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AN INVESTIGATION OF CURRENT CONTINUING EDUCATION PRACTICES AND PERCEIVED POST-DOCTORAL NEEDS OF CHIROPRACTORS IN THE STATE OF MICHIGAN

By

Sanford S. Ulrich

A DISSERTATION

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ABSTRACT

AN INVESTIGATION OF CURRENT CONTINUING EDUCATION PRACTICES AND PERCEIVED POST-DOCTORAL NEEDS OF CHIROPRACTORS IN THE STATE OF MICHIGAN

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Purpose of the Study

The purpose of this study was to obtain, in an analytical manner, specific information from and about the Michigan chiropractor with two overall major objectives:

1. To determine what the present continuing education practices are for the doctor of chiropractic in this state.
2. To determine the current perceived professional education needs and interests of these practitioners.

Procedure

This study was designed primarily on descriptive research methods. A questionnaire was the instrument developed which sought answers to the stated objectives. The survey instrument was mailed to 100 percent of the licensed resident practitioners of chiropractic in Michigan. A useable response of 45 percent was validated as a representative sample of the total Michigan chiropractic population by the close correlation of two similar areas of recent chiropractic inquiry, as reported by the Michigan Department of Public Health and

as found in this survey. This study was limited to in-state licensed doctors of chiropractic and did not include licensees practicing elsewhere.

In addition to the socio-economic profile and some statistics on practice, the survey addressed the educational background of the practitioners and their perceived needs for continuing professional education. The questionnaire answers were coded and quantified prior to analysis by electronic data processing equipment.

Major Findings

The following conclusions appear to be justified on the basis of the findings of this study:

1. Current post-graduate learning activities are limited to the mandatory requirements for annual relicensure. All other continuing education is obtained in a self-directed manner when a course is brought to the attention of the doctor via the professional media or by direct mail. Attendance is then subject to the perceived importance of the course, time and the locale where given.

2. The practitioners have indicated an awareness and a degree of preference for certain subjects which relate to chiropractic practice. In descending order of interest, they prefer instruction in advanced x-ray interpretation, manipulative techniques, practice-building procedures, sports hazards and management of athletic injuries, and practical clinical psychology.

3. Chiropractors would like to review neurological tests, orthopedic tests, physical examination procedures and lastly, the case history work-up.

4. In declining order of importance, the responding DCs express a perceived need for seminars on:

   a. Health insurance claims and responsibilities of the DC in third party payment claims.

   b. Neurological implications of dietary deficiencies and role of nutritional management in the chiropractic practice.

   c. Differential diagnosis of back and neck pain syndromes.

   d. Trauma effects on body joints.

   e. Orthopedic disability evaluation and impairment rating.

   f. Neurological concept of chiropractic and its current scientific status.

   g. Latest advances in radiographic technology.

   h. Evolving concepts in Kinesiological Biomechanics.

   i. Innovative therapy and R&D at chiropractic colleges.

   j. Visualization in clinical and pathological anatomy.

Suggestions for Further Research

1. Replicate this study in three years to determine possible changes in the perceptions of Michigan chiropractors regarding the importance of continuing education in their professional lives.

2. Replicate and expand the study to include comparisons with continuing chiropractic education programs of other states.

3. Replicate this study to include comparisons with the continuing education perceptions of the needs in other health professions.

4. Investigate the continuing education preferences based on sex, ethnic origin, family background and similar variables for the chiropractic profession.

ACKNOWLEDGMENTS

The writer gratefully acknowledges the support and encouragement of the many fine people who contributed to the successful completion of this endeavor. Special appreciation is extended to Dr. Walter Scott, committee chairman, whose continual encouragement and support guided me over the unfamiliar and often rough spots of this research effort.

Sincere thanks is also extended to Dr. Donald Nickerson, Dr. Howard Hickey and Dr. James McKee of the doctoral guidance committee for their valuable advice and insights during the program. A special thanks is due to Dr. Marcia Carlyn for her generous assistance with the statistical procedures of the study.

Appreciation is expressed for the encouragement of Dr. Charles Sipes, a colleague, who shared the writer's concerns during his role as both practitioner and researcher.

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Finally, I am deeply and eternally thankful for the constant inspiration, sacrifices and support given me by my wife, Saretta, without whose tolerance and understanding I could not have completed this work.

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CHAPTER I

THE PROBLEM

Many public and private agencies have expressed concern with the quality of health care delivered to the public by practitioners of all segments of the healing arts. This concern has been increased recently with the emergence of a strong, militant consumer interest in health care and a proliferation of malpractice suits against health professionals and hospitals for alleged negligence or incompetence. In addition, an affluent society which can now afford more health care and increased worker insurance coverage through union/management contract efforts may have contributed to a greater public demand for a superior health care delivery system.

Traditionally, most professions have done their own policing of members. Now the public is questioning this ability of a profession to control the quality of its members' output in behalf of that public. This trend is most noticeable in the health field. The public wants assurance that health care providers not only maintain their knowledge and skills as demonstrated when first acquiring the license to practice, but that they are also keeping current on new information and technological changes in their field.[1]

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[1] Systematic Competency Surveillance in Health Personnel Licensure, Office of Health and Medical Affairs, Lansing, Michigan April 1977.

Need for the Study

A search of the literature on continuing professional education indicates that relatively little has been done by the chiropractic colleges or the various professional associations to discover the true post-doctoral learning needs of the practitioner in the field. This is understandable since there is such a variance in 'scope of practice' as defined in each State that the colleges cannot possibly undertake the huge task of acquainting themselves with the specific educational needs in each individual practice area.

The professional associations have had few self-assessment surveys made and those few have not addressed this particular phase of the doctor's ongoing education. Indeed, the emphasis has been on demographic, socio-economic and practice preference statistics with some allusion to educational background. It appears that studies in continuing chiropractic education are long overdue when compared with the advances made by the medical profession in this area of consideration.[2]

Purpose of the Study

There is currently no uniform, systematic program for continuing education of the chiropractor at the national or state levels. It is therefore the purpose of this study, although limited to DC respondents in the state of Michigan, to present a description

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[2]B. V. Dryer, "Lifetime Learning for Physicians: Principles, Practices, Proposal," Journal of Medical Education, Part 2, June 1962.

of the current post-doctoral learning practices of the State's doctors of chiropractic and their perceived needs for continuing professional education.

Significance of the Study

Analysis of the research results in this descriptive study may indicate the method or methods by which the chiropractic practitioners can best meet their perceived educational needs and thus more effectively discharge their obligations in practice. This would permit them to:

1. Upgrade their expertise in drugless procedures, with due regard to indications and contra-indications.
2. Increase and/or refine all related technique skills.
3. Increase their effectiveness as primary health care providers.
4. Expand their knowledge of the broad health field.
5. Promote better communication with other health care practitioners.

This study may also stimulate similar investigations in other states for the ultimate benefit of the health care consumer as well as the profession.

Research Questions

Results of this study may also provide answers to some important questions for the profession in Michigan:

1. In what professional areas are DCs not interested?
2. Are chiropractors interested in additional science degrees?

3. Where would Michigan practitioners prefer to attend classes in continuing professional education, when and for what length of time?

4. Should the continuing education courses lead to specialty certification?

5. Who should bear the cost of continuing education programs?

6. Have past educational courses given for relicensing requirement purposes been effective in upgrading the DCs' professional competence (in their opinion)?

7. Are Michigan chiropractors satisfied with the type and quality of continuing education courses as now presented for license renewal purposes?

Development of the Profession and Conceptual Framework

Webster's New Collegiate Dictionary (1977) defines Chiropractic as "a system of healing which holds that disease results from a lack of normal nerve function and which employs manipulation and specific adjustment of body structures (as the spinal column)." The Chiropractor is a practitioner of that healing system.

The principles upon which Chiropractic is founded are difficult to trace. The origin of structural adjustment of the human body is lost in antiquity, but earliest records indicate that manipulation was used in China, circa 2700 BC.[3]

Ancient Egyptians, Greeks, Japanese as well as North and South American Indians, and Polynesians, employed "back-walking" and other manipulative procedures as healing agents in their respective

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[3]S. Homola, Bonesetting, Chiropractic and Cultism (Panama City, Florida: Critique Press, 1963).

cultures. "Bone-setters" of England and of Europe were highly successful with their manipulative practices, but were scorned publicly by orthodox medicine as being unqualified in the basic clinical sciences of that era.

Although the "laying on of hands" was practiced for many centuries, the founder of Chiropractic in 1895, D. D. Palmer, wrote in an early textbook: "I am not the first person to replace vertebrae, but I do claim to be the first to replace displaced vertebrae by using the spinous and transverse processes as levers . . . and to develop the philosophy and science of Chiropractic."[4]

Modern Chiropractic Education

Chiropractic, as a profession in the health field with an accepted doctoral degree,[5] has made great strides in its eighty-three year old history toward gaining public acceptance on a par with other groups in the health field. Full parity, however, will not be achieved until both the public and the 'scientific community' are made aware that the educational level of the chiropractic profession now compares favorably with that of the other health groups.

Sociologist William J. Goode[6] expresses the opinion that as a social reality only four great person professions--law, medicine,

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[4]D. D. Palmer, The Science, Art and Philosophy of Chiropractic (Portland: Oregon Printing Press, 1910; republished, 1966).

[5]W. Eells, Academic Degrees (Washington, D.C.: U.S. Office of Education, 1960), p. 169.

[6]W. Goode, "Theoretical Limits of Professionalization," paper presented at 1960 meeting of the American Sociological Association.

the ministry, and university teaching--can reach the high levels of full professionalism with "such traits as cohesion, commitment to norms of service, percentage of numbers remaining in the profession throughout their lifetime, and others." Unfortunately, he does not consider Dentistry, Podiatry, Chiropractic or Optometry in the same category of professionalism.

Although Professor Goode's conclusions appear somewhat biased (he is a university professor), the described traits are certainly goals for any profession to achieve. In regard to the chiropractic profession, an obvious approach to answer its critics is to institute appropriate post-doctoral training for upgrading the practitioner's expertise, using programs similar to the excellent ones available to the medical practitioner. Additionally, it must be obvious that the rapid obsolescence of knowledge in the scientific and health fields plus improvements resulting from ongoing research mandate the continuing education of all health personnel to assure competency in serving the health needs of the public.

Continuing Professional Education

Continuing education in the health field has been practiced in Michigan for many years on a voluntary basis, usually by members of a particular association. Such education was also legislatively mandated for chiropractors since 1933, when first licensed,[7] and is now a requirement for most of the other Michigan health professionals.

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[7]Michigan Chiropractic Act 145 of 1933, 338.154 [MSA 14.594].

Although considered vital to the profession by many doctors of chiropractic, there is currently no statewide effort to provide a continuing educative program for the practitioner. The reasons for this situation are manifold, but a few of the more noteworthy ones will justify the statement made.

Differences in chiropractic college curriculums have contributed to a lack of conformity in the thinking and behavior of the members of this profession. According to the particular chiropractic college attended, the year of graduation and admittance to practice by licensure, and perhaps personal traits, the chiropractor has developed his own unique style of practice, within the limitations set by the current state law. It is, therefore, almost as common to receive different treatment from any given number of chiropractors as it is to receive the proverbial differing opinions on a patient's health problem from as many medical practitioners.

Continuing professional education for the D.C. (doctor of chiropractic, chiropractor, chiropractic physician), outside of the relicensure requirements, has only recently become available at some colleges in certain subjects, and from private groups or individuals having a special interest in promoting the dissemination of their unique knowledge or technique skills.

On a national level, continuing education has been documented in a recent publication[8] describing efforts to upgrade the competency of DC practitioners. The pamphlet describes the licensure requirements

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[8]Chiropractic, State of the Art, American Chiropractic Association, 1976, p. 16.

by statute in most states and by criteria established by Examining Boards in others. Programs are usually conducted by State Associations.

Colleges provide ongoing postgraduate (continuing) education programs while the national professional organizations (in this instance the American Chiropractic Association) have programs in several subjects leading to specialty certification. These upgrading courses are voluntary and are given both on and off campus.

The various state annual conventions often request college personnel from the teaching staff, either D.C.s or Ph.D.s in specialized subjects, to address the attendees for the educational portion of the convention.

Technique courses are given by some individual doctors who may have developed a special refinement in the manipulative field. This has led to manipulative specialization by some D.C.s in a certain technique, application of which may yield quicker, easier or a more permanent resolution of the health problems presented. Last, and certainly very popular, are a number of motivational courses offered to the practicing doctor seeking a higher socio-economic level in his or her community.

Despite the availability of these commendable courses, discussions held with Michigan chiropractors seem to indicate that the selection offered or the time and place where the coursework is scheduled does not fulfill the particular needs of Michigan chiropractic practitioners. It therefore appears that such programs will

have to be tailored to the Michigan doctors' perceived needs as derived from this investigation.

'Scope of Practice' Influence on Continuing Education

It is significant that the chiropractic profession has grown at a different pace in each state and received the blessings of licensure at different times. With Kansas and North Dakota as the first states to regulate the practice of Chiropractic in 1913, the latest and last of the fifty states to license D.C.s was Louisiana in 1975. The scope of practice and the requirements for continued licensure also vary from state to state, according to the strength of critics of the chiropractic profession (seeking to limit the scope of practice) and the dedication and aggressiveness of individual, politically-knowledgeable chiropractors in that state.

Proposed New License Renewal Criteria

A major concern for the profession is the apparent attempt of a federal agency to assure continued competence of all health care providers.[9, 10] Most interesting is the content of a recent Health, Education and Welfare (HEW) sub-committee report. One recommendation concerning continued competence of the practitioner states:

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[9]DHEW, 1971, Report on Licensure, Publication No. (HSM)72-11.

[10]DHEW, 1973, Developments in Health Manpower Licensure, Publication No. (HRA)74-3101.

> Certification organizations, licensure boards and professional associations are urged to adopt requirements and procedures which will assure continued competence of health personnel. This objective should be accomplished in lieu of using continuing education as the sole requisite for licensure renewal.[11]

The Department of HEW's proposal will undoubtedly result in some heated controversy on States' rights versus Federal government rights on credentialing standards but eventually, with such conflicts resolved, some type of examinations on continuing professional education will become the criteria for permitting license renewal. This anticipated outcome is an additional reason for investigation of the current continuing education effort in Michigan and discovering the perceived learning needs of the D.C.s so as to increase their skills and competence in practice.

Another concern for the Michigan chiropractic community is the as yet unsettled revision to the Michigan Public Health Act (House Bill 4070) where each health profession's scope of practice is being updated and redefined.

It is interesting to note that the American Board of Family Practice (composed of general practitioners of medicine) requires both study and examinations for its members to retain their certification annually.[12]

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[11] DHEW, 1976, Credentialing Health Manpower, p. 12.

[12] "Testing the G.P.s," Newsweek, November 8, 1976.

Divergent Concepts in Chiropractic Practice

Another facet of the problem which must be addressed, if the continuing education needs of the Michigan chiropractors are to be discovered, is the definition of chiropractic practice and its conception by the practitioners in the state. The term "Chiropractic" (Greek: cheir, hand and prakticos, practitioner) is not uniformly defined in every state and its conception varies even within a state, as in Michigan.

There are two schools of thought, and practice, in the chiropractic profession. One (called 'straight') is ultra-conservative and adheres strictly to the teachings of the founder, D. D. Palmer, who manipulated by hand only the vertebrae or segments of the human spine to achieve correction of health defects. The other (called 'mixer') is more liberal in its views and employs all natural methods of healing, excluding drug medication and incisive surgery. These two schools of thought have created a dichotomy of organizations at the national and many state levels. Such dissension within the profession has resulted in duplication of organizational functions and diluted its strength in relationships with the legislature and the 'scientific community.'

Determining the Wishes of the Majority

Since there are various concepts of chiropractic modes of practice in Michigan, the determination of the wishes of the majority of the D.C.s was considered a prerequisite for a formal study of the continuing education needs of the profession. A 1976 Opinion

Survey[13] indicated that the majority (75 percent) of the Michigan chiropractors wished to practice like the second school of thought (the 'mixers') and that the practice of 'manipulation of the spine by hand only' (the 'straights') is confined to relatively few (6 percent) of the chiropractors.

Although adjustment of the spine is still employed as the basis of all chiropractic treatment, a majority of the D.C.s in Michigan, and elsewhere, have broadened their view of practice mode to include treatment of all neuro-musculo-skeletal problems by manipulation, give nutritional counseling and use various other natural methods of treatment, outside the realm of drug medication and operative surgery.[14]

Based on the outcome of the Opinion Survey, it was now possible to design a comprehensive survey instrument which addressed the perceived needs of the majority of practitioners in Michigan and will hopefully lead to the formulation of a uniform, in-depth continuing professional education program.

The non-uniform exposure of the D.C. in the past to many of the subject areas considered a 'must' by the scientific community has given rise to many inter-professional misconceptions, e.g., the medical profession's unfavorable view of the chiropractor's

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[13]S. Ulrich, Opinion Survey of Michigan Chiropractors (Lansing: Michigan State Chiropractic Association, 1976).

[14]Chiropractic Colleges, Foundation for Chiropractic Education and Research and Council on Chiropractic Education, 1976.

educational background. A perusal of the subject matter currently taught at two chiropractic institutions,[15, 16] although supporting opposing DC organizations and philosophies, will dispel ideas of insufficient professional training. Also, a glance at the continuing education offerings of one of the colleges[17] should further ease concerns in this respect. The outcome of this investigation, by inclusion in the literature of the health professions, will hopefully influence both the public and the allied health professions in a positive manner.

Definition of Terms

Bonesetters

Manipulators of the bony segments of the human spine including articular distortions. Although learned empirically ("Their methods have been passed on from father to son as family secrets")[18] the art was highly developed by ancient Greeks and has been practiced in Europe up to the present time.

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[15] Bulletin (Davenport, Iowa: Palmer College of Chiropractic, 1975-1976), pp. 56, 57.

[16] Bulletin (Lombard, Illinois: National College of Chiropractic, 1976-1977), pp. 42-69.

[17] Registration Form, "Continuing Education Courses Schedule: 1976-77," National-Lincoln School of Post-Graduate Education, Division of National College of Chiropractic, Lombard, Illinois.

[18] E. Schiotz and J. Cyriax, Manipulation Past and Present (London: Wm. Heinemann Medical Books, 1975), pp. 28-38.

Chiropractic

One accepted definition is "a system of healing which holds that disease results from a lack of normal nerve function and which employs manipulation and specific adjustment of body structures (as the spinal column)."[19]

Continuing Education for the Health Professions

"Continuing education contributes directly to meeting the learning needs of providers and increases their ability to perform more effectively in the delivery of services."[20]

Manipulation (Chiropractic)

Also called spinal adjustment, manipulation is the replacing of subluxated (partially dislocated) vertebrae "by the application of a definite thrust by the hands of the chiropractor in contact with the subluxated vertebra."[21]

Scientific Community

A confusing term indicating that "each generation of scientists receives more than a technical training. Rather, they

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[19] Webster's New Collegiate Dictionary (Springfield, Mass.: G. & C. Merriam Co., 1977), p. 95.

[20] Fostering the Growing Need to Learn (Syracuse, N.Y.: Syracuse University for Department of Health, Education and Welfare, Public Health Service, 1974), p. 171.

[21] W. Biron; B. Wells; and R. Houser, Chiropractic Principles and Technic (Chicago: National College of Chiropractic, 1939), p. 349.

are effectively socialized by older scientists into a moral and intellectual community of scientists."[22] On the other hand, "usages such as scientific community . . . tend to be metaphorical efforts to convey a kind of psychological unity."[23] Although used broadly to indicate the intellectual, scholarly, erudite, knowledgeable and well-educated individuals in a society, it is also often misused by writers and speakers wishing to impress an audience with the validity of a statement, such as "The scientific community does (or does not) agree with . . . ."

Self-assessment

An evaluation made by an individual or group of his or their background, qualifications, status in the community or other attributes which may be selected for review and comparison with a norm or other statistic.

Spinous Process and Transverse Process

One spinous and two transverse processes project from the vertebral arch like spokes from a ship's capstan. They afford attachment to muscles and are the levers that help to move the vertebrae:

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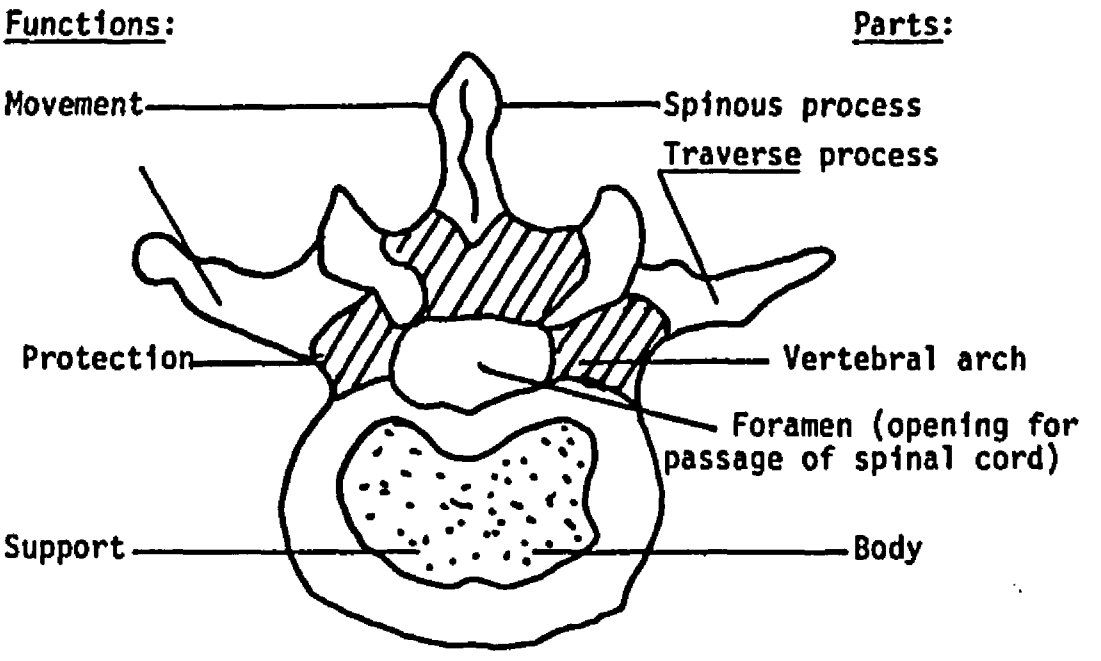
[22]J. McKee, Introduction to Sociology (New York: Holt, Rinehart and Winston, 1969), p. 503.

[23]N. Smelzer, Sociology: An Introduction (New York: John Wiley and Sons, 1973), p. 74.



Cross-section

Typical Vertebra

Vertebrae

The 33 bony segments, each separated from the other by a cartilaginous disc, comprising the human spinal column.

Overview of the Study

Continuing professional education for the Michigan chiropractic doctors has an involved and controversial past. Aside from mandatory attendance at a two-day educational conference for annual relicensure, there is no uniform plan for consistently upgrading the practitioners' knowledge and skills in their profession.

This study is limited to the population group represented by all the licensed Michigan chiropractors of record. Statistical data was gathered and analyzed to give comprehensive information on Michigan DCs including educational backgrounds, perceived needs for various courses of study, and what their interests are in continuing professional study. Incidental demographic and socio-economic data were obtained for use in cross-tabulating statistical output.

The investigation may conceivably lead to new or additional studies of the Michigan chiropractor and might stimulate similar studies in other states. The study is not intended to be final, but rather a path to encourage further exploration.

Format of the Dissertation

In Chapter I the topic is introduced, the problem and its significance is described, and the nature and boundaries of the study are stated. An overview and definition of terms is given.

In Chapter II the relevant literature and closely related studies are reviewed. The results of previous investigations in this area are examined. The major findings of the literature review are then summarized.

In Chapter III the strategies and sampling measures used in the investigation are presented. Attention is drawn to the source of data, selection of the survey instrument, and the organization and presentation of the data. A rationale is given for the framework of the design to be descriptive rather than predictive in nature. The design is then summarized.

In Chapter IV the display and analysis of the data are presented. Attention is focused on the research problem posed in Chapter I. The data are displayed and analyzed in such a manner as to yield rational answers to the problem. Data summaries are then furnished.

In Chapter V a summary of the procedures, results, conclusions and recommendations is presented. A discussion section incorporates certain views of the researcher including implications for future research. Appendices of reference items as they appear in the chapters are presented.

CHAPTER II

SELECTED REVIEW OF THE LITERATURE

The available literature was researched for information on chiropractic studies, especially in the area of continuing professional education. Several evaluative studies were found in the form of self-assessment surveys by state and national chiropractic associations and some reports from government agencies. These are reviewed in the first part of the chapter.

Extensive research of doctoral dissertations disclosed that few studies have been made in the areas of continuing professional education. However, those dissertations having some relevancy to post-doctoral learning in the health field are reviewed.

The review of the literature uncovered a considerable number of textbooks on manipulative procedures, chiropractic and osteopathic, while continuing education itself has many texts devoted to this emerging branch of the educative field. This literature, including some journals and periodicals germaine to this study, have been listed and appear in the Appendices.

Correspondence with each of the other 49 state chiropractic associations requested information on planned educational programs and which had been offered in the previous five years. A listing of the replies by the state (as received) is given.

Several health and non-health related professional associations were contacted for their views and current activities in continuing education. Their replies are summarized and listed. The chapter summary indicates the major findings and relationship to the form of Research Design and Procedures adopted in Chapter III.

Self-Assessment Surveys

A statistical investigation of "Chiropractic in North Carolina" was made for the North Carolina Chiropractic Association in 1974.[1] Demographic, socio-economic and chiropractic utilization statistics for the state are given, using a questionnaire as the investigative instrument. As with other surveys of this type, continuing education is not addressed directly.

The American Chiropractic Association sponsored a study in 1975[2] on the entire chiropractic profession in the United States. Although the study includes pre-professional and professional education statistics, post-graduate education data is notable by its absence.

Government Agency Reports

The Comprehensive Health Planning Council of Central Massachusetts, in cooperation with the Holy Cross College Special Studies Department made a study as part of their 1972-1973 Work

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[1] Chiropractic in North Carolina: A Statistical Investigation (Raleigh: North Carolina Chiropractic Association, August 1974).

[2] Survey and Statistical Study of the Chiropractic Profession (Des Moines, Iowa: American Chiropractic Association, March 1975).

Program on the "Utilization of Chiropractic in Central Massachusetts." The researcher made some interesting observations:

> By far the most laudable feature of chiropractic education is the opportunity (and requirement in most states) for continued post-graduate education for annual license renewal. This is one aspect of medical education which should be required of all primary providers of health services.

Furthermore, he states:

> The final area of literature investigation is concerned with the chiropractor as a member of the health care team. It is the inadequacies in this area which gives impetus to this study. Four previous studies by the Department of Health, Education and Welfare, the Royal Commission, the Stanford Research Institute and the National Advisory Commission on Health Manpower, while relatively well done, are not particularly objective. Their findings, as well as corresponding chiropractic rebuttals, cannot be taken at face value. Each side has personal bias strongly reflected in their presentation of facts and the conclusions based on them.[3]

On continuing education programs, he found all the chiropractors participating to some extent in addition to fulfilling license renewal requirements. Specialty programs at chiropractic colleges were attended in such areas as Roentgenology, Chiropractic Orthopedics and Biomechanics.

A report to the Michigan Legislators was issued by the Michigan Office of Health and Medical Affairs under date of February 23, 1977.[4]

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[3] K. J. Soprano, Utilization of Chiropractic in Central Massachusetts, a report of the Comprehensive Health Planning Council of Central Massachusetts, April 1974.

[4] Chiropractic: A Report to the Michigan Legislators (Lansing: Office of Health and Medical Affairs, February 23, 1977).

References are made in the report to those studies which the Massachusetts researcher (see footnote 3, Chapter II) listed as being strongly biased, as well as to a number of medical publications. The only reference to chiropractic education is a description of past and current training programs in length of time, faculty-to-student ratios, faculty academic background, and similar comparisons of the medical practitioner's and the chiropractor's professional preparation.

The conclusions and recommendations are:

> Until additional research can document the basis and effectiveness of chiropractic treatment so that specific limitations can be placed on its appropriate uses, it is recommended that no changes be made in the Michigan scope of practice as defined in Act 145 of 1933, as amended.

The Michigan Department of Public Health issued a report[5] in 1977 which is an assemblage of a "minimum core set of essential data . . . for each of several components of health information . . . ." The data was collected by means of a questionnaire with the presented data tabulated and described, without opinion or inference. Continuing chiropractic education is not included in the questionnaire or report.

Relevant Doctoral Dissertations

The Dissertation Abstracts International were consulted for studies under such headings as adult, continuing education, chiropractic, osteopathic, health, biomechanics and manipulation. The

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[5] Licensed Health Occupations, Michigan Chiropractors 1976 (Lansing: Michigan Department of Public Health, April 1977).

search included the period of 1861 to and including May 1978 and yielded the following relevant dissertations:

1. John C. Barton[6] reported a 25 percent response to his questionnaire but considered it an indication of "a hypothetical group of Ohio physicians who have an interest in their continuing education . . . ." Major conclusions were that the continuing medical education needs of responding physicians are widespread and cover all the clinical management conditions addressed in the study. The areas requiring the greatest educational attention were disclosed (which differ markedly from the chiropractic areas of interest).

Group discussion, reading medical journals and attending medical seminars sponsored by local medical societies were found to be their primary educational methods. Other training aids such as audio tape recordings and records, library articles and medical seminars sponsored by national medical organizations are available to the physician, but are not used. Responding physicians expressed a desire for programmed instruction, group discussion, medical television, computer assisted instruction and video tape recordings.

2. Eugene K. Horton[7] investigated process interest and educational commitment but major emphasis was focused on content interest. Physicians, nurses and allied health personnel at six

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[6]J. C. Barton, "Needs for Continuing Medical Education as Perceived by Selected Ohio Physicians" (Ph.D. dissertation, Ohio State University, 1971), 32/05-B, p. 2808.

[7]E. K. Horton, "Interests of Professional Groups in Continuing Medical Education" (Ph.D. dissertation, University of Utah, 1972), 32/10-B, pp. 58-79-5880.

Veterans Administration hospitals were questioned. Data comparisons indicated differences and similarities among the professional groups, and the highest and lowest content interests are displayed.

3. James B. Cowle[8] states that the most significant finding of his study is that researchers should re-examine their implicit assumption that chiropractic should be labeled 'deviant behavior.' He notes that "Rather than being a relatively powerless individual, the chiropractor, labeled as deviant in society at large, is shown to possess considerable social power in ways heretofore unexamined." He believes hindrance of its professional image is due to the radically unique explanation of the cause and nature of disease and the internal conflict over philosophies of practice.

4. David S. Stein[9] reports that the medical profession has been planning continuing education programs through the medical schools since the enactment of mandatory continuing medical education requirements by the state for annual relicensure. Medical educators are concerned over the many hours spent in these programs which apparently fail to produce marked change in physician skill or knowledge. The traditional short course program has been questioned. Conclusions were that adult education principles are more acceptable

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[8]J. B. Cowle, "An Ethnography of a Chiropractic Clinic: Definitions of a Deviant Situation" (Ph.D. dissertation, Mississippi State University, 1974), 35/08-A, pp. 5527-5528.

[9]D. S. Stein, "The Continuing Medical Education Short Course: A Comparison of Adult Education and Traditional Education Approaches to Program Planning" (Ph.D. dissertation, University of Michigan, 1976), 37/10, p. 6220-A.

than the traditional approach in the instructional format. The researcher identified such desirable elements as soliciting program content input from the learner, using active methods of learning and soliciting program and diagnostic feedback from the physician group.

5. James B. Battles[10] presents an ideal continuing education system as a flexible, multi-operational system which can serve all members of the health care team simultaneously. It would fulfill both perceived and actual needs arising out of patient care data. The ideal system is a general model which the researcher concludes is attainable and would permit health professionals to interact on innovative methods in health care, transferring information by means of "various instructional modalities."

Other Literature Germaine to this Study

A listing of the textbooks, journals and other periodicals on continuing education, continuing professional education and on the health sciences involved is presented as the Selected Bibliography appended to this dissertation.

Continuing Chiropractic Education Programs in Other States

The various state associations were contacted in 1976 (see Appendix A) for information including their continuing education programs. The following statements are excerpted from the replies of those responding:

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[10]J. B. Battles, "A Design Study for Continuing Health Professional Education" (Ph.D. dissertation, Ohio State University, 1976), 37/11, p. 6896-A.

Arizona

Every year at the state convention in Arizona there is a planned educational program. This year's theme was Preventive Medicine. Also twice a year the association offers the Goodheart Seminars with Dr. Goodheart, and the Erhardt X-Ray Seminars, once a month.

California

California Chiropractic Association (CCA) and our suborganization, Health Services Foundation, are actively sponsoring seminars throughout the year. Some of these are to meet relicensing requirements and others are specialty types. Our conventions have historically included license renewal programming.

Colorado

A course on Sports Injuries and Kinesiology. Our Spring Seminar and Convention consist of lectures on neurological, orthopedic and kinesiology examination of the patient; subluxation; low back condition; body casting; lumbar supports; malpractice; spinal research by Colorado State University; anatomy; Dr. Suh research at Colorado State University; detection, care and management of postural defects; diagnosis; classification and treatment of lumbar disc protrusions and prolapses; personal involvement--grass roots politics and other topics such as aurecillo therapy and developing tomorrow's practice, today.

Delaware

There are no educational programs planned for 1976. No programs have been offered in the past five years.

Florida

Usual seminars and conventions.

Hawaii

Technique seminars . . . ACA convention.

Indiana

Mostly Neurological-Orthopedic oriented programs organized through the Chiropractic Colleges (usually National College) and some political and/or insurance seminars as they deem necessary and/or appropriate.

Iowa

Orthopedics and X-Ray.

Kentucky

Association presents a three-day educational seminar yearly.

Louisiana

None (planned for 1976 or offered in the past five years).

Maryland

In April 1976 we had a two-day seminar taught by Dr. James W. Cox of National College. Topic was Diagnosis, Classification and Treatment of the Most Common Causes of Low Back Pain. We have been following the programs as sponsored by the various schools for many years and will continue to do so.

Minnesota

Minnesota law dictates that our D.C.s must have five (5) monitored hours per year of continuing education. We provide these required educational hours at our annual Convention. However, we put seminars on throughout the balance of the year [of which] some hours can be applied toward the requirement for licensure. Other educational seminars are put on throughout the year for C.A.s (chiropractic assistants) as well as seminars strictly for the D.C.s in the way of office management, continuing education in chiropractic, etc. We usually invite all non-members at an increased registration fee rate.

Missouri

Six regional seminars plus '77 convention. Same format in '75-'76. Only convention previously.

Nebraska

Educational programs: 1974 Convention and seminar: Dr. James F. Lee, "Cervical-Dorsal Spine" and "Lumbo-sacral Spine," Dr. Frank Hoffman, "Clinic-Laboratory Evaluations in Relation to Chiropractic Practice," Mr. Henry Rothblatt, Attorney, "Chiropractor as a Medical Chiropractic Expert"; 1975 Convention and Seminar: Dr. A. L. Schultz, "Extremity Adjusting and Supportive Care," Dr. Paul White, "Applied Kinesiology." 1976 Convention and Seminar: Drs. Arnold and Groves, "Neurology Applied in Everyday Practice," Dr. James Eisen, "Detection and Prevention of Congenital Anomalies." We also have a spring seminar and business meeting and offer 6 hours of credit toward license renewal for seminar attendance. The 1976 speaker was T. A. Vonder Haar of the University of Missouri at St. Louis on Iatrogenic Disease.

New Jersey

Our educational programs are worked in as part of Columbia [chiropractic] College's continuing education program.

New York

The NYSCA [New York State Chiropractic Association] presents an extensive educational program to the members each year both during the year and at convention. Our year runs from July 1 to May 31 and therefore our 1975 program has not yet been officially formulated. For your information, however, enclosed please find materials relative to the 1975 program.

North Carolina

Enclosed is a Calendar of Events outlining our program for 1976. We have no records adequate to provide you with programs offered in the past five years.

North Dakota

Our spring convention which is mandatory for renewal of license (or twelve hours at a postgraduate college-sponsored course) was well attended. This year our speaker was Dr. Lemoine de Rusha who spoke on Chiropractic technique.

Oklahoma

Various seminars are offered by the Association at frequent intervals during each calendar year, including such subjects as acupuncture, insurance, comprehensive health planning, etc.

Oregon

The only planned educational programs by the OACP [Oregon Association of Chiropractic Physicians] are the annual state conventions. With the exception of an occasional Educational Council seminar . . . all educational programs are planned through the Post-Graduate Department of Western States Chiropractic College.

Pennsylvania

We initiated a series of post-graduate seminars during the year 1976 which we plan to continue into 1977. These seminars are now accepted as credit for license renewal in many states.

Rhode Island

Due to the fact that we now have a continuing education bill, the State society will be sponsoring some educational seminars. Because our state is so small we do not have a state convention. What we do is participate in the New England Chiropractic Convention each year. We will host the convention in the year 1980. In the past five years we have sponsored educational seminars for our members especially in X-Ray procedure and diagnosis.

South Dakota

> . . . [for] 1977 at least 10 hours with Dr. Peter Martion of P.C.C. (Palmer College of Chiropractic).

Texas

> A comprehensive Medicare-Medicaid Seminar July 24-25; twelve hours of Chiropractic Board of Examiners approved lectures at our annual convention June 10-11-12. There were workshops in Spinal Bio-Mechanics and Athletic Injuries. We have numerous educational programs, none particularly unique enough to point to.

Vermont

> One per year at Spring Convention. Past 5 years same one in conjunction with the New England Convention.

Virginia

> We have undertaken a continuing education program on a quarterly to tri-annual basis in 1976 . . . roentgenology, disc-related problems, insurance relations and handling. All are weekend programs.

Wisconsin

> Educational programs for the WCA [Wisconsin Chiropractic Association] members are: Roentgenology, adjusting techniques, nutrition, chiropractic research, chiropractic philosophy, office practice procedures, such as record keeping and expert witness testimony. The programs of the last five years have generally been along these areas.

Wyoming

> 1975, Dr. West; 1976, Dr. Greenawalt.

Note: The states of Connecticut, Kansas, Tennessee and Washington sent in descriptive material about their educational programs for 1976 and/or the previous five years.

Replies from the associations representing health and non-health related professions are presented in summary form as indicated below:

Health Related Fields

A. Michigan Health Officers Association.

Fifty hours continuing medical education for MD annual relicensure.

B. Michigan Dental Association.

Continuing education sessions at annual meetings only.

C. Michigan Veterinary Medicine Association.

Lecture type meetings for relicensure. States "required attendance is not the answer to insuring competency." Veterinary medicine continuing education is now on a voluntary basis only. "Must improve motivation--not legislate."

D. Michigan Nurses Association.

Staff development, formal continuing education for post-graduate certification in a nursing specialty and informal education on an intermittent basis. A non-degree post-graduate program on pediatric nursing is given at the University of Michigan.

E. Michigan Optometric Association.

Must have 12 hours continuing optometric education for annual relicensure. Thirty-one additional states have similar requirements. The Association sponsors four continuing education seminars of 12 hours each. Local optometric societies also sponsor such seminars.

F. Gerontology Institute of the University of Michigan.

Offers residential institutes and workshops as continuing professional education.

Non-Health Related Fields

A. Funeral Directors Association.

Convention speakers at 1, 2, 3 and 5 day programs. Behavioral science and management.

B. Institute of Continuing Legal Education.

Lectures and discussions, case citations, salient points of law and practical applications. All voluntary.

C. American Institute of Architects.

Have one and two day laboratories, study guides, cassettes and review of Architectural Periodicals. All voluntary.

D. American Institute of Certified Public Accountants.

Lectures, cases, panel group discussions, workshops of one and two days. All voluntary.

Summary

The self-assessment surveys point out the need for more emphasis on data gathering in continuing professional education areas and the variety of subjects that can be made available to update the knowledge and skills of the practitioner.

Doctoral dissertations relevant to this study were not all illuminating. Barton's Ohio Physicians survey is suspect because of the low response of 25 percent, yet it is interesting to note that certain instructional methods are made available, but are not used by the physicians, indicating the need for tailored programs. Cowie's study is intriguing in that the 'deviant' labeling by the American public is recognized as requiring a re-examination by researchers studying this profession. Stein's comparison of the

adult and traditional education approaches is of interest. While short courses via the traditional approach had little learning impact, adult education principles are more acceptable and presumably better retained. Battles' design model is unique but more interesting would be a report of the successful application of this system.

The literature in textbooks, periodicals and magazines express author viewpoints, some for and some against chiropractic as a professional group. Much work is needed by unbiased behavioral scientists to evaluate pros and cons of opposing factions in the health field, and suggest means of resolving the differences.

The continuing education programs reported by the various state associations indicate little homogeneity in their approach to this subject. The larger populated states seem to have the more aggressive programs.

Medical, osteopathic, chiropractic, optometric practitioners require a number of hours of continuing professional education to satisfy annual relicensure requirements. Other health team workers do not yet require this mandatory training. Indications are that federal agencies may require, in the public interest, a feedback via examination rather than mere exposure to continuing education courses for relicensure to practice a health profession.

Non-health related professions have some excellent programs in continuing education. These voluntary programs offer new knowledge to association members. The possibility of compulsory attendance at

these courses is remote since the public interest is not at stake as with health-related professions.

In Chapter III the strategies and sampling measures are presented. The sources, selection of the survey instrument and a rationale given for the framework of the design is followed by a summary of this chapter.

CHAPTER III

RESEARCH DESIGN AND PROCEDURES

Introduction

The primary purpose of this study is to investigate the current continuing education practices and perceived post-doctoral learning needs of chiropractors in Michigan. To achieve this, a number of research questions have been selected, which include:

1. In what professional areas are DCs not interested?
2. Are chiropractors interested in additional science degrees?
3. Where would Michigan practitioners prefer to attend classes in continuing professional education, when and for what length of time?
4. Should the continuing education courses lead to specialty certification?
5. Who should bear the cost of continuing education programs?
6. Have past educational courses, given for relicensing requirement purposes, been effective in upgrading the DCs' professional competence (in their opinion)?
7. Are Michigan chiropractors satisfied with the type and quality of continuing education courses as now presented for license renewal purposes?

This chapter describes the research design and delineates the procedures used in collecting, compiling and analyzing the data. Included is a description of the population studied, definition of

the sample selected and a discussion of the primary instrument employed. The administration of the instrument and its statistical treatment are explained.

Framework of the Study

The design of this investigation is based upon descriptive research methods but not limited solely to such methods. The survey as a form of educational research uses logic and statistical procedures for analyzing the data obtained, as opposed to surveys made just for systematic data collection.[1]

The study was conducted by obtaining demographic, socio-economic and educational data and opinions from Michigan licensed resident chiropractors. It is believed these data could best be acquired through descriptive research methods with the design and use of a questionnaire as the survey instrument. This form as the main investigative instrument was deemed most practical since the chiropractic doctor population is relatively small, under 1000, and contact with a 100 percent sample would prove relatively inexpensive, time-saving, promote ease of completion and subsequent tabulation, and is "a method for discovering fruitful problem areas for future investigation."[2]

There are some limitations to the use of the questionnaire including prejudice to completing a form, impersonalization,

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[1] W. R. Borg and M. D. Gall, Educational Research (2nd ed.; New York: David McKay Company, 1971), p. 187.

[2] D. R. Berdie and J. F. Anderson, Questionnaires: Design and Use (Metuchen, N.J.: The Scarecrow Press, Inc., 1974), p. 20.

possibility of a low response, and other factors. However, the alternatives were weighed and found impractical for the purpose of this study.

Preliminary Procedures

Since there is an acknowledged variance in practice beliefs among the chiropractic doctors, it appeared logical to first determine how the majority of DCs in Michigan would like to practice. This would outline the parameters for the investigation of post-doctoral desires and perceived needs of the rank and file practitioners and indicate whether they are being met by current educational programs.

The Michigan State Chiropractic Association (MSCA) is the largest professional group representing the Michigan practitioner. They were, therefore, contacted as a major resource entity (see Appendix B). A simple one-page questionnaire was devised and sent to every resident State-licensed chiropractor of record (see Appendix C). The practitioner was asked to select one of four choices given as to how he or she would like to practice in Michigan.

The request of this mini-survey approach (see Appendix D) indicated that a majority (75 percent) of Michigan's chiropractors would prefer to practice by employing all drugless methods ancillary to manipulative procedures, but excluding drug medication and operative surgery which are both in the domain of other health professions.

The percentage response (70 percent of the total number of licensees including members of the MSCA, the minority group Michigan Chiropractic Council [MCC], and the uncommitted doctors) appears to confirm several factors (as advanced by a few chiropractors during a recent discussion) which could influence the high rate of returns:

a. A basic curiosity to ascertain what the average DC practitioners really believe they should be permitted to practice, since many are trained far beyond what the present practice statute permits them to do.

b. The current controversial issue as to how legislators will react to the many bills introduced by various segments of the profession, each adamant in their views on what they consider the proper scope of practice.

c. Chiropractic practitioners, like other health professionals, are constantly bombarded with literature from many commercial and intraprofessional sources--all with a financial axe to grind. The Opinion Survey requested one selection without soliciting funds of any kind and required little expenditure of time or effort for the busy practitioner. The uniqueness of such an approach apparently had its novelty effect and contributed to the high response.

d. The simplicity of the devised survey instrument, requiring a single choice, differed from the usual barrage of questions--some of which may be considered as too personal or offensive to the recipient.

Comments received with this opinion survey were most interesting. Many practitioners expressed their feeling that the scope of practice should be commensurate with the training received by the individual doctor, especially if followed by a qualifying examination in the subject and preferably given or monitored by the Michigan State Board of Chiropractic Examiners. This indicated an awareness that further learning, through Continuing Education, may be the key to eventually increasing the permitted scope of practice, while upgrading current professional expertise.

To avoid a possible charge of bias, no significance was attached to the percentages in reporting them to all the licensess nor were interpretations made of the few comments received. The 100 percent sampling of all resident chiropractice licensees reduced the possible error to an acceptable minimum. Out-of-state holders of Michigan licenses were bypassed due to the intent of the query, limited to residents of Michigan.

Questionnaire Construction

A five-page questionnaire (see Appendix F) was designed in four parts to gather the opinions and attitudes of the licensed resident Michigan chiropractors so as to obtain a practitioner profile.

The first part addresses the socio-economic status, the second is concerned with practice statistics, the third reviews the doctors' educational background and the fourth solicits their views on continuing professional education.

> Reliability generally refers to the ability of the empirical instrument to measure consistently, and validity bears on the ability of the instrument to translate into sensory-empirical operations the definitive characteristics of the concept.[3]

To test the instrument, the five District (see Appendix E) presidents, the MSCA president, vice-president and lay director comprising the Association's Board of Directors reviewed the questionnaire prior to distribution. The consensus was that it conveyed the same meaning to all consistently (reliability) and elicited true responses relevant to information wanted (validity).

Administration of the Survey

As there are 850 licensed chiropractic practitioners in the State of Michigan, a 100 percent sampling of the DC population was feasible. This would eliminate or minimize errors due to random sampling as for a larger target population. It was also planned to utilize the facilities of the statistical department at Michigan State University using computer assistance to obtain the optimum results from the data obtained.

In April 1977 the comprehensive questionnaire was mailed to each of the licensed DCs in Michigan. A state health manpower survey and an MSCA legislative survey, both sent to DCs in the first quarter of 1977, may have contributed to the slow response. A follow-up letter (see Appendix G) was therefore sent two weeks later. One month after this mailing, further acceptance of completed

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[3]W. M. Dobriner, Social Structures and Systems (Pacific Palisades, Calif.: Goodyear Publishing Co., 1969), p. 43.

questionnaires was halted and a systematic analysis with computer assistance was begun. To validate the response (N = 386 or 45 percent) as being a representative sample of the total Michigan chiropractic population, a correlation was sought between two similar areas of inquiry, as reported in April 1977 by the Michigan Department of Public Health (MDPH) and as found in this survey. (The close correlation is self-evident.)

I. Michigan DC Population--by Age Groups:

MDPH (Table 2)		This Survey
Up to 34 years	27.0%	27.6%
35 to 44	22.4	24.4
45 to 54	17.6	19.2
55 to 64	18.4	17.4
Over 65 years	11.4	10.4

II. Geographical Area of Professional Education:

MDPH (Table 4)		This Survey
41.7%	Palmer College of Chiropractic	40.2%
24.9	National College of Chiropractic	27.9
15.1	Lincoln College of Chiropractic	17.5
6.0	Logan College of Chiropractic	3.4
4.0	Other States and Canada	5.1

Statistical Treatment

The following steps were taken in coding and quantifying information prior to analysis by electronic data processing equipment:

1. Answers from each of the questionnaire returns were transferred by hand to machine-readable scoring sheets (two sheets per reply).

2. The scoring sheets were then optically scanned and the data automatically punched into cards (two cards per reply). The keypunch is 100 percent verified.

3. Statistical Package for the Social Sciences (SPSS) programs were written to analyze the data with the appropriate statistics.

4. A PNC (Problem Number Card) was obtained for the Michigan State University (MSU) College of Education, in order to run the programs on the CDC 6500 Computer at the MSU Computer Center.

5. Programs were run and printouts obtained.

6. Analysis of the printout data within each subsection of the survey instrument was made and tables and graphs constructed for ease of presenting information. Inferences were then drawn from the results obtained.

Chi-square Analysis was used to test the relationship between two or more categorical variables having a set of expected frequencies, e.g., Age versus Income.

One-way Analysis of Variance (ANOVA) was used for comparing one categorical and one continuous variable, e.g., Income versus Total Hours Worked per Week.

In both cases, alpha = .05 was used to test significance.

Summary

In the present chapter the research setting has been briefly described and the procedures used to collect, compile and analyze the data have been delineated. The population was defined with an explanation of the sample selected. The choice of the survey instrument, a questionnaire, was defended. The type of research study and the data analysis techniques were justified.

In Chapter IV the data will be organized, presented and analyzed. In Chapter V the summaries will be collated, conclusions drawn, implications discussed and suggestions for future research presented.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

The purpose of this chapter is to present the findings of the study. In order to investigate the current continuing education practices and perceived learning needs of Michigan doctors of chiropractic, some data derived from each part of the questionnaire should be examined. Part I has some items having a bearing on the background of the population being investigated.

Answers to Item #(1-1) of the questionnaire determined the ages of the respondents within ten-year age spans. Note that 52.0 percent of the Michigan practitioners are between 25 and 44 years of age, 10.4 percent are over 65 years and only one percent are under 25 years of age. The majority are therefore in the early and middle age bracket of adulthood, with many years of professional life ahead of them before the traditional 65 year retirement age is reached. This constitutes a prime period for continuing professional education--if the proper motivation is supplied (see Table 1).

Item #(1-2) inquires into the size of the community where the doctor practices. Except for the 31.2 percent of the DCs practicing in communities over 100,000 and the 6.9 percent in communities under 2000, there is almost an even distribution of DCs

TABLE 1.--Composition of Michigan DC Practitioners by Age Groups--Item #(1-1).

Age Group	Percent of DCs
25 - 34 years	27.6
35 - 44	24.4
45 - 54	19.2
55 - 64	17.4
Over 65	10.4
Under 25	1.0
TOTAL	100.0

practicing everywhere in Michigan. This should be considered when determining where courses are to be given (see Table 2).

TABLE 2.--Size of Community Where Chiropractor Practices--Item #(1-2).

Community Population Size	Percent of Responding DCs
Over 100,000	31.2
5,000 to 10,000	14.7
25,000 to 50,000	13.1
50,000 to 100,000	12.0
2,500 to 5,000	12.0
10,000 to 25,000	10.1
Under 2,500	6.9
TOTAL	100.0

Items #(1-8) to (-13) ask for the importance of several factors in choosing the practice location. The most important considerations were the perceived need for their services and the financial prospects. Better services are the direct outcome of additional education and the financial prospects increase as a corollary of rendering better service. It would therefore seem that the doctors would be eager to further their education as a means of eventually achieving the stated goals (see Table 3).

TABLE 3.--Importance in Choosing Practice Location--Items #(1-8) through (1-13).

Very Important	Percent of DCs	Relatively Unimportant	Percent of DCs
Need for DC Services	49.5	Climate	73.4
Financial Prospects	39.4	Established Practice	68.9
Family Ties	26.5	Recreational Environment	55.8
Established Practice	19.5	Family Ties	51.9
Recreational Environment	17.3	Need for DC Services	22.4
Climate	8.9	Financial Prospects	20.5
TOTAL*			

*Percentages do not add up to 100.0 because of overlapping conditions.

Item #(1-14) sought to determine the annual practice income for Michigan DC practitioners. The largest number (25.9 percent) earn between $50,000 and $100,000 per annum gross. Of the 81.9

percent of the chiropractors who earn over $20,000 per annum, 22.9 percent earn between $35,000 and $50,000; 21.8 percent earn between $20,000 and $35,000 and only 10 percent earn less than $20,000 (possibly beginners or retirees). Approximately 8 percent of the respondees failed to answer this question which is surprising since income has always been a sensitive subject with professionals in the health field and a greater percentage of omissions was expected. It appears that the cost of furnishing continuing education to the majority of chiropractic physicians would not be a problem (see Table 4).

TABLE 4.--Annual Practice Income for Michigan DCs--Item #(1-14).

Annual Income	Percent of DCs
$50,000 to $100,000	25.9
$35,000 to $50,000	22.9
$20,000 to $35,000	21.8
Over $100,000	11.3
$10,000 to $20,000	10.0
TOTAL*	

*Percentages do not add up to 100 percent because some respondees to the questionnaire omitted answering this question.

Part II deals with information related to the chiropractor's office practice. Item #(2-14) asks how the patients are obtained. The majority (95.9 percent) report that patients are procured

through other patient referrals and a large percentage (42.5 percent) indicate theirs come from personal contact, 40.7 percent from walk-ins and only 28.2 percent from other health professionals. Apparently, without membership on a hospital staff, exposure via TV programs and other indirect means of advertising, the chiropractic profession depends heavily on referrals and personnal communication to obtain their clientele. This is another area where interprofessional contact might break down the barriers set up by self-centered professional organizations in the health field (see Table 5).

TABLE 5.--How Chiropractic Patients are Obtained--Item #(2-14).

Methods	Percent Reporting
Patient Referral	95.9
Personal Contact	42.5
Walk-ins	40.7
From Other Health Professionals	28.2
TOTAL*	

*Percentages do not add up to 100 percent because of overlapping conditions.

Item #(2-15) pertains to professional referrals of patients. It appears that more patients are referred out to DCs and other health professionals than are received by the referring practitioner. The greatest disparity is in the percentages of referrals to MDs and

DOs versus return referrals from these other health professionals--a ratio of roughly two to one. This points up the need of more inter-professional communication and attempt at harmony, conceivably to be gained by means of continuing education for the chiropractor to upgrade his competency and educate the other professions on the chiropractic sphere of expertise so that no threat of competition will mar the relationships within the health field (see Table 6).

TABLE 6.--Professional Referral of Patients--Item #(2-15).

Referred to	Percent	Referrals from:	Percent
Other DCs	58.7	Other DCs	61.1
MDs	71.8	MDs	38.6
DOs	52.8	DOs	27.7
Other Health Professionals	48.2	Other Health Professionals	33.9
TOTALS*			

*Percentages do not add up to 100 percent because of overlapping conditions.

Item #(2-17) refers to the amount of health counseling given to patients. Apparently, only 0.6 percent of the practitioners fail to give some measure of health counseling. The 'average' is admittedly a vague term but it can be taken as the 'usual' amount of counsel time given to patients during the course of treatment. Since 38.6 percent indicated that 'a great amount' of counseling

was given to their patients, it appears that the measure of health counseling in time and content could well be the basis of future research (see Table 7).

TABLE 7.--Health Counseling Given to Patients--Item #(2-17).

Amount	Percent
Average	49.7
Great Amount	38.6
Some	11.1
None at All	.6
TOTAL	100.0

Item #(2-18) asks how the patient's progress is determined by the doctor: 84.5 percent report that they ask questions after treatment, by feedback from patients or a combination of methods. Since the remainder rely on patient referrals to indicate their satisfaction with the treatment, this seems to call for more education in proper office procedures (see Table 8).

Item #(2-19) questions how the quality of the service performed is evaluated by the chiropractor. Although the majority question the patient only (44.0 percent), 51.1 percent either re-examine and re-x-ray or combine with patient questioning to evaluate the quality of their services. Less than five percent make no quality evaluation which speaks well for the entire chiropractic population in Michigan.

TABLE 8.--How Treatment Progress is Determined--Item #(2-18).

Method	Percent
By asking questions after treatment, plus Patient's report on progress	33.0
By asking questions after treatment	31.1
By patients reporting progress	20.4
Patient referrals indicate satisfaction with treatment	15.5
TOTAL	100.0

Item #(2-20) inquires into the practitioner's self-rating of his skills in various areas as good, adequate, poor or none. Most consider their skills in treatment (or adjustment), diagnosis (or analysis) and their relationship with patients as fairly high. In their self-rating of skills in dealing with other chiropractors, with attorneys, insurance companies and with MDs or DOs they see their skills progressively decrease from about one-half to one-third as good as in the other areas.

More communication with other health professionals seems indicated although little aid can be expected from the respective professional organizations. Seminars with and by members of the legal profession and the State insurance commission should be on the continuing education agenda and would help dispel the uneasiness indicated by the DCs in reporting their skill reactions (see Table 9).

TABLE 9.--Self-Rating of Practitioner's Skills--Item #(2-20).

Skill (rated high)	Percent
Treatment/adjustment	87.6
Dealing with patients	74.3
Diagnosis/analysis	63.9
Dealing with other DCs	52.2
Dealing with attorneys	47.0
Dealing with insurance companies	45.3
Dealing with MDs/DOs	34.9
TOTAL*	

*Percentages do not add up to 100 percent because of overlapping conditions.

Part III is concerned with the educational background of the Michigan chiropractic practitioner. In Item #(3-4) the length of attendance at a pre-professional college is addressed. The majority of Michigan licensees had two years of pre-professional training (now mandatory for licensure) with the remainder having one year college to a bachelor's or advanced degrees. This is certainly not the picture of a poorly educated group as touted by some vested interests in the health industry (see Table 10).

Item #(3-8) inquires into where post-graduate work was taken by the doctor since receiving his D.C. degree. Most took their work at chiropractic colleges or at both chiropractic and 'other colleges/universities' with a small percentage at other

TABLE 10.--Attendance at Preprofessional Colleges--Item #(3-4).

Length of Attendance	Percent
Two years	38.7
One Year	24.3
Bachelor's degree	20.9
Three years	11.9
Advanced degree	4.3
TOTAL	100.0

colleges/universities only. Approximately one-fifth of the sample have not taken any post-graduate work (presumably disregarding the mandatory requirements for relicensure). This group desperately needs the benefits of continuing professional education (see Table 11).

TABLE 11.--Where Post-Graduate Work was Taken--Item #(3-8).

Facility	Percent
At chiropractic colleges	52.6
No post-graduate work taken	22.5
Taken at both chiropractic colleges and other colleges/universities	16.4
At other colleges/universities	8.5
TOTAL	100.0

Item #(3-9) asks what post-graduate course work was taken by the Michigan practitioners (based on the usual courses offered by the various chiropractic colleges). The distribution is shown in Table 12 and indicates a healthy interest in the subjects considered essential to the chiropractor's area of expertise.

TABLE 12.--What Post-Graduate Course Work was Taken--Item #(3-9).

Course	Percent
Special Chiropractic Techniques	47.7
Roentgenology	39.1
Diagnostic Areas	35.5
Orthopedics	31.1
Other professional areas	18.7
Neurology	10.4
TOTAL*	

*Percentages do not add up to 100 percent due to overlapping conditions.

Part IV considers questions directly relating to continuing chiropractic education of the Michigan practitioner. Tables 13, 14 and 15 indicate the wide variety of subjects on which the doctors would like to review, take instruction and attend seminars.

TABLE 13.--Subjects Which Practitioners Want to Review--Item #(4-1).

Subject	Percent
Neurological tests for patient examination	52.3
Orthopedic tests for patient examination	45.1
Physical examination procedures	38.1
Work-up of case history	26.2
TOTAL*	

*Percentages do not add up to 100 percent due to overlapping conditions.

TABLE 14.--Subjects Preferred for Instruction--Item #(4-2).

Subject	Percent
Advanced X-ray interpretation	47.4
Manipulative techniques	39.6
Practice building procedures	36.5
Sports hazards and management of athletic injuries	34.5
Practical clinical psychology	22.5
TOTAL*	

*Percentages do not add up to 100 percent due to overlapping conditions.

TABLE 15.--Subjects in Which Seminars are Desired--Item #(4-3).

Subject	Percent
Health insurance claims and DC's responsibilities	47.9
Neurological implications of dietary deficiencies and role of nutritional management in chiropractic practice	47.2
Differential diagnosis of back and neck pains	46.7
Trauma effects on body joints	39.9
Orthopedic disability evaluation and impairment rating	39.9
Neurological concept of chiropractic and its current scientific status	36.0
Latest advances in X-ray technology	32.9
Concepts in kinesiological biomechanics	30.3
Research and development at chiropractic colleges	28.8
Visualizations in clinical and pathological anatomy	23.3
TOTAL*	

*Percentages do not add up to 100 percent because of overlapping conditions.

Item #(4-4) asks if classes in public relations, public speaking and other communications skills would be desired. Over one-half (53.2 percent) indicated no interest. Item #(4-5) asking for interest in additional science degrees also received over one-half (54.6 percent), who indicated no interest in such pursuit.

Presumably, DC practitioners wish to practice their profession on a one-to-one basis with their patients and are not

interested in additional work beyond the office sphere. They are also uninterested in pursuing knowledge in other scientific fields outside of chiropractic.

Item #(4-6) questions where continuing education courses should be given. The practitioners of chiropractic are almost evenly divided among those who want such courses given in nearby colleges or universities and those indicating no preference in this area (see Table 16).

TABLE 16.--Where Education Courses Should be Held--Item #(4-6).

Location	Percent
No preference	37.8
Nearby college/university	37.3
At a public or private facility	15.0
By a multi-media approach	13.5
TOTAL*	

*Percentages do not add up to 100 percent because of overlapping conditions.

Item #(4-7) poses the question as to who should present continuing education courses. A two-thirds majority indicate that they would like any subject qualified instructors, as shown in Table 17.

TABLE 17.--Who Should Present Courses--Item #(4-7).

Instructors Preferred	Percent
Any subject-qualified instructors (Ph.D.s, etc.)	61.8
Chiropractor (DC) instructors only	12.5
No preference	25.7
	100.0

Item #(4-8) seeks the DCs' opinions as to when continuing education courses should be given. Most (62.4 percent) would like to have the courses on weekends and for a two-day period, according to a majority of 51.3 percent (see Tables 18 and 19).

TABLE 18.--When Should Courses be Given--Item #(4-8).

Time	Percent
Weekends	62.4
Thursdays	27.7
Evenings	17.1
Wednesdays	8.3
TOTAL*	

*Percentages do not add up to 100 percent due to overlapping conditions.

TABLE 19.--Preference for Length of Seminars--Item #(4-9).

Time	Percent
Two days	51.3
One day	24.1
No preference	14.4
Three days	5.1
Not interested in any	3.1
Five days	1.7
Four days	0.3
TOTAL	100.0

Item #(4-10) gave three choices as options on where the DC would like to attend classes. Of nine cities, Lansing, Detroit and Ann Arbor were the leaders and, according to 81 percent (Item # 4-11) chiropractors would like instruction to extend over a long period of time instead of full-time early completion classes (see Table 20).

In regard to the question in Item #(4-12) whether continuing education courses should be counted toward a specialty certification, 77.1 percent were in favor. However, in Item #(4-13) questioning whether the DC would like to qualify as a specialist, 52.1 percent were against the idea.

In Item #(4-15) an opinion was solicited as to who should pay for the costs of continuing education. Most indicated the

TABLE 20.--Preferred Location of Classes--Item #(4-10).

City in Michigan	Percent
Lansing	46.1
Detroit	35.8
Ann Arbor	26.2
Flint	23.6
Grand Rapids	19.9
Kalamazoo	17.6
Battle Creek	12.2
Gaylord	9.3
Houghton	4.4
TOTAL*	

*Percentages do not add up to 100 percent due to overlapping conditions.

practitioner alone should pay the costs (51.1 percent), while 42.0 percent would like to share costs with the member's association. The remainder, 6.9 percent, felt that the member's association should completely sponsor the courses.

In answer to Item #(4-16), 66.3 percent believe that past educational courses for relicensing requirements have upgraded their professional competence. Also, as a result of the question in Item 3 #(4-17), 57 percent of the DCs are satisfied with type and quality of continuing education courses as now given for license renewal purposes. It should be noted that both of these last items

and their replies cannot be taken verbatim since there is no way to check retention of the knowledge imparted at the continuing education classes. Examination to check such retention is the apparent objective of such agencies as the U.S. Department of Health, Education and Welfare and local cooperating health agencies. Mandatory feedback after exposure to education courses may be closer than the members of the profession believe possible.

In an analysis of the printout data from the survey instrument, a number of cross-tabulations were made of how individual practitioners in an Age, Community Size or Income group responded to a given question. The results are interesting in that some were predictable but others were surprising in their inferences.

A One-Way Analysis of Variance (ANOVA) was used for comparing one categorical and one continuous variable, e.g., an Age group versus the Type of Practice Conducted. Eleven of the 40 tabulations and graphs obtained appear relevant to the purpose of this study (continuing professional education current practices and perceived needs in this learning area of Michigan doctors of chiropractic). These relevant tabulations are therefore displayed in Tables 21 through 31 with appropriate inferences.

TABLE 21.--Post-Graduate Courses Taken in Orthopedics (3-9-1) in Relation to Community Size (1-2).

		Community Size (1-2)*						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
(3-9-1	Yes	23.1	20.0	34.5	31.6	18.4	31.1	41.0
	No	76.9	80.0	65.5	68.4	81.6	68.9	59.0
Total Percent		100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. Respondents		26	45	55	38	49	45	117

Inference: Chiropractors practicing in larger communities are more likely to have taken post-graduate courses in Orthopedics than DCs practicing in smaller communities.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-11.

*Community Size:

(1) Under 2,000
(2) 2,500 to 5,000
(3) 5,000 to 10,000
(4) 10,000 to 25,000
(5) 25,000 to 50,000
(6) 50,000 to 100,000
(7) Over 100,000

TABLE 22.--Practitioner's Desire to Review Orthopedic Tests for Patient Examination (4-1-3) in Relation to Community Size (1-2).

		Community Size (1-2)*						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
(4-1-3)	Yes	26.9	33.3	36.4	44.7	53.1	60.0	49.6
	No	73.1	66.7	63.6	55.3	46.9	40.0	50.4
Total Percent		100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. Respondents		26	45	55	38	49	45	117

Inference: Chiropractors practicing in larger communities are more interested in reviewing orthopedic tests recommended for patient examination than DCs practicing in smaller communities.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-12.

*Community Size:

(1) Under 2,000
(2) 2,500 to 5,000
(3) 5,000 to 10,000
(4) 10,000 to 25,000
(5) 25,000 to 50,000
(6) 50,000 to 100,000
(7) Over 100,000

TABLE 23.--Practitioner's Desire for Instruction in Clinical Psychology (4-2-4) in Relation to Community Size (1-2).

	Community Size (1-2)*						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(4-2-4) Yes	15.4	17.8	18.2	15.8	26.5	22.2	29.1
No	84.6	82.2	81.8	84.2	73.5	77.8	70.9
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. Respondents	26	45	55	38	49	45	117

Inference: Chiropractors practicing in larger communities are more interested in instruction in practical clinical psychology than DCs practicing in smaller communities.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-13.

*Community Size:

(1) Under 2,500
(2) 2,500 to 5,000
(3) 5,000 to 10,000
(4) 10,000 to 25,000
(5) 25,000 to 50,000
(6) 50,000 to 100,000
(7) Over 100,000

TABLE 24.--Practitioner's Desire for Instruction in Practice Building Procedures (4-2-5) in Relation to Community Size (1-2).

	Community Size (1-2)*						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(4-2-5) Yes	23.1	33.3	32.7	28.9	42.9	40.0	40.2
No	76.9	66.7	67.3	71.1	57.1	60.0	59.8
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. Respondents	26	45	55	38	49	45	117

Inference: Chiropractors practicing in larger communities are more interested in practice-building procedures than DCs practicing in smaller communities.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-14.

*Community Size:

(1) Under 2,500
(2) 2,500 to 5,000
(3) 5,000 to 10,000
(4) 10,000 to 25,000
(5) 25,000 to 50,000
(6) 50,000 to 100,000
(7) Over 100,000

TABLE 25.--Post-Graduate Courses Taken (3-9) in Relation to Age Group (1-1).

		(Age Group (1-1)*					
		(1)	(2)	(3)	(4)	(5)	(6)
(3-9)***	(-1)	0.0	18.7	36.2	40.5	37.3	27.5
	(-2)	75.0	34.6	38.3	43.2	41.8	37.5
	(-3)	0.0	3.7	10.6	8.1	17.9	20.0
	(-4)	25.0	29.9	33.0	36.5	44.8	40.0
	(-5)	0.0	49.5	42.5	44.6	55.2	52.5
	(-6)	0.0	18.7	19.1	18.9	23.9	10.0
Percent Totals		100.0	**	**	**	**	**
No. Respondents		4	107	94	74	67	40

Inference: Compared with younger DC practitioners, the older chiropractors are more likely to have taken post-graduate courses in orthopedics, neurology and in diagnostic areas.

SOURCES: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-23.

*Age groups: (1) Under 25 years; (2) 25 to 34; (3) 35 to 44; (4) 45 to 54; (5) 55 to 65; (6) Over 65 years

**Columns do not add up to 100 percent due to overlapping conditions.

***Courses Taken: (-1) Orthopedics; (-2) Roentgenology; (-3) Neurology; (-4) Diagnostic Areas; (-5) Special Chiropractic Techniques; (-6) Other

TABLE 26.--Practitioner's Desire to Review Work in Continuing Education (4-1) in Relation to Age Group (1-1).

		Age Group (1-1)*					
		(1)	(2)	(3)	(4)	(5)	(6)
(4-1)***	(-1)	0.0	22.4	30.9	27.0	28.4	22.5
	(-2)	25.0	32.7	46.8	44.6	35.8	25.0
	(-3)	25.0	48.6	54.3	44.6	40.3	25.0
	(-4)	50.0	53.3	62.8	54.1	44.8	35.0
Percent Totals		100.0	**	**	**	**	**
No. Respondents		4	107	94	74	67	40

Inference: Chiropractors in the 35 to 44 age group are most interested in reviewing all four areas, especially the orthopedic and neurological tests for patient examination.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-24.

*Age groups: (1) Under 25 years (2) 25 to 34 (3) 35 to 44 (4) 45 to 54 (5) 55 to 65 (6) Over 65 years

**Columns do not add up to 100 percent due to overlapping conditions.

***Review Work in Continuing Education:

(-1) Work-up for a chiropractic case history.
(-2) Procedures in physical examination of typical patient.
(-3) Orthopedic tests recommended for patient examination.
(-4) Neurological tests relative to patient examination.

TABLE 27.--Practitioner's Desire for Instruction in Continuing Education (4-2) in Relation to Age Group (1-1).

		Age Group (1-1)*					
		(1)	(2)	(3)	(4)	(5)	(6)
	(-1)	0.0	35.5	40.4	41.9	38.8	50.0
	(-2)	50.0	58.9	47.9	47.3	40.3	27.5
(4-2)***	(-3)	75.0	44.9	41.5	28.4	19.4	22.5
	(-4)	25.0	23.4	26.6	23.0	19.4	15.0
	(-5)	25.0	41.1	42.6	40.5	28.4	17.5
Total Percent		**	**	**	**	**	**
No. Respondents		4	107	94	74	67	40

Inference: Younger chiropractors are more interested than older DC practitioners in instruction in advanced radiographic interpretation, in sports hazards and management of athletic injuries, and in practice-building procedures.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-25.

*Age groups: (1) Under 25 years (3) 35 to 44 (5) 55 to 65
(2) 25 to 34 (4) 45 to 54 (6) Over 65 years

**Columns do not add up to 100 percent due to overlapping conditions.

***Instruction Desired in Continuing Education:
(-1) Diversified Manipulative Techniques
(-2) Advanced Radiographic (X-ray) Interpretation
(-3) Sports Hazards and Management of Athletic Injuries
(-4) Practical Clinical Psychology
(-5) Practice-building Procedures

TABLE 28.--Where Post-Graduate Work was Taken (3-8) in Relation to Income Group (1-1).

		Income Group (1-14)*					
		(1)	(2)	(3)	(4)	(5)	(6)
(3-8)	None taken	36.7	32.4	21.0	21.2	17.7	16.7
	In chiropractic colleges	33.3	54.1	63.0	51.8	53.1	47.6
	In other colleges/universities	13.3	5.4	7.4	12.9	10.4	0.0
	In both chiropractic and other colleges and universities	16.7	8.1	8.6	14.1	18.8	35.7
Total Percent		**	**	**	**	**	**
No. Respondents		30	37	81	85	96	42

Inference: The highest income group is much more likely to have taken post-graduate work in both chiropractic and in other colleges/universities than the lower income groups.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-31.

*Income Group:
(1) Under $10,000
(2) $10,000 to $20,000
(3) $20,000 to $50,000
(4) $35,000 to $50,000
(5) $50,000 to $100,000
(6) Over $100,000

**Columns do not add up to 100 percent due to overlapping conditions.

TABLE 29.--Post-Graduate Courses Taken (3-9) in Relation to Income Group (1-14).

		Income Group (1-14)*					
		(1)	(2)	(3)	(4)	(5)	(6)
(3-9)	Orthopedics	16.7	18.9	27.2	29.4	43.8	38.1
	Roentgenology	20.0	27.0	35.8	38.8	47.9	59.5
	Neurology	10.0	8.1	9.9	4.7	10.4	23.8
	Diagnostic Areas	16.7	13.5	33.3	37.6	38.5	52.4
	Special Chiropractic Techniques	30.0	35.1	46.9	52.9	46.9	64.3
Total Percent		**	**	**	**	**	**
No. Respondents		30	37	81	85	96	42

Inference: The highest income DCs are more likely to have taken post-graduate courses in orthopedics, roentgenology, diagnostic areas and special chiropractic techniques than lower income chiropractors.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-25.

*Income Group: (1) Under $10,000
(2) $10,000 to $20,000
(3) $20,000 to $35,000
(4) $35,000 to $50,000
(5) $50,000 to $100,000
(6) Over $100,000

**Columns do not add up to 100 percent due to overlapping conditions.

TABLE 30.--Preference in Seminar Subjects (4-3) in Relation to Income Group (1-14).

		Income Group (1-14)*					
		(1)	(2)	(3)	(4)	(5)	(6)
(4-3)#	(-1)	36.7	39.7	45.7	31.8	44.8	47.6
	(-2)	20.0	27.0	34.6	27.1	34.4	54.8
	(-3)	10.0	24.3	27.2	23.5	16.7	35.7
	(-4)	23.3	27.0	23.5	32.9	37.5	28.6
	(-5)	20.0	18.9	35.8	41.2	37.5	50.0
	(-6)	23.3	21.6	29.6	27.1	33.3	28.6
	(-7)	26.7	45.9	51.9	43.5	44.8	57.1
	(-8)	40.0	40.5	43.2	45.9	58.3	45.2
	(-9)	26.7	32.4	46.9	36.5	37.5	52.4
	(-10)	33.3	54.1	50.6	56.5	46.9	38.1
Total Percent		**	**	**	**	**	**
No. Respondents		30	37	81	85	96	42

Inference: The highest income group is more interested in seminars in (-2), (-5), (-7) and (-9) than the lower income groups.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-33.

*Income Group: (1) Under $10,000; (2) $10,000 to $20,000; (3) $20,000 to $50,000; (4) $35,000 to $50,000; (5) $50,000 to $100,000; (6) Over $100,000

**Columns do not add up to 100 percent due to overlapping conditions.

***(-1) Trauma effects on body joints.
(-2) Latest advances in radiographic technology.
(-3) Visualizations in clinical and pathological anatomy.
(-4) Evolving concepts in kinesiological biomechanics.
(-5) Neurological concept of chiropractic and its current status.
(-6) Developments in innovative therapy--R & D at chiropractic colleges.
(-7) Differential diagnosis of low back, upper back and neck pains.
(-8) Neurological implications of diet deficiencies and nutritional management.
(-9) Orthopedic disability evaluation and impairment rating.
(-10) Dealing with health insurance claims and DC responsibilities in third party payment claims.

TABLE 31.--Location Preference for Taking Courses (4-6-1) in Relation to Income Group (1-14).

	Income Group (1-14)*					
	(1)	(2)	(3)	(4)	(5)	(6)
(4-6-1) Yes	23.3	24.3	39.5	38.8	44.8	40.5
No	76.7	75.7	60.5	61.2	55.2	59.5
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
No. Respondents	30	37	81	85	96	42

Inference: The highest income groups are more likely to prefer Continuing Education courses at a nearby college/university than the lower income groups of chiropractors.

SOURCE: Sanford Ulrich, Chiropractic in Michigan: A Statistical Survey, 1978, Table B-35.

*Income Group:

(1) Under $10,000
(2) $10,000 to $20,000
(3) $20,000 to $35,000
(4) $35,000 to $50,000
(5) $50,000 to $100,000
(6) Over $100,000

Summary

The purpose of the study was to determine the current status of continuing education practices of the Michigan chiropractor, and to discover the perceived learning needs of these practitioners.

By means of the survey instrument employed, a number of indications are noted in the displays shown in this chapter. That part of the research questionnaire relevant to this investigation addresses the age of the doctors of chiropractic in the State, their income brackets, and the size of the community in which they practice. Their modes of practice are manifested, including a self-rating chart of their perceived degrees of skill exhibited in several professional conduct areas.

The educational background of the doctors has been elicited including what post-graduate work has been taken and in what environment. The chiropractors' desires and preferences in continuing post-graduate education have been deduced and presented, including where and when they believe the courses should be held, who the preferred instructors should be and who should bear the cost of the education.

Cross-tabulated exhibits go into further detail of DC practitioners' post-graduate work taken and the education desired for the future according to age bracket, community size and income level.

Chapter V will contain the conclusions, implications and recommendations derived from this research study.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Introduction

This chapter presents a summary of the study, discussion of the findings, conclusions, implications, and recommendations generated from the data analysis. Suggestions for further research conclude the investigation.

Purpose of the Study

Chiropractic is a relative newcomer to the field of health professions and because of its radical concept of the cause and treatment of disease has been ostracized by the opinions of conventional medicine. Continuing professional (DC) education has been mandatory in Michigan for forty-five years. However, the two-day compulsory attendance at an educational conference for annual relicensure poses no uniform plan for upgrading the chiropractor's competence, a commendable goal.

The basic purpose of the study was to determine the status of current continuing educational practices and the perceived desires for post-doctoral learning as expressed by the chiropractors of the state of Michigan. When the educational practices are determined and the expressed needs obtained, a systematic development of an educational

program for the state's doctors of chiropractic will be made and presented to the profession for implementation after approval by the authorities in the profession.

Review of the Literature

The literature on continuing professional education was found to be scarce and not very illuminating. In the chiropractic area, some self-assessment surveys on state and national levels were done rather well by some unbiased researchers having an apparently deep interest in locating factual data but having little to investigate in the historical background that was not tainted by the prejudices of organized medicine and its affiliates. The surveys made do not address education as much as other factors, demographic and/or socio-economic studies plus utilization statistics for chiropractic services on a state-wide basis.

Doctoral dissertations are also rare to find on the subject matter relevant to this study. A 1971 dissertation on the perceived needs of continuing medical education of Ohio physicians reviews areas of clinical interest to medical practitioners and loses some credibility as it is based on a 25 percent response rate. It does, however, detail various methods of instruction and training aids which some physicians liked and others disliked. A 1974 dissertation taking a sociological approach concludes that the chiropractor should not be labeled as a behavioral deviant by society because of his radically different explanation for the cause and remedy of disease. Future researchers are also cautioned to re-examine their "labeled" approach to any study in this field.

Textbook and periodical literature on the health sciences mention chiropractic in accordance with the author's viewpoint on "accepted" health professions. Future unbiased evaluative research will hopefully resolve many of the conflicting opinions and prejudices in the health field.

The continuing education programs reported by other contacted state chiropractic associations show little homogeneity in the subjects covered and little emphasis on the importance of continuing professional education for the maintenance and progress of the profession. This apathy may be due to these state organizations being unaware of the same information uncovered in this study on imminent intervention by government agencies into the relicensure practices of state agencies monitoring health services.

A review of the replies received from several health-related professional associations reveals the type of subjects offered and the means of assuring the availability of continuing education to their members. The recent institution of mandatory annual relicensure requirements for most of the health-related professions predicate the educational need and the type of subjects taught in order to satisfy those imposed requirements for maintaining or upgrading professional competence. However, a review of the continuing education programs of some non-health-related professions discloses that, although they will remain voluntary, such programs are much sought after by progressive members who realize the benefits of additional knowledge and take advantage of such opportunities to advance in their chosen field.

Design of the Study

The design of the study, which was descriptive in nature, sought to analyze the perceptions of Michigan doctors of chiropractic relative to their needs in post-doctoral learning and to determine the current status of continuing education practices in the state.

A comprehensive questionnaire was mailed to a 100 percent sample of the chiropractic community. The questionnaire requested the respondents' opinions and perception of four areas of professional practice: socio-economic, practice statistics, educational background, and continuing profession education. The first three areas were required to obtain a profile of the Michigan chiropractor to satisfy the Michigan State Chiropractic Association, which sponsored the project. The last area was an innovative one tacked on to the survey instrument to obtain reactions on perceived educational needs. Comments were solicited at the end of the questionnaire.

The survey instrument was administered in April of 1977 with a follow-up letter sent two weeks later to speed up the slow response. One month later was the cut-off date with 386 respondents or 45 percent when the data was punched on IBM data processing cards and processed by the Michigan State University CDC 6500 computer. Analyses and inferences of relevant data appeared in Chapter IV.

Findings of the Study

In order to determine the current status of continuing professional education and the perceived learning needs of Michigan chiropractors, some of the data from each part of the questionnaire

were examined. The age bracket of a majority of the respondents is between twenty-five and forty-four years. With twenty to forty years of professional life ahead of them, the majority of the doctors have the time to devote some effort toward improving their skills and knowledge in the health field.

Except for the one-third of the responding DCs, practicing in towns over 100,000 population, and the small percentage in communities under 2,500, all the others were almost evenly distributed around the state. This could be a factor of consideration in selecting the sites where courses may be given.

The practitioners indicated that the most important reasons for choosing the location in which to practice were the perceived need for their services and the financial prospects. Whether or not the doctors have achieved these goals, it would appear that continuing their professional education will maintain and improve their status.

In Part II of the survey instrument, it was determined that most patient referrals are obtained from other patients, many through personal contact and walk-ins but relatively few from other health professionals. This low rate of interprofessional referral of patients is a situation which deserves immediate attention to secure positive changes via education of the other health professionals.

The amount of health counseling given to patients by DCs is large but not a measurable quantity. This item in itself could be the basis of research for this or any health profession. The methods of determining patient progress indicate the need for more education in chiropractic office procedures, via continuing education courses,

since no clear pattern emerges from the data obtained. Evaluation of the quality of service performed is made, by almost 95 percent of the practitioners, by means of questioning the patient and/or re-examine and re-X-ray after the period of treatment. This is a positive reflection on the concern expressed by the doctor for his patient.

Chiropractors, self-rating their skills in dealing with various professional contacts, reveal their lack of ability to properly deal with MDs, DOs, insurance companies and attorneys. This suggests some remedial action via communication and discussion at appropriate seminars to resolve difficulties.

Part III addressed the educational background of the Michigan DC practitioner. The majority have the required two years of pre-professional college preparation with over a fifth having their Bachelor's degree. Analysis of where post-graduate work was taken by the DCs reveals a disturbing 22.5 percent who have not taken any PG work, outside of the mandatory requirements for license renewal. This situation definitely requires the advantages to be gained by attendance at continuing education courses.

The distribution of course work taken by the chiropractors indicates emphasis on those subjects considered most essential to a chiropractor's armamentarium, and bodes well for their possible future interest in pursuing further studies in those subject areas.

Part IV directly addresses the perceived needs of the DC for continuing professional education. Tabular displays show the wide variety of science subjects they would like to review, be taught or in which they would like seminars. When and where courses should be

given, type of instructors and responsibility for the cost of the continuing education are additional answers elicited from the questions.

Analysis of data by cross-tabulation gave some interesting inferences:

1. Chiropractors practicing in larger communities are more likely to have taken post-graduate courses in Orthopedics and are more interested in reviewing orthopedic tests recommended for patient examinations than DCs practicing in smaller communities.

2. Chiropractors practicing in larger communities are more interested in instruction in practical clinical psychology and practice-building procedures that DCs practicing in small communities.

3. Compared with younger DC practitioners, the older chiropractors are more likely to have taken postgraduate courses in orthopedics, neurology and in diagnostic areas.

4. Chiropractors in the thirty-five to forty-four year age group are most interested in reviewing all subject areas, especially the orthopedic and neurological tests for patient examination.

5. Younger chiropractors are more interested than older DC practitioners in instruction in advanced radiographic interpretation, in sports hazards and management of athletic injuries, and in practice-building procedures.

6. The highest income group is much more likely to have taken post-graduate work in both chiropractic and in other colleges/universities than the lower income group.

7. The highest income groups of DCs are more likely to have taken post-graduate work in orthopedics, roentgenology, diagnostic areas and special chiropractic techniques than lower income chiropractors.

8. The highest income group is more interested in seminars in: (a) latest advances in radiographic technology; (b) neurological concept of chiropractic and its current status; (c) differential diagnosis of low back, upper back and neck pains; and (d) orthopedic disability evaluation and impairment rating than the lower income groups.

9. The highest income groups are more likely to prefer continuing education courses at a nearby college/university than the lower income groups of chiropractors.

Conclusions

The chiropractic population of Michigan has been studied for their perceived post-doctoral learning needs and their current continuing education practices. As in any study using a non-standardized questionnaire to collect data from a specific population, caution must be used in drawing inferences from the findings. Neverthless, the results of the study indicate several conclusions which are presented below. These conclusions apply only to the population under study in Michigan.

1. The chiropractic population of Michigan has responded to the questions presented in Chapter III:

a. Over one-half (52.3 percent) of the DC practitioner respondents indicate no interest in public relations, public speaking and other communicative skills, and over on-half (54.6 percent) have no interest in acquiring additional science degrees.

b. Responding practitioners prefer to attend continuing education classes in Lansing (46.1 percent), at a nearby college or university (75.1 percent), on weekends (62.4 percent), and for two days (51.3 percent).

c. DC respondents (77.1 percent) believe that the continuing education courses should lead to specialty certification, although 52.1 percent do not wish to qualify as a DC specialist.

d. Over one-half (51.1 percent) of the doctors believe the cost of the continuing education courses should be borne entirely by the practitioner, with 42.0 percent preferring to share the cost with their association.

e. Most respondents (66.3 percent) state their belief that past educational courses for relicensing requirements have upgraded their professional competence.

f. Of the chiropractors participating in the survey, 57 percent are satisfied with the type and quality of continuing education courses given for license renewal purposes.

2. The DCs have indicated an awareness and the degree of preference for certain subjects which relate to what is accepted as

chiropractic practice. The specific subjects are displayed in rank order in Chapter IV tables.

3. The responding practitioners' apparent need for continuing professional education is revealed by the current post-graduate learning activities which are limited to the mandatory requirements for annual relicensure. All other continuing education is obtained in a haphazard manner when and where advertised in the professional media. Attendance is predicated on the doctors' perception of the course importance to them, the time available and the distance to be traveled.

Implications and Recommendations

While the study has certain limitations, the findings have significant meaning for the chiropractic doctors of Michigan and perhaps for practitioners in other states of the union.

The following implications and recommendations were derived from the findings of the study:

1. The literature review shows the dominant role and influence of medical orthodoxy on the thinking of the scientific community and many of the lay public on any and all aspects of health care provision.

2. A series of professional education programs for the Michigan chiropractor should be instituted (perhaps approved and/or monitored by the Michigan Board of Chiropractic Examiners) with reference to the findings of this study, hopefully motivating the practitioner for immediate involvement in this upgrading procedure--without legal compulsion.

Recommendations for Further Research

1. Replicate this study in three years or following a major revision in the Chiropractic Practice Law of Michigan or in the activities of the DHEW to determine what changes may have occurred in the perceptions of Michigan doctors of chiropractic regarding the impact or importance of continuing post-graduate education on their professional lives.

2. Replicate and expand this study to include comparisons with chiropractic educational programs existing or being generated in other States.

3. Replicate this study to include comparisons with like perceptions of continuing education needs in other health professions.

4. Develop and conduct an in-depth investigation of continuing education identifying and comparing preferences based on sex, ethnic origin, family background and similar variables.

Reflections

This study was not intended to be a definitive investigation of the Michigan chiropractor, but rather an exploratory, descriptive treatment of an issue which can have a decided influence on the future progress of a minority health care profession. The ultimate benefit will accrue to the public which that profession serves.

There is a strong potential for continuing professional education among the members of the chiropractic profession in Michigan. The statistics derived from the study show a professional person with a habit of learning and the willingness to pursue continuing education

courses. However, apathy toward increasing knowledge and skills pertaining to chiropractic practice beyond the present meager requirements for relicensure could be fatal or at best extremely traumatic for the profession.

A review of the recent publications of the U.S. Department of Health, Education and Welfare presents a definite picture of intent on the part of that government agency in the near future to strongly influence, if not actually monitor, the tests aimed at discovering the health practitioner's retention of new skills and knowledge acquired. This would supposedly demonstrate maintenance and upgrading of professional competency for annual relicensure to practice the profession.

It is the sincere hope of the researcher that this study and its findings will stimulate the consciousness of other chiropractic professionals in Michigan and in other states to seriously consider the probability in the near future of written or oral examinations becoming mandatory on a periodic basis through the influence of Federal government intervention, and that they prepare themselves for such an eventuality.

The researcher, a Michigan practitioner, appears to be the only member of his profession who has made the effort to study his colleagues via this type of investigation. It is presumed that future researchers in this area of inquiry will include DCs who will also investigate both of the current practice concepts under which the profession labors and, by reporting their findings, create a better understanding among the chiropractic population to truly unify and strengthen the profession.

The emergence of a majority of chiropractic "straight-mixers" in Michigan and in all the United States would be a highly desireable outcome. Failing such attempt at unification of the profession, state laws should permit a variance in the mode of practice according to the training received by the individual practitioner. The "straight" chiropractors would operate under one license while the "mixer" chiropractic physician would practice under a broader practice scope yet avoiding surgery and drug medication. Either method would create the necessary harmony required for the healthy growth of a needed profession.

APPENDICES

APPENDIX A

LETTER AND LIST OF OFFICIALS OF EACH STATE ORGANIZATION REPRESENTING CHIROPRACTIC

Michigan State
Chiropractic Association
520 E Michigan Ave
Lansing Michigan 48933
(517) 487-5061

(The letter shown below was sent to the listed officials of each State organization representing chiropractic.)

June 25, 1976.

Dear Sir:

We are undertaking a self-assessment program which will hopefully present a more factual image of the chiropractic profession in Michigan in deliberating with state legislative members, committees, and agencies responsible for state health policy.

In gathering relative information, we wonder whether your State ever made such a survey and if you could provide us with a copy. In any event, would you please furnish the following data from your files:

1. What is the total number of your state licensed chiropractors?
2. What is the current membership of your organization?
3. Are there other state chiropractic organizations and what is their approximate membership?
4. What educational programs are planned for your membership in 1976 (for convention or at other times) and what programs were offered in the past five years?

Your cooperation is greatly appreciated and, upon request, we will be pleased to send you a copy of our final self-assessment survey results.

Sincerely yours,

Kenneth D. Wells, D.C.

Kenneth D. Wells, D.C.
President of M.S.C.A.

President of M.S.C.A.

Sanford Ulrich, D.C.

Sanford Ulrich, D.C.

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APPENDIX A

THE STATISTICAL INVESTIGATION REQUEST WENT TO THE FOLLOWING

June 25, 1976

1. Mrs. Ruby B. Middleton
   Executive Secretary
   Alabama State Chiropractic Association
   P.O. Box 3335
   Montgomery, Alabama 36109

2. Dr. D. E. Hampton
   Secretary-Treasurer
   Alaska Association of Chiropractic Physicians
   1500 Airport Way
   Fairbanks, Alaska 99701

3. Miss Ann M. Yellin
   Association Secretary
   Chiropractic Physicians Association of Arizona
   4747 North 16th Street, Suite D-101
   Phoenix, Arizona 85016

4. Dr. Feliz Cannatella, Jr.
   Secretary-Treasurer
   Arkansas Chiropractic Association
   7410 Base Line Road
   Little Rock, Arkansas 72204

5. Mr. Charles L. Strauch
   Executive Director
   California Chiropractic Association
   2201 "Q" Street
   Sacramento, California 95816

6. Mr. Walther Hankison
   Executive Director
   Colorado Chiropractic Association
   666 Sherman Street
   Denver, Colorado 80203

7. Dr. John D. Briswald, Jr.
Secretary Treasurer
Connecticut Chiropractic Association
1457 North Street
Suffield, Connecticut 06078

8. Dr. John Paul Feeney,
Secretary
Delaware Association of Chiropractic Physicians
183 South DuPont Highway
Midvale, Delaware 19720

9. Mrs. Marian M. Poole
Executive Director
Florida Chiropractic Association
Suite 101 - Amherst Building
3203 Lawton Road
Orlando, Florida 32808

10. Dr. Hazel C. Cotney
Secretary
Georgia Chiropractic Association
308 West Main Street
Thomaston, Georgia 30286

11. Dr. Kwanlin L. K. Wong
Secretary
Hawaii Chiropractic Association
1575 South Beretania Street, Suite 210
Honolulu, Hawaii 96814

12. Dr. Geroge Ruddell
Secretary
Iadho Association of Chiropractic Physicians
2605 Willow Drive
Lewiston, Idaho 83501

13. Mr. John P. Quillan
Executive Director
Illinois Chiropractic Society
200 East Roosevelt Road
Lombard, Illinois 60148

14. Dr. Victor K. Fitch
Executive Secretary
Indiana Society of Chiropractic Physicians
Georgetown Square Professional Building
6605 East State Boulevard
Fort Wayne, Indiana 46805

15. Dr. D. E. McAreavy
Executive Secretary
Iowa Chiropractic Society
216 West Platt
Maquoketa, Iowa 52061

16. Mrs. Cinda S. Vogel
Executive Director
Kansas Chiropractors' Association
3320 Harrison
Topeka, Kansas 66611

17. Dr. Harold W. Evans
Executive Secretary
Kentucky Association of Chiropractors
P.O. Box 1117
Bowling Green, Kentucky 42101

18. Dr. Paul J. Adams
Secretary-Treasurer
Louisiana Chiropractic Society
1101 East Simcoe
Larayette, Louisiana 70501

19. Mr. Carroll Martin
Executive Director
Maine Chiropractic Association
Broadturn Road
Scarborough, Maine 04074

20. Dr. Harold F. Carbaugh
Secretary-Treasurer
Maryland Chiropractic Association
306 North Potomac Street
Hagerstown, Maryland 21740

21. Dr. Paul M. Hamilton
Secretary-Treasurer
Massachusetts Chiropractic Society
348 Essex Street
Salem, Massachusetts 01970

22. Mr. Eloi A. Hamre
Executive Director
Minnesota Chiropractic Association
1935 West County Road B2, Suite 224
St. Paul, Minnesota 55113

23. Dr. Thomas B. Hennington
Secretary Treasurer
Mississippi Chiropractic Association
511 West Georgia Avenue
McComb, Mississippi 39648

24. Mr. John Britton
Executive Director
Missouri State Chiropractors' Association
P.O. Box 843
Jefferson City, Missouri 65101

25. Mr. Alfred F. Dougherty
Executive Secretary
Montana Chiropractic Association
P.O. Box 593
Helena, Montana 59601

26. Dr. Gordon Kuether
Secretary
Nebraska Chiropractic Physicians' Association
1454 Colfax Street
Blair, Nebraska 68008

27. Dr. Kenneth L. Yeokum
Secretary Treasurer
Chiropractic Association of Nevada
618 South Center Street
Reno, Nevada 89501

28. Dr. John W. Sing
Secretary Treasurer
New Hampshire Chiropractic Research Association
20 East Broadway
Derry, New Hampshire 03038

29. Dr. Arnold E. Cianciulli
Executive Secretary
New Jersey Chiropractic Society
940 Avenue "C"
Bayonne, New Jersey 07002

30. Dr. R. D. Mitchell
President
New Mexico Chiropractic Association
P. O. Box 1768
Alamogordo, New Mexico 88310

31. Mr. Howard S. Davis
Administrator
New York State Chiropractic Association
45 John Street
New York, N.Y. 10038

32. Dr. Roy A. Ottinger
Secretary-Treasurer
North Dakota Chiropractic Association
Box 1643 - 1300 6th Avenue, N.E.
Jamestown, North Dakota 58401

33. Mr. Richard H. Zimmerman
Executive Director
Ohio State Chiropractic Association
1880 Harwitch Road, P.O. Box 5581
Columbus, Ohio 43221

34. Mr. Fred W. Woodson
Executive Secretary
Chiropractic Association of Oklahoma
P. O. Box 4470 - Donaldson Station
Tulsa, Oklahoma 74104

35. Ms. Betty Tower
Administrative Assistant
Oregon Association of Chiropractic Physicians
P.O. Box 20455
Portland, Oregon 97220

36. Pennsylvania Chiropractic Society
344 North 21st Street
Wagner Building, Suite 108
Camp Hill, Pennsylvania 17011

37. Dr. Vincent J. Cavallaro
Secretary
Chiropractic Society of Rhode Island
371 Broadway
Providence, Rhode Island 02909

38. Dr. Max Winkler
Executive Secretary
South Dakota Chiropractors' Association
108 West Missouri
Pierre, South Dakota 57501

39. Dr. LaDon Butler
Secretary
South Carolina Chiropractic Association
4 East Hamilton
Williamston, South Carolina 29697

40. Dr. Charles Walker
Executive Director
Texas Chiropractic Association
508 West 16th
Austin, Texas 78701

41. Dr. Lee Roy Selby
Executive Director
Tennessee Chiropractic Association
Suite 300 Castile Office Center
1161 Murfreesboro Road
Nashville, Tennessee 37317

42. Dr. John E. Clikeman
Secretary
Utah Chiropractic Association
525 South State Street #10
Clearfield, Utah 84015

43. Dr. George B. McClelland, Jr.
Secretary
Virginia Chiropractors Association
131 Huntington Lane
Blacksburg, Virginia 24060

44. Dr. Charles McLean
Secretary Treasurer
Vermont Chiropractic Association
14 St. Paul Street
Burlington, Vermont 05401

45. Dr. Mike Risdon
Secretary Treasurer
Wyoming Chiropractic Association
1027 - 12th Street
Cody, Wyoming 82414

46. Mr. Del Beno
Executive Secretary
Wisconsin Chiropractic Association
222 South Hamilton Street
Madison, Wisconsin 53703

47. Dr. Carl D. Bartholomew
Secretary Treasurer
West Virginia Chiropractors Society
2409 Fairfield Avenue
Bluefield, West Virginia 24701

48. Washington Chiropractors Association
The Grosvenor House, Suite 402
500 Wall Street
Seattle, Washington 98121

APPENDIX B

LETTER AUTHORIZING STATISTICAL INVESTIGATION

Michigan State
Chiropractic Association
520 E. Michigan Ave.
Lansing Michigan 48933
(517) 487-5061

July 1, 1976

TO WHOM IT MAY CONCERN:

This letter will introduce Dr. Sanford Ulrich, Statistical Coordinator for the M.S.C.A., of Eaton Rapids.

On June 26, 1976 the Board of Directors of the Michigan State Chiropractic Association authorized the Statistical Investigation of the chiropractic profession in Michigan.

Any assistance that you might give Dr. Ulrich would be greatly appreciated.

Sincerely,

Kenneth D. Wells, D.C.

Kenneth D. Wells, D.C.
President

KDW/bn

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APPENDIX C

PRACTICE OPINION SURVEY LETTER AND FORM

July 13, 1976

Dear Doctor:

You are well aware of the many differing opinions on how Chiropractic should be practiced in the State. We are all of course entitled to our personal beliefs on this subject but, to present a unified, majority expression to the governor and state legislature at this time when our practice law is in jeopardy, you are asked to please indicate your opinion on the following basic question.

Your cooperation is deeply appreciated and, hopefully, the answers indicating the majority opinion of the D.C.s will favorably impress the legislative bodies deliberating an adequate and equitable practice law for Chiropractic in Michigan.

On the form below check one answer and return in the enclosed stamped, self-addressed envelope, as soon as possible. Results of this study will be found in both the MSCA and MCC news columns.

Sincerely,

S. Ulrich DC

Sanford Ulrich, D.C.
Statistical Coordinator

SU/bn
enc.

- -

How Would You Like to See Chiropractic Practiced in Michigan?

1. By hands only -- spine only? ☐
2. By diagnosis/analysis, spinal adjustment and joint manipulation? ☐
3. By diagnosis/analysis, spinal adjustment, joint manipulation, physical therapy and nutrition? ☐
4. By all the above, plus medication and surgery? ☐
5. Additional comments_____

_____

_____

_____
Signature

APPENDIX D

PRACTICE OPINION SURVEY RESULTS

Tabulation of the Results of the Practice Opinion Survey of Michigan Chiropractors (completed August 16, 1976).

Preferred Choices			Rounded to
No. 1	34 of 579 Useable Responses*	$\frac{34}{579} = 5.9$	6%
No. 2	42 of 579 Useable Responses	$\frac{42}{579} = 7.3$	7%
No. 3	434 of 579 Useable Responses	$\frac{434}{579} = 75.0$	75%
No. 4	69 of 579 Useable Responses	$\frac{69}{579} = 11.9$	12%
			100% (579)

*579 Useable Responses (signed and choice marked)
14 Unsigned (not counted in results)
5 Unmarked (no choice made--not counted in results)
598 Total Responses from 852 mailings, or 70% return

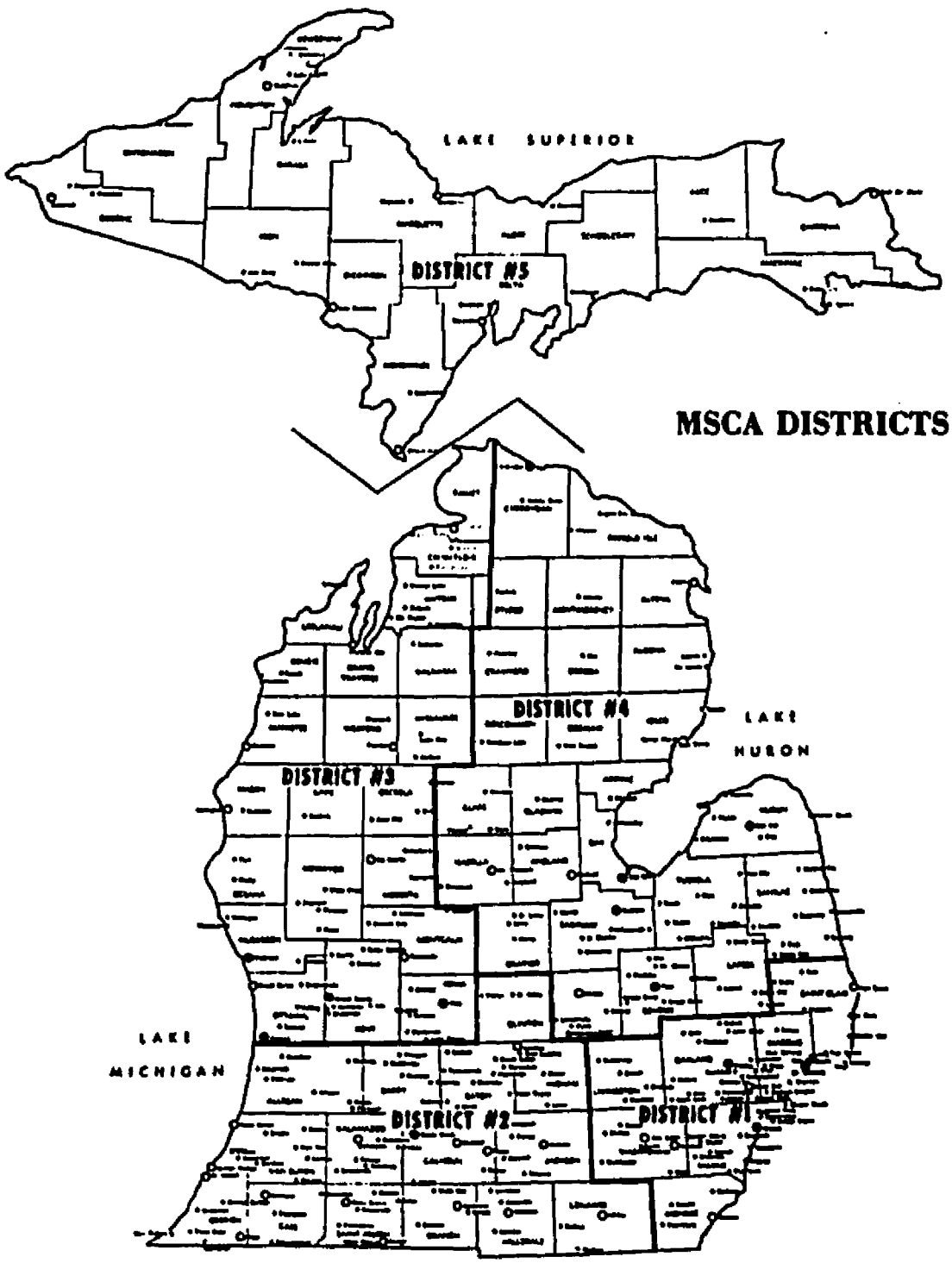
APPENDIX E

DC DISTRIBUTION IN MICHIGAN DISTRICTS

Distribution of Michigan DCs by MSCA Regional Districts as of February 1977.

District	Number	Percent
1	363	42.7
2	176	20.7
3	145	17.1
4	134	15.8
5	32	3.8
TOTALS	850 Resident Licensees	*

*Do not add up to 100 percent due to rounding.


LAKE SUPERIOR
DISTRICT #5
MSCA DISTRICTS
DISTRICT #4
LAKE HURON
DISTRICT #3
LAKE MICHIGAN
DISTRICT #2
DISTRICT #1

APPENDIX F

LETTER OF TRANSMITTAL AND QUESTIONNAIRE FORMS

Michigan State
Chiropractic Association

Michigan State
Chiropractic Association
520 E Michigan Ave
Lansing Michigan 48933
(517) 487-5081

April 12, 1977

Dear Doctor:

Enclosed you will find a survey that will seek to determine the profile of chiropractic physicians in Michigan. The purpose of this survey is two-fold:

1) To determine where the Michigan Chiropractic physician stands in relation to chiropractic physicians in other states,

2) To determine what kinds of continuing education programs the Chiropractic physician in Michigan feels would be beneficial to advance the profession in Michigan.

As each of you knows, there is increased concern by organizations like HEW, Michigan Department of Public Health, etc., to provide the patient with the best health care available. Indications are that all health practitioners may eventually have to prove their competency by periodic examinations as a basis for renewing their license to practice. Therefore, it is important to make a needs assessment now, in order to plan for future growth of the chiropractic profession.

In order to get a survey that accurately reflects the Michigan Chiropractic physician, it is important that each D.C. participate. Your cooperation involves completing the enclosed form (about a 20 minute task) and returning it in the pre-paid envelope.

All individual surveys will remain confidential. The material will only be used in total to reflect the findings of the requested information. Each chiropractic physician will receive a copy of the survey once it has been completed. This will help you learn how your colleagues in Michigan view chiropractic.

Please don't overlook the urgency for participating in this effort. Your cooperation will be greatly appreciated.

Sincerely,

Sanford S. Ulrich, D.C.
Survey Coordinator

Mark B. VanWagoner, D.C.
President, M.S.C.A.

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QUESTIONNAIRE

Part I. Socio-economic profile: (please circle the number of your choice unless otherwise noted)

Example: Are you married?
(1-0) 1 Yes 2 No

ITEM #

(1-1) What is your age group?

1 Under 25
2 25-34
3 35-44
4 45-54
5 55-64
6 Over 65

(1-2) What is your community population size?

1 Under 2500
2 2500-5000
3 5000-10,000
4 10,000-25,000
5 25,000-50,000
6 50,000-100,000
7 Over 100,000

(1-3) Were you raised in the community where you now practice?

1 Yes
2 No

(1-4) Do you belong to any community organizations?

1 Service (Kiwanis, Lions, Rotary, etc.)
2 Fraternal (Elks, Masons, K.C., etc.)
3 Business groups (Chamber of Commerce, etc.)
4 Recreation clubs (bowling, golf, gym, etc.)
5 Church (choir, Sunday school, etc.)
6 Military (American Legion, VFW, etc.)
7 Do not belong to any community organization

(1-5) How long have you practiced in your present location?

1 Under 1 year
2 1-5 years
3 6-10 years
4 11-20 years
5 over 20 years

(1-6) How is Chiropractic accepted in your community?

1 Fully 2 Tolerated 3 Strongly opposed

(1-7) How many times did you relocate since starting to practice?

_____

How important in choosing your present location was each?

		Very Important	Some Importance	Unimportant
(1-8)	Perceived need for DC services	1	2	3
(1-9)	Financial prospects	1	2	3
(1-10)	Family ties	1	2	3
(1-11)	The climate	1	2	3
(1-12)	Acquiring an established practice	1	2	3
(1-13)	Recreational environment	1	2	3

(1-14) In what group is your gross annual practice income?

1 Under $10,000
2 $10,000 to $20,000
3 $20,000 to $35,000
4 $35,000 to $50,000
5 $50,000 to $100,000
6 Over $100,000

Part II. Practice Statistics:

(2-1) Do you practice?

1 In an office only
2 In a home/office combination

(2-2) How do you conduct your practice?

1 Without any assistants
2 With one assistant
3 With more than one assistant

(2-3) Are you in practice?

1 Alone
2 With a DC partner
3 In group practice
4 Incorporated as a PC

(2-4) How many days per week do you practice?

1 Two
2 Three
3 Four
4 Five
5 Total hours? _____

(2-5) What is the average number of patients seen per week?_____

(2-6) About how many new patients are seen each week?_____

(2-7) Do you treat patients?

1 Outside of regular office hours
2 Make house calls
3 Make night calls
4 None are so treated

(2-8) Do you take routine x-rays before treatment?

1 Yes
2 No

(2-9) What is the usual charge for an initial examination?

$_____

(2-10) What is the usual charge for a routine office visit?

$_____.

(2-11) On patient billing arrangements?

1 Do they pay at each visit
2 Are they billed monthly
3 Do you make credit arrangements
4 Do you use a collection agency

(2-12) How many vacation days do you average per year?_____

(2-13) How is your practice cared for in your absence?

1 By the office assistant
2 By the DC partner
3 By another DC
4 By no one, office is closed

(2-14) How are patients obtained?

1 By personal contact
2 From walk-ins
3 Referrals from patients
4 Referrals from other health professionals

(2-15) Do you refer patients to?

1 Other DCs
2 MDs
3 DOs
4 Other health professionals

(2-16) Do you receive referrals from?

1 DCs
2 MDs
3 DOs
4 Other health professionals

(2-17) How much health counseling do you give patients?

1 A great amount
2 Average
3 Some
4 None at all

(2-18) How do you get feedback from your patients?

1 Asking questions after treatment
2 Letting patients report progress
3 By neither, referrals indicate satisfaction

(2-19) How do you evaluate the quality of your services?

1 By re-examinations and re-x-rays
2 Patient feedback by questioning
3 No quality evaluation made

How would you rate your skills in each of the following?

		Good	Adequate	Poor	None
(2-20)	Diagnosis/analysis	1	2	3	4
(2-21)	Treatment/adjustment	1	2	3	4
(2-22)	Dealing with patients	1	2	3	4
(2-23)	Dealing with other DCs	1	2	3	4
(2-24)	Dealing with MDs/DOs	1	2	3	4
(2-25)	Dealing with insurance companies	1	2	3	4
(2-26)	Dealing with attorneys	1	2	3	4

Part III. Educational Background:

(3-1) Did you have another occupation before Chiropractic?

1 Yes 2 No

(3-2) If yes to above, in what field did you work?_____

(3-3) Did you attend college before your Chiropractic training?

1 Yes 2 No

(3-4) If yes, was it for?

1 One year
2 Two years
3 Three years
4 A Bachelor's degree
5 An advanced degree

(3-5) Where did you receive your Chiropractic education?

1 Palmer College of Chiropractic
2 National College of Chiropractic
3 Lincoln College of Chiropractic
4 Logan College of Chiropractic
5 Los Angeles College of Chiropractic
6 Texas Chiropractic College
7 Northwestern College of Chiropractic
8 Cleveland Chiropractic College
9 Columbia Institute of Chiropractic
10 Western States Chiropractic College
11 Canadian Memorial Chiropractic College
12 Other_____

(3-6) When did you graduate from your Chiropractic college?

1 Before 1930
2 1930-1939
3 1940-1949
4 1950-1959
5 1960-1969
6 1970-1976
7 1977

(3-7) Are you licensed to practice?

1 In Michigan only 2 In other state(s) also

(3-8) Have you taken post-graduate work in?

1 Chiropractic colleges 2 Other colleges/universities

(3-9) Of the post-graduate courses taken, were they in?

1 Orthopedics
2 Roentgenology
3 Neurology
4 Diagnostic areas
5 Special chiropractic technique
6 Other_____

Part IV. Continuing Professional Education:

(4-1) Would you like to review?

1 The work-up for a chiropractic case history
2 Procedures in physical examination of a typical patient
3 Orthopedic tests recommended for patient examination
4 Neurological tests relative to patient examination

(4-2) Would you like instruction in?

1 Diversified manipulative techniques
2 Advanced radiographic (x-ray) interpretation
3 Sports hazards and management of athletic injuries
4 Practical clinical psychology
5 Practice-building procedures

(4-3) Would you like seminars on?

1 Trauma effects on body joints
2 The latest advances in radiographic technology
3 Visualizations in clinical and pathological anatomy
4 Evolving concepts in kinesiological biomechanics
5 Neurological concept of chiropractic and its current scientific status
6 Latest developments in innovative therapy, experimental investigations, research and development at DC colleges
7 Differential diagnosis of low back, upper back, and neck pain syndromes
8 Neurological implications of dietary deficiencies and role of nutritional management in chiropractic practice
9 Orthopedic disability evaluation and impairment rating
10 Dealing with health insurance claims and responsibilities of the DC in third party payment claims.

(4-4) Would you like classes in public relations, public speaking and other communication skills?

1 Yes 2 No

(4-5) Would you consider taking courses leading to additional degree(s) in the sciences?

1 Yes 2 No

(4-6) Where do you believe continuing chiropractic education courses should be given?

1 At a nearby college/university
2 In a public or private facility
3 By a multi-media approach not requiring formal classroom instruction
4 Have no preference

(4-7) Should these courses be presented by?

1 Chiropractic (DC) instructors only
2 Any subject-qualified instructors (Ph.D., etc.)
3 No preference

(4-8) Would you be interested in taking courses on?

1 Wednesdays during the daytime
2 Thursdays during the daytime
3 Weekends
4 Evenings. If so, which_____

(4-9) How long a seminar would you prefer?

1 One day
2 Two day
3 Three day
4 Four day
5 Five day
6 No preference
7 Not interested in any

(4-10) Where would you prefer to attend classes? (Circle three choices)

1 Detroit
2 Flint
3 Lansing
4 Grand Rapids
5 Ann Arbor
6 Gaylord
7 Battle Creek
8 Houghton
9 Kalamazoo

(4-11) If you had a choice, would you prefer?

1 Taking full-time classes to complete course(s) quicker
2 Extending instruction over a longer period of time.

(4-12) Do you believe continuing education courses should be counted toward a specialty certification?

1 Yes 2 No

(4-13) Would you like to qualify as a specialist DC?

1 Yes 2 No

(4-14) If yes to above, in which field?_____

(4-15) Should continuing chiropractic education costs be borne by?

1 The practitioner alone
2 Shared with the member's association
3 Sponsored entirely by the member's association

(4-16) Do you honestly believe that past exposure to educational courses for annual relicensure has upgraded your competence in practice?

1 Yes 2 No

(4-17) Are you satisfied with the type and quality of continuing education courses as now given for license renewal purposes?

1 Yes 2 No

(4-18) If not satisfied, how would you suggest improving the situation?

_____

_____

_____

_____

(4-19) Any additional comments you care to make?

_____

_____

_____

_____

(4-20) Would you like a copy of the completed study results?

1 Yes 2 No

APPENDIX G

FOLLOW-UP LETTER TO QUESTIONNAIRE

Michigan State
Chiropractic Association
520 E. Michigan Ave
Lansing Michigan 48933

Michigan State
Chiropractic Association

May 9, 1977

Dear Doctor:

The response to our survey questionnaire on the Michigan chiropractor, sent out last month, has been good to date, but a higher percentage of returns would increase the accuracy of results representing the true sentiments and characteristics of the state's practitioners.

If you have returned the completed questionnaire, thank you for your time and effort in participating. However, if you have overlooked sending in the forms please do so now, so that the study can be finalized and the results distributed. A duplicate form will be mailed on request if the original mailing was lost or misplaced. Remember, each doctor's reply makes the study more meaningful and accurate.

Again, thank you for your cooperation.

Sincerely,

Sanford S. Ulrich, D.C. (gbs)
Survey Coordinator

Mark B. Van Wagoner, D.C. (gbs)
President, MSCA

SSU:gbs

Founded 1933

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