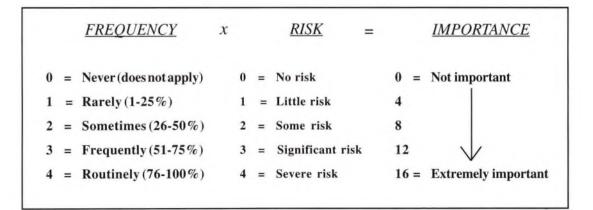
Chapter 10

Professional Functions, Knowledge Areas, and Treatment Procedures

The survey instructed respondents to rate the frequency and risk associated with omitting or poorly performing tasks, and the importance of these tasks was calculated from these ratings. Respondents were also instructed to rate the importance of certain knowledge areas and to estimate their utilization of certain treatment techniques and procedures.

Professional Functions

In this section, respondents rated the **frequency** with which they performed 52 specific tasks in nine categories and also rated the **risk** to the patient's health and safety if the task were performed poorly or omitted. Consistent with other rating methods used in this survey, zero-to-four point scales were used for both the frequency and risk components. Multiplying these two ratings yields the **Importance Factor**, which has a range of 0 (of no importance) to 16 (extremely important). The importance factor is commonly obtained in job analyses because it indicates the significance of a task, taking into account both frequency and risk (Figure 10.1).





Case History

Ratings of case history professional functions pertaining to frequency, risk, and importance appear in Table 10.1.

$\begin{array}{c c} FREQUENCY \\ \hline Never \longrightarrow Routinely \\ \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet \\ \hline \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet \\ \hline \bullet & \bullet \\ \bullet & \bullet \\ \hline \bullet & \bullet \\ \hline \bullet & \bullet \\ \bullet & \bullet \\ \hline \bullet & \bullet \\ \hline \bullet & \bullet \\ \bullet & \bullet \\ \hline \bullet & \bullet \\ \bullet & \bullet \\ \hline \bullet & \bullet \\ \bullet & \bullet \\ \hline \bullet & \bullet \\ \bullet \\$	$\xrightarrow{2.0} 3.0 4.0$	None —	$\xrightarrow{\text{FANCE}} \text{Extrem}$
Case History			
Function	Frequency	Risk	Importance
Take initial case history	3.98 Routinely	3.01 Significant	12.01
Identify condition from case history	3.67 Routinely	2.82 Significant	10.64
Perform focused case history	3.60 Routinely	2.75 Significant	10.24
Take S.O.A.P. or case progress notes	3.55 Routinely	2.63 Significant	9.71
Determine technique/case management	3.79 Routinely	2.2 Some	8.50
Update case history	3.70 Routinely	2.59 Significant	9.79
Category Average	3.72	2.66	10.14

Table 10.1. Frequency, Risk, and Importance of Case History Functions

Doctors of chiropractic **routinely** perform all aspects of a case history (category average of 3.72) and indicate that poor performance or omission of case history functions represents a **significant** risk (category average of 2.66) to patient health and safety. The mean importance factor is 10.14.

Respondents indicated that taking of an initial case history, identifying the patients' condition from the case history, performing a focused case history to obtain additional information, utilizing S.O.A.P. or progress notes and updating the patient's history are all **routine** functions of their practices. Each of these tasks, if poorly performed or omitted, represents a **significant** risk to the patient's health or safety (Table 10.1).

Physical Examination

Ratings of physical examination functions pertaining to frequency, risk, and importance appear in Table 10.2.

$\begin{array}{c c} FREQUENCY \\ \hline Never & & \\ \bullet & & \\ \bullet & & \\ \hline \end{array} \begin{array}{c} Routinely \\ \bullet & & \\ \bullet & & \\ \bullet & & \\ \hline \end{array} \begin{array}{c} RISK \\ \hline \\ \bullet & & \\ \hline \end{array} \begin{array}{c} 0 \\ \bullet & & \\ \bullet & &$	3.0 4.0	None $\frac{\text{IMPORT}}{4}$	$\xrightarrow{I2} I6$
Physical Examination		Sterner 11	
Function	Frequency	Risk	Importance
Perform physical examination procedures on a new patient	3.82 Routinely	2.98 Significant	11.62
Determine the patient's general state of health, using the physical examination information	3.59 Routinely	2.65 Significant	9.89
Perform regional physical examination procedures	3.59 Routinely	2.72 Significant	10.15
Re-examine periodically or when a patient's condition changes	3.57 Routinely	2.52 Significant	9.27
Category Average	3.64	2.71	10.22

Table 10.2. Frequency, Risk, and Importance of Physical Examination Functions

Doctors of chiropractic **routinely** perform physical examination functions (category average of 3.64) and indicate that the poor performance or omission of these functions represents a **significant** risk (category average of 2.71) to patients' health and safety. The mean importance factor is 10.22.

Specifically, respondents showed that in their practices they **routinely** perform general and regional physical examination procedures, determine a patient's general state of health from the information obtained, and re-examine patients when conditions change. The respondents rated the risk to patients' health and safety as **significant** if these procedures are omitted or inadequately performed (Table 10.2).

Neuromusculoskeletal Examination

Ratings of neuromusculoskeletal examination functions pertaining to frequency, risk, and importance appear in Table 10.3.

$\begin{array}{c c} FREQUENCY \\ \hline Never & \rightarrow Routinely \\ \circ & 1.0 & 2.0 & 3.0 & 4.0 \\ \bullet & + & + & + & + & \bullet \\ \hline NMS Examination \\ \hline \end{array}$	→Severe	None 0 4 8 • + + + +	$\xrightarrow{I2} I6$
Function	Frequency	Risk	Importance
Perform general orthopedic and/or neurological examination procedures on a new patient	3.71 Routinely	2.66 Significant	10.24
Perform focused orthopedic and/or neurological examination procedures	3.54 Routinely	2.64 Significant	9.81
Determine patient condition using orthopedic/neurological examination	3.52 Routinely	2.57 Significant	9.53
Determine need for additional lab, X-ray, special study and/or referral	3.60 Routinely	2.73 Significant	10.27
Update orthopedic/neurological tests	3.42 Frequently	2.41 Some	8.72
Category Average	3.56	2.60	9.71

 Table 10.3.
 Frequency, Risk, and Importance of Neuromusculoskeletal Examination Functions

Doctors of chiropractic **routinely** perform orthopedic and/or neurologic examination tasks (category average of 3.56) and indicate that poor performance or omission of these functions represents a **significant** risk (category average of 2.60) to patients' health and safety. The mean importance factor is 9.71.

Respondents **routinely** perform general and focused orthopedic and/or neurologic examination procedures, determine the patient's condition from these procedures, and utilize this information to determine appropriate courses of action. They rate the risk to patients' health and safety as **significant** if these tasks are poorly performed or omitted.

Respondents **frequently** perform appropriate examinations as patients' conditions change and indicate that there is **some** risk to the patient's health and safety if periodic re-examinations are omitted or not adequately performed (Table 10.3).

X-ray Examination

Ratings of X-ray examination functions pertaining to frequency, risk, and importance appear in Table 10.4.

$\begin{array}{c c} FREQUENCY \\ \hline Never \longrightarrow Routinely \\ \circ & 1.0 & 2.0 & 3.0 & 4.0 \\ \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \end{array} \begin{array}{c} RISK \\ \hline & 0 & 1.0 & 2.0 & 3.0 \\ \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \end{array}$			> Extrem
X-ray Examination		Di l	
Function	Frequency	Risk	Importance
Perform X-ray on new patients	2.93 Frequently	2.48 Some	8.04
Determine anomaly, pathology, fracture, dislocation or other significant findings	3.45 Frequently	3.06 Significant	11.05
Determine instability/joint dysfunction from stress X-rays	2.09 Sometimes	2.03 Some	5.26
Determine possible presence of subluxation/spinal listing	2.67 Frequently	1.74 Some	5.68
Perform new X-rays on a patient whose condition has deteriorated/is not responding	2.65 Frequently	2.44 Some	7.30
Perform new X-rays on a patient who has a new condition	2.64 Frequently	2.25 Some	6.61
Perform new X-rays to monitor a patient's progress	1.16 Rarely	1.03 Little Risk	1.78
Category Average	2.51	2.15	6.52

Table 10.4. Frequency, Risk, and Importance of X-ray Examination Functions

Doctors of chiropractic **frequently** perform tasks associated with the radiographic examination of patients (category average of 2.51) and indicate that the poor performance or omission of these functions represents **some** risk (category average of 2.15) to the health and safety of patients. The mean importance factor is 6.52.

Specifically, respondents **frequently** perform radiographic examinations of new patients and of established patients whose conditions have deteriorated or not responded or who present with a new condition. Likewise, they **frequently** determine the presence of anomaly or pathology from these radiographs. They indicated that there is a **significant** risk to the patient for not identifying these abnormal findings. Respondents **sometimes** use stress x-rays to determine areas of instability or dysfunction. They **rarely** take x-rays to monitor a patient's progress and indicate that there is **little** risk in omitting this activity (Table 10.4).

Compared to the 1991 NBCE survey of chiropractic practice, the frequency with which respondents to this current survey performed radiographic procedures and the risk that they associated with inadequately performing or omitting these tasks were slightly decreased.

Laboratory and Special Studies

Ratings of laboratory and special studies functions pertaining to frequency, risk, and importance appear in Table 10.5.

$\begin{array}{c c} FREQUENCY \\ \hline None \\ \hline \\ \bullet \\ \bullet$			$\xrightarrow{I2} I6$
Laboratory and Special Studies			
Function	Frequency	Risk	Importance
Draw blood, collect urine, or perform other laboratory procedures	0.33 Virtually Never	0.97 Little Risk	0.69
Order laboratory tests from hospitals or private laboratory	1.14 Rarely	1.58 Some	2.36
Refer patients for MRI or CT scan	1.76 Sometimes	2.28 Some	4.40
Refer patients for bone scan	0.95 Rarely	1.96 Some	2.31
Refer patients for EMG/Nerve conduction studies	1.14 Rarely	1.60 Some	2.29
Refer patients for EKG or vascular studies	0.87 Rarely	1.90 Some	2.13
Refer patients for other specialized studies	1.11 Rarely	1.76 Some	2.41
Augment history, examination or radiographic findings using laboratory information	1.88 Sometimes	2.00 Some	4.60
Confirm a diagnosis or rule out health-threatening conditions using laboratory information	1.98 Sometimes	2.34 Some	5.52
Category Average	1.24	1.82	2.95

Table 10.5. Frequency, Risk, and Importance of Laboratory and Special Studies Functions

Doctors of chiropractic **rarely** perform laboratory and special studies (category average of 1.24), and they **sometimes** refer patients for these services. Laboratory information is **sometimes** used to confirm a diagnosis, rule out a health-threatening condition, or augment history and examination findings. Respondents indicated that the poor performance or omission of these tasks represents **some** risk to the health and safety of patients (category average of 1.82). The mean importance factor is 2.95 (Table 10.5).

Diagnosis

Ratings of diagnosis functions pertaining to frequency, risk, and importance appear in Table 10.6.

$\begin{array}{c c} FREQUENCY \\ \hline Never & \rightarrow Routinely \\ 0 & 1.0 & 2.0 & 3.0 & 4.0 \\ \hline \bullet & + & + & + & + & + \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \end{array} \begin{array}{c} RISK \\ \hline None & & \\ \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \end{array}$	3.0 4.0		> Extrem
Diagnosis	P	Pil	Turnet
Function Relate problems to a pathologic, pathophysiologic, or psychopathologic process	2.85 Frequently	Risk 2.58 Significant	Importance 8.14
Distinguish between urgent/less urgent	3.19 Frequently	3.15 Significant	10.66
Refer to other practitioners, based on examination and history information	2.45 Sometimes	2.77 Significant	7.29
Arrive at specific musculoskeletal diagnosis/impression (other than subluxation) based on examination and history findings	3.17 Frequently	2.26 Some	7.72
Arrive at specific non-musculoskeletal diagnosis/impression (other than subluxation) based on examination and history findings	2.18 Sometimes	2.30 Some	5.72
Category Average	2.77	2.61	7.88

Table 10.6. Frequency, Risk, and Importance of Diagnosis Functions

Doctors of chiropractic **frequently** perform tasks associated with the diagnosis of patients (category average of 2.77) and indicate that the poor performance or omission of these functions represents **significant** risk (category average of 2.61) to the health and safety of patients. The mean importance factor is 7.88 (Figure 10.6).

In this section of the survey, respondents indicated that they **frequently** arrive at a specific musculoskeletal diagnosis and **sometimes** arrive at a specific non-musculoskeletal diagnosis. These findings are consistent with the responses obtained in the diagnosis portion of "Types of Conditions" (Refer to Chapter Nine, Tables 9.1-9.17).

Chiropractic Technique

Ratings of chiropractic technique functions pertaining to frequency, risk, and importance appear in Table 10.7.

$\begin{array}{c c} FREQUENCY \\ \hline Never & \hline & Routinely \\ \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet & \bullet \\ \bullet & \bullet &$	Severe	$\operatorname{None}_{0} \xrightarrow{4} 8$	> Extrem
Chiropractic Technique		The section has	And States
Function	Frequency	Risk	Importance
Perform specific chiropractic examination procedures	3.79 Routinely	2.42 Some	9.37
Utilize chiropractic instruments	2.09 Sometimes	1.36 Little risk	4.04
Determine appropriate case management/technique	3.72 Routinely	2.29 Some	8.75
Perform chiropractic adjustive techniques	3.93 Routinely	2.29 Some	9.07
Update chiropractic examination	3.59 Routinely	2.17 Some	8.06
Catogory Average	3.42	2.10	7.84

Table 10.7. Frequency, Risk, and Importance of Chiropractic Technique

Doctors of chiropractic **routinely** perform chiropractic technique functions except for the utilization of adjustive instruments (category average of 3.42). Because chiropractic techniques are typically very safe, respondents indicated that the poor performance or omission of these tasks represents only **some** risk (category average of 2.10) to the health and safety of patients. The mean importance factor is 7.84 (Table 10.7).

Adjunctive Care

Ratings of adjunctive care pertaining to frequency, risk, and importance appear in Table 10.8.

$\begin{array}{c c} FREQUENCY \\ \hline Never & \hline \\ 0 & 1.0 & 2.0 & 3.0 & 4.0 \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \end{array} \begin{array}{c} 0 & 1.0 & 2.0 & 0 & 0 \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\ \hline \bullet & \bullet \\ \hline \end{array}$	Severe	None 0 4 8 • • • • • • • • • • • •	\longrightarrow Extrem
Adjunctive Care Function	Frequency	Risk	Importance
Evaluate patient condition to determine if other than adjustive techniques are indicated	3.51 Routinely	2.11 Some	7.76
Determine indications or contraindications for use of adjunctive care	3.48 Frequently	2.56 Significant	9.45
Perform procedures other than adjustive	2.96 Frequently	1.80 Some	5.88
Refer patient to other practitioner for adjunctive therapy, based on patient condition	1.93 Sometimes	1.69 Some	3.92
Monitor effectiveness of non-adjustive techniques, therapeutic procedures, and adjunctive care	3.15 Frequently	1.90 Some	6.57
Category Average	3.01	2.01	6.70

Table 10.8. Frequency, Risk, and Importance of Adjunctive Care

Doctors of chiropractic **frequently** perform adjunctive (non-adjustive) procedures (category average of 3.01) and indicate that the poor performance or omission of these procedures represents **some** risk (category average of 2.01) to the health and safety of patients. The mean importance factor is 6.70 (Table 10.8).

Specifically, respondents **routinely** evaluated their patients to determine if the patient's condition warranted procedures other than adjustive techniques. Practitioners **frequently** determine the indications and contraindications for use of adjunctive care; correspondingly, they **frequently** use adjunctive procedures and monitor the effectiveness of those procedures. While **some** risk was deemed to exist for poor performance or omission of most of these procedures, **significant** risk was associated with the inadequate determination of the indications and contraindications for these procedures (Figure 10.8).

Case Management

Ratings of case management functions pertaining to frequency, risk, and importance appear in Table 10.9.

$\begin{array}{c c} FREQUENCY \\ \hline Never & \hline & Routinely \\ 0 & 1.0 & 2.0 & 3.0 & 4.0 \\ \hline & & & & & \\ \bullet & & & & & \\ \hline & & & & & \\ \bullet & & & & & \\ \hline & & & & & \\ \bullet & & & & & \\ \hline & & & & & \\ \bullet & & & & & \\ \hline & & & & & \\ \bullet & & & & \\ \hline & & & & \\ \bullet & & & & \\ \hline & & & & \\ \hline & & & & \\ \hline & & & &$	3.0 4.0	$\operatorname{None}_{0} \xrightarrow{4} 8$	$\xrightarrow{12} 16$
Case Management			
Activity	Frequency	Risk	Importance
Discuss treatment options with patient	3.70 Routinely	2.23 Some	8.41
Recommend/arrange for other services	3.22 Frequently	2.62 Significant	8.88
Predict effectiveness of chiropractic care, using history and examination information	3.07 Frequently	1.90 Some	6.11
Modify case management as patient's condition warrants	3.69 Routinely	2.40 Some	9.04
Encourage patient to change habits/lifestyle appropriately	3.73 Routinely	2.23 Some	8.46
Maintain written record of problem(s), goals, intervention strategies, and case progress	3.62 Routinely	2.26 Some	8.44
Category Average	3.50	2.27	8.20

Table 10.9. Frequency, Risk, and Importance of Case Management Functions

Doctors of chiropractic **frequently** recommend or arrange for services of other health care providers when a patient's condition warrants. Respondents indicate that poor performance or omission of this function represents **significant** risk to the health and safety of patients.

On average, doctors of chiropractic **routinely** perform tasks associated with case management (category average of 3.50) and indicate that poor performance or omission of these functions represents **some** risk (category average of 2.27) to the health and safety of patients. The mean importance factor is 8.20 (Table 10.9).

Knowledge Areas

Practitioners also rated the importance of having knowledge in 63 specific functions and procedures within their practices during the previous year. This section utilized a zero-to-five point scale (from "Not done by me" to "Extremely important") to measure the importance of specific knowledge areas (see below).

> 0 = Not done by me 1 = Of no importance 2 = Of little importance 3 = Moderately important 4 = Very important 5 = Extremely important

Case History

Knowledge of chief complaint (category average of 4.7) and knowledge of present illness (category average of 4.6) were rated as **extremely important**. Past history (category average of 4.2), review of systems (category average of 3.8) and the personal and social history (category average of 3.5) each had an average rating of **very important**. Taking and interpreting the family history (category average of 3.4) was rated as **moderately important** (Figure 10.2).

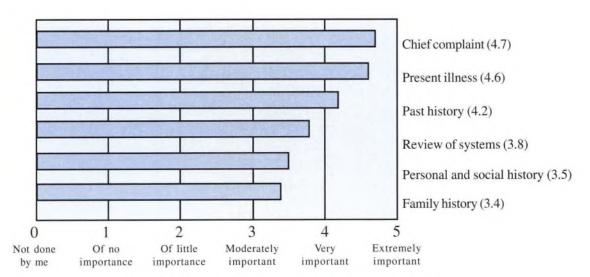


Figure 10.2. Importance of Case History Knowledge Areas

Physical Examination

Knowledge of performing and interpreting the head and neck examination (category average of 4.3) and knowledge of the general survey (category average of 4.0) were both rated as **very impor-tant**. Sixty-six and seventy-two percent, respectively, of respondents answered that they had not performed a urogenital or rectal examination in the previous year (Figure 10.3).

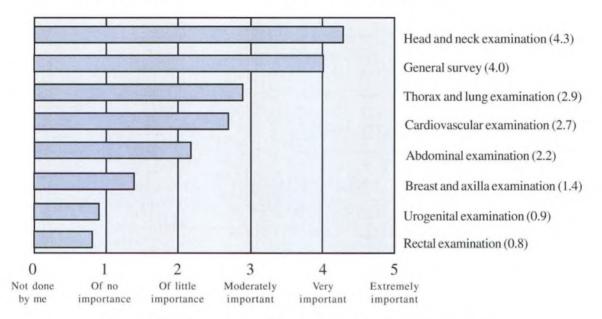
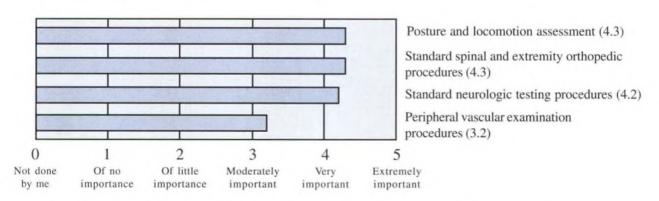
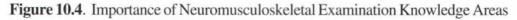


Figure 10.3. Importance of Physical Examination Knowledge Areas

Neuromusculoskeletal Examination

Knowledge of performing and interpreting three of the four areas in this section had an average rating of **very important**: posture and locomotion assessment (category average of 4.3), standard orthopedic procedures (category average of 4.3), and standard neurologic procedures (category average of 4.2). The fourth area, knowledge of peripheral vascular examinations, had an average rating of **moderately important** (category average of 3.2) (Figure 10.4).





Radiographic Examination

Respondents indicated that knowledge of X-ray physics was **moderately important** to them in the previous year (category average of 3.1). Analytic procedures, patient protection, patient positioning, and indications and contraindications to performing radiographic procedures all had an average rating of **very important** (category average of 4.1 to 4.3). Knowledge of normal radiographic anatomy and of radiographic interpretation and diagnosis was reported to be **extremely important** (category average of 4.5 and 4.6 respectively) (Figure 10.5).

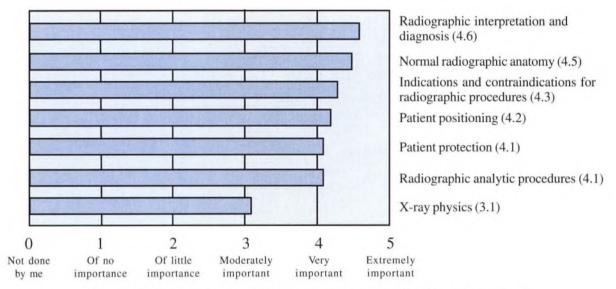


Figure 10.5. Importance of Radiographic Examination Knowledge Areas

Diagnosis

Participants rated the importance of knowledge to arrive at a diagnosis based on information gathered from each of four types of examination. Physical and neuromusculoskeletal examinations were rated **extremely important** (category average of 4.6); history was rated **extremely important** (category average of 4.5); X-ray examination was rated **very important** (category average of 4.1); and clinical laboratory and special studies examination were rated **moderately important** (category average of 3.2) (Figure 10.6).

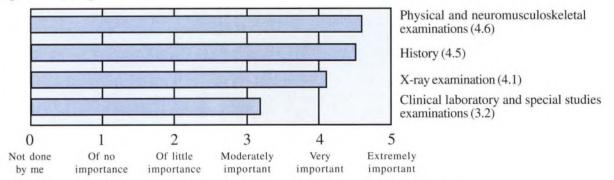


Figure 10.6. Importance of Diagnosis Knowledge Areas

Chiropractic Technique

Knowledge of spinal adjustive techniques and spinal analysis each had an average rating of **ex-tremely important** (category average of 4.8 and 4.6, respectively). Knowledge in skeletal biomechanics, extremity adjusting and non-adjustive techniques was rated as **very important** (category averages of 4.4, 4.0, and 3.5 respectively) (Figure 10.7).

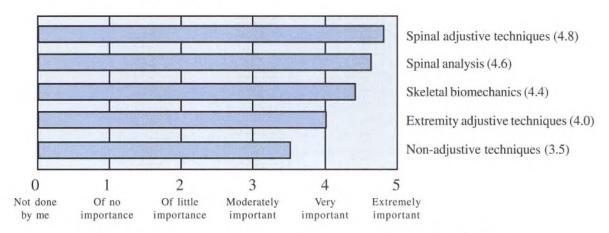


Figure 10.7. Importance of Chiropractic Technique Knowledge Areas

Adjunctive Care

Knowledge in five of the six categories of adjunctive care (patient education and home care, rehabilitative exercises, physiotherapy, nutrition, and ergonomics) each received an average rating of **very important** (category average of 3.6 to 4.1). Knowledge of orthopedic supports and taping procedures received an average rating of **moderately important** (Figure 10.8).

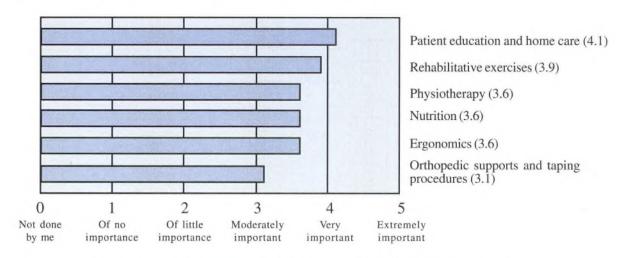


Figure 10.8. Importance of Adjunctive Care Knowledge Areas

Laboratory and Special Studies

Respondents rated the importance of knowledge in ordering and interpreting each of nineteen laboratory and special studies (Figure 10.9). Knowledge of the ordering and interpreting of magnetic resonance imaging received an average rating of **very important** (category average of 3.5). Those areas that received an average rating of **moderately important** were computerized tomography scans, nerve conduction velocity studies, bone scans, and blood chemistries (category averages of 2.5 to 3.1).

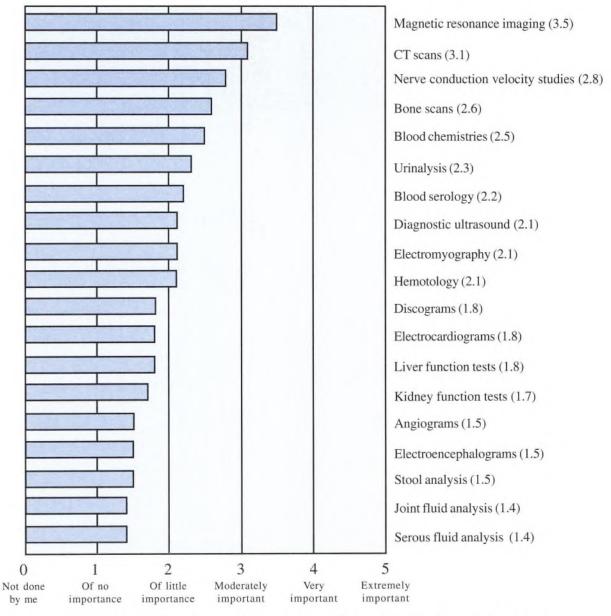
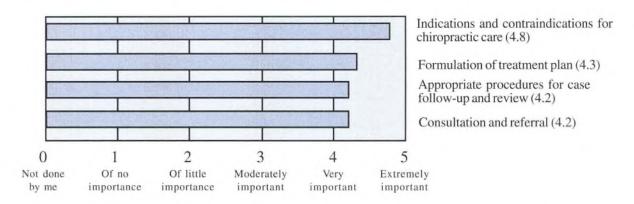
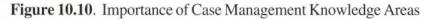


Figure 10.9. Importance of Laboratory and Special Studies Knowledge Areas

Case Management

The importance of knowledge in the area of indications and contraindications for chiropractic care received the highest average rating of all knowledge area categories, with a category average of 4.8, **extremely important**. Knowledge of the other three areas listed in this section including formulation of a treatment plan, appropriate procedures for case follow-up and review, and consultation and referral, received an average rating of **very important** (category average of 4.2 to 4.3) (Figure 10.10).





Treatment Procedures

Respondents were asked to identify the primary adjustive technique that they utilized (Table 10.10) and all of the specific adjustive techniques (Table 10.11) and adjunctive procedures (Tables 10.12-10.13) that they utilized in their practices during the previous year. The same five-point scale used in some of the previous portions of this survey was also used in the last three sections of the survey. Table 10.10 indicates the percentage of chiropractors utilizing each primary technique.

Primary Technique

Seventy-nine and one-half percent of respondents indicated that they primarily utilize a full-spine and extremity adjusting approach in their practices. Sixteen and one-half percent primarily use full spine techniques. Slightly less than 2% of respondents indicated that they primarily utilize an upper cervical technique while slightly over 2% indicated that they primarily utilize another approach.

Primary Technique Utilized in Chiropractic Practices	Percent of Chiropractors who Utilize
Full Spine and Extremity	79.5%
Full Spine	16.5%
Upper Cervical	1.7%
Other	2.3%

Table 10.10. Primary Adjustive Technique Utilized

Specific Adjustive Procedures

Data indicate that almost 96% of chiropractors adjust extremities (Table 10.11), and they adjust nearly three-fourths of their patients using a Diversified technique (other techniques were utilized for 48% or fewer of their patients). Four other techniques are used by more than half of all practitioners: Activator Methods, Gonstead, Cox/Flexion-Distraction and Thompson. Forty-nine percent use Sacro-Occipital Technic. All other techniques are employed by forty-three percent of practitioners or fewer. Individual practitioners, on average, use seven separate techniques in their practices (data not shown below).

Adjustive Procedures	Adjustive Procedures % of Chiropractors Utilizing Technique/Procedure ^a				% of Patients Receiving Technique/ Procedure ^b
	1991	1998	1998		
Diversified	91.1%	95.9%	73.5%		
Extremity adjusting	No Data	95.5%	47.8%		
Activator Methods	51.2%	62.8%	21.7%		
Gonstead	54.8%	58.5%	28.9%		
Cox/Flexion-Distraction	52.7%	58.0%	25.2%		
Thompson	43.0%	55.9%	25.8%		
SOT	41.3%	49.0%	16.5%		
Applied Kinesiology	37.2%	43.2%	14.5%		
NIMMO/Receptor tonus	40.3%	40.0%	17.7%		
Cranial	27.2%	37.3%	11.2%		
Adjustive instrument	No Data	34.5%	14.0%		
Palmer upper cervical/HIO	26.0%	28.8%	9.1%		
Logan Basic	30.6%	28.7%	7.1%		
Meric	23.4%	19.9%	6.5%		
Pierce-Stillwagon	19.7%	17.1%	6.5%		
Other	15.0%	14.8%	9.9%		

^a The response criteria and response options differed slightly in the 1991 and 1998 surveys.

^b The percentages in the column below are based upon use of midpoints as explained on page 43 of Chapter Five.

Table 10.11. Adjustive Procedures - Frequency of Use

Passive Adjunctive Care

Respondents estimated their utilization of each of twenty-four specific passive adjunctive care options on a zero to four scale (Table 10.12). On average, none of them were routinely used and only ice packs were frequently used. However, four modalities (electrical stimulation, hot packs, ice packs and, trigger point therapy) were routinely used by twenty percent or more of the respondents; over 80% of the respondents utilized ten or more modalities in their practices; on average, chiropractors utilize thirteen passive adjunctive care procedures in their practices (data not shown below).

Passive Adjunctive Care	% of Chiropractors Utilizing Technique/Procedure ^a		% of Patients Receiving Technique/Procedure ^b	
	1991	1998		1998
Ice pack/cryotherapy	92.6%	93.9%	50.4%	Frequently
Trigger point therapy	No Data	90.9%	47.7%	Sometimes
Nutritional counseling, therapy, or supplementation	83.5%	90.4%	36.6%	Sometimes
Bracing with lumbar support, cervical collar, etc.	90.8%	90.1%	27.5%	Sometimes
Massage therapy	73.0%	83.0%	37.4%	Sometimes
Hot pack/moist heat	78.5%	82.1%	43.8%	Sometimes
Traction	73.2%	79.0%	33.3%	Sometimes
Electrical stimulation/therapy	73.2%	76.2%	44.9%	Sometimes
Bed rest	82.0%	75.7%	17.5%	Rarely
Heel lifts	79.2%	75.1%	18.8%	Rarely
Mobilization therapy	No Data	74.5%	34.8%	Sometimes
Ultrasound	68.8%	70.3%	34.3%	Sometimes
Acupressure or meridian therapy	65.5%	66.1%	28.5%	Sometimes
Homeopathic remedies	36.9%	53.1%	14.6%	Rarely
Taping/strapping	48.2%	48.7%	10.7%	Rarely
Vibratory therapy	42.0%	44.1%	20.8%	Rarely
Direct current, electrodiagnosis, or iontophoresis	26.9%	25.9%	10.1%	Rarely
Diathermy - shortwave or microwave	26.7%	22.0%	7.8%	Rarely
Infrared - baker, heat lamp, or hot pad	19.0%	17.5%	7.0%	Rarely
Whirlpool or hydrotherapy	12.7%	13.1%	3.7%	Rarely
Paraffin bath	6.9%	11.6%	3.0%	Rarely
Acupuncture with needles	11.8%	10.8%	4.4%	Rarely
Casting	No Data	8.8%	1.8%	Rarely
Biofeedback	7.1%	8.6%	1.9%	Rarely
Other	9.6%	6.8%	4.1%	Rarely

^a The response criteria and response options differed slightly in the 1991 and 1998 surveys.

^b The percentages in this column are based upon use of midpoints as explained on page 43 of Chapter Five; additionally, the scale labels are shown on page 24 of the survey form found in Appendix C.

Table 10.12. Passive Adjunctive Care - Frequency of Use

Active Adjunctive Care

On average, chiropractors frequently instruct patients regarding corrective or therapeutic exercise and instruction in activities of daily living (category average of 2.9 and 2.6 respectively). Overall, 98% of chiropractors instruct approximately 61% of their patients concerning corrective or therapeutic exercise, and 94% of chiropractors offer 54% of their patients advice on activities of daily living (Table 10.13).

Chiropractors use rehabilitation and stabilization procedures for 36% of their patients (category average of 1.8), and 83 % of chiropractors provide these options for at least some of their patients. Seventy-six percent of respondents have foot orthotics available for patients, and, on average, 20% of patients were provided with them. Respondents rarely offered formal back schools or work hardening programs (category average of 0.8 and 0.6 respectively).

Active Adjunctive Care	% of Chiropractors Utilizing Technique/Procedure ^a		% of Patients Receiving Technique/Procedure ^b	
	1991	1998	1111	1998
Corrective or therapeutic exercise	95.8%	98.0%	61.2%	Frequently
Activities of daily living	No Data	93.6%	54.3%	Frequently
Rehabilitation/Spinal or extremity joint stabilization	No Data	83.1%	36.0%	Sometimes
Foot orthotics	79.2%	75.9%	20.4%	Rarely
Work hardening	No Data	52.4%	14.9%	Rarely
Back school (formal program)	No Data	35.4%	11.1%	Rarely

^a The response criteria and response options differed slightly in the 1991 and 1998 surveys.

² The percentages in this column are based upon use of midpoints as explained on page 43 of Chapter Five; additionally, the scale labels are shown on page 24 of the survey form found in Appendix C.

Table 10.13. Active Adjunctive Care - Frequency of Use