Survey of vision education and vision care practices of two health professions: Chiropractic and naturopathic

David A. Rumpf

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Degree Type
Thesis

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Survey of Vision Education and Vision Care Practices of Two Health Professions: Chiropractic and Naturopathic

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December, 1981
ABSTRACT

An overview of the chiropractic and naturopathic professions is presented in this paper. History, theories, therapeutic modalities, and educational preparation are discussed. Emphasis is given to education covering the eye and vision at Western States Chiropractic College and the National College of Naturopathic Medicine. A practitioner survey was conducted to investigate referral patterns, ocular screening areas, and ocular treatment areas. The survey revealed that a majority of chiropractors and naturopaths rarely receive referrals from optometrists. Conversely, a majority of chiropractors and naturopaths purport to refer patients to optometrists at least occasionally. Almost half of the chiropractors and two thirds of the naturopaths questioned do some form of ocular screening. Close to half of the chiropractors and naturopaths are involved in treatment of certain ocular conditions.
INTRODUCTION

Today's health care consumer has available many alternatives when seeking primary health care. Patients can follow the standard route and look for care within the traditional medical community, in which case the patient would be treated by an allopathic or osteopathic physician. Patients may otherwise consider utilizing alternative services offered by non-traditional health professionals, such as chiropractors and naturopaths.

These other health providers have become more acceptable to the public for many reasons. To some patients they are a new hope, another chance to cure their ills. After a number of unsuccessful attempts by a physician to help them, a patient may have lost some faith in his doctor and be more apt to try another type of provider. On the other hand, some people may be opposed to using drugs as therapy, and thus seek out a drugless healing profession. In keeping with their personal philosophies on nutrition and health, some people may consider one of the alternative professionals to be a more appropriate provider. Some may be drawn to the non-traditionalists simply out of curiosity. Still others may go this route because they think it is currently fashionable.
The optometrist as a primary health care practitioner is in a position to direct patients to other health professionals. Likewise, other professionals can direct patients to the optometrist. To carry out this role effectively, it is necessary to understand the attitudes and scope of the various healing arts. It will be the purpose of this paper to investigate two of these non-traditional healing professions, chiropractic and naturopathy, and how they may be involved in vision care.

Why examine chiropractic and naturopathy when these two professions are not vision care providers? First, as primary care providers, these professionals may see a patient who requires visual care. Second, and more important, optometrists may have patients who require referral to these practitioners, or who may want advice on whether or not to see one of these professionals for a particular problem. Third, optometrists may have patients who are being cared for by either a chiropractor or a naturopath, in which case interprofessional communication may be necessary.

Traditionally the physician has been the recipient of optometric referrals, without consideration of other possibilities. This may, or may not, be in the patients' best interests. Unfortunately, there is not much information
readily available on non-traditional professionals, so patterns are likely to change slowly, if at all. Rather than remain ignorant of non-traditional practitioners, it seems important that some basic questions be explored. The questions which are addressed in this paper concerning chiropractors and naturopaths are: 1) What is the extent of their general training, as well as specific training on the eye and vision? 2) What is the extent of their practice involving the eye and vision?

For orientation, the author will begin with an overview of each profession. This discussion will be a summary of the current literature, including informational publications distributed by the colleges and professional organizations. Information on training received by current students was obtained through personal interviews, by the author, with professors at the National College of Naturopathic Medicine and the Western States Chiropractic College. To address the question of vision care offered in private practices, a survey was done on practitioners from Oregon. The survey and cover letters are included at the end of the paper.
CHIROPRACTIC

History

The roots of chiropractic principles can be traced to the therapies of the earliest physicians. Tissue manipulation as a form of therapy has been around since recorded time. Dr. Yowbry-Smyth, of Oxford, writes, "It has now been firmly established that spinal manipulative therapy significantly predates medical therapy and, it is fair to state, has been looked upon as the only acceptable form of therapy for the greatest part of man's experimental past."¹ Ancient-like pictures, depicting spinal manipulations, have been discovered which date back as far as 17,500 B.C.¹ Greek records that date back to 1500 B.C. give instructions of manipulations to help lower back problems. The great physician Hippocrates wrote several books, among which were selections on manipulation and setting joints by leverage. He wrote, "Get knowledge of the spine, for this is the requisite for many diseases."¹ Claudius Galen, the famous Greek physician who lived from 130 to 200 A.D. was given the title "Prince of Physicians" after he cured a man by apparently adjusting his cervical vertebrae. He said, "Look to the nervous system as the key to maximum health."¹
It was not until the late 1800's that the science of chiropractic became a formalized healing art. At this point Daniel David Palmer became interested in manipulative healing techniques. He helped develop a formal education to train students; requirements for schools were determined; and ultimately state laws were written for chiropractic.

In 1913 the first licensing law was written and by 1931, 39 states had granted legal recognition to the profession.1 Today, all 50 states, the District of Columbia and Puerto Rico have laws recognizing and regulating chiropractic as an independent health profession.2

Theory

The chiropractic physician considers man to be an integrated being. In therapy, emphasis is given to spinal mechanics and neurological, muscular, and vascular relationships. Treatments are designed around two related scientific theories and principles.

The first theory is that disease may be caused by disturbances of the nervous system. Chiropractors consider these disturbances one of the most important factors in disease etiology. Cellular adaptation to external or internal environmental change is controlled by the nervous system.
Irritation of this system, by any agent or condition to which the body cannot adapt, can produce deviations from the normal patterns of nerve impulses. In this way, many diseases begin.

The second principle is that disturbances of the nervous system may be caused by derangements of the musculoskeletal structure. A common mechanical pathology in man is a subluxation of the vertebral or pelvic segments. This is caused by stresses and strains within the musculoskeletal system as man engages in asymmetrical and gravitational efforts. Once a derangement occurs, the lesion may become the site of sustained irritation to the nerve root.

Diagnostic and Therapeutic Approaches

The chiropractic physician places much emphasis on the case history and patient consultation. A systematic physical exam is performed utilizing the standard methods and instruments common to all of the health professions. In addition to this, a spinal and postural analysis is done on the patient.

In arriving at a differential diagnosis, the chiropractor will utilize many clinical procedures. A primary tool is radiology, especially as it applies to the skeletal system. Other laboratory procedures taught in the schools include
fields such as cytology, chemistry, hematology, serology, bacteriology, parasitology, and electrophysiology.

The score of chiropractic treatment is determined by state laws, but no states permit the use of prescription drugs or major surgery. Generally, the therapy will involve the chiropractic adjustment, supplemented with dietary advice, other necessary physiotherapeutic measures and professional counsel. Physiotherapeutic procedures may include diathermy, galvonic currents, infra-red and ultraviolet light, ultrasound, paraffin baths, hot or cold compresses, acutherapy, hydrotherapy, heel or sole lifts, and foot stabilizers. Counseling may cover such areas as physical and mental attitudes, personal sanitation, occupational safety, lifestyle habits, posture, rest, work and other daily activities which may enhance the chiropractic adjustment. In short, chiropractic concerns itself with the total individual's health, welfare, and survival.

**Education**

Currently, there are 15 chiropractic colleges in the United States. Eight of these have received accreditation by the Council on Chiropractic Education (CCE), and three colleges are candidates for accreditation. The CCE is
officially recognized by the U.S. Department of Education as the accrediting agency for chiropractic colleges. Over 70% of the state licensing boards require an applicant to have graduated from an accredited college.

Two years of pre-chiropractic study beyond high school are required for admission to a chiropractic college. This includes courses in English, psychology, social sciences, humanities, biological sciences, and chemistry. Once in the program, a student will receive at least 4,200 hours of professional study in four years. Generally, the first two years are devoted to basic sciences. This includes courses in the areas of anatomy, physiology, chemistry, pathology, hygiene, sanitation and public health. The second two years are spent in practical and clinical science studies of diagnosis and treatment of disease, with about half of this time being in the clinical setting. The clinical science area includes courses in gynecology, obstetrics, pediatrics, radiology, geriatrics, dermatology, toxicology, psychology, proctology, physiotherapy, differential diagnosis, and theory and practice of chiropractic.

In the curriculum at Western States Chiropractic College, there is a course taught on the eye, ear, nose, and throat. It covers a basic knowledge of ocular anatomy and physiology,
as well as detection of pathology in the eye and orbit.\textsuperscript{5} In
the clinical laboratory the students are taught techniques in
examination of the eye to supplement their course work.

Cocular pathology is presented to the students through
standard medical textbooks and a series of slides depicting
normal and abnormal conditions.\textsuperscript{6} It is the authors opinion
that the slides are similar in scope to the series used at
Pacific University College of Optometry.

Examination techniques are taught in the clinical lab-
oratory covering external exam, distance visual acuity,
ocular motility, pupil reflexes, corneal reflexes, and oph-
thalmoscopy.\textsuperscript{6,7} For external exam, the student learns to ob-
serve gross eye position and alignment, and integrity of the
lids, lashes, and eyebrows. Distance visual acuity is tested
monocularly with the standard snellen chart. The student
learns to observe for extra ocular muscle limitations and
strabismus while testing motilities. Direct and consensual
pupil reflexes are also observed. Corneal sensitivity is
elicted by touching the cornea with a wisp of cotton. The
diagnostic emphasis behind these tests is to establish the
integrity of the associated cranial nerves.\textsuperscript{6}

Ophthalmoscopic technique is presented to the students
in clinical laboratory. The students learn to observe the
fundus reflex, external eye, iris, lens, media, and the specific fundus details. They are taught how to localize the depth of opacities. Specific attention is given to fundus observation and how to properly observe the eye grounds. 6

The emphasis of this course is the detection of abnormalities. Conditions for which manipulation is the proper therapy are discussed, but the attitude of the Western States Clinic is that in most cases, ocular pathology should be referred. 8

Manpower

The chiropractic profession is similar in size to optometry. There are about 23,000 active practitioners in the United States. 9 Just less than two-thirds of these practice in cities of less than 100,000. 9 Within the coming five years about 10,000 to 13,000 new graduates will enter the work force and increase the numbers from 35 to 48 percent. 9 As of April, 1980 there were approximately 780 chiropractors in Washington, and 390 in Oregon. 10,11

The typical chiropractor is married, 41 years old and male. 4 He lives in a town of about 37,500 people and has been there for 14 years. 4 He has two children and his wife is not employed. He received the chiropractic degree at age 26 and is licensed to practice by the state board. 4 There is a one in five chance that he has taken formal postgraduate
education at a chiropractic college. He works an average of four and one half days per week, and has been in the same office for ten years. It is staffed by two employees, and his income is comparable to that of other health care professionals.

The typical chiropractic patient has been shown by several surveys to be no different than those patients of other healing professions. They are similar in regards to sex, age, income, occupation, education, and other social factors. The American Chiropractic Association estimates that 7.4 million patients were seen in 1976 alone. Since the average patient has ten visits, this represents about 74 million individual visits. In 1979, chiropractors provided approximately 130 million patient visits. This large increase in patient visits is indicative of increasing public acceptance of chiropractic.

Recognition

In the past, chiropractic has had to struggle for recognition and acceptance. The American Medical Association put up strenuous opposition to the profession. Slowly things have been changing, and chiropractic has established itself much more securely in the health care field. This is illustrated by many things.

Chiropractors are now recognized by many different ag-
encies. The U.S. Public Health Service classifies chiropractors as "medical specialists". The U.S. Department of Labor lists them in their Occupational Outlook Handbook. The Department of Health and Human Services classifies them as category I providers (the same as M.D.'s, D.C.'s, and D.D.S.'s). The Bureau of Radiological Health has a chiropractor serving as a consultant to them. And finally, chiropractors are entitled by law to use the title "Doctor of Chiropractic" or "Chiropractic Physician".

Chiropractors have become involved in health planning. Over 100 health systems agencies have chiropractors as members of the board of governors, technical advisors, or sub-area council members. Several chiropractors have been elected or appointed to policy making state health coordinating councils.

Further recognition is enjoyed in the area of third party payments. They are reimbursed under Medicare, Medicaid and the Federal Rehabilitation Program. They are involved with the Federal Employees Worker's Compensation Program, the Postmasters Benefit Program, and in the Mailhandlers' Benefit Program. The Railroad Retirement Act and the Longshoremen's Worker's Compensation Act also includes chiropractic services. Almost all major commercial health insurance carriers include chiropractic services in their policies. Large numbers of
national and local unions include chiropractic in their health plans as well.2

NATUROPATHIC

History

The term naturopathy is relatively new, yet the origin of many naturopathic healing modalities dates back to ancient times. Before man understood how to care for himself scientifically, he utilized things such as fresh air, sunshine, heat, exercise, water, clay and mud baths to bring about good health.14 These treatments were modified and added to over the years as man became more sophisticated. Massage, manipulation and rules for diet and hygiene were contributed by religious doctrines.14 The Greeks contributed physical culture and athletics, and the Romans added the various uses of bathing.14 The natural cure movement continued to develop in Europe after the Renaissance, and in the late 1800's it was combined with homeopathy to form the discipline called naturopathy.14 In the very early 1900's naturopathy was formally introduced in the United States.14

Theory

The naturopathic physician deals with the patient as a whole person. Naturopaths feel that the body has the ability
to heal itself if the natural balance between the environment and the body's structure and function is reestablished.\(^{16}\)

**Therapeutic Modalities**

Generally, natural foods and medicines, as well as non-surgical techniques, such as manipulation are utilized to stimulate the body's natural healing powers.\(^{17}\) Other methods of natural healing which are used include air, light, water, vibration, heat, electricity, dietetics, massage, and psychology.\(^{17}\) The naturopath considers himself to be a teacher, and thus he helps the patient understand how to take care of their own health.\(^{15}\) It is imperative that the patient wants to be well.\(^{15}\)

The naturopathic profession contends that they are at least as effective as medical doctors are, in the treatment of many diseases.\(^{17}\) Within the scope of their field is the ability to diagnose and treat a wide range of abnormal conditions. Among the systems that naturopaths treat are the digestive system, respiratory system, cardiovascular system, urinary system, nervous system, and the endocrine system.\(^{17}\) Naturopaths also consider the treatment of acute infectious disease to be within their scope.\(^{17}\)
Education

To be considered for admission to a naturopathic college, an applicant must have completed three years beyond high school. He/She must have studied courses in chemistry, biology, botany, physics, and English. All courses must be passed with a grade of "C" or above.

The first two years in naturopathic college are spent studying the basic medical sciences. This includes courses in such areas as biochemistry, communications, stress, radiology, microbiology, nutrition, pharmacology, genetics, immunology, exercise, counseling, and public health. There are also many elective courses taught on special interest topics.

The second two years at the college are spent in the clinical sciences. In this period the students learn to integrate their knowledge of the basic sciences with the techniques of clinical medicine. They learn techniques of therapy, diagnosis, and skills for working with patients.

The author met with Doctor Martha Aden. Doctor Aden is a naturopath, and she teaches the course covering the eye, ear, nose, and throat at the National College of Naturopathic Medicine. The description of the course that follows is from that meeting.
In the course covering the eye, ear, nose, and throat, about six hours are devoted to the eye. No specific text is required for the material on the eye, but the students are encouraged to use the reference books in the library. The emphasis is on therapeutics for specific ocular conditions (Ocular anatomy is studied in a general anatomy course.).

Conditions such as asthenopia, conjunctivitis, blepharitis, chalazion, hordeolum, glaucoma, and cataracts are studied in terms of naturopathic treatment. In technique laboratories the students are instructed in methods of ophthalmoscopy, external eye inspection, visual acuity, and pupil reflexes.

The therapeutic modalities which are taught for ocular conditions are quite varied. In all patients, vitamin and nutritional deficiencies are considered. For asthenopia the therapy may include cold packs, palming, comfrey tea eye baths, spinal manipulation and vitamins. Conjunctivitis is approached by removing causal factors. Cold compresses, vitamins, ultraviolet light, and eyewashes are also utilized. For blepharitis, treatments are similar to conjunctivitis, with the use of galvanism also included. A chalazion or hordeolum is treated with gentle massage, hot packs, vitamins and galvanism. Glaucoma is approached with diet modification, diuretics, galvanism, diathermy, palming, vitamins, and relaxation techniques. Cataracts are treated with vitamins, galvanism, chaparral tea,
hot salt eye baths, and correction of rectal problems. Although therapies are taught, the students are cautioned that the eye is a very specialized organ, and they should seriously consider referral for problems in this area. (The author would like to state that this is a brief summary of therapeutic techniques, and by no means is it all inclusive.)

The author visited the library at the National College of Naturopathic Medicine in Portland, Oregon. It consisted of a medium sized room with four tall sets of double sided bookshelves. There were texts on several fields of health care including about twenty on the eye. Most of the books on the eye were ophthalmological in orientation, but there were a few popular books on self visual training (Total Vision, Visionetics, etc.). There was also a large section on the related field of iridology.

Manpower

The number of naturopaths in the U.S. is between 3,000 and 6,000 as of 1976. This is quite a decline from estimates of around 25,000 in the early 1900's. There are less than 200 members belonging to the National Naturopathic Association.

Currently, there are six colleges in the U.S., but some of them have yet to graduate their first class. The National College of Naturopathic Medicine (NCNM) in Portland, Oregon,
is the most established college. The ACNM is accredited by naturopathic organizations; however, the United States Office of Education has not designated an official accreditation body for naturopathic colleges.

About 140 students attend ACNM, with 35 students in each of the four academic years. The college plans to increase the class size to 90, with a total school enrollment of 350 students by 1985. The Department of Health, Education and Welfare (HEW) stated in 1969, that the profession is suffering from a lack of students, and that their numbers have declined due to a lack of new graduates.

Recognition

The profession is somewhat showered by controversy as some of their treatments are considered unscientific by a federal study. The United States government, in 1968, cited "conflicts with other concepts of health and disease" from a naturopathic textbook. The American Cancer Society includes naturopathy among disciplines that support unproven methods of cancer treatment. The Department of HEW turned down the naturopathic profession in a request for inclusion as Medicare providers. The Department of HEW said that the naturopaths were not adequately trained or prepared to make an adequate diagnosis and treatment plan. Regardless of the controversy
the National Association estimates that 9.4 million patients were seen in 1969. Most of these were geriatric patients.

SURVEY OF PRACTITIONERS

Purpose
To obtain information on the vision services offered by chiropractors and naturopaths in private practice, the author conducted a survey of practitioners from Oregon. The survey probed referral patterns to and from optometrists, ocular screening areas, and ocular and/or visual conditions treated.

Survey Method
Fifty chiropractors and fifty naturopaths were randomly selected from Oregon telephone directories. Each professional was mailed a five question survey covering the designated topics. A cover letter was included to explain the purpose of the survey. The practitioners were instructed to fill out the survey and return it within approximately two weeks.

Responses
Of the fifty surveys mailed to chiropractors, twenty two were returned completed. Two other survey envelopes were returned as not deliverable. Thus, 46% of the chiropractors who received the survey responded. Of the fifty naturopaths
selected, twenty one returned completed surveys. Four envelopes were returned as not deliverable. Thus, the naturopaths also had a 46% response overall.

The responses to the first three questions are summarized in Table I. Question three requested that the practitioner also list those ocular conditions that he/she screened which were not included in the checklist. Cranial nerves, intraocular pressure, iris pattern, and pupil reflexes were the only other conditions listed by chiropractors. Each of these conditions was listed by only one chiropractor. Color vision, glaucoma, visual fields, and pupil reflexes were the other conditions listed by naturopaths, again each was listed only by one practitioner.

The fourth question instructed the practitioners to list the most common ocular and/or visual conditions that they treat. Nine chiropractors listed blurring and/or diplopia associated with cervical injuries. Two chiropractors listed headaches, and two listed eye inflammations. Cataracts, glaucoma, retinopathies, photophobia, and ocular shingles were each listed by one chiropractor.

Conjunctivitis and/or blepharitis was treated by thirteen naturopaths. Cataracts was listed eight times, and sties and/or cysts were listed five times. Four listed foreign body removal and three listed headaches. Strabismus, glaucoma, retinopathies,
TABLE I

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<thead>
<tr>
<th></th>
<th>Chiropractors</th>
<th>Naturopaths</th>
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<tr>
<td><strong>1) DO YOU RECEIVE REFERRALS FROM OPTOMETRISTS?</strong></td>
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<td></td>
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<tr>
<td>Often</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Occasionally</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Very rarely</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Never</td>
<td>8</td>
<td>11</td>
</tr>
</tbody>
</table>

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<tr>
<th><strong>2) DO YOU REFER PATIENTS TO OPTOMETRISTS FOR VISION CARE?</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Occasionally</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Very rarely</td>
<td>8</td>
<td>3</td>
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<tr>
<td>Never</td>
<td>0</td>
<td>1</td>
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<tr>
<th><strong>3) DO YOU SCREEN FOR ANY OF THE FOLLOWING OCULAR PROBLEMS?</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Visual Acuity</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>Ocular Motility</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>External Health</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Internal Health</td>
<td>10</td>
<td>14</td>
</tr>
</tbody>
</table>
ard nutritional eye problems were each listed twice. Myopia, eye strain, and acute ocular injuries were each listed once.

The fifth question instructed the practitioners to list those conditions which they felt an optometrist may encounter as a primary care practitioner that should be referred to them. Nine chiropractors listed blurring and/or diplopia associated with cervical injuries. Six listed headaches, five listed head and/or shoulder tilts, and three listed spiral irritation. Migraine, nutritional problems, hypertension, dizziness, and ocular inflammations were listed twice. Shingles, optic neuritis, ptosis, and fluctuating visual acuity were each listed once.

Nine naturopaths listed conjunctivitis and/or blepharitis as conditions to be referred to them. Seven listed cataracts. Aching eyes and sudden loss of visual acuity related to spinal injuries were each listed by five naturopaths. Hypertension was included four times. Headaches, glaucoma, nutritional counseling and patients needing eye exercises were listed three times. Exophthalmos, myopia, blurry vision, floaters, ocular injuries, foreign bodies, sinusitis, and right blindness were each listed once.
Discussion and Recommendations

The practitioner survey shows that chiropractors and naturopaths are rarely referred to by optometrists. 73% of the chiropractors and 86% of the naturopaths reported very rarely or never receiving referrals from optometrists. On the other hand, 64% of the chiropractors and 81% of the naturopaths reported that they referred patients to optometrists occasionally or often. This data supports the authors' introductory remarks that optometrists mainly refer patients to allopathic physicians. In contrast, the chiropractors and naturopaths report to use optometrists quite regularly.

The survey also revealed that almost half of the chiropractors, and close to two thirds of the naturopaths, do some form of ocular screening. This indicates an awareness of the importance of vision on the part of these practitioners. Furthermore, close to half of the chiropractors and naturopaths are involved in the treatment of certain ocular and/or visual conditions. The chiropractors primarily treat visual problems related to cervical injuries; and the naturopaths treat conjunctivitis and/or blepharitis, cataracts, and sties and/or cysts most commonly.

Consistent with the conditions they treat, the chiropractors feel that visual problems associated with cervical injuries should be referred to them. Naturopaths consider conjunc-
tivitis and/or blepharitis, cataracts, and visual problems related to cervical injuries to be the conditions referrable to their profession.

The investigation of the training received by students at both the chiropractic and naturopathic colleges correlates well with the survey of conditions that each profession commonly screens and treats. The chiropractic curriculum emphasizes detection of ocular abnormalities, and the students learn to treat mainly those conditions related to cervical problems. The naturopathic curriculum is geared more towards treatments, and this is reflected in the wider variety of conditions included by the practitioners on the survey.

Practicing optometrists should consider the potential resource that chiropractors and naturopaths can be for generating patients. Both professions are involved to some degree in screening patients for ocular problems. The substantial number of patients seen by these two professions would no doubt produce a number of patients needing vision care. In light of the somewhat strained relationship that organized medicine has with non-traditional health providers, it is reasonable to assume that these two professions would be quite willing to refer more vision problems to optometrists. The author found instructors and students at both institutions to
be very interested in optometry.

The practitioner survey indicates the conditions that are treated by chiropractors and naturopaths. This information should be kept in mind by optometrists when making referrals. It may be worth the optometrists' efforts to make contact with the chiropractors and naturopaths in his or her area to see what services these practitioners offer. Of course it would be necessary to assess the efficacy of the treatment modalities utilized by individual practitioners.
REFERENCES


5. Personal communication, Dr. Sinseth, Director of Clinical Sciences, Western States Chiropractic College. Sept., 1981.

6. Personal communication, Dr. Hertz, Course instructor, Eye, Ear, Nose, and Throat, Western States Chiropractic College. Sep, '81.


11. Personal communication, State of Washington Department of Licensing.


16. Pamphlet from The National College of Naturopathic Medicine.


18. Personal communication, Dr. Aden, Course instructor, Eye, Ear, Nose, and Throat, National College of Naturopathic Medicine. May, 1981.

Dear Doctor,

I am working on my senior research paper at Pacific University College of Optometry. In an effort to improve communication and understanding between our professions, I am studying the interactive roles of chiropractic physicians and optometrists in the delivery of primary health care. I have made several visits to the Western States Chiropractic College to speak with faculty and students. This has given me an overview of the chiropractic profession.

The second phase of my project is to collect input from practitioners. I am looking at referral patterns as well as possible areas in which to increase interprofessional referrals. I would appreciate very much your time and thoughts in filling out the enclosed survey.

Yours in health,

David A. Rumpf

If you would like a tabulation of the survey responses please send your request to the above address.
PRACTITIONER SURVEY

1. Do you receive referrals from optometrists?
   - often
   - occasionally
   - very rarely
   - never

2. Do you refer patients to optometrists for vision care?
   - often
   - occasionally
   - very rarely
   - never

3. Do you screen for any of the following ocular problems?
   - Visual Acuity - Near  Far
   - Ocular Motility
   - Ocular Health - external
   - Ocular Health - internal
   - Other

4. Please list the most common ocular and/or visual conditions that you treat.

5. Please list the common conditions that you believe an optometrist would encounter as a primary care practitioner that should be referred to a chiropractic physician.

Thank you very much for your responses.

Sincerely,

David Rumpf
College of Optometry
Pacific University

FOLD, STAPLE & RETURN BY October 23
Dear Doctor,

I am working on my senior research paper at Pacific University College of Optometry. In an effort to improve communication and understanding between our professions, I am studying the interactive roles of naturopathic physicians and optometrists in the delivery of primary health care. I have made several visits to the National College of Naturopathic Medicine to speak with faculty, admissions staff and students. This has given me an overview of the naturopathic profession.

The second phase of my project is to collect input from practitioners. I am looking at referral patterns as well as possible areas in which to increase interprofessional referrals. I would appreciate very much your time and thoughts in filling out the enclosed survey.

Yours in health,

David A. Rumpf

If you would like a tabulation of the survey responses please send your request to the above address.
1. Do you receive referrals from optometrists?
   - □ often
   - □ occasionally
   - □ very rarely
   - □ never

2. Do you refer patients to optometrists for vision care?
   - □ often
   - □ occasionally
   - □ very rarely
   - □ never

3. Do you screen for any of the following ocular problems?
   - □ Visual Acuity  □ Near  □ Far
   - □ Ocular Motility
   - □ Ocular Health - external
   - □ Ocular Health - internal
   - □ Other

4. Please list the most common ocular and/or visual conditions that you treat.
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________

5. Please list the common conditions that you believe an optometrist would encounter as a primary care practitioner that should be referred to a naturopathic physician.
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________
   ___________________________________________________________

Thank you very much for your responses.

Sincerely,

David Rumpf
College of Optometry
Pacific University

FOLD, STAPLE & RETURN BY October 23