
A Survey of Chiropractors in Oklahoma

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A survey involving all registered chiropractic doctors in the state of Oklahoma was conducted in order to ascertain demographic information, common modalities used in treatment, and professional opinions of practicing chiropractic doctors. Further, this study was compared to a similar study conducted in 1989. Approximately 49% of 625 surveys were returned for analysis. Results indicated that Oklahoma chiropractors utilize a variety of spinal adjustment techniques, supported by various therapeutic modalities, referrals, maintenance care, nutritional advice, and nonprescription drugs in the treatment of their patients. Most chiropractors realized an increase in income and were evenly split in the opinion regarding the desire to prescribe prescription drugs. Comparison trends include less treatment of internal conditions and recommendations of nonprescription drugs and exercise. Additionally, fewer x-rays were taken within the practices. Recommendations were that similar studies should be conducted sequentially to ascertain the trends within the profession. (*The Journal of Chiropractic Education* 13(2): 137-142, 1999)

Key words: chiropractic, demographics, practice

INTRODUCTION

A general criticism of chiropractic practice is the lack of standardization and uniformity (1). For the patient to receive optimum care, the doctor must know which methods and approaches are associated with successful outcomes for particular patient problems (2). Consequently, sequential monitoring and assessment is necessary to determine chiropractic modes of practice. An absence of uniformity and standards in patient care may lead to a public perception of a lack of professionalism, which ultimately may keep patients from consulting a chiropractic doctor (3). Accurate data regarding practice methods and demographics in Oklahoma may aid in the following: legislative lobbying, development of

a common mission, promoting inclusion in managed care plans, development of appropriate educational programs, and unification of the profession. Strengthening the chiropractic profession depends on a continuous effort on the part of the practitioners to unite as professionals. Without an understanding of current practices in Oklahoma, these efforts will perpetuate ambiguity and dissonance. The purpose of this project was to ascertain doctor demographic information, to obtain information pertaining to the common modalities used in treatment, and to assess the professional opinions of practicing chiropractic doctors. Further, this study was compared to a similar study conducted in 1989 (4).

METHODS

Prior to the development of a satisfactory questionnaire, three criteria were met. First, previous similar questionnaires were reviewed and comments

from our original surveys were discussed. Second, based on this review, and in keeping with the purpose of the project, questionnaire items were developed which would pertain to the objective of the project. Third, the questionnaire which was developed was reviewed by experts in survey development, and feedback was obtained from a small but representative sample of potential responders. Subsequently, a survey related to chiropractic practice and opinions of the chiropractic profession was constructed. The survey contained 18 items and was designed to require approximately 10 minutes to complete. The survey was constructed similarly to the Oklahoma Chiropractic Surveys collected and analyzed in 1989 (4), in that it consisted of questions relating to: demographics, techniques used, modalities employed, type of practice, and referral procedures. Additionally, the questionnaire contained items related to practice philosophy, business promotional methods, and opinions concerning minor surgery and the right to prescribe drugs. Names of Oklahoma doctors of chiropractic were obtained from the most current source available (5). As required by the University Internal Review Board, the questionnaires were not coded in any way and responses were completely anonymous (i.e., names and/or practices are not identifiable).

Surveys were mailed in the months of April and early May 1997 to all listed chiropractors in Oklahoma. Each mailed survey included an introductory letter and a self-addressed, stamped return envelope for response convenience. A follow-up reminder card was sent to all chiropractors approximately 10 days following the initial survey mailing. A total of 625 surveys were mailed. Return responses continued through late June 1997. Approximately 8% of the surveys were returned due to the U.S. Postal Office's inability to deliver. Reasons behind inability to deliver primarily stemmed from retirement or a move of the practitioner and absence of an appropriate forwarding address. Exactly 304 of the surveys were returned which were deemed usable. Approximately 4% of the surveys were not included in the final analysis due to incomplete responses or response errors (directions were not followed properly). The return response was estimated at 49%. This response rate was comparable to the 51% response rate of the 1989 Chiropractic Survey (4).

Where there was similarity in items between the present and the 1989 survey with respect to the

item questions and directions of responses, chi-square (χ^2) analyses were performed to ascertain differences between responses to the two surveys. Some instances precluded actual statistical comparisons due to the differences in survey questions. For instance, the original survey asked "What type of spinal techniques do you use?," whereas the current study asked the participants to rank the techniques in order of frequency. Hence a statistical comparison would be inaccurate.

RESULTS

Demographic data indicated that, of chiropractors in Oklahoma, 91% were males, 96.6% were white, and age distribution was: 17.5% at 41–45 years, 16% at 36–40 years, 14.1% at 31–35 years, 13% at 46–50 years, and 11.2% at 25–30 years (Fig. 1). Thirty-five percent had practiced longer than 20 years, 20.6% at 11–15 yrs, 19.2% at 16–20 years, and 18.8% at 6–10 years. Practices were located in the following areas of population: > 100,000 pop. = 31.3%; 50,000–100,000 pop. = 16.3%; 30,000–50,000 pop. = 10.6%; 15,000–30,000 pop. = 13.4%; 5,000–15,000 pop. = 21.1%; < 5,000 pop. = 7.3% (Fig. 2).

Thirty-four percent treated 51–100 patients per week, 27% treated 101–150, and 23% treated 1–50 patients per week (Table 1). In response to the question, "Do you consider yourself a primary health care provider?," 84% responded positively. A relatively even distribution existed in responses to how they described their patient load over the past year (39.4% increased, 30.9% decreased, and 29.7% remained about the same). However, 43.3% indicated that their income had increased. Seventy-eight percent noted that they did not have a cash practice. Sixty-five percent did not feel that the Chiropractic Practice Law should be amended to allow chiropractors to practice minor surgery. Fifty-four percent felt that chiropractors should have the right to prescribe prescription drugs. This item met with adamant responses in either direction, and of those in favor of prescription rights, most (56.7%) indicated that only a select group of drugs such as analgesics, anti-inflammatories, and muscle relaxers, should be admitted.

Regarding spinal adjusting technique, the 1989 survey of Oklahoma chiropractors (4) indicated that 83% of chiropractors use the Diversified technique. Likewise, the current study found that Oklahoma

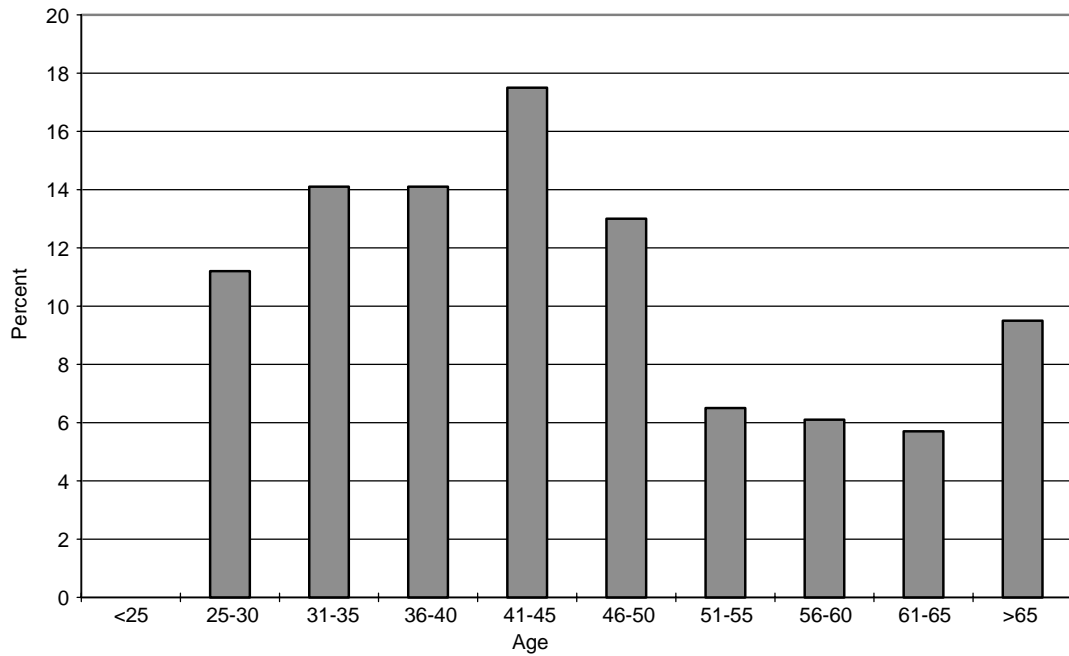


Figure 1. Ages of practicing chiropractors.

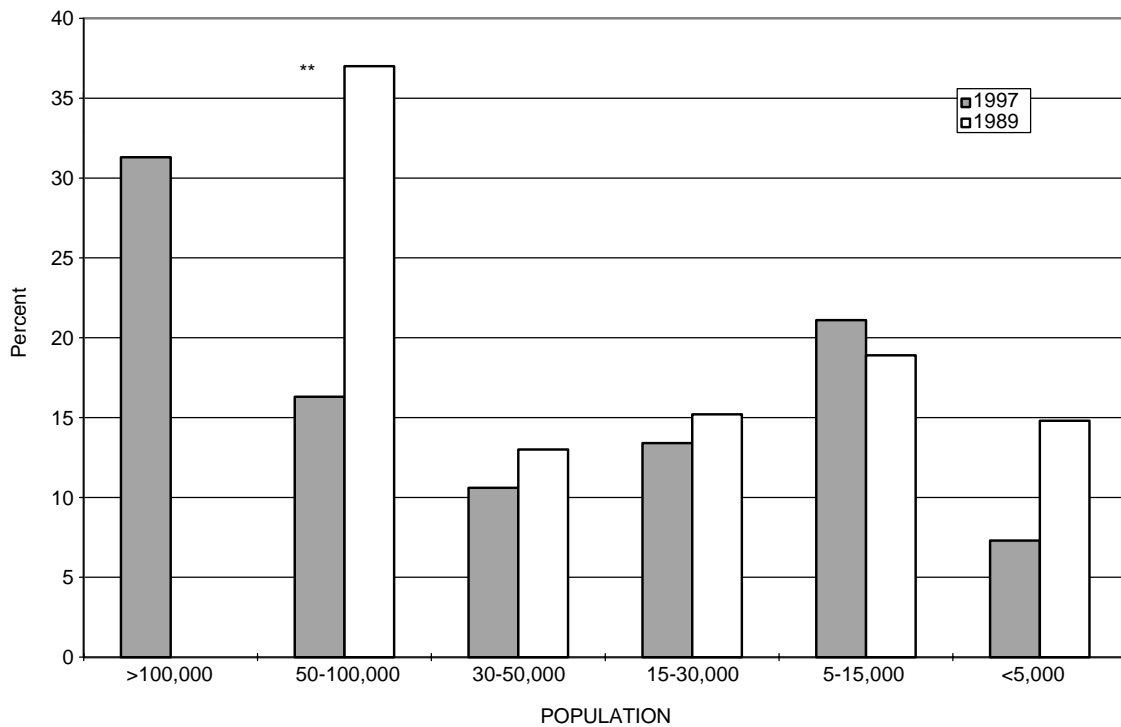


Figure 2. Percent of practices by population. **, 1989 survey limited to > 50,000.

chiropractic doctors preferred the Diversified technique (62.2%) with the Activator (49.2%) and Gonstead (45.6%) techniques being popular also (Table 2).

Table 3 illustrates the frequency of selected treatment and referrals by chiropractors. The 1989 survey

indicated that 27% of the responding chiropractors had at some time referred patients to physical therapists. This compares to the current study in that 27.6% of chiropractors “sometimes” recommended patients to physical therapists. Further, chiropractors

most frequently recommended patients to medical doctors (14.8% often and 56.9% sometimes). The 1989 (4) study reported that 11% of the respondents recommended non-prescription drugs “often,” 35% “sometimes,” 29% “seldom,” and 26% “never.” Similarly, the current study found the following: 12.9% often, 26.5% sometimes, 32.6% seldom, and 28% never. The 1989 (4) study found that 90% of the doctors treated internal conditions. The current study found that doctors treated internal conditions 21.5% often, 33.3% sometimes, 31.9% seldom, and 13.3% never. In 1989 (4), 92% took x-rays in the office compared to 86% in 1997. In 1989, 98% prescribed exercises compared to 89% in 1997.

Table 1. Patient Visits per Week

Visits	Current survey (%) (N = 304)	1989 Results (%) (N = 253)
1–50	23.7*	17.8
51–100	33.5*	43.1
101–150	27.1*	15.4
151–200	9.8	12.3
201–250	1.9	4.3
251–300	2.3	3.9
> 300	1.9	3.2

*Significant at $p < .05$.

Electrical muscle simulation was the primary type of therapeutic offering (13.3%) with intersegmental traction (11.9%) and ultrasound (11.3%) being the next common treatments (Table 4). However, treatments such as cold therapy, hot packs, massage, diathermy, mechanical traction, and TENS were also used.

Referrals to medical doctors was the most common (48.4%), while referrals to massage therapists (20.3%) and osteopathic doctors (13.2%) constituted the second and third most common referrals, respectively (Table 5).

Word-of-mouth was the most prominent means of promoting practice (33.1%), while advertisement in the Yellow Pages, newspapers, and public speaking also contributed to promotion of practices (Table 6).

CONCLUSION

In summary, it can be stated that Oklahoma chiropractors utilize a variety of spinal adjusting techniques, and support these methods with various therapeutic modalities, referrals, maintenance care, nutritional advice, and nonprescription drugs in the treatment of their patients. Most chiropractors

Table 2. Rank of Spinal Adjustment Techniques Used Most Frequently. Top Three of Spinal Adjusting Methods Used

Rank ^a	Methods ranked by 1–3 tier combination	Current study (%) ^b	1989 Results (%)
1	Diversified	62.2*	82.6
2	Gonstead	49.2	57.8
3	Activator	45.6	43.3
4	Cox	22.9	–
5	Thompson	19.0	–
6	SOT	15.8*	25.6
7	Meric	13.1*	23.3
8	Nimmo	12.5*	22.6
9	Other ^c	12.1	–

* Significant at $p < .05$.

^a Items checked but not rated were placed in first row.

^b Only those methods that resulted in greater than 1.0% of total responses were used.

^c Leander, myofascial release, palmer, polarity therapy, endonasal, nasal specific, temporoshenodial line, applied kinesiology, trigger point, ziegler, soft-tissue mobilization, motion palpation, TMJ, active release technique, Rolfing, full spine, Carver, soft tissue, Ratzlaff, coupled reduction, joint mobilization, Crane condyle, acupuncture, Leander, Van Rump, direct non-force technique, clinical neurobiochemical analysis, neural therapy, torque release, live cell analysis, osteo tech organ-reflex technique.

Table 3. Frequency of Methods and Referrals

Method ^a	Often (%)	Sometimes (%)	Seldom (%)	Never (%)
Palpation for spine tenderness	98.7	<i>a</i>	<i>a</i>	<i>a</i>
Motion palpation	55.9	27.5	13.8	<i>a</i>
Nutrition advice	38.5	46.0	13.0	<i>a</i>
Sell nutritional supplements	26.9	44.5	26.0	<i>a</i>
Prescribe exercise	59.4	28.2	<i>a</i>	10.0
Rehabilitation in office	12.6	27.7	25.5	34.6
Injectable vitamins	12.1	19.0	12.9	56.0
Back Pain School	<i>a</i>	20.7	42.4	33.6
Refer patients to an MD	14.8	56.9	26.0	<i>a</i>
Refer patients to a DO	9.7	49.0	27.1	14.2
Refer patients to a physical therapist	<i>a</i>	22.3	39.2	35.6
Refer patients to a podiatrist	<i>a</i>	27.6	49.5	20.5
Refer patients to a dentist	<i>a</i>	43.0	40.4	13.8
Refer patients to a psychologist	<i>a</i>	17.7	51.8	28.0
Obstetrics	<i>a</i>	16.9	33.8	46.8
Prescribe nonprescription drugs	12.9	26.5	32.6	28.0
Take x-rays in office	77.6	8.8	<i>a</i>	10.6
Refer patients for x-rays	<i>a</i>	28.9	44.8	23.9
Consult chiropractic radiologist	7.6	34.1	41.7	16.7
Consult MD or DO radiologist	8.5	29.6	43.7	18.3
Recommend maintenance care	56.6	31.9	8.8	<i>a</i>
Treat back pain	98.3	<i>a</i>	<i>a</i>	<i>a</i>
Treat headaches/migranes	97.5	<i>a</i>	<i>a</i>	<i>a</i>
Treat musculoskeletal conditions other than back pain	98.3	<i>a</i>	<i>a</i>	<i>a</i>
Treat internal conditions	21.5	33.3	31.9	13.3
Diagnostic spine ultrasound	<i>a</i>	<i>a</i>	16.0	78.6
Surface EMG	<i>a</i>	<i>a</i>	17.6	73.9
Colonics	<i>a</i>	<i>a</i>	<i>a</i>	96.2
Weight loss counseling	8.1	33.3	39.8	18.7
Biofeedback	<i>a</i>	<i>a</i>	13.5	80.1
Prescribe herbal medicine	15.7	32.2	32.2	19.8
Homeopathy	13.5	27.0	34.1	25.4

^a Only those methods that resulted in greater than 5.0% of total row responses were used.

have experienced an increase in income, perhaps indicating greater public awareness of the benefits derived from chiropractic. Further, chiropractors are split regarding the desire to prescribe prescription drugs as part of the profession. The majority of the group who want to be able to prescribe drugs, support limitations on prescription rights (1). It is apparent that within these parameters, little has changed in the demographics of chiropractic in Oklahoma over the 8-year span. However, slight trends in treatment, diagnosis, and recommendations are visible. For instance, less treatment of internal conditions and fewer recommendations of nonprescription

drugs and exercise were evident compared to 8 years ago. Also, fewer x-rays were taken within the practice. It is recommended that studies such as this should be conducted sequentially to ascertain the trends within the profession, in order to allow chiropractic professionals to obtain insight into their colleagues' methodologies and techniques.

ACKNOWLEDGMENT

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Table 4. Ranking of Types of Therapeutics Used

Therapeutic	Rank	Percent
Electrical muscle stimulation	1	13.3
Intersegmental traction	2	11.9
Ultrasound	3	11.3
Cold therapy	4	9.6
Hot packs	5	8.2
Massage	6	7.8
Diathermy	7	6.0
Mechanical traction	8	5.3
Manual traction	9	5.0
TENS	10	3.8
Non-needle acupuncture	11	3.4
Microcurrent stimulation	12	3.0
Spray and stretch	13	2.8
Auriculotherapy	14	2.2
Needle acupuncture	15	1.8
Other ^a	16	1.5
PNF	17	0.86
Ultraviolet	18	0.74
None	19	0.67
Infrared	20	0.62

^a Responses to "Other" included: joint injection, myofascial release, trigger point therapy, muscle goading, applied kinesiology, rehabilitation exercises, paraffin, iontophoresis, mens & myomatic.

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Table 5. Ranking of Most Common Referral Sites

Referrals	Rank	Percent
Medical Doctor	1	48.4
Massage therapist	2	20.3
Osteopath	3	13.2
Dentist	4	8.1
Other ^a	5	4.3
Psychologist	6	2.3
Podiatrist	7	1.8
Optometrist	8	1.5

^a Responses to "Other" included: other chiropractors, attorneys, neurologist, physical therapist, family references, neurosurgeon, foot reflexologist, orthopedic, none, "Are you kidding?"—MDs warned against chiropractors.

Table 6. Ranking of Methods of Promoting the Practice

Method	Rank	Percent
Word of mouth	1	33.1
Yellow pages	2	24.1
News paper	3 (tie)	10.0
Public speaking	3 (tie)	10.0
Direct mail	4	6.9
Newsletter	5	6.5
Public media (radio, TV)	6	4.7
Other ^a	7	3.9
Online service	8	0.7

^a Responses to "Other" included: billboards, flyers, church, networking, location, telemarketing, show booths, health fairs, testimonial letters posted in office, business associates, community service.

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