations.
T25.	Assess biomechanics of spine and extremities (e.g., palpation, muscle tone, joint mobility).	K49. Knowledge of use of tools for otolaryngological and vision system examinations.
T26.	Perform orthopedic examination(s) to assess for abnormalities.	K50. Knowledge of balance and coordination testing and interpretation.
		K163. Knowledge of vestibular system assessment.
		K42. Knowledge of techniques for active and passive range of motion assessment.
		K43. Knowledge of joint biomechanical assessments and interpretations.
		K44. Knowledge of orthopedic assessments and interpretation.

II. Examination and Assessment (29%) continued: This area assesses the candidate's knowledge of performing physical examinations and evaluations to guide diagnosis and management.

TASK STATEMENTS		KNOWLEDGE STATEMENTS
D. Autonomic Assessments (3%)		
T27.	Perform abdominal examination to assess for abnormalities.	K45. Knowledge of abdominal examination techniques (e.g., auscultation, percussion, palpation).
T28.	Perform cardiovascular examination to assess for abnormalities.	K46. Knowledge of cardiovascular examination techniques.
T29.	Perform respiratory examination to assess for abnormalities.	K47. Knowledge of respiratory examination techniques (e.g., auscultation, percussion, rib excursion).
E. Diagnostics and Referrals (5%)		
T32.	Determine if imaging tests are needed before diagnosis (e.g., X-ray, CT, MRI).	K51. Knowledge of clinical interpretation of radiographic images.
T33.	Determine if additional tests (e.g., blood, urinalysis, EMG/NCV) are needed for diagnosis and management.	K52. Knowledge of interpretation of magnetic resonance imaging (MRI) and CT reports.
T34.	Read and interpret laboratory tests (e.g., blood, urinalysis).	K53. Knowledge of indication for ordering blood, urinalysis, EMG/NCV, and other laboratory tests.
T35.	Develop diagnosis by reviewing results history, examination, and diagnostics.	K54. Knowledge of clinical interpretation of blood tests and urinalysis.
T36.	Determine if diagnosed condition can be treated within chiropractic scope of practice.	K55. Knowledge of signs and symptoms of current presenting condition.
T37.	Identify conditions that require referral to other health care providers.	K56. Knowledge of pathophysiology of inflammation. K57. Knowledge of sites of nerve compression and entrapment.
		K58. Knowledge of differential diagnoses of present condition(s).
		K59. Knowledge of implementing treatment plans for chiropractic care.
		K60. Knowledge of contraindications for joint manipulation.
		K61. Knowledge of obstetrics and gynecology as it relates to chiropractic practice.
		K62. Knowledge of preexisting conditions and how they affect chiropractic treatments.
		K63. Knowledge of symptoms and indicators of medical conditions that require referrals to other providers.

III. Treatment (26%): This area assesses the candidate's knowledge of chiropractic treatments, including the use of physiotherapy modalities and healthy lifestyle counseling.

TASK STATEMENTS		KNOWLEDGE STATEMENTS	
A. Patient Management (15%)			
T38.	Discuss examination findings, diagnoses, treatment options, and associated risks with patient.	K64.	Knowledge of material risks of chiropractic treatments.
T39.	Perform chiropractic manipulation and/or adjustments to improve biomechanical integrity.	K65.	Knowledge of material risks of physiotherapy treatments.
T60.	Consult with other medical practitioners to co-manage patients.	K66.	Knowledge of treatment options available from other health care providers.
T68.	Evaluate treatment efficacy to determine next course of treatment.	K67.	Knowledge of joint adjustment and manipulation therapies indicated for presenting condition.
T69.	Document assessments and treatments using Subjective/Objective/Assessment/Plan (SOAP) for patient record documentation.	K68.	Knowledge of adjunctive therapies indicated for presenting condition.
		K69.	Knowledge of joint adjustment and manipulation techniques.
		K70.	Knowledge of procedures for operating chiropractic tables.
		K106.	Knowledge of strategies for coordinating patient care with other health care providers.
		K118.	Knowledge of time frames for chiropractic treatments.
		K119.	Knowledge of indications for modifying chiropractic treatment plans.
		K120.	Knowledge of use of Subjective/Objective/Assessment/Plan (SOAP) note-taking method for documenting patient encounters.

III. Treatment (26%) continued: This area assesses the candidate's knowledge of chiropractic treatments, including the use of physiotherapy modalities and healthy lifestyle counseling.

TASK STATEMENTS		KNOWLEDGE STATEMENTS	
B. Adjunctive Therapies (7%)			
T40.	Perform spinal traction to improve biomechanical integrity.	K71.	Knowledge of procedures for operating spinal traction equipment.
T41.	Perform spinal decompression to improve biomechanical integrity.	K72.	Knowledge of application of manual and mechanical spinal traction therapies.
T42.	Perform neuromuscular reeducation to improve proprioception and balance.	K73.	Knowledge of procedures for operating spinal decompression equipment.
T43.	Apply cryotherapy to reduce pain, swelling, and inflammation.	K74.	Knowledge of application of spinal decompression therapies.
T44.	Apply heat therapy (e.g., hot packs, moist heat, diathermy) to reduce pain, swelling, and inflammation.	K75.	Knowledge of implementation of neuromuscular reeducation.
T45.	Perform laser treatment to reduce pain, swelling, and inflammation.	K76.	Knowledge of procedures for administering cryotherapy.
T46.	Perform therapeutic ultrasound therapy to reduce pain, swelling, and inflammation.	K77.	Knowledge of procedures for administering heat therapies.
T47.	Perform myofascial release therapy (e.g., mobilization, trigger point) to reduce pain and improve range of motion.	K78.	Knowledge of procedures for operating heat therapy equipment.
T48.	Perform massage therapy to reduce pain and improve range of motion.	K79.	Knowledge of procedures for administering laser therapy.
T49.	Perform therapeutic exercises to improve strength and range of motion.	K80.	Knowledge of procedures for operating laser equipment.
T50.	Apply electrical modalities (e.g., EMS, IFC, HVG, microcurrent) to reduce muscle spasm and pain.	K81.	Knowledge of procedures for administering therapeutic ultrasound.
T54.	Provide orthopedic supports (e.g., braces, splints, taping) for immobilization and compression.	K82.	Knowledge of procedures for operating therapeutic ultrasound equipment.
T55.	Provide orthotics to improve foot function.	K83.	Knowledge of application of myofascial release therapies.
T59.	Apply sensory integration therapy to improve proprioception.	K84.	Knowledge of procedures for administering massage therapies.
		K85.	Knowledge of implementation of therapeutic exercises.
		K86.	Knowledge of procedures for administering electric stimulation.
		K87.	Knowledge of procedures for operating electric stimulation equipment.
		K94.	Knowledge of orthopedic support devices.
		K95.	Knowledge of procedures for applying orthopedic support devices.
		K96.	Knowledge of procedures for applying therapeutic taping.
		K97.	Knowledge of application of orthotics.
		K98.	Knowledge of procedures for fitting orthotics.
		K105.	Knowledge of application of sensory integration therapies.

III. Treatment (26%) continued: This area assesses the candidate's knowledge of chiropractic treatments, including the use of physiotherapy modalities and healthy lifestyle counseling.

TASK STATEMENTS		KNOWLEDGE STATEMENTS	
C. Healthy Lifestyle (4%)			
T61.	Provide recommendations on healthy lifestyle behaviors.	K107.	Knowledge of smoking cessation techniques.
T62.	Provide recommendations for home exercise program (HEP).	K108.	Knowledge of caffeine consumption effects on health.
T63.	Provide recommendations on posture.	K109.	Knowledge of effects of aberrant sleep patterns on health.
T64.	Provide recommendations on ergonomics.	K110.	Knowledge of alcohol consumption effects on health.
T65.	Provide recommendations on relaxation techniques for stress reduction.	K111.	Knowledge of effects of recreational drugs on health.
T66.	Provide recommendations on diet and nutrition.	K112.	Knowledge of therapeutic home exercises program.
T67.	Provide recommendations on nutritional supplements.	K113.	Knowledge of the application of posture corrections.
		K114.	Knowledge of the application of ergonomic corrections.
		K115.	Knowledge of relaxation techniques.
		K116.	Knowledge of nutrition and diet effects on health.
		K117.	Knowledge of the effects of nutritional supplementation on health.

IV. Laws and Regulations (31%): This area assesses the candidate's knowledge of laws and regulations related to chiropractor practice as documented in the California Business and Professions Code, California Code of Regulations, California Health and Safety Code, and Chiropractic Initiative Act of California.

TASK STATEMENTS		KNOWLEDGE STATEMENTS
A. Records Management (8%)		
<p>T70. Obtain informed consent in accordance with laws and regulations.</p> <p>T75. Document assessments and treatments for patient records in accordance with laws and regulations.</p> <p>T77. Maintain patient records in accordance with laws and regulations.</p> <p>T78. Maintain confidentiality of patient records in accordance with laws and regulations.</p> <p>T79. Release patient records in accordance with laws and regulations.</p>	<p>K121. Knowledge of laws and regulations related to informed consent.</p> <p>K129. Knowledge of laws and regulations for documenting patient history, examination, treatment, principal spoken language, and management.</p> <p>K146. Knowledge of laws and regulations regarding professional treatment standards.</p> <p>K134. Knowledge of laws and regulations regarding maintaining physical and electronic patient records.</p> <p>K135. Knowledge of laws and regulations regarding patient addendums to records.</p> <p>K136. Knowledge of legal requirements of the Health Insurance Portability and Accountability Act (HIPAA).</p> <p>K137. Knowledge of laws and regulations regarding confidentiality of patient records and test results.</p> <p>K138. Knowledge of laws and regulations regarding release of minor and adult patient records.</p>	

IV. Laws and Regulations (31%) continued: This area assesses the candidate's knowledge of laws and regulations related to chiropractor practice as documented in the California Business and Professions Code, California Code of Regulations, California Health and Safety Code, and Chiropractic Initiative Act of California.

TASK STATEMENTS		KNOWLEDGE STATEMENTS	
B. Business Management (8%)			
T71.	Adhere to laws and regulations regarding billing, billing codes, and documentation.	K122.	Knowledge of documentation requirements (e.g., billing codes) for insurance reimbursement.
T72.	Adhere to laws and regulations related to treating patients with occupational injuries or illnesses.	K123.	Knowledge of procedures for receiving insurance reimbursement.
T73.	Adhere to laws and regulations related to ownership and management of chiropractic businesses and corporations.	K124.	Knowledge of laws and regulations regarding accountable billings.
T74.	Adhere to laws and regulations related to ownership and management of a chiropractic practice.	K125.	Knowledge of laws and regulations regarding discounted fees and services.
T76.	Report known or suspected abuse of patients by contacting protective services in accordance with laws and regulations.	K126.	Knowledge of laws and regulations related to occupational injury or illness of patients.
T91.	Adhere to laws and regulations regarding display of certificate to practice.	K127.	Knowledge of laws and regulations related to managing chiropractic businesses and corporations.
		K128.	Knowledge of laws and regulations related to transfer of ownership upon death or incapacity of licensed chiropractor.
		K130.	Knowledge of laws for reporting suspected abuse of children, elders, or dependent adults.
		K131.	Knowledge of mandated reporting procedures of suspected abuse of children, elders, or dependent adults.
		K132.	Knowledge of mandated reporting procedures of suspected abuse, firearm injuries, or assaultive action.
		K133.	Knowledge of physical indicators of abuse, firearm injuries, or assaultive action.
		K161.	Knowledge of laws and regulations related to displaying of certificate to practice.
		K162.	Knowledge of laws and regulations regarding filing and displaying certificates for satellite offices.

IV. Laws and Regulations (31%) continued: This area assesses the candidate's knowledge of laws and regulations related to chiropractor practice as documented in the California Business and Professions Code, California Code of Regulations, California Health and Safety Code, and Chiropractic Initiative Act of California.

TASK STATEMENTS		KNOWLEDGE STATEMENTS	
C.	Ethics (8%)		
T80.	Adhere to laws and regulations regarding advertising of chiropractic services.	K139.	Knowledge of laws and regulations related to chiropractic advertising, misrepresentation, and false claims.
T81.	Adhere to laws and regulations regarding professional conduct.	K140.	Knowledge of laws and regulations regarding advertising free or discounted services.
T83.	Adhere to laws and regulations regarding excessive treatment.	K141.	Knowledge of laws and regulations regarding chiropractic specialty designations.
T87.	Ensure professional conduct of others on the premises of chiropractic office in accordance with laws and regulations.	K142.	Knowledge of laws and regulations related to use of chiropractic title.
T89.	Adhere to laws and regulations regarding referral of patients.	K143.	Knowledge of laws and regulations of ethical standards for professional conduct in a chiropractic setting.
T90.	Adhere to laws and regulations regarding license examination security.	K144.	Knowledge of laws and regulations regarding mental illness and illness affecting chiropractor competency.
		K147.	Knowledge of laws and regulations regarding excessive treatments.
		K154.	Knowledge of laws and regulations related to inducing students to practice chiropractic.
		K155.	Knowledge of laws and regulations regarding supervision of unlicensed individuals.
		K157.	Knowledge of laws and regulations regarding referral rebates.
		K158.	Knowledge of laws and regulations regarding unlawful referrals.
		K159.	Knowledge of laws and regulations regarding solicitation of referrals providing beneficial interest to family or self.
		K160.	Knowledge of laws and regulations regarding violations of license examination security.

IV. Laws and Regulations (31%) continued: This area assesses the candidate's knowledge of laws and regulations related to chiropractor practice as documented in the California Business and Professions Code, California Code of Regulations, California Health and Safety Code, and Chiropractic Initiative Act of California.

D. Scope of Practice (7%)	
<p>T82. Adhere to laws that define chiropractic scope of practice.</p> <p>T84. Maintain California chiropractor license according to laws and regulations.</p> <p>T85. Adhere to laws and regulations regarding use of lasers for chiropractic treatment.</p> <p>T86. Adhere to laws and regulations regarding radiographic imaging.</p> <p>T88. Adhere to laws and regulations regarding chiropractic manipulation under anesthesia.</p>	<p>K145. Knowledge of laws and regulations regarding reporting violations of the Chiropractic Initiative Act.</p> <p>K146. Knowledge of laws and regulations regarding professional treatment standards.</p> <p>K148. Knowledge of laws and regulations regarding maintenance, renewal, and restoration of California chiropractor license.</p> <p>K149. Knowledge of laws and regulations for maintaining accurate licensee name and address with the Board of Chiropractic Examiners.</p> <p>K150. Knowledge of laws and regulations regarding continuing education requirements to maintain chiropractor license.</p> <p>K151. Knowledge of laws and regulations regarding citations, fines, and disciplinary actions.</p> <p>K152. Knowledge of laws and regulations on use of lasers for chiropractic treatment.</p> <p>K153. Knowledge of laws and regulations regarding radiographic imaging.</p> <p>K156. Knowledge of laws and regulations regarding chiropractic manipulations under anesthesia.</p>

APPENDIX E. LETTER TO PRACTITIONERS



Board of Chiropractic Examiners

901 P Street, Suite 142A, Sacramento, CA 95814
P (916) 263-5355 | F (866) 543-1311 | <http://www.chiro.ca.gov>

October XX, 2016

Name
Address
City, State Zip

Dear Licensed chiropractor,

The Board of Chiropractic Examiners is inviting you to participate in the 2016 Occupational Analysis regarding the chiropractic profession.

The Board is working with the Department of Consumer Affairs' Office of Professional Examination Services (OPES) to conduct an occupational analysis, which is a comprehensive description of current practice in terms of the tasks performed in a profession and the knowledge required to perform those tasks. The occupational analysis is only conducted every five to seven years and the results are very important to the development of the licensing examinations.

Several workshops with chiropractors have been held in Sacramento to develop a survey questionnaire regarding current practice of chiropractors. We are inviting you to participate in this survey. Your response will be combined with responses of other chiropractors to determine the tasks and knowledge needed for independent practice. Your individual responses will be kept confidential.

The survey will be available from **October 24, 2016 to November 18, 2016**, 24 hours a day, 7 days a week. It will take approximately 90 minutes to complete the online survey questionnaire. For your convenience, you may begin the survey and exit to return at a later time, as long as it is from the same computer. The Board has authorized 2 hours of Continuing Education credit to be earned by taking this survey. In order to gain the credit, participants must provide their license number at the end of the survey so a list of all participants' license numbers can be sent to the board.

If you are interested in participating in this important project, please:

Record your Chiropractic License # for reference: _____

The Survey Web-link Password is: **chiro16** (all lower case)

Use the following link to access the survey:
<https://www.surveymonkey.com/r/ChiroS16>

Again, we appreciate your dedication to your profession and to our mission of protecting the consumers of California by licensing qualified and competent providers.

Sincerely,

Robert Puleo, Executive Officer
Board of Chiropractic Examiners

APPENDIX F. QUESTIONNAIRE

Chiropractor Occupational Analysis Survey

1. COVER LETTER

Dear Licensee:

The Board of Chiropractor examiners is conducting an occupational analysis of the Chiropractic profession. The purpose of the occupational analysis is to identify the important tasks performed by Chiropractor in current practice and the knowledge required to perform those tasks. Results of the occupational analysis will be used to update and improve the Chiropractor Licensing Examination.

The Board requests your assistance in this process. Please take the time to complete the survey questionnaire as it relates to your current practice. Your participation ensures that all aspects of the profession are covered and is essential to the success of this project.

Your individual responses will be kept confidential. Your responses will be combined with responses of other Chiropractors and only group trends will be reported. Your personal information will not be tied to your responses.

In order to progress through this survey, please use the following navigation buttons:

- Click the Next button to continue to the next page.
- Click the Prev button to return to the previous page.
- Click the Done/Submit button to submit your survey as completed.

Any questions marked with an asterisk (*) require an answer in order to progress through the survey questionnaire.

Please Note: This survey can take between 1-2 hours to complete. However, once you have started the survey, you can exit at any time and return to it later without losing your responses as long as you are accessing the survey from the same computer. The survey automatically saves fully-completed pages, but will not save responses to questions on pages that were partially completed when the survey was exited. This means that in order for a page to save, you must have completed that page and selected the "next" button. For your convenience, the weblink is available 24 hours a day 7 days a week.

Please submit the completed survey questionnaire by November 30th, 2016.

If you have any questions about completing this survey, please contact Brian Knox at Brian.Knox@dca.ca.gov or (916) 575-7273. The Board welcomes your participation in this project and sincerely thanks you for your time.

INSTRUCTIONS FOR EARNING CONTINUING EDUCATION CREDITS

The Board of Chiropractic Examiners has approved two hours of continuing education credits for every chiropractor who completes this survey. In order to receive this credit you must first complete the survey then input your chiropractic license number when prompted for it at the end of the survey.

INSTRUCTIONS FOR COMPLETING THE DEMOGRAPHIC ITEMS

This part of the questionnaire contains an assortment of demographic items, the responses to which will be used to describe Chiropractic practice as represented by the respondents to the questionnaire. Please note the instructions for each item before marking your response as several permit multiple responses.

INSTRUCTIONS FOR RATING TASK AND KNOWLEDGE STATEMENTS

This part of the questionnaire contains a list of tasks and knowledge descriptive of the Chiropractic practice in a variety of settings. Please note that some of the tasks or knowledge may not apply to your setting.

For each task, you will be asked to answer two questions: how important the task is in the performance of your current practice (importance) and how often you perform the task(frequency). For each knowledge, you will be asked to answer one question: how important the knowledge is in the performance of your current practice (importance).

2. OCCUPATIONAL ANALYSIS OF THE CHIROPRACTOR

The Board of Chiropractic Examiners recognizes that every Chiropractic practitioner may not perform all of the tasks and use all of the knowledge contained in this questionnaire. However, your participation is essential to the success of this project, and your contributions will help establish standards for safe and effective Chiropractic practice in the state of California.

Complete this questionnaire only if you are currently licensed and practicing as a Chiropractor in California.

Chiropractor Occupational Analysis Survey

3.

Are you currently practicing in California as a licensed Chiropractor?

Yes

No

4. PART I PERSONAL DATA

The information you provide in this next section is voluntary and confidential. It will be treated as personal information subject to the Information Practices Act (Civil Code, Section 1798 et seq.) and it will be used only for the purpose of analyzing the ratings from this questionnaire.

Chiropractor Occupational Analysis Survey

5. Demographics

How many years have you been practicing in California as a licensed Chiropractor?

- 0 to 5 years
- 6 to 10 years
- 11 to 20 years
- More than 20 years

How many practice settings/clinical locations do you utilize as a Chiropractor?

- 1
- 2-4
- 5 or more

How would describe your primary practice setting?

- Sole practitioner
- Independent Contractor/Associate
- Chiropractic Group
- Multidisciplinary Group
- Hospital
- House calls/Home visits

Other (please specify)

What location describes your primary work setting?

- Urban (greater than 100,000 people), highly dense population within city limits
- Suburban, less densely populated areas (typically bordering the city)
- Rural (less than 10,000 people) sparsely populated areas further outside of city (e.g., countryside, farmlands)

Other (please specify)

How many hours per week do you work as a licensed Chiropractor?

- 0 - 10 hours
- 11 - 20 hours
- 21 to 39 hours
- 40 or more hours

Which of the following diplomate/certifications (if any) do you possess?

- Chiropractic Pediatrics
- Chiropractic Physical and Therapeutic Rehabilitation
- Chiropractic Acupuncture
- Diagnosis and Internal Disorders
- Diagnostic Imaging or Radiology
- Neurology
- Nutrition
- Occupational Health
- Sports Physician
- Orthopedics

Other (please specify)

Chiropractor Occupational Analysis Survey

6. Demographics

What is the highest level of non-chiropractic education you attained? (Please specify the major of degree in the box provided)

- Associate Degree
- Bachelor's Degree
- Master's Degree
- Doctoral Degree

Major:

During training, what other subjects would have been beneficial to adequately prepare you for your first year in practice? (please specify)

Do you feel that your chiropractic training program prepared you for your first year in practice?

- Yes
- No

Do you hold any other California professional licenses?

= X-ray Supervisor

= Acupuncture

= Physical Therapy

= Medical Doctor

= Osteopathic Doctor

= Naturopathic Doctor

= Registered Nurse

= Nurse Practitioner

= Certified Athletic Trainer

Other CA Professional License:

In what California county is your primary practice located?

- | | | |
|------------------------------------|---------------------------------------|-------------------------------------|
| <input type="radio"/> Alameda | <input type="radio"/> Marin | <input type="radio"/> San Mateo |
| <input type="radio"/> Alpine | <input type="radio"/> Mariposa | <input type="radio"/> Santa Barbara |
| <input type="radio"/> Amador | <input type="radio"/> Mendocino | <input type="radio"/> Santa Clara |
| <input type="radio"/> Butte | <input type="radio"/> Merced | <input type="radio"/> Santa Cruz |
| <input type="radio"/> Calaveras | <input type="radio"/> Modoc | <input type="radio"/> Shasta |
| <input type="radio"/> Colusa | <input type="radio"/> Mono | <input type="radio"/> Sierra |
| <input type="radio"/> Contra Costa | <input type="radio"/> Monterey | <input type="radio"/> Siskiyou |
| <input type="radio"/> Del Norte | <input type="radio"/> Napa | <input type="radio"/> Solano |
| <input type="radio"/> El Dorado | <input type="radio"/> Nevada | <input type="radio"/> Sonoma |
| <input type="radio"/> Fresno | <input type="radio"/> Orange | <input type="radio"/> Stanislaus |
| <input type="radio"/> Glenn | <input type="radio"/> Placer | <input type="radio"/> Sutter |
| <input type="radio"/> Humboldt | <input type="radio"/> Plumas | <input type="radio"/> Tehama |
| <input type="radio"/> Imperial | <input type="radio"/> Riverside | <input type="radio"/> Trinity |
| <input type="radio"/> Inyo | <input type="radio"/> Sacramento | <input type="radio"/> Tulare |
| <input type="radio"/> Kern | <input type="radio"/> San Benito | <input type="radio"/> Tuolumne |
| <input type="radio"/> Kings | <input type="radio"/> San Bernardino | <input type="radio"/> Ventura |
| <input type="radio"/> Lake | <input type="radio"/> San Diego | <input type="radio"/> Yolo |
| <input type="radio"/> Lassen | <input type="radio"/> San Francisco | <input type="radio"/> Yuba |
| <input type="radio"/> Los Angeles | <input type="radio"/> San Joaquin | |
| <input type="radio"/> Madera | <input type="radio"/> San Luis Obispo | |

Chiropractor Occupational Analysis Survey

7. PART II RATING JOB TASKS

In this part of the questionnaire, please rate each task as it relates to your current practice as a chiropractor. Please rate each statement using the importance and frequency scale provided. Frequency and importance ratings should be separate and independent ratings. Therefore, the rating you assign to a statement on the importance scale should not influence the rating you assign to that same statement on the frequency scale. For example, a task you perform may be critical to your practice, but you may not perform that task very often.

If the task is NOT part of your current practice, rate the task "0" (zero) Importance and "0" (zero) Frequency.

The boxes for rating the Importance and Frequency of each task have drop-down lists. Click on the "down" arrow for each list to see the ratings and then select the option based on your current practice.

IMPORTANCE RATING

HOW IMPORTANT is performance of this task in your current practice?

0 - NOT IMPORTANT; DOES NOT APPLY TO MY PRACTICE. This task is not important and/or I do not perform this task in my practice.

1 - OF MINOR IMPORTANCE. This task has the lowest priority of all the tasks that I perform in my practice.

2 - FAIRLY IMPORTANT. This task is fairly important relative to other tasks; however, it does not have the priority of most other tasks that I perform in my practice.

3 - MODERATELY IMPORTANT. This task has about average priority among all tasks that I perform in my practice.

4 - VERY IMPORTANT. This task is very important for my practice; it has a higher degree of importance or priority than most other tasks that I perform in my practice.

5 - CRITICALLY IMPORTANT. This task is among the most critical tasks that I perform in my practice.

FREQUENCY RATING

HOW OFTEN do you perform this task to treat patients?

0 - DOES NOT APPLY TO MY PRACTICE. I never perform this task in my practice.

1 - RARELY. I rarely perform this task in my practice.

2 - SELDOM. I seldom perform this task in my practice. The frequency at which I perform this task in my practice is very low.

3 - OCCASIONALLY. This task is performed somewhat frequently in my practice.

4 - OFTEN. This task is performed more frequently than most other tasks in my practice.

5 - VERY OFTEN. I perform this task almost constantly and it is one of the most frequently performed tasks in my practice.

TASK STATEMENTS - Patient History

	Importance	Frequency
1. Interview patient to determine history of present illness, chief complaint(s), and related symptoms.	<input type="text"/>	<input type="text"/>
2. Select outcome assessment tool to obtain current baseline of pain and/or functionality.	<input type="text"/>	<input type="text"/>
3. Interview patient regarding characteristics (e.g., onset, duration, frequency, quality) of chief complaint(s).	<input type="text"/>	<input type="text"/>
4. Interview patient regarding previous diagnostic studies and treatments performed related to present illness and/or chief complaint.	<input type="text"/>	<input type="text"/>
5. Interview patient regarding current health and management of existing medical conditions.	<input type="text"/>	<input type="text"/>
6. Interview patient regarding review of systems (e.g., musculoskeletal, neurological, cardiovascular) information.	<input type="text"/>	<input type="text"/>
7. Interview patient regarding past health and medical history.	<input type="text"/>	<input type="text"/>
8. Interview patient regarding family health and medical history.	<input type="text"/>	<input type="text"/>
9. Interview patient regarding lifestyle history (e.g., social activities, diet, exercise, stress, mental health).	<input type="text"/>	<input type="text"/>
10. Evaluate information gathered from patient history and relevant records to determine examinations and assessments.	<input type="text"/>	<input type="text"/>

Chiropractor Occupational Analysis Survey

8. PART II RATING JOB TASKS

TASK STATEMENTS - Examination and Assessment

	Importance	Frequency
11. Observe antalgia, gait, and ambulation to assess for abnormalities.	<input type="text"/>	<input type="text"/>
12. Obtain height and weight of patient.	<input type="text"/>	<input type="text"/>
13. Obtain blood pressure and pulse of patient.	<input type="text"/>	<input type="text"/>
14. Determine if patient requires urgent or emergency care.	<input type="text"/>	<input type="text"/>
15. Assess cognitive status of patient to aid in diagnosis.	<input type="text"/>	<input type="text"/>
16. Assess current medications and comorbidities of patient to determine modifications to examination procedures and assessments.	<input type="text"/>	<input type="text"/>
17. Assess posture of patient to identify areas of dysfunction.	<input type="text"/>	<input type="text"/>
18. Examine skin of patient to assess for abnormalities (e.g., swelling, redness, and lesions).	<input type="text"/>	<input type="text"/>
19. Examine patient with observation and circumferential measurements to identify muscle atrophy.	<input type="text"/>	<input type="text"/>
20. Perform dermatomal sensory examination to aid in diagnosis of condition.	<input type="text"/>	<input type="text"/>
21. Perform testing for pathological reflexes (e.g., Babinski) to assess for abnormalities.	<input type="text"/>	<input type="text"/>
22. Perform muscle strength testing to assess for abnormalities.	<input type="text"/>	<input type="text"/>
23. Perform deep tendon reflexes (DTR) to assess for abnormalities.	<input type="text"/>	<input type="text"/>
24. Perform active/passive range of motion assessment.	<input type="text"/>	<input type="text"/>
25. Assess biomechanics of spine and extremities. (e.g., palpation, muscle tone, joint mobility).	<input type="text"/>	<input type="text"/>
26. Perform orthopedic examination(s) to assess for abnormalities.	<input type="text"/>	<input type="text"/>
27. Perform abdominal examination to assess for abnormalities.	<input type="text"/>	<input type="text"/>

	Importance	Frequency
28. Perform cardiovascular examination to assess for abnormalities.	<input type="text"/>	<input type="text"/>
29. Perform respiratory examination to assess for abnormalities.	<input type="text"/>	<input type="text"/>
30. Perform otolaryngological and vision system examinations to assess for abnormalities.	<input type="text"/>	<input type="text"/>
31. Perform balance and coordination tests to assess for abnormalities.	<input type="text"/>	<input type="text"/>
32. Determine if imaging tests are needed before diagnosis (e.g., X-ray, CT, MRI).	<input type="text"/>	<input type="text"/>
33. Determine if additional tests (e.g., blood, urinalysis, EMG/NCV) are needed for diagnosis and management.	<input type="text"/>	<input type="text"/>
34. Read and interpret laboratory tests (e.g., blood, urinalysis).	<input type="text"/>	<input type="text"/>
35. Develop diagnosis by reviewing results history, examination, and diagnostics.	<input type="text"/>	<input type="text"/>
36. Determine if diagnosed condition can be treated within chiropractic scope of practice.	<input type="text"/>	<input type="text"/>
37. Identify conditions that require referral to other health care providers.	<input type="text"/>	<input type="text"/>

Chiropractor Occupational Analysis Survey

9. PART II RATING JOB TASKS

TASK STATEMENTS - Treatment

	Importance	Frequency
38. Discuss examination findings, diagnoses, treatment options and associated risks with patient.	<input type="text"/>	<input type="text"/>
39. Perform chiropractic manipulation and/or adjustments to improve biomechanical integrity.	<input type="text"/>	<input type="text"/>
40. Perform spinal traction to improve biomechanical integrity.	<input type="text"/>	<input type="text"/>
41. Perform spinal decompression to improve biomechanical integrity.	<input type="text"/>	<input type="text"/>
42. Perform neuromuscular reeducation to improve proprioception and balance.	<input type="text"/>	<input type="text"/>
43. Apply cryotherapy to reduce pain, swelling, and inflammation.	<input type="text"/>	<input type="text"/>
44. Apply heat therapy (e.g., hot packs, moist heat, diathermy) to reduce pain, swelling, and inflammation.	<input type="text"/>	<input type="text"/>
45. Perform laser treatment to reduce pain, swelling, and inflammation.	<input type="text"/>	<input type="text"/>
46. Perform therapeutic ultrasound therapy to reduce pain, swelling, and inflammation.	<input type="text"/>	<input type="text"/>
47. Perform myofascial release therapy (e.g., mobilization, trigger point) to reduce pain and improve range of motion.	<input type="text"/>	<input type="text"/>
48. Perform massage therapy to reduce pain and improve range of motion.	<input type="text"/>	<input type="text"/>
49. Perform therapeutic exercises to improve strength and range of motion.	<input type="text"/>	<input type="text"/>
50. Apply electrical modalities (e.g., EMS, IFC, HVG, micro-current) to reduce muscle spasm and pain.	<input type="text"/>	<input type="text"/>
51. Apply iontophoresis modality to reduce pain, swelling, and inflammation	<input type="text"/>	<input type="text"/>
52. Provide whirlpool/Hubbard tank therapy to reduce pain, swelling, and inflammation.	<input type="text"/>	<input type="text"/>
53. Apply paraffin therapy to reduce pain, swelling, and inflammation.	<input type="text"/>	<input type="text"/>
54. Provide orthopedic supports (e.g., braces, splints, taping) for immobilization and compression.	<input type="text"/>	<input type="text"/>

	Importance	Frequency
55. Provide orthotics to improve foot function.	<input type="text"/>	<input type="text"/>
56. Perform extracorporeal shockwave therapy to reduce pain and improve range of motion.	<input type="text"/>	<input type="text"/>
57. Perform whole body vibration therapy to improve function.	<input type="text"/>	<input type="text"/>
58. Apply cupping therapy to improve soft tissue function.	<input type="text"/>	<input type="text"/>
59. Apply sensory integration therapy to improve proprioception.	<input type="text"/>	<input type="text"/>
60. Consult with other medical practitioners to co-manage patients.	<input type="text"/>	<input type="text"/>
61. Provide recommendations on healthy lifestyle behaviors.	<input type="text"/>	<input type="text"/>
62. Provide recommendations for home exercise program (HEP).	<input type="text"/>	<input type="text"/>
63. Provide recommendations on posture.	<input type="text"/>	<input type="text"/>
64. Provide recommendations on ergonomics.	<input type="text"/>	<input type="text"/>
65. Provide recommendations on relaxation techniques for stress reduction.	<input type="text"/>	<input type="text"/>
66. Provide recommendations on diet and nutrition.	<input type="text"/>	<input type="text"/>
67. Provide recommendations on nutritional supplements.	<input type="text"/>	<input type="text"/>
68. Evaluate treatment efficacy to determine next course of treatment.	<input type="text"/>	<input type="text"/>
69. Document assessments and treatments using Subjective/Objective/Assessment/Plan (SOAP) for patient record documentation.	<input type="text"/>	<input type="text"/>

Chiropractor Occupational Analysis Survey

10. PART II RATING JOB TASKS

TASK STATEMENTS - Laws and Regulations

	Importance	Frequency
70. Obtain informed consent in accordance with laws and regulations.	<input type="text"/>	<input type="text"/>
71. Adhere to laws and regulations regarding billing, billing codes and documentation.	<input type="text"/>	<input type="text"/>
72. Adhere to laws and regulations related to treating patients with occupational injuries or illness.	<input type="text"/>	<input type="text"/>
73. Adhere to laws and regulations related to ownership and management of chiropractic corporations.	<input type="text"/>	<input type="text"/>
74. Adhere to laws and regulations related to ownership and management of chiropractic practice.	<input type="text"/>	<input type="text"/>
75. Document assessments and treatments for patient records in accordance with laws and regulations.	<input type="text"/>	<input type="text"/>
76. Report known or suspected abuse of patients by contacting protective services in accordance with laws and regulations.	<input type="text"/>	<input type="text"/>
77. Maintain patient records in accordance with laws and regulations.	<input type="text"/>	<input type="text"/>
78. Maintain confidentiality of patient records in accordance with laws and regulations.	<input type="text"/>	<input type="text"/>
79. Release patient records in accordance with laws and regulations.	<input type="text"/>	<input type="text"/>
80. Adhere to laws and regulations regarding advertising of chiropractic services.	<input type="text"/>	<input type="text"/>
81. Adhere to laws and regulations regarding professional conduct.	<input type="text"/>	<input type="text"/>
82. Adhere to laws that define chiropractic scope of practice	<input type="text"/>	<input type="text"/>
83. Adhere to laws and regulations regarding excessive treatment.	<input type="text"/>	<input type="text"/>
84. Maintain California chiropractor's license according to laws and regulations.	<input type="text"/>	<input type="text"/>
85. Adhere to laws and regulations regarding use of lasers for chiropractic treatment.	<input type="text"/>	<input type="text"/>

Importance

Frequency

86. Adhere to laws and regulations regarding radiographic imaging.

87. Ensure professional conduct of others on the premises of chiropractic office in accordance with laws and regulations.

88. Adhere to laws and regulations regarding chiropractic manipulation under anesthesia.

89. Adhere to laws and regulations regarding referral of patients.

90. Adhere to laws and regulations regarding license examination security.

91. Adhere to laws and regulations regarding display of certificate to practice.

Chiropractor Occupational Analysis Survey

11. PART III. RATING PRACTICE KNOWLEDGE

In this part of the questionnaire, rate each of the knowledge statements based on how important the knowledge is to successful performance in your practice. If a knowledge statement is NOT utilized in the performance of tasks for your practice, rate it “0” (zero) for Importance.

The boxes for rating the Importance of each knowledge statement have a drop-down list. Click on the “down” arrow for each list to see the ratings. Then select the rating based on your current practice.

IMPORTANCE RATING

HOW IMPORTANT is this knowledge in the performance of your current practice?

Use the following scale to select your ratings.

0 - NOT IMPORTANT and/or NOT REQUIRED. This knowledge does not apply to my practice; it is not required for performance of tasks.

1 - OF MINOR IMPORTANCE. Possession of this knowledge is of minor importance for performance of tasks.

2 - FAIRLY IMPORTANT. Possession of this knowledge is fairly important for performance of tasks.

3 - MODERATELY IMPORTANT. Possession of this knowledge is moderately important for performance of tasks.

4 - VERY IMPORTANT. Possession of this knowledge is very important for performance in a significant part of my practice.

5 - CRITICALLY IMPORTANT. Possession of this knowledge is of critical to the performance of tasks.

KNOWLEDGE STATEMENTS - Patient Assessment

Importance

1. Knowledge of interview techniques for obtaining health history.

2. Knowledge of outcome assessment tools to measure treatment efficacy

3. Knowledge of Onset, Palliative, Provocative, Prior, Progression, Quality, Radiating, Severity, Timing (OPQRST) method for evaluating characteristics of chief complaints.

Importance

4. Knowledge of allopathic and alternative treatments for chief complaint.

5. Knowledge of methods to obtain information on medications.

6. Knowledge of comorbidities for various medical conditions.

7. Knowledge of anatomy and physiology of endocrine system.

8. Knowledge of anatomy and physiology of allergy/immunological system.

9. Knowledge of anatomy and physiology of cardiovascular system.

10. Knowledge of anatomy and physiology of neurological system.

11. Knowledge of anatomy and physiology of integumentary system.

12. Knowledge of anatomy and physiology of reproductive system.

13. Knowledge of anatomy and physiology of respiratory system.

14. Knowledge of anatomy and physiology of musculoskeletal system.

15. Knowledge of anatomy and physiology of gastrointestinal system.

16. Knowledge of anatomy and physiology of genitourinary system.

17. Knowledge of anatomy and physiology of otolaryngological and vision systems.

18. Knowledge of anatomy and physiology of hematologic/lymphatic systems.

19. Knowledge of the interrelationship between body systems.

20. Knowledge of patient's health history and its relationship to the chief complaint.

21. Knowledge of family history and its relationship to the chief complaint.

22. Knowledge of patient's current and past lifestyle behaviors and its relationship to chief complaint.

23. Knowledge of examinations and assessments relevant for developing chiropractic diagnoses.

Chiropractor Occupational Analysis Survey

12. PART III. RATING PRACTICE KNOWLEDGE

KNOWLEDGE STATEMENTS - Examination and Assessment

Importance

24. Knowledge of antalgia, gait, and ambulation evaluation.

25. Knowledge of methods for obtaining patient height and weight.

26. Knowledge of vital signs measurements and techniques.

27. Knowledge of signs and symptoms of contagious diseases.

28. Knowledge of signs and symptoms of conditions requiring urgent or emergency care.

29. Knowledge of the physical effects of mental health conditions on the human body.

30. Knowledge of indicators of mental health disorders.

31. Knowledge of indicators of cognitive disorders.

32. Knowledge of comorbidities and their effects on examination procedures and assessments.

33. Knowledge of signs and symptoms of comorbidity.

34. Knowledge of common medications and their effects on examination procedures and assessments.

35. Knowledge of clinical interpretation of patient posture.

36. Knowledge of dermatological conditions requiring referral.

37. Knowledge of circumferential measurement techniques and interpretation.

38. Knowledge of dermatomal sensory testing and interpretation.

39. Knowledge of pathological reflexes testing and interpretation.

40. Knowledge of muscle strength testing and interpretation.

41. Knowledge of deep tendon reflex (DTR) testing and interpretation.

42. Knowledge of techniques for active and passive range of motion assessment.

Importance

43. Knowledge of joint biomechanical assessments and interpretations.

44. Knowledge of orthopedic assessment and interpretation.

45. Knowledge of abdominal examination techniques (e.g., auscultation, percussion, palpation).

46. Knowledge of cardiovascular examination techniques.

47. Knowledge of respiratory examination techniques (e.g., auscultation, percussion, rib excursion).

48. Knowledge of otolaryngological and vision system examinations and interpretations.

49. Knowledge of use of tools for otolaryngological and vision system examinations.

50. Knowledge of balance and coordination testing and interpretation.

51. Knowledge of clinical interpretation of radiographic images.

52. Knowledge of interpretation of magnetic resonance imaging (MRI) and CT reports.

53. Knowledge of indication for ordering blood, urinalysis, EMG/NCV, and other laboratory tests.

54. Knowledge of clinical interpretation of blood tests and urinalysis.

55. Knowledge of signs and symptoms of current presenting condition.

56. Knowledge of pathophysiology of inflammation.

57. Knowledge of sites of nerve compression and entrapment.

58. Knowledge of differential diagnoses of present condition(s).

59. Knowledge of implementing treatment plans for chiropractic care.

60. Knowledge of contraindications for joint manipulation.

61. Knowledge of obstetrics and gynecology as it relates to chiropractic practice.

62. Knowledge of preexisting conditions and how they affect chiropractic treatments.

63. Knowledge of symptoms and indicators of medical conditions that require referrals to other providers.

Chiropractor Occupational Analysis Survey

13. PART III. RATING PRACTICE KNOWLEDGE

KNOWLEDGE STATEMENTS - Treatment

Importance

64. Knowledge of material risks of chiropractic treatments.

65. Knowledge of material risks of physiotherapy treatments.

66. Knowledge of treatment options available from other healthcare providers.

67. Knowledge of joint adjustment and manipulation therapies indicated for presenting condition.

68. Knowledge of adjunctive therapies indicated for presenting condition.

69. Knowledge of joint adjustment and manipulation techniques.

70. Knowledge of procedures for operating chiropractic tables.

71. Knowledge of procedures for operating spinal traction equipment.

72. Knowledge of application of manual and mechanical spinal traction therapies.

73. Knowledge of procedures for operating spinal decompression equipment.

74. Knowledge of application of spinal decompression therapies.

75. Knowledge of implementation of neuromuscular reeducation.

76. Knowledge of procedures for administering cryotherapy.

77. Knowledge of procedures for administering heat therapies.

78. Knowledge of procedures for operating heat therapy equipment.

79. Knowledge of procedures for administering laser therapy.

80. Knowledge of procedures for operating laser equipment.

81. Knowledge of procedures for administering therapeutic ultrasound.

82. Knowledge of procedures for operating therapeutic ultrasound equipment.

Importance

83. Knowledge of application of myofascial release therapies.

84. Knowledge of procedures for administering massage therapies.

85. Knowledge of implementation of therapeutic exercises.

86. Knowledge of procedures for administering electric stimulation.

87. Knowledge of procedures for operating electric stimulation equipment.

88. Knowledge of procedures for administering iontophoresis.

89. Knowledge of ionic substances used for application of iontophoresis.

90. Knowledge of procedures for administering whirlpool/Hubbard tank therapy.

91. Knowledge of use of whirlpool/Hubbard tank therapy equipment.

92. Knowledge of procedures for administering paraffin therapy.

93. Knowledge of use of paraffin therapy equipment.

94. Knowledge of orthopedic support devices.

95. Knowledge of procedures for applying orthopedic support devices.

Chiropractor Occupational Analysis Survey

14. PART III. RATING PRACTICE KNOWLEDGE

KNOWLEDGE STATEMENTS - Treatment continued

	Importance
96. Knowledge of procedures for applying therapeutic taping.	<input type="text"/>
97. Knowledge of application of orthotics.	<input type="text"/>
98. Knowledge of procedures for fitting orthotics.	<input type="text"/>
99. Knowledge of procedures for administering extracorporeal shockwave therapy.	<input type="text"/>
100. Knowledge of use of extracorporeal shockwave therapy equipment.	<input type="text"/>
101. Knowledge of procedures for administering whole body vibration therapy.	<input type="text"/>
102. Knowledge of use of whole body vibration therapy equipment.	<input type="text"/>
103. Knowledge of procedures for administering cupping therapy.	<input type="text"/>
104. Knowledge of use of cupping equipment.	<input type="text"/>
105. Knowledge of application of sensory integration therapies.	<input type="text"/>
106. Knowledge of strategies for coordinating patient care with other healthcare providers.	<input type="text"/>
107. Knowledge of smoking cessation techniques.	<input type="text"/>
108. Knowledge of caffeine consumption effects on health.	<input type="text"/>
109. Knowledge of effects of aberrant sleep patterns on health.	<input type="text"/>
110. Knowledge of alcohol consumption effects on health.	<input type="text"/>
111. Knowledge of effects of recreational drugs on health.	<input type="text"/>
112. Knowledge of therapeutic home exercises program.	<input type="text"/>
113. Knowledge of the application of posture corrections.	<input type="text"/>
114. Knowledge of the application of ergonomic corrections.	<input type="text"/>
115. Knowledge of relaxation techniques.	<input type="text"/>

Importance

116. Knowledge of nutrition and diet effects on health.

117. Knowledge of the effects of nutritional supplementation on health.

118. Knowledge of time frames for chiropractic treatments.

119. Knowledge of indications for modifying chiropractic treatment plans

120. Knowledge of use of Subjective/Objective/Assessment/Plan (SOAP) note taking method for documenting patient encounters.

15. PART III. RATING PRACTICE KNOWLEDGE

KNOWLEDGE STATEMENTS - Laws and Regulations

Importance

121. Knowledge of laws and regulations related to informed consent.

122. Knowledge of documentation requirements (e.g., billing codes) for insurance reimbursement.

123. Knowledge of procedures for receiving insurance reimbursement.

124. Knowledge of laws and regulations regarding accountable billings.

125. Knowledge of laws and regulations regarding discounted fees and services.

126. Knowledge of laws and regulations related to occupational injury or illness of patients.

127. Knowledge of laws and regulations related to managing chiropractic corporations.

128. Knowledge of laws and regulations related to transfer of ownership upon death or incapacity of licensed chiropractor.

129. Knowledge of laws and regulations for documenting patient history, examination, treatment, principle spoken language, and management.

130. Knowledge of laws for reporting suspected abuse of children, elders or dependent adults.

131. Knowledge of mandated reporting procedures of suspected abuse of children, elders or dependent adults.

132. Knowledge of mandated reporting procedures of suspected abuse, firearm injuries, or assaultive action.

133. Knowledge of physical indicators of abuse, firearms injuries, or assaultive action.

134. Knowledge of laws and regulations regarding maintaining physical and electronic patient records.

135. Knowledge of laws and regulations regarding patient addendums to records.

136. Knowledge of legal requirements of health information portability and accountability act (HIPPA).

137. Knowledge of laws and regulations regarding confidentiality of patient records and test results.

138. Knowledge of laws and regulations regarding release of minor and adult patient records.

139. Knowledge of laws and regulations related to chiropractic advertising, misrepresentation, and false claims.

140. Knowledge of laws and regulations regarding advertising free or discounted services.

Chiropractor Occupational Analysis Survey

16. PART III. RATING PRACTICE KNOWLEDGE

KNOWLEDGE STATEMENTS - Laws and Regulations continued

Importance

141. Knowledge of laws and regulations regarding chiropractic specialty designations.

142. Knowledge of laws and regulations related to use of chiropractic title.

143. Knowledge of laws and regulations of ethical standards for professional conduct in a chiropractic setting.

144. Knowledge of laws and regulations regarding mental illness and illness affecting chiropractor competency.

145. Knowledge of laws and regulations regarding reporting violations of chiropractic act.

146. Knowledge of laws and regulations regarding professional treatment standards.

147. Knowledge of laws and regulations regarding excessive treatments.

148. Knowledge laws and regulations regarding maintenance, renewal, and restoration of chiropractic license.

149. Knowledge of laws and regulations for maintaining accurate licensee name and address with Board of Chiropractic Examiners.

150. Knowledge of laws and regulations regarding continuing education requirements to maintain chiropractic license.

151. Knowledge of laws and regulations regarding citations, fines, and disciplinary actions.

152. Knowledge of laws and regulations on use of lasers for chiropractic treatment.

153. Knowledge of laws and regulations regarding radiographic imaging.

154. Knowledge of laws and regulations related to inducing students to practice chiropractic.

155. Knowledge of laws and regulations regarding supervisions of unlicensed individuals.

156. Knowledge of laws and regulations regarding chiropractic manipulations under anesthesia.

157. Knowledge of laws and regulations regarding referral rebates.

158. Knowledge of laws and regulations regarding unlawful referrals.

Importance

159. Knowledge of laws and regulations regarding solicitation of referrals providing beneficial interest to family or self.

160. Knowledge of laws and regulations regarding violations of license examination security.

161. Knowledge of laws and regulations related to displaying of certificate to practice.

162. Knowledge of laws and regulations regarding filing and displaying certificates for satellite offices.

17.

The Board of Chiropractic Examiners has approved 2 hours of continuing education credits for all chiropractors who participated in this survey, if you wish to receive this credit please input your chiropractic license number below and it will be forwarded to the board.

Please enter your California Chiropractor license number:

California Chiropractor

License #:

Please enter a current email address if you are interested in participating in future chiropractor studies and/or workshops (this is entirely optional and will not be linked to your answers on this survey):

18. FINISHED

THANK YOU FOR COMPLETING THIS SURVEY QUESTIONNAIRE.

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