

## **Philosophy in Chiropractic Education: A Content Analysis**

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This paper provides an empirical descriptive study of the nature of the content of philosophy taught in chiropractic colleges in the United States. While there has been much discussion in the chiropractic popular literature about chiropractic philosophy, virtually no study on the teaching of philosophy in chiropractic colleges has been done. This study uses content analysis of college catalogs to ascertain what chiropractic curricula teach under the general name of “philosophy”.

The question of the role of philosophy in chiropractic has been explored substantially in popular chiropractic journals. Most of these articles are conceptual in nature, and either support the notion of a “chiropractic philosophy” or refute it.

This study contributes to the literature in two major ways. First, it provides an empirical approach to the question of philosophy in chiropractic; this is a substantial addition to scholarly understanding of the role of philosophy in chiropractic, in contrast to conceptual articles without empirical support.

In addition, this study provides an analysis of philosophy in chiropractic education, as opposed to its role profession-wide. This provides insights into the nature of philosophy in the training of chiropractors, and allows researchers to ascertain the differences among colleges in presenting information and chiropractic ideology.

The results of this study indicate that there is a large variety of what is taught under the guise of chiropractic philosophy in college curricula. In terms of traditional chiropractic philosophy, there is also a tremendous variety of presentations. Some colleges present a comprehensive array of material under this topic, others explicitly and intentionally refrain from teaching this material at all.

### **LITERATURE REVIEW**

There is a paucity of empirical research on chiropractic philosophy, or philosophy in chiropractic. What non-empirical study there is in existence tends to be presented in non-peer-reviewed journals and to take a strong ideological stance either for or against

“chiropractic philosophy” (e.g. Coulter 1991; Donahue 1991; Keating 1989; Lawrence 1991; Phillips 1994; Wardwell 1994; Winterstein 1991). A number of these conceptual discussions (Coulter 1991; Phillips 1994; Wardwell 1994) note the semantic distinction between “chiropractic philosophy” and “the philosophy of chiropractic”, critiquing the former.

There are recent exceptions, studies which assess student attitudes toward chiropractic philosophy using empirical methodologies (Cleveland 1999; McAulay 2000). These studies use survey data to determine student attitudes toward how philosophy is presented, and the degree to which certain core values have been embraced.

In addition, two papers compared chiropractic education with medical training. One conceptual paper applied an institutional theory approach to explain the similarity of the educational process in the two professions (McAulay 1995). A 1998 study (Coulter, Adams, Coggan, Wilkes, & Gonyea), using site visits of three chiropractic colleges and three medical schools, found a high degree of commonality of course offerings in chiropractic and medical education.

We attempt to build on this recent tradition by applying a well-accepted empirical methodological framework to study the content of philosophy education in contemporary chiropractic college curricula.

## **METHODS**

This research study measures the way philosophy is presented in American chiropractic colleges. Our primary unit of analysis is the number of hours apportioned to teaching a particular subject. To assess the number of hours devoted to this study, we requested catalogs from all chiropractic colleges throughout the United States. For those who provided only view books, we followed up with phone calls to obtain complete catalogs.

We examined the section of the catalogs that presented the colleges’ course offerings. We discovered that the colleges provide material loosely categorized as “philosophy” under many headings and in many forms. Some colleges have departments of philosophy, other have departments of principles, and others have some combination of these either with or without other disciplines.

In order to avoid missing data that might be relevant, we defined “philosophy” extremely loosely. We enacted the decision rule that anything taught under the guise of

“philosophy” or “principles” should be included in this study. Once we selected a topic for inclusion, we searched for each college’s presentation of that particular subject.

As in most content analyses, several analyses were necessary to triangulate to appropriate categorization and classification. In the first iteration, one researcher reviewed each catalog, noting what each college taught within the department containing either the word “philosophy” or “principles”. From this, a long list of more specific subjects was developed. We restricted the topics to those that had at least a tangential relationship to philosophy. For example, several colleges teach technique under a department of “principles and practices”; we did not include any technique instruction in the analysis. We did however, include information relating to the pathophysiology of vertebral subluxation. At the end of this first iteration, we developed a long list of subjects taught by chiropractic colleges under the broad umbrella of “philosophy”.

We then once again reviewed each college’s catalog to ascertain the course hours of each subject within this list. We listed these hours in a chart, with the rows containing 14 subject areas, and the columns being the 16 U.S. chiropractic colleges. Within each cell we placed the total number of class hours devoted to that subject.

It became necessary to develop a decision rule when one course contained material covering more than one subject area. In this case we divided the number of class hours assigned to the course by the number of sentences in the course description. We then separately categorized each sentence within the description and assigned the hours on a pro rata basis according to the number of sentences applicable to each subject area.

At least one college noted that there is material presented falling under these categories which is provided within the students’ clinical experience. We acknowledged that this is undoubtedly true for all colleges, but decided that for the purposes of this study we would not attempt to include information gained from within the clinical portion of the students’ educational experience. This study provides data for the classroom experience only.

We discovered many phrases or words found in the course descriptions that did not fall into any of the 14 categories. Following are some examples of excluded topics: principles and philosophy of clinical chiropractic health care within the areas of diagnosis - physical assessment, the report of findings, the dynamics of the initial patient history, lymphatic system, immunizations, office management, office procedures, office policies, biomechanics of the spine, chiropractic techniques, patient management, osseous palpation, LRC skills, emergency care, sociology, business, community health, problem solving, public health, risk management, principles of chiropractic diagnosis and

treatment, practice liability, and overview of diagnostic and therapeutic decision making, techniques, practice management, physiotherapy, rehabilitation, health care terminology for the chiropractic sciences, immunology and disease patterns, exercise physiology for the chiropractor, spinal anatomy, biomechanics of the spine, public health, emergency procedures, orthopedics, athletic injuries, office administration, joint anatomy and physiology, nutrition, clinical psychology, appendicular biomechanics, insurance and office procedures.

During the third iteration of our analysis, we reviewed each cell, matched it to the description in the course catalog, and made some minor changes to our classification. The end result was a 14 X 16 chart reporting on the number of hours each chiropractic college apportioned to each subject area.

The following section presents the results of the classification/categorization process and analyzes the descriptive statistics arising from the chart data.

## **RESULTS AND DISCUSSION**

Table 1 presents the results of the content analysis process. It shows that we uncovered 14 subject areas, and established how many hours each college teachers in each of these areas.

Table 1

Number of hours of Instruction in Philosophy Subject Areas for U.S. Colleges

Subjects	Colleges											
	1	2	3	4	5	6	7	8	9	10	11	12
Classical Philosophy	0	0	0	0	0	10	0	6	0	0	0	0
Traditional chiro philosophy	10	10	32	13	32.5	5	4	15	0	8	16	33
VS pathophys	45	45	5	98	50	35	3	45	25	30	44	53.5
Chiro history	15	15	6	0	32.5	15	4	0	2.5	38	16	13
Political history	0	0	12	31	0	0	0	0	0	8	0	6.5
Ethics & jurisprudence	16	16	46	31	65	30	24.5	24.5	71	58	40	51
Chiro in HC system	4	4	10	31	0	50	0	3	5.5	0	24	18
Natural health & healing arts	0	0	68	0	0	20	0	3	2.5	0	0	11.5
Communication	10	10	12	36	20	15	12.5	30	5	0	6	45
Personal/prof development	4	4	36	31	0	0	23	3	10	60	10	45
Practical application	5	5	28	84	0	0	93	15	20	60	0	25.5
New developments	20	20	7	6	10	0	2	0	20	0	0	7.5
Research	20	20	64	0	32	5.5	60	36	30	60	30	
College philosophy & history	0	0	6	0	0	0	0	0	7.5	0	0	5
Total	149	149	268	425	210	212	171.5	204.5	205	292	216	344.5

Following is the list of 14 subject areas discovered, along with a listing of the more detailed topics contained within each.

1. Classical Philosophy: formal and informal logic and reasoning in relation to chiropractic, the nature and role and methods of philosophy, the relationship of philosophy to science and art, metaphysics, epistemology, excluding ethics (see number 6 below)
2. Traditional Chiropractic Philosophy: the teachings of D. D. Palmer, B. J. Palmer, the vertebral subluxation as a metaphysical concept, innate intelligence, universal intelligence, innate mind, educated mind, accumulative constructive and destructive survival values, evolution of the species and interspecies relationships, guiding principles and philosophical constructs of chiropractic, traditional chiropractic philosophy and modern chiropractic principles, the chiropractic principles as derived from chiropractic philosophy, the chiropractic metaphor, the chiropractic attitude, traditional chiropractic views on health and disease, vitalism and mechanism, triune of life, awareness and adaptation;

3. Pathophysiology of the Vertebral Subluxation: vertebral subluxation complex, scientific examination and theories of subluxation, scientific research validating chiropractic, neurobiological mechanisms, dysafferentation, fixation, nerve compression, somatoautonomic reflexes, correlation of scientific literature with the principles and practices of chiropractic, the scientific basis for chiropractic, pathomechanics of the chiropractic subluxation, the significance and scientific support for the therapeutic tools used by chiropractors, dysfunction resulting from visceral, biochemical, psychological, social, environmental, and genetic disturbances which can affect the neurological activity and homeostatic balance.
4. Chiropractic History: the growth of chiropractic, the changes of and within the profession, the development of chiropractic, the growth and changes of the chiropractic schools, evolution of the profession, the relationship between the basis for the various approaches to health care, and, the history of their development and the major events of their evolution;
5. Chiropractic Political History: the history of the chiropractic political groups, the history of the politics of chiropractic regulations and licensure, the different schools' philosophical views, politics, history of accreditation in the chiropractic profession, the role of national organizations, legislative affairs, and political perspectives, chiropractic versus medicine;
6. Ethics and Jurisprudence: the law/laws, ethics, ethical responsibilities, legal aspects of diagnosis and referral, thoroughness of clinical procedures and complete record keeping, the philosophy and science of law, legislation, professional boundaries, cultural issues involving chiropractic, responsibilities of the doctor-patient relationship, statutory definition of chiropractic in various states, the duties and limitations on the practicing chiropractic physician in various states, contracts, legal entities, preparing to begin a business legally, legal case report, malpractice insurance and law suits, insurance, personal injury court proceedings, the traditional ethical code of chiropractic practice, courtroom procedures for chiropractors, civil and criminal law;
7. Chiropractic in The Health Care System: scope of practice, role of the doctor of chiropractic, standards of practice, portal of entry to health care system, primary health care provider, the profession presently, the future of the profession, its integration into the mainstream American health care system;

8. Natural Health and Healing Arts: a history of the natural healing arts, natural healing, holism, holistic wellness as a factor in health promotion and disease prevention, many aspects of the philosophy of natural health and healing, value of prudent exercise and wise nutrition, lifestyle behaviors which affect health in a negative or positive way, an understanding of the relationship between the art, science, and philosophy in the healing arts (with an emphasis on chiropractic), the philosophical basis of chiropractic and parallels are drawn from medicine, osteopathy and holistic healing from ancient times to the most current thinking in science and medicine, healing consciousness;
9. Communication: the art of effective communication to various sized groups, talking to the public about chiropractic philosophy, advertising effectively in different media, communicating the chiropractic principles and theory;
10. Professional Development: the concept of chiropractic as a service, putting the new DC into practice, personal qualities of a chiropractor, role of the chiropractor within the community, the doctor-patient relationship, the interaction of chiropractic philosophy into students' personal and professional life, the personal qualities required of an excellent chiropractor, self-care, professionalism, developing a personal chiropractic philosophy using critical analysis, the chiropractor's role as a doctor, healer, and leader, the meaning and purpose of service to humanity;
11. Practical Application: the philosophical application of the subluxation/misalignment and the effect of the adjustment/manipulation/treatment on the body, practical applications of the principles and philosophy of chiropractic, applied philosophy, mechanism of visceral and somatic symptoms and dysfunctions related to subluxation, analyzing problems from a chiropractic perspective, the chiropractic clinical paradigm, development of ideas about chiropractic, the principles and philosophy of clinical chiropractic health care within the areas of...chiropractic philosophy – segmental dysfunction, the reciprocal influence between the neuromusculoskeletal and other organ systems, information relative to complications and contraindications to the use of chiropractic and adjustments, case-based problem solving
12. New Chiropractic Developments: current issues, contemporary issues in chiropractic, current trends, new research, new developments in techniques (?PT, rehabilitation, modalities, chiropractic), trends in the health care delivery system;

13. Research: the philosophy of science, research methods, the researching of literature, the composing of a research paper, the importance of research in the profession for the advancement of chiropractic ideals, the validation of chiropractic procedures, the development of more effective and reliable chiropractic techniques, scientific methods, construction of a scientific paper, important criteria for the evaluation of scientific claims, an appreciation of chiropractic research and theories of subluxation, experimental design, algorithms and heuristics, probabilities and statistics, chance, evidence, theory, change, modeling, pattern, prediction, feedback, hypothesis and controls;
14. School Philosophy and History: the history of chiropractic college X, the personal philosophy of chiropractic of college X, the specific purpose and direction of college X, the historical roots of college X, the philosophy behind X's integrated chiropractic patient care system, an integration of chiropractic philosophy and college X, college X founders, college X's accreditation process.

The descriptive statistics (Table 1) indicate the significant range of hours devoted to the various subjects. There are only three of the 14 subjects in which the colleges uniformly provide a reasonably similar number of hours of instruction: research, ethics, and vertebral subluxation pathophysiology. For the other 11 subjects, the standard deviation is at the same level, or above, the level of the mean. This indicates a large degree of variability within the subject areas. Examination of bar charts presenting the data bear this out; they indicate a tremendous degree of variability for the majority of the subjects explored as philosophy in chiropractic.

Also worthy of note is the small number of hours devoted to the study of classical philosophy (mean = 1.6 hours per college), and the surprisingly small amount devoted to traditional chiropractic philosophy (mean = 18 hours). Further examination of the data reveals a bimodal distribution. Eight of the colleges teach less than ten hours within this subject area, with two schools teaching none at all. Five other colleges, however, teach in excess of 30 hours in this subject area. This provides support to the notion that there are two distinct approaches to the role of philosophy in chiropractic, with one group holding to a significant place for philosophy within chiropractic, and the other dismissing the role of traditional chiropractic philosophy in the profession.

In addition to the descriptive statistical analysis, we ran a correlation analysis to explore relationships between the variables (see Table 2 on page 11). While careful to note that this analysis is post-hoc (inductive), these findings do raise some interesting issues, and suggest avenues for future research.

The strong correlation between professional/personal development and practical applications suggests that some colleges have perhaps a pragmatic bent. Rather than couching their philosophy in idealistic/rationalistic terms, they are stressing the practicality of the training they offer.

More difficult to interpret is the strong relationship between communication and college philosophy, classical philosophy and chiropractic philosophy. It could be that colleges which are presenting the uniqueness of the chiropractic paradigm, feel the need to provide a strong understanding of the rationalistic underpinnings of the ideology, and also the need to give students tools to communicate that uniqueness to their patients.

## **LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

This study was conducted only on American chiropractic colleges. While this limits the generalizability of the findings, we feel that since chiropractic is an American institution, that the teaching of philosophy ought to serve as a benchmark, or “state of the art”, for the profession world-side.

In addition, practical considerations hindered our ability to evaluate foreign colleges’ curricula. Although we contacted all chiropractic colleges worldwide, few responded with usable information. Also, language proved to be a barrier in a number of the colleges; we have been as yet unable to translate information into English for our analysis.

Clearly, this research needs to be extended into the global chiropractic educational milieu. Our initial research shows that the provision of philosophy varies greatly across nations; the reasons for this need to be explored in future research. In particular, the cultural influences will be significant as other nations continue to develop chiropractic education.

This research suffers from the limitation created by the differences in which colleges present philosophy. In particular, one college has transformed its pedagogy into a problems-based learning format; this makes the establishment of hour equivalents for subjects problematic. A semi-structured interview format might add to validity in estimating the amount of course time assigned to each category of philosophy.

And perhaps most importantly, the validity of this research depends on how accurately colleges portray current course content in their catalog. Further exploration using course syllabi could investigate how accurately catalogs in presenting course information. A

week-by-week breakdown of course material that usually is contained in a course syllabus would improve operationalization of the variables under consideration in this study.

In addition, this study opens the door for intriguing questions exploring the relationship between course content and institution-wide characteristics. Surveys of college presidents, content analysis of philosophical approach to chiropractic, and interviews with college personnel could develop and test hypotheses to test these relationships.

## **CONCLUSIONS**

This study clearly indicates the tremendous variety in presentation in chiropractic philosophy in American chiropractic colleges. A student receives a dramatically different philosophical education depending on their choice of chiropractic college. It is up to the profession to determine the costs/benefits of this situation; however, clearly there is a marked lack of consistent presentation of chiropractic philosophy and/or philosophy in chiropractic.

Table 2: Pearson Correlation Coefficients, Subject Areas

	CHIR_HC	CLASPHL	COL_PHL	COMMUN	ETHICS	HISTOR	NAT_HLTH	NEW_DEV	POL_HIST	PRAC_AP	PRO_DEV	RESEARC	TRADCHP	VSPATH
CHIR_HC	1.0													
CLASSPHL	*.537	1.0												
COL_PHL	.116	*.557	1.0											
COMMUN	.250	*.574	**812	1.0										
ETHICS	-.060	.009	.426	.240	1.0									
HISTORY	-.056	.109	.198	.095	.427	1.0								
NAT_HLTH	.205	.113	.164	.030	.126	-.131	1.0							
NEW_DEV	-.298	-.432	-.142	-.152	-.018	-.095	-.076	1.0						
POL_HIST	.141	-.129	.103	.336	.007	-.282	.108	-.059	1.0					
PRAC_APP	-.047	-.234	-.070	.025	-.016	-.144	-.052	-.213	.321	1.0				
PROF_DEV	-.039	-.360	-.112	-.069	.303	.190	.251	-.147	.249	*.636	1.0			
RESEARCH	.308	-.069	-.399	-.239	-.276	-.360	-.352	-.199	.141	.044	-.013	1.0		
TRADCHPH	-.001	.324	**700	**662	.354	.213	.243	-.304	.183	-.228	-.046	-.454	1.0	
VSPATH	.384	.144	.134	.448	-.015	.048	-.399	.003	.393	.018	-.042	.393	.269	1.0

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

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