

***Vitalism in a chiropractic
programme –
A New Zealand case study***

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Attestation of Authorship:

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material published or written by another person (except where explicitly defined in the acknowledgements), nor material that to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

A handwritten signature in black ink, appearing to read 'M Fox'.

Marina Fox

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Abstract

As a lecturer understanding one's philosophical drivers in education is vital. There has been a long history of debate in chiropractic as to whether the traditional philosophy of vitalism should remain the chiropractic philosophy. A shift to mechanism in the twentieth century has seen evidence-based medicine become the dominant healthcare philosophy. How does a vitalistic point of view remain relevant in this environment?

My study critically examines lecturers' perceptions of vitalism and how these are included in a modern curriculum. Literature from biological science supports a shift from historical vitalism to contemporary neo-vitalism, a model that acknowledges the self-organising, self-regulating and self-healing capabilities of the body. Further research into complex adaptive systems may provide another avenue for philosophical exploration in chiropractic.

A qualitative methodology within the post-structural paradigm framed this study. A narrative of the lived experience of some members of the faculty teaching in an undergraduate chiropractic degree was sought.

Findings are built on several individual interviews and focus groups of lecturers held at the New Zealand College of Chiropractic. This research suggests that the key definition of vitalism used by these lecturers is neo-vitalism. The reality of life as a chiropractic educator is that historically, there has been a certain amount of tension between vitalistic philosophy and mechanistic research in the profession. This case study suggests that while this tension is still apparent today, neo-vitalism provides an environment where that tension is lessened.

In the face of the new biology of complex adaptive systems there is potential for a greater common understanding that, with further research and discussion, could lessen the divide even further.

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CHAPTER I: INTRODUCTION

“A college education is not a quantitative body of memorized knowledge salted away in a card file. It is a taste for knowledge, a taste for philosophy, if you will; a capacity to explore, to question, to perceive relationships between fields of knowledge and experience.” (Alfred Whitney Griswold, 1957, in Rao, 2010 p. 154)

Background and definitions

Chiropractic (Greek: done by hand) is a natural healthcare profession concerned with the close relationship between the spine and the nervous system (New Zealand College of Chiropractic, 2017). Chiropractic has been a profession for nearly 125 years, and chiropractic education a profession for 115 years.

Chiropractic education continues to grow around the world, mostly in private tertiary colleges (World Federation of Chiropractic, 2013). However, chiropractic education as a research field is still relatively small, but it is growing (Mrozek, 2006). The World Federation of Chiropractic (WFC) held a conference on chiropractic education in 2009, which identified philosophy as an important component of chiropractic curriculum. It was suggested that philosophy be included in the education of all chiropractors (WFC, 2009).

A modern definition of ‘curriculum’ encompasses an institution’s entire student experience; the definition has come to reflect all the planned (Green, 2003), hidden (Margolis, 2001) and taught learning experiences at an educational institution (Prideaux, 2003). Ornstein (1987) suggests that a

curriculum is both the subjects that are taught and a field of study in its own right. He further proposes that any curriculum reflects the developers' own philosophy and values (Ornstein, 1987). Those that teach within a curriculum also influence that curriculum's philosophy (Margolis, 2001). Therefore, to understand the philosophy behind a curriculum it is important to discover the philosophical thoughts of those teachers.

Chiropractic is based on a vitalistic philosophy that centres on the art and science of correcting vertebral subluxations. Subluxations are defined as “a self-perpetuating, central segmental motor control problem that involves a joint, such as a vertebral motion segment, that is not moving appropriately, resulting in ongoing maladaptive neural plastic changes that interfere with the central nervous system's ability to self-regulate, self-organize, adapt, repair and heal” (The Rubicon Group, 2017, p. policies). Every living thing has the inborn ability to direct and regulate its own internal physiology, adaptation and healing, and thereby create its own health naturally from within (Koch, n.d.). In human beings, this vitalistic principle is expressed through the balance of physiology, homeostasis, adaptation and healing, partly via nerve messages transmitted from the body to the brain and from the brain to the body via the nervous system (Koch, n.d.).

The roots of vitalism are in the philosophy of biological science, with biologists endeavouring to answer the question of what life is (Senzon, 2003). Historically, there have been two main philosophical viewpoints:

– Vitalism, which proposes that life consists of more than just physical and chemical components, and includes a governing life force or intelligence.

– Mechanism, which proposes that life can be explained by physical and chemical components alone (Callender, 2007). Since the middle of the last century, the tensions between these two groups of thought have created many debates in biological sciences and health sciences (Callender, 2007). The split between these two groups is evident in chiropractic education, with the philosophy driving the curriculum being one of the main factors students consider when making decisions about which institution to apply for. As with all healthcare professions, during the twentieth and twenty-first centuries in the chiropractic profession there have been many changes and refinements to what we know and what we are able to measure. As technology enhances our ability to measure and detect more and more, we are able to understand and explain more of how our techniques work.

Background of the author

I am a graduate and long-time teacher at the New Zealand College of Chiropractic. I graduated from the University of Otago with a Bachelor in Physiology in 1995, and from the New Zealand College of Chiropractic with a Bachelor of Chiropractic in 1999. I practised as a chiropractor for 14 months full-time, returning to the College to teach in 2001. This was a surprise to me (though not to anyone who knew me), as when choosing my career, I had avoided joining my mother's profession as a teacher. Over the last 17 years my career has become less involved in the practice of teaching, and more

involved in the organisation of the curriculum, its accreditation and its delivery by others. I am now the Dean of Academics at the College.

I reluctantly took on the challenge of completing my Master's degree while working full-time and raising two young boys (with a very understanding husband); it has been quite a journey. With so many competing demands on my energy and resources, it was important to me that my Master's produce something useful to me in my current position and to the College. For this reason, I thought long and hard about its topic, and discussed several iterations of the topic with several trusted colleagues. The suggested research area moved from a general consideration of the curriculum review process to a personal exploration of the philosophical basis of that curriculum.

Research question

How do experienced chiropractic educators, in a philosophically-based chiropractic college, implement vitalism in a chiropractic curriculum?

Objectives

My four objectives were to:

- Better understand the philosophical drivers of a curriculum, in a chiropractic education setting.
- Describe the inclusion of vitalism in the curriculum, and support its implementation in like colleges around the world.
- Clarify the philosophical basis of a curriculum that reflects the drivers of the educators in the programme.

- Study how vitalism is implemented in a chiropractic curriculum, by interviewing a sample of expert chiropractic educators.

The participants in this study were a range of chiropractic educators from the New Zealand College of Chiropractic. Data collection included four individual expert interviews with senior management members and two focus groups with senior faculty members; one chiropractor group and one non-chiropractor group.

Structure of this thesis

Chapter 1: Introduction

This chapter defines the terms and describes the background of the research question. I describe my own background and the environment in which the research was carried out. I finish by summarising each of the chapters in the thesis.

Chapter 2: Literature review

This chapter reviews the work of authors who have considered literature on the topics of curriculum, chiropractic education and vitalism (which is the underpinning philosophy of numerous chiropractic institutions). I briefly explore vitalism in chiropractic education, but identify that there is a dearth of literature concerning chiropractic education and chiropractic educational practice in particular. Thus, I draw on research from chiropractic practice points of view, and from literature on philosophy and education in other healthcare professions.

Chapter 3: Research design

This chapter describes the way in which my research developed from an investigation of the curriculum re-design process to a focus on the faculty description of the delivery of a curriculum with a philosophical basis in the classroom. I describe my qualitative case study methodology, including the recruitment of the faculty and subsequent focus groups, and the interviews with the management level faculty. I also describe the changes I made to solve an ethical conundrum relating to the interviewing of employees.

Chapter 4: Findings

In this chapter, I illustrate the findings of my research. The data were gathered from interviews with research groups held at the New Zealand College of Chiropractic. I provide some contextual information on the participants; however, this is necessarily limited due to ethical considerations. I reiterate and answer the original research question. I develop and explore themes that emerged from the interviews and focus groups. The New Zealand College of Chiropractic curriculum, strategic documents and website are examined for the vitalistic themes that emerged from the interviews.

Chapter 5: Discussion

In this chapter, I describe some of the challenges of this research, the lessons learned and their possible applications. Where existing literature allows, I review commonalities and consider differing views. The emerging theme of neo-vitalism from the literature is explored and identified as the definition primarily used by the New Zealand College of Chiropractic. I

propose a possible bridge to the divide between mechanism and vitalism in chiropractic education at the New Zealand College of Chiropractic.

Chapter 6: Conclusion

This chapter reconsiders the purpose of the study and concludes the thesis. Some of the implications for the New Zealand College of Chiropractic are discussed, and recommendations are made. Limitations of the study are explained, and suggestions for future research are given.

CHAPTER II: LITERATURE REVIEW

Introduction

In this chapter, I consider the literature on the topics of curriculum, chiropractic education and vitalism (which is the underpinning philosophy of numerous chiropractic institutions). I examine how the topics are connected, and the potential issues that arise with vitalism from an empiricist philosophical point of view. In Chapter 1, I briefly explored vitalism in chiropractic education. However, there is a dearth of literature concerning chiropractic education and chiropractic educational practice in particular, so I draw on research from chiropractic practice points of view and from literature on philosophy and education in other healthcare professions.

Chiropractic

Chiropractic is a natural healthcare practice that began in 1895. It has flourished, and is now the third largest healthcare field in the Western world (World Federation of Chiropractic, 2017). “With more and more people looking for a natural approach to healthcare, chiropractic is the fastest growing wellness profession in the world. It is now the third largest primary healthcare profession in the west after medicine and dentistry, and is legally recognised in over 45 countries” (New Zealand Chiropractors Association, 2017, p. About Chiropractic).

History of chiropractic

The founder of chiropractic was Daniel David (D.D.) Palmer, who was originally a school teacher, but became a magnetic healer in 1880. D.D.

Palmer set up a magnetic healing practice in 1886 in Burlington, Iowa. In 1895, while using magnets to treat the janitor in his building for hearing problems, he noticed a 'lump' on the janitor's spine. He knocked the lump back onto line with the rest of the spine, and the janitor noticed his hearing issues had disappeared. This sparked D.D. Palmer's interest, and he started to repeat the practice on his other patients. He named the technique chiropractic. By 1897, he had opened the first school of chiropractic.

D.D. Palmer was openly anti-medicine. Content in his self-published journal 'The Chiropractor' (1895-1906) was anti-medicine and made radical claims about chiropractic, which is thought to have resulted in his being arrested for practising medicine without a licence. D.D. Palmer offered very little in the way of defence against the charge, merely saying that the practice of chiropractic did not constitute medical practice. Despite this, the jury convicted him. D.D. Palmer was outraged and refused to pay the fine, instead choosing to go to jail.

D.D. Palmer's son, Bartlett Joshua (B.J.) Palmer, was 14 years old when the first chiropractic adjustment was performed. In 1906, he took over the Palmer School of Chiropractic while his father was in jail. B.J. Palmer was known for his dedication to extensive research and for developing higher standards of education licensing for chiropractors. He was an extremely charismatic person and a gifted speaker. The Palmer School thrived under B.J. Palmer's leadership.

That same year, B.J. Palmer created the first chiropractic association, the Universal Chiropractor's Association (UCA). The UCA was designed to provide attorney services for chiropractors who had been charged with practising medicine. Utilising experienced lawyers and a strong defence of differing philosophies, B.J. Palmer argued cases for many of the chiropractors who were charged with practising medicine.

By 1931, it was estimated that chiropractors had collectively undergone 15,000 prosecutions, although there were probably no more than 12,000 chiropractors in practice in that era (Turner, 1931 in Keating 2004). Arrests continued until 1974, when Louisiana became the fiftieth state to license chiropractors.

Chiropractic today

Chiropractors today specialise in providing specific adjustments to the spine to correct spinal dysfunction, so that the spine and nervous system function normally (New Zealand College of Chiropractic, 2017). Chiropractors call this dysfunction a vertebral subluxation, that is a misalignment or malfunction within the spinal column that affects the nerve tissue passing through the spinal column, that alters the nerve messages traveling to and/or from the brain via the nervous system (Koch, n.d.). Chiropractic is practised on the basis that the brain must communicate freely with the body for optimum health and function. Spinal dysfunction impacts the functioning of the central nervous system (Niazi et al, 2015), and consequently impacts overall health.

Since its founding in 1895, the chiropractic profession has learned how to help facilitate the body's process of eliminating vertebral subluxations, especially when they become persistent enough to be detected. This is what is unique to chiropractic, and what defines chiropractic's primary clinical objective. The correction of a vertebral subluxation requires careful examination of the patient's spine, thoughtful consideration of the information obtained, understanding and visualisation of the vertebral subluxation, delivery of a specific force into the subluxated spinal articulation and a follow-up examination to determine whether the vertebral subluxation has been reduced or corrected (Koch, 2017).

Chiropractors are well-trained and skilled in the utilisation of visual postural assessment, spinal palpation, leg length assessment, para-spinal instrumentation readings, x-rays and other procedures relevant to the identification and characterisation (differential diagnosis) of vertebral subluxations.

There are chiropractors practicing in over 100 countries in the world. Ninety of these countries have national associations of chiropractors that are members of the World Federation of Chiropractic (WFC), a non-governmental organisation that has had official relations with the World Health Organization (WHO) since 1997 (WFC, 2012).

The largest numbers of chiropractors can be found in the United States of America (75,000), Canada (7,250), Australia (4,250) and the United Kingdom (3,000), which were the first countries to establish chiropractic schools. Other

countries with more than 250 chiropractors are Brazil (700), Denmark (550), France (450), Italy (400), Japan (400), the Netherlands (400), New Zealand (400), Norway (600), South Africa (400), Spain (300), Sweden (400) and Switzerland (275) (WFC, 2012).

Chiropractic education began in 1897 when the founder of chiropractic, D.D. Palmer, opened the Palmer College of Chiropractic in Davenport, Iowa.

Chiropractic schools proliferated throughout the United States, and there are now 17 schools in the country (WFC, 2012). In 1965, the first recognised school of chiropractic outside North America opened in the United Kingdom, named the Anglo-European College of Chiropractic(AECC) (AECC, 2017).

There are now more schools (24) outside the United States than in the country (17). Current growth of the profession is largest in countries with the 41 recognised educational programmes: Chile (one), Denmark (one), Switzerland (one), France (one), Japan (one), Malaysia (one), New Zealand (one), South Korea (one), South Africa (two), Mexico (two), Brazil (two), Canada (two), Spain (two), the UK (three) Australia (four), and the United States (17) (WFC, 2012).

As an unregulated profession in the early part of the twentieth century, chiropractic has had its rough patches, pressure and disagreement both outside and within the profession. During the first half of the twentieth century, as aforementioned, many chiropractors were jailed for practising medicine without a licence even though the adjustments they provided were not part of standard medical practice. The American Medical Association

were sceptical of chiropractic and fought its practice in court for decades (Villanueva-Russell, 2005).

In New Zealand, there was similar antagonism towards chiropractic; so much so that in 1978 the government decided to set up a commission of inquiry into chiropractic (New Zealand Government, 1979). The inquiry ran for nearly two years and involved the New Zealand Medical Association, the New Zealand Physiotherapists Association, the New Zealand Chiropractors Association, the Department of Health and the New Zealand Consumer Council. The findings on chiropractic were positive and resulted in chiropractic becoming a registered health profession in New Zealand. The commission report was so well-regarded internationally, as a thorough examination of the practice of chiropractic, that it has formed the basis for government regulation in several countries, including Canada.

Chiropractic education in New Zealand

The commission report also recommended that an educational programme be established in New Zealand to train chiropractors locally (New Zealand Government, 1979). However, it took until 1994 to establish the New Zealand College of Chiropractic.

The College received accreditation from the New Zealand Qualifications Authority in 1997 and from the Council on Chiropractic Education Australasia (CCEA) in 2002. The College has produced over 500 graduates who are eligible to practice worldwide, thanks to these accreditation agencies. It is widely renowned for a vitalistic approach to chiropractic, and was recently

commended for its ability to teach a vitalistic curriculum with a clear evidence-based approach (CCEA, 2016).

The flourishing number of institutions that teach chiropractic has led to a marked increase in the available research on chiropractic practice. However, this research has not yet had much impact on research on education in chiropractic institutions; there is very little research on this worldwide, and practically none in New Zealand. Nearly two decades ago, Adams and Gatterman (1997) completed a review of the available literature on chiropractic education. It was clear that chiropractors had not yet started to write about this; there were only 24 articles in total. Adams and Gatterman (1997) identified seven areas that needed exploration: curriculum, assessment, instructional methods, faculty development and evaluation, postgraduate and continuing education, admissions and patient-centeredness. A further review in 2006 (Mrozek, Till, Taylor-Vaisey, & Wickes, 2006) identified that all the seven areas were in need of further exploration, and added professionalism as an eighth area. Although more articles had been written on chiropractic education, the authors identified only 122 articles and significant gaps in some areas. Only seven articles had been written on curriculum design or review; one was on the design of a new degree programme and the other six concerned the development of single papers within existing degrees (Mrozek, 2006).

While running the Palmer College of Chiropractic, D.D. Palmer and his son B.J. Palmer were prolific writers, producing at least 50 books between them.

Although vitalism is not a commonly used term in their literature, it is commonly accepted within the chiropractic profession that their foundational philosophy was consistent with vitalism (Senzon, 2003). Chiropractic is based on the innate healing and self-organising capabilities of the body.

Vitalism

Definition

Vitalism is traditionally defined as the theory that “the origin and phenomena of life are dependent on a force or principle distinct from purely chemical or physical forces” (Oxford University Press, 2015, p. vitalism). Vitalism implies that living organisms are essentially different from non-living things, in that the phenomena of life involves a force or energy in addition to, and distinct from, the physical or chemical (Wheeler, 1939; Bechtel & Richardson, 1998).

Origin

The term ‘vitalism’ is derived from ancient Greece. Philosophers such as Plato and Aristotle talked of the existence of an unlimited ‘mind’; a non-material divine intelligent force that imposed motion and order on and in everything, including the living (Rosen, 1991).

Kant wrote of forces that encompass those beyond the physiochemical ones. He contended that some products of a material nature cannot be judged to be possible according to merely mechanical laws (Warren, 1918).

Vitalism was popular until the late nineteenth century, and continued to have advocates in the biology world until the mid-twentieth century. Biologists such

as Driesch and Bergson notably continued to argue that mechanism could not explain everything we see in the biological and physical realms (Sheldrake, 1981).

Some authors contend that vitalism died out with the strengthening evidence of organic chemistry (Ramberg, 2000). However, some biologists continued to argue for a view of the body broader than that of a simply mechanical being. Von Bertalanffy (1968, as cited in Hammond, 2010, p. 104) states, “If we could see each other as complex systems rather than as embodiments of one or more traits, the world might be able to achieve a revolution of harmony”. In addition, alternative medicine has continued to advocate for a vitalistic viewpoint.

Vitalism vs mechanism

Vitalism in chiropractic continues to have its critics. In his 2002 commentary on the meaning of innate, Keating describes vitalism as a pseudo-religion and a bio-theology, and is critical of any reliance on untestable notions. This is not an uncommon response from those of the positivistic or empiricist persuasions in the chiropractic profession. Since D.D. Palmer’s first students went their own way, there have been tensions in the profession between the mechanistic empiricists and the vitalists (Senzon, 2010). One group looks for acceptance of chiropractic from the medical realms, while the other is content with chiropractic’s philosophical standpoint outside of medicine.

Tensions and several fierce battles between chiropractors from different camps continued throughout most of the twentieth century, sometimes

resulting in legal battles, until the 1970s when the last state in the United States made chiropractic a registered profession. The tensions did not go away; they became a little less fierce, and were evident in the setting up of separate associations and educational institutions where chiropractors could choose their involvement based on philosophical alignment (Senzon, 2003).

The tension between mechanism and vitalism is still evident today. Debate still occurs frequently within the chiropractic profession as to whether philosophical roots should remain unchanged, adapt to modern thinking, or be abandoned altogether.

This concept of vitalism lives on, and in response to the dominance of mechanistic science, vitalism has continued to argue that mechanism cannot fully explain life (Bechtel & Richardson, 1998). Although mechanism now dominates much of science, discussion of vitalism continues (Villanueva, 2005). Vitalism seeks to understand the very essence of life, and should be re-considered as a potential source of deeper understanding (Normandin & Wolfe, 2013; Weber, 2016).

A contemporary 'neo-vitalism' has been described as "... a recognition and respect for the inherent, self-organizing, self-maintaining, self-healing abilities of every individual" (Life Source Octagon, 2009, p. 137). Koch (1996) acknowledges the necessity of both mechanism and vitalism, positing that there are physical, chemical and mechanical components of life that empiricists can measure, and "that life must also be considered and understood in terms of its non-physical quality, which may be seen as its self-

directedness and its inherent creativity” (Koch, 1996, p. 19). He has described this view of vitalism as ‘moderate vitalism’ (Koch, 1996). Phillips (1994) describes more modern views of vitalism that do not include a supernatural being, giving the example of ‘vis medicatrix naturae’, the healing power of nature, which acknowledges the self-healing capacity of the body.

The self-healing capability of the body is accepted by many other natural healthcare professions, including osteopathy, ayurveda, naturopathy and acupuncture. Modern vitalism (or neo-vitalism) differs from more traditional views of vitalism in that it talks less of an esoteric life force. Critics of vitalism seem to be better able to connect its concepts of self-organising, self-healing and self-regulating with homeostasis, and therefore neo-vitalism potentially creates a place for these two historically opposing philosophical schools to see common ground.

Like chiropractors, biological scientists have debated the question of vitalism for most of the last century (Senzon, 2003). In the middle of the century, they began to abandon the idea of a vital force outside the body and adopt theories of self-organisation (Callender, 2007). One such theory is complex systems theory. Developed by Bertalanffy in the 1950s out of chaos theory, complex systems theory (and its subset complex adaptive systems theory) attempts to explain the complexity of life and the difference between living and non-living systems by using complex mathematical processes (Kaiser & Madey, 2009). A key part of this explanation is the ability of the organism to self-organise and self-repair. This seems to be in agreement with neo-

vitalism in many ways, and may offer a path forward between philosophy and science in chiropractic.

Vitalism in healthcare

There are many other healthcare professions that use a vitalistic philosophical basis for what they do and teach: that what we need to be healthy is already within the body (Richards, 2016); these are osteopathy, homeopathy, naturopathy, traditional Chinese medicine and ayurveda, which all have similar emphases on nurturing, supporting, and removing interferences to and working with the forces of life (Richards, 2016).

Naturopathy talks about the power of nature: “The healing power of nature is inherent, self-organizing, and healing process of living systems which establishes, maintains and restores health. Naturopathic medicine recognizes this healing process to be ordered and intelligent” (Pizzomo, 2009, p. 42). Acupuncture and Chinese medicine are based around the vitalistic concept of ‘qi’, a life force that allows the body to self-organise and self-heal (Morris, 2009). Osteopathy is based on the theory that the body has an inherent capacity to maintain its own health and to heal itself (Paulus, 2012).

Ayurveda has retained its vitalistic roots and is widely practised in Indian communities around the world (Wegmuller, 2015). Ayurveda is centred around the interconnectedness of all things, and of the person and their environment; it works on the vital principle of balance of the trinity of mind, body and spirit (Guha, 2009).

Vitalistic philosophies in all these professions influence the institutions in which the philosophies are taught.

Vitalism in chiropractic education

At a World Federation of Chiropractic (WFC) conference on chiropractic philosophy in 2000, consensus statements on philosophy in chiropractic education were developed, and it was agreed that “principles traditionally emphasised in the philosophy of chiropractic, including holism and vitalism, have continuing validity and importance” (WFC, 2000, p. 6).

Vitalism was the philosophy on which chiropractic as a profession was founded in the nineteenth century (Richards, Emmanuel, & Grace, 2016).

Although in 1895 D.D. Palmer did not specifically refer to vitalism, terms such as ‘vital energy’ and ‘life force’ frequently appear in his writing (Richards et al., 2016). The vitalistic approach continued in chiropractic over the next century. Stephenson (1924) said that innate intelligence governs the forces of living beings. Strang (1988, p. 166) proposed that “We know that homeostasis involves negative feedback. We even know some of the mechanisms entailed. But this knowledge does not really touch the deeper mystery of how the body “thinks” physiologically; sensory information must be endlessly integrated and efferent activity determined”. Ian Coulter (1999) described vitalism as a philosophy that proposes “that all living organisms are sustained by a vital force that is both different from and greater than physical and chemical forces”. Hawk (2005, p. 2) concludes that “Vitalism, approached in a responsible and intelligent manner, may afford the

chiropractic profession opportunities to further improve patient care and make contributions to new knowledge”. Koch (2008), in his revision of the 33 principles that D.D. Palmer wrote for chiropractic in 1908 (Palmer, 1908), refers again to the self-organising, self-healing ability of the body. Richards (2016) suggests that a balance between vitalism and mechanism offers a solution to the tension between mechanism and vitalism rather than viewing the two viewpoints as incompatible.

Several major educational institutions in chiropractic describe their approach as vitalistic. Life University’s educational and clinical philosophy is based on vitalism, the understanding and principle that all organic systems in the universe are conscious, self-developing, self-maintaining and self-healing (Life University, 2015). The Palmer College of Chiropractic’s philosophy of chiropractic is built upon the constructs of vitalism, holism, conservatism, naturalism and rationalism. Philosophy provides context for the application of science and art (Palmer College of Chiropractic, 2017). Sherman College of Chiropractic state “that vitalism is a ‘vital’ part of chiropractic philosophy (pun intended). Why? Because chiropractic approaches health for a holistic perspective, recognizing the innate intelligence that uses the brain and the nervous system to maintain the body’s health” (Sherman College of Chiropractic, 2017, p. Attend Sherman).

New Zealand College of Chiropractic

As aforementioned, the New Zealand College of Chiropractic opened in 1994 and received accreditation from the New Zealand Qualifications Authority in

1997, and from the CCEA in 2002. From its inception in the New Zealand Chiropractic Association's 1992 document 'Vision 2000', (New Zealand Welcomes University-Based Chiropractic School, 1994) the College was founded with a strong philosophical basis, and vitalism was included in the development and delivery of the curriculum.

The New Zealand College of Chiropractic considers staying true to these founding principles to be of utmost importance in chiropractic education in the twenty-first century. The College therefore bases its strategy and curriculum development around a vitalistic chiropractic philosophy.

The College is very clear on its philosophical standpoint. "The philosophy of chiropractic is vitalistic in that it acknowledges the body's ability to self-regulate, coordinate and heal. This philosophy guides our curriculum, strategy and culture throughout the College" (New Zealand College of Chiropractic, 2017, p. about us).

How is this vitalistic philosophical point of view integrated into the curriculum of a modern chiropractic learning institution? There are many components to a curriculum where philosophy may have an impact.

Curriculum

As aforementioned, a modern definition of curriculum encompasses an institution's entire student experience. The definition has come to reflect all the planned (Green, 2001) and hidden (Margolis, 2001) learning experiences at an educational institution (Prideaux, 2003). It is useful to think of a curriculum using the following distinctions.

Underpinning a curriculum are the epistemological basis of its developers, and the philosophy that forms its development. Peach (2010) suggests that the underpinning philosophy of an undergraduate programme should be a socially critical vocational approach and should be “concerned with the reality of professional practice issues and those things that will prepare students to meet the challenges of dynamic and complex environments” (p. 458). This is consistent with Toohey’s (1997) views of a philosophical approach to curriculum design.

The ‘official’ or ‘planned’ curriculum is that which is written in official documents. Fraser and Bosanquet (2006) refer to this form of curriculum as the ‘stated’ or ‘formal’ curriculum; the curriculum that is the concern of the discipline’s specific accreditation bodies and that is stated in the curriculum documents. The planned curriculum objectives often represent, as Marsh (1997, p. 4) states, “the ideal rather than the actual curriculum”. This is the space where curricular planners spend time reviewing, revising and reforming curricula (Hafferty & O’Donnell, 2014).

The ‘taught’ curriculum is that which is expressed by the teacher in the classroom environment. Barnett and Coates (2005) use the terms ‘curriculum-as-designed’ and ‘curriculum-in-action’ to distinguish between what is designed, what is taught and what students perceive and understand. Fraser and Bosanquet (2006, p. 13) suggest that what is written in a curriculum document may be interpreted differently by different lecturers:

“Teachers see their role as using their judgement in interpreting the curriculum for their students”.

The ‘learnt’ curriculum is what the student learns. Barnett and Coates (2005) describe this as the curriculum in action, and remind us all that all communication is open to interpretation by the listener or participant. Fraser and Bosanquet (2006) suggest that in some environments, the student controls the classroom curriculum, bringing forth their own interests and previous knowledge and skills to mould the learning experience.

The ‘assessed’ curriculum is that within which students are formally evaluated; testing occurs according to the stated and intended outcomes (Hafferty & O’Donnell, 2014). the assessed curriculum should stem from the formal curricula: the planned curriculum and the taught curriculum. However, if students are assessed on anything other than the knowledge, skills and attributes that they have been told they are responsible for, this contributes to the ‘hidden’ curriculum (Hafferty & O’Donnell, 2014).

The hidden curriculum is that which the learner is unaware they are learning. Margolis (2001) used this term to describe all that is taught and not written in the official documents; the hidden curriculum may include both known content and unknown undercurrents (Margolis, 2001). The hidden curriculum is most often driven by the organisation and by the teachers. Hafferty and O’Donnell (2014, p. 14) describe the hidden curriculum as comprising “the organizational contexts and cultural subtexts that shape the way students make sense of their learning environments”.

The taught curriculum – that which is written, or spoken or implied in the classroom – is the focus of my thesis. In particular, I endeavour to discover what aspects of the delivery of the curriculum incorporate vitalism (both directly and indirectly), and what aspects do not.

Philosophy in education

Philosophy is included in many education courses. Educators are asked to unpack the epistemology and ontology behind their thinking processes. Budding educators are asked to examine the way they think about teaching in order to uncover assumptions and become critical educators. This is not as prevalent in first degrees for other professions, especially Western health professions, which are assumed to have an empiricist or positivist viewpoint (Villanueva, 2005). The rise of evidence-based medicine (Goldenberg, 2005) has had the strongest influence on most Western healthcare professions, although vitalism continues to influence and be the main philosophical basis of the alternative therapies and Eastern medicine. This has meant a separation between alternative and Western medicines; their philosophies driving them in different directions. A profession's philosophy gives that profession purpose and focus. The philosophy drives the direction of its education, practice and research (Senzon, 2010).

Bland (2000), Lyon (2014) and McLeod (2015) suggest that the philosophy and values of the profession and institution must contribute to any curriculum review process. Bland et al. (2000) focus on curricular review in medical schools, insisting that the educational philosophy must be established before

review can occur. Lyon, Nadershahi, Nattestad, Kachalia and Hammer (2014), in writing about curriculum review in dentistry, suggest that the first step to developing a curriculum is reaching philosophical agreement; this must occur before even considering what needs to be reviewed, and how. McLeod and Steinhart (2015) focus on values as part of a twelve-step evaluation process for curriculum, insisting that these values form an integral part of the decisions made about learning and assessment. To me, it is clear that whatever one's educational field, philosophy should form a strong basis for one's considerations in all aspects of teaching and learning.

Vitalism is the main historical philosophy of chiropractic education (Senzon 2010), though more recently there has been a move to a more contemporary off-shoot, neo-vitalism.

CHAPTER III: RESEARCH DESIGN

Introduction

This chapter describes the design of this research endeavor, from the initial idea to the development of the qualitative single-site case study methodology. It explains how the research question was narrowed down to “How do experienced chiropractic educators, in a philosophically-based chiropractic college, implement vitalism in a chiropractic curriculum?”

This chapter includes an outline of the research methodology used and a short discussion of the research approach and justification for the methods used. The research methods, including the series of interviews with management, and the recruitment of the faculty, are described. Ethical issues are explored, including concerns about employee-management pressures and how these were avoided. The chapter concludes with a brief description of the data analysis method and tools and a summary of the themes that emerged.

Methodology

I decided to gather qualitative data, rather than quantitative data, because the nature of the research question was descriptive and I sought to understand the lived experience of chiropractic educators. The description of the lived experience is clearly part of qualitative research, which Merriam

(1998, p. 6) described as starting from the assumption that "...reality is constructed by individuals interacting with their social world. Qualitative research is interested in understanding the meaning people have constructed. Qualitative research implies a direct concern for how experiences are lived, or felt, or undergone".

Pragmatism and post-structuralism

At heart, I am a pragmatist. My aim was to produce a research report with the potential to influence the chiropractic classroom and meeting room. I wanted to see how the philosophical basis of chiropractic has an impact on the everyday delivery and teaching of the chiropractic curriculum, so that the process of chiropractic education might be improved. Pragmatism has traditionally sat in a post-positive paradigm, but is not exclusive to this paradigm (Giddings & Grant, 2007). Giddings and Grant (2007, p. 2) suggest that "we see pragmatism as an ideological position *available within any paradigm* rather than a paradigm in its own right". The philosophical topic of vitalism does not fit easily with post-positive ideas and methodologies.

Consequently, this research was approached from a post-structural point of view.

Post-structuralism acknowledges the unconscious forces that constrain or govern our behaviour. Post-structuralists seek to deconstruct discourse in order to uncover deeper, hidden meanings (Peters & Burbules, 2004). Post-structuralist's challenge the claim of a universal truth through

acknowledgement of the pragmatics of context, and through the assertion that meaning is an active construct created by the individual to make sense of their current situation, based on their experience. It makes sense within post-structuralism, to complete this research study, in one school and on one aspect of its curriculum. As Denzin and Lincoln (1994, p. 11) have written, “The search for grand narratives will be replaced by local, small-scale theories fitted to specific problems and specific situations”. Making sense of the environment I work in, and of the philosophies of my colleagues, seemed the ideal starting point to examine vitalism in chiropractic education at our college.

Quality criteria for qualitative research

Reliability is a measure of the likelihood that another researcher will get the same results from reproducing the research (O’Toole & Beckett, 2013). Bell (1993) has suggested that an interviewer asking the same questions on different occasions contributes to reliability. In this case-study, two focus groups were conducted by an independent third party and four interviews were conducted by myself.

Validity is a measure of the soundness of research. There are two general types of validity: internal validity, which questions whether research methods or questions measure what they are intended to measure (O’Toole & Beckett, 2013), and external validity, which questions whether research findings can be generalised beyond the sample.

Brundrett (2013) has suggested piloting interview questions as a method of improving internal validity. I did this by conducting personal interviews with two of the managers before using the questions in the focus group. It was especially important that the focus group questions were not misinterpreted, as they were to be conducted by an independent third party to avoid ethical issues arising from my employer/employee power position. The first interview produced answers not about vitalism as a topic in the delivery of teaching, but about vitalism as a method of teaching, and as such the focus group questions were improved by the addition of a clarification statement. Bell (1993) suggested that researchers ask whether another researcher would get the same results using the same questions. My faculty focus groups were conducted by a fellow Master of Education student, while I asked the same questions in the interviews. The answers received were similar in nature and this allowed some checking of the internal validity of the questions. The answers between the two focus groups she conducted were consistent, as were the themes derived from the four interviews I conducted. The questions for the focus group were also tested in conversations with colleagues and fellow students, who were asked to consider whether my proposed questions would 'do the job' suggested by Bell (1993). The feedback I got was positive. Some clarification was asked for, and this was incorporated into the focus group guidelines for the third-party focus group interviewer.

There is a widely accepted view that external validity is harder to obtain in qualitative research than in quantitative research, and that generalisation is not possible. This is especially true of the case study method. As there are

several other private chiropractic educational institutions around the world, I would like to think that the lessons learnt from my study may be at least partially applicable in their contexts.

Are reliability and validity even relevant in qualitative research? There is some debate in the literature about appropriate quality criteria for qualitative research. Healy and Perry (2000) state that the quality of a study in each research paradigm should be judged by its own terms. Mutch (2013) maintains that the quality of qualitative research is better measured by trustworthiness, which can be measured using four criteria (Lincoln & Guba, 1985):

- Credibility – the degree to which the findings are able to be believed by reasonable people with no stake in the project (O’Toole & Beckett, 2013);
- Transferability – the degree to which the findings have applicability in other contexts (Shenton, 2004);
- Dependability – the degree to which the findings are consistent and able to be repeated (Shenton, 2004);
- Confirmability – the degree of neutrality or the extent to which the findings are shaped by the respondents, and not by researcher bias, motivation or interest (Shenton, 2004).

Trustworthiness was maximised in this research by the thoroughness of the description of my process, as follows.

Creswell (2000) suggests three ways in which credibility may be checked in qualitative research:

- through the researcher re-visiting their data multiple times to establish themes or categories;
- through the participants checking that the interpretations accurately represent their views; and finally,
- through the reviewers not being affiliated with the project.

Two of these strategies were used in this thesis: a thematic analysis of the methodology, and the participants checking the transcripts and the final paper.

Transferability of my findings to other chiropractic institutions would certainly be possible. I have attempted to increase the dependability of my data by repeating the data gathering in several ways: two separate focus groups and four individual interviews. Confirmability was enhanced by using verbatim quotes in the findings, and by one participant reviewing the transcripts before analysis took place.

Methods

Case study

This research was conducted with academic staff from a New Zealand private training establishment that caters for over 250 students and has strengths in both teaching and research. As a case study involving only a small number of faculty at a single site, my research clearly had many of the advantages of case studies noted by Cohen and Manion (1994):

- case study data have “strength in reality” (p. 122); case studies are “down-to-earth and attention holding, in harmony with the reader’s own experience and thus provide a ‘natural’ basis for generalisation” (p. 123);
- case study data can be “presented in a more publicly accessible form” (p. 123) than other kinds of research reports.

The case study approach is capable of serving multiple audiences, in that it reduces the reader’s dependence on knowledge of scientific methods and statistical analyses (Cohen & Manion, 1994).

Insider research

Bell (1993) suggested that the delicate balance of access during research and the demands we place on colleagues must be carefully negotiated. Permission for the study to take place was sought in the early planning stages from the institution’s management team. Faculty were invited and given clear guidelines on the time commitment (30 minutes), and this limit was adhered to. There was no way for me as a researcher to tell who had given time to the focus groups, as these were conducted by an independent third party for ethical reasons, thus there was no compulsion for my colleagues to participate if they were not interested. Mercer (2007) maintains that there are pros and cons to insider research, in relation to access, intrusiveness, familiarity and rapport, and that each of these must be weighed, balanced and planned for, to optimise the positives and minimise the negatives accordingly. Hammersley (1993, p. 219) asserts that “there are

no overwhelming advantages to being an insider or an outsider. Each position has advantages and disadvantages, though these take on slightly different weights depending on the particular circumstances and purposes of the research”.

Semi-structured interviews

In my investigation of a vitalistic paradigm in the delivery of a chiropractic curriculum, I wanted to uncover what expert chiropractic educators thought a vitalistic curriculum looked like. I wanted to understand how experienced chiropractic educators in a philosophically-based vitalistic chiropractic college would describe vitalism in their everyday teaching. This involved giving the research participants opportunities to tell their story through narrative and discussion, in interviews and focus groups.

As aforementioned, this study was a single-site case study consisting of semi-structured interviews and focus groups, conducted at the New Zealand College of Chiropractic.

Individual expert interviews were conducted with four senior management members. The interviews were voice-recorded and notes were taken. Notes and transcripts were returned to the participants for checking and review; some reduction and analysis took place at this point to inform the focus group questions.

Two faculty focus groups (conducted by an independent third party) were then held, audio recorded and transcribed. One focus group consisted of chiropractors on faculty; the other consisted of non-chiropractor faculty. This

was to provide a non-threatening space for the non-chiropractors to voice their opinion on a chiropractic-focused subject. The interviews, documents and narratives of the expert chiropractors – some with experience in multiple chiropractic institutions and some with over 20 years' experience as educators and practising chiropractors – created a variety of interesting points of view to consider.

The participants were asked the same basic questions in the same order, reducing interviewer effects and bias (Cohen, Manion, & Morrison, 2013).

Document review

The curriculum, policy and strategy documents of the New Zealand College of Chiropractic were analysed thematically. Themes included terms related to vitalism and curriculum, and additional keywords and phrases were included after a semiotic analysis (Manning, 1994) of the interview and focus group data.

Ethics

Educational research often involves ethical concerns, as it involves collecting data from and about people (Punch, 2009). A framework for ethical research was provided by the Auckland University of Technology Ethics Committee (AUTEC), in accordance with its principles of protection, participation and partnership, which were respected throughout the process of this research. Given my role as the manager of several of the possible participants, it was necessary to take steps to protect participants from concerns relating to the employer/employee power relationship. To provide for this protection, an

independent third party was contracted to run the faculty focus groups. The audio recordings of these focus groups were sent to a transcriber, who transcribed without identifying the participants. The transcripts were then returned to a volunteer from the focus group for minor correction of technical vocabulary and difficult-to-hear phrases. The transcripts were then delivered to me for data analysis.

Participants had been invited to participate through a newsletter (Appendix A) in their pigeon hole and asked to contact the independent third party, who then sent them the information sheet (Appendix B), which explained what was required of them during the research. All participants signed a consent form (Appendix C) that confirmed their voluntary participation, that they had had their questions answered and that they understood that they had the ability to withdraw from the research at any time. The participants will have access to the research; copies will be available to all the New Zealand College of Chiropractic faculty, regardless of participation. This is to avoid my learning of who participated in the research, thereby maintaining anonymity.

Data collection

I conducted five interviews with academics at a management level. These included people leading courses in various subject areas, with teaching experience ranging from three to 20 years. The semi-structured interviews lasted between 30 and 45 minutes, and were based around key, open-ended questions intended to gain a description of each participant's conceptions of vitalism in the curriculum. All interviews began with a question related to

vitalism: “What is your understanding of vitalism?”. Follow-up questions included: “Do you include vitalism in your courses?”, “How is vitalism expressed in your delivery?”, “How is vitalism expressed in your assessment?” and “What areas of the curriculum (if any) do you believe vitalism cannot be included?”. Participants referred to their specific teaching contexts, which prompted further questions to enable them to articulate their understanding of other areas of the curriculum. The interviews were audio recorded and transcribed verbatim, with identifiers such as names or subjects taught removed to preserve anonymity. The interview questions were then reviewed, and further clarification points were added for the focus groups. As previously mentioned, to maintain ethical boundaries and avoid power relationship issues, the faculty focus groups were conducted by an independent third party. Each interview lasted between 20 and 35 minutes, and were audio recorded and transcribed verbatim. To maintain anonymity, the number of participants is not known to me, although I believe that each was in the range of three to 15.

The focus group questions were:

1. What is your understanding of vitalism?
2. Do you include vitalism in your courses? Please explain.

(All or just some of your courses?; Every lecture / some lectures / one lecture?)

3. How is vitalism expressed in your delivery?

(Directly or indirectly?; Please explain; What phrasing is used?)

4. How is vitalism expressed in your assessment?

(Directly or indirectly?; Please explain)

5. What areas of the curriculum (if any) do you believe vitalism cannot be included?

The themes that emerged from the focus groups and interviews were utilised to examine the New Zealand College of Chiropractic documents. This included the College's current strategic plan, all 59 course outlines and its website. I sought to correlate what was said in the interviews to what was written in the documents.

Analysis

The analysis began with iterative readings of the transcripts. I identified variations in responses and constructed preliminary categories of description, which identified the key aspects of variety across the interviews and the focus group participants' transcripts. Over a period of two weeks, the transcripts were re-read and the categories revised until there was "a decreasing rate of change" (Marton, 1986, p. 42). This was followed by use of a computer-assisted programme, NVivo, to assist the coding and further categorisation of the data. It is important to note that NVivo is a tool that assists in the management of large amounts of data, and that the categorisation of the data was my responsibility as the researcher.

Conclusion

The purpose of this qualitative research was to investigate how chiropractic educators in a vitalistic chiropractic institution utilise vitalism in their curriculum. There were a range of participants from the New Zealand College of Chiropractic invited to participate, that consisted of both chiropractors and non-chiropractors. The research paradigm utilised was pragmatic post-structuralism, and the research approach was a case study.

Four semi-structured interviews were conducted by myself, and two focus groups were conducted by an independent third party. These were transcribed by a professional transcription service. I then analysed the transcriptions to identify emerging themes, using N-Vivo software.

Reliability and validity were considered throughout the research, while acknowledging that both were limited by the qualitative nature of the research.

AUTEC ethical guidelines were adhered to, and consideration was given to the participants at all stages of the research.

CHAPTER IV: FINDINGS

Introduction

In this chapter, I discuss the findings of my research. The data were gathered from interviews with research groups held at the New Zealand College of Chiropractic. I provide some context and background of the, however, this is necessarily limited due to ethical considerations. I reiterate and answer the original research question. Themes emerging from the interviews and the focus groups are developed and explored. These findings are specific to this study and this institution; they are not generalisable.

Background of the participants

Throughout this thesis, emerging themes are illustrated through the use of indicative quotes from the interviews. Pseudonyms are used to maintain anonymity. The participants in this survey were all faculty at the New Zealand College of Chiropractic. Participants' backgrounds cannot be described extensively as I was blinded, in accordance with my ethics agreement, from knowing who participated in the focus groups. However, the staff have been teaching between two and 40 years, and some hold management positions as well as teaching positions. Most hold a chiropractic degree from various institutions around the world. Some also hold degrees in the basic sciences or in business. Qualifications range from professional Bachelor's degrees to PhDs, and most have or are in the process of obtaining a certificate in tertiary teaching. This wide range of skills and experience from varied backgrounds

made them a good group to study, in order to answer my five research questions.

Overall, my aim was to find out how experienced chiropractic educators in a philosophically-based chiropractic college understand vitalism, and how they implement vitalism in a chiropractic curriculum.

Question 1: What is your understanding of vitalism?

Question 2: Do you include vitalism in your courses?

Question 3: How is vitalism expressed in your delivery?

Question 4: How is vitalism expressed in your assessment?

Question 5: What areas (if any) of the curriculum do you believe vitalism cannot be included?

Emerging themes

Question 1

What is your understanding of vitalism?

The traditional definition of vitalism is that life cannot be explained by the physical and chemical alone, and that a life force exists in all living things.

This came through in a few of the interviews. For example:

- *Vitalism is the force behind life. It brings all the physical and mental forces together, not just in the human form, but in all life.*

- *Vitalism, in the more formal sense, is an acknowledgement that life's processes are made up not just of physical, chemical or physical reactions and purposes alone. There is another non-physical force at work.*

However, a more prominent theme was that of neo-vitalism. Many of the faculty (both chiropractic and non-chiropractic) said that they utilise a neo-vitalistic definition rather than an older vitalistic definition. Responses included:

- *It is neo-vitalism, which is the idea that an organism or a living thing has a propensity for self-healing and self-regulation, and that there is an intelligence in all living matter.*
- *I tend to think more about neo-vitalism, with neo-vitalism being more about the body's ability to self-regulate, self-coordinate, adapt and heal.*
- *I understand that the body has self-healing abilities, self-organising abilities, self-regulating abilities.*
- *The body has an innate ability to self-coordinate, self-heal and self-regulate itself.*

They further explained how a vitalistic understanding works for them in view of how the body works.

- *Vitalism is more than just each individual system, and while you can break all those individual systems down into smaller and smaller parts*

and reduce them to their constituent bits and pieces, vitalism looks at the function of them all together in synergy.

- *Yes, the whole is more than the sum of the parts.*

It was interesting to note that they were not mutually exclusive opinions, and that it was acknowledged that the neo-vitalism definition is more suited to an academic environment.

- *Neo-vitalism is really the stance that we take in education at the New Zealand College of Chiropractic; it is more an acknowledgement that living systems are self-regulating, self-coordinating and ultimately self-healing.*

Some faculty expressed a more complex and overriding view of vitalism.

- *The vitalistic understanding can apply on a larger scale too; to the earth, to other living beings and to the universe.*
- *There is always going to be maybe something more that we need to understand or detect, and that's the intangible, I suppose.*

Another concept that arose during the focus groups and interviews was holism. Holism refers to the theory that the whole organism functions at a higher level when it functions as a whole rather than just the functions of the individual parts of the organism summed.

- *It is almost like the butterfly effect – change one little thing and then it affects the whole system.*
- *Yes, the whole is more than the sum of the parts.*

- *Vitalism looks at the function of them all together, in synergy.*

Comments on holism and the application of vitalism on larger scales were brought up several times in both the focus groups and interviews.

- *The vitalistic understanding can apply on a larger scale too; to the earth, to other living beings and to the universe.*

This is consistent with a transition from vitalism to a complex systems theory or complex adaptive theory.

Faculty acknowledged that the vibe of vitalism in the College was driven by the leadership team.

- *It's part of our curriculum; it is an envelope around the institution.*

Summary

When defining vitalism at the New Zealand College of Chiropractic, faculty clearly claimed to use a philosophy that acknowledged the body to be self-healing, self-organising and self-regulating. This is a neo-vitalistic definition consistent with that held many other health professions.

Question 2

Do you include vitalism in your courses?

The majority answer was yes. There were only two negative responses in the chiropractic faculty focus groups, and no negative responses in the non-chiropractic focus group nor the four individual interviews.

When asked to elaborate on their answers, differences in the timing of the inclusion of vitalism become apparent.

Some framed vitalism at the beginning of the course and did not feel that their course offered the opportunity to include vitalism again.

- *So usually, at the very beginning of each of these papers, I emphasise the fact that we care as chiropractors and we are dealing with an intelligent system that has a self-regulating, self-healing power.*
- *You are not going to do it every lecture. It's a one off, you know, you get that approach to it.*
- *Yes, introduce it at the start.*

Others indicated that they brought vitalism up on a regular basis when the opportunity arose.

- *I incorporate it as frequently as possible. It may not be in every lecture, but the concepts relating to how the body is designed to heal itself generally come up at some point.*
- *I would say the same, not necessarily specifically in every lecture, but the overriding theme for all of them and what ties all the things together is for the body to heal itself.*

- *Some lectures I would include it in. Some lectures I find it more difficult to include vitalism than others, so I include it where I can, where I know it's appropriate.*

The third trend was that vitalism was embedded in the curriculum. In several responses, the participants indicated that vitalism was included in the entire course, it was embedded into the curriculum.

- *...So, that conversation [about vitalism] always must, I think, be a part of my classes.*
- *There is a vitalistic theory overlaying the top of it, or a vitalistic lens that you look through.*
- *We teach the students to understand the current scientific understanding that we have of chiropractic and the nervous system in relation to chiropractic and vitalism very much comes through in all of it.*
- *I think vitalism could be a mindset, really. You can still learn things that are mechanistic, but have a vitalistic approach to it.*

Some faculty view vitalism as an educational philosophy as well as a health philosophy, and use it as a guiding principle to organise their lectures.

- *Vitalism is a thing you can teach, but it is also a way of delivering your teaching or a way of organising something or allowing something to be organised within itself.*

- *Not so much what I teach but how I teach, I would say that I apply [vitalism] perhaps subconsciously, but very much vitalistic principles as well. If I think back [over] the last few weeks, there was quite a bit of feedback from the students about things they were struggling with, so even there with the lecture I co-teach we did a whole lot of self-assessment and self-regulation to change and adjust what we are doing, so that the outcome of the teaching can be better as well.*

Most of the faculty at the New Zealand College of Chiropractic claimed to include vitalism in some manner in their courses. This could be as small as reminding students of the neo-vitalistic principles of the body, or as the framework for the whole paper. Whichever way, it was clear that the faculty contribute in a large way to the vitalistic nature of the chiropractic programme.

Question 3

How is vitalism expressed in your delivery?

In some classrooms vitalism is an overt topic; it was indicated that it was mentioned frequently and discussed openly.

- *Well, in some courses we directly talk about vitalism and vitalistic principles, and 100%, we have that frank discussion and say this is where science fits in to this model.*
- *If I'm explaining a concept about how the body is [functioning] I would explain the concept, and I would explain that this is a vitalistic concept and the body is doing this because of vitalism. So, I guess it's directly,*

I'm directly saying this is vitalism, this is why this is happening. This is why this is or why the body is made this way is, because it has the unique ability to self-organise.

- *I am implying that the body's clever at doing what it's doing and I may not say that it's vitalism so probably both directly and indirectly, so maybe in the lectures that I'm saying I am using vitalism, that's where I'm using it directly, but probably in my other lectures I am not actually saying it, but I'm doing it indirectly.*

In other classes, vitalism was more likely to come up indirectly. Some faculty were more likely to deliver the message of vitalism indirectly.

- *I think we express vitalism indirectly as frequently as possible; it's intertwined within the content of the curriculum.*
- *I think there's a word that hasn't been mentioned, and I think it's a very important one to understand the vitalistic concept in that context and that's adaptability. If we're adaptable... because the idea is if we're un-subluxated and we're adaptable, we're going to self-regulate better and self-organise better and that sort of thing.*
- *It's often-times in terms of a technique you can teach someone the process, but they don't have the feel and the feeling is a vitalistic concept that we try to teach.*

Many of the chiropractic focus group members indicated that the patient management portion of their courses is where vitalism comes into the delivery.

I think when we're going through the diagnosis portion that's mechanistic, but when it comes to managing the patient, you're coming [from] a vitalistic point of view. Then looking at it from a vitalistic point of view as patient management, there is no one size fits all.

There seemed to emerge a theme of a progression of vitalism in the delivery of the programme, as the student progresses through the programme.

- I guess we're giving them a base of very didactic learning and then trying to put it into understanding via experiential learning in a vitalistic environment. In fact, you can see that transition in the brain when we get to third or fourth year.*
- You can't teach [vitalism] when you're first introducing those concepts. Like the technique courses, you need to introduce the processes, but then later in the programme we can start teaching more vitalism.*
- Our teaching is probably more mechanistic in the first two years of the programme, but then as we go through years three and four we start to... we call on more of that vitalistic process. So, it kind of evolves.*
- It [combines] all our viewpoints of vitalism as well, because everybody is talking about vitalism. It's an overriding but slightly amorphous thing or viewpoint or feeling that we have about everything, and we're talking about students learning in the same way of going from very describable to something that's very amorphous and overriding.*

The faculty that teach the clinical courses seemed to separate the content far more than those that teach the professional practice courses, and in fact, those staff separated vitalism content more than the basic science teachers did. Some chiropractors expressed a difficulty in including vitalism in their course delivery.

- *I find it hard to include vitalism [in] my course; learning how to diagnose is a bit mechanistic.*

Others had a more general approach.

- *It's part of our curriculum; it's an envelope around the institution.*
- *We're talking about being vitalistic, and it's so important in our ethos as a college.*
- *So, in all my papers I embed it.*

Including vitalism did not always seem to be straightforward. Some lecturers expressed difficulty with regard to knowing how to approach teaching a diagnostic tool or process with a vitalistic focus.

- *Taking the blood pressure. How do we approach that vitalistically?*
- *It's a mechanistic process, so how do you make that vitalistic?*

This feeds into a question for the future: how do we bring vitalism into every classroom? We need to support faculty to explore these issues and collaborate with each other to maximise the vitalistic skill base.

Question 4

How is vitalism expressed in your assessment?

Vitalism is directly assessed in a few classes.

- *The assessments of some concepts (by this embeddedness within the whole material) will be assessing their knowledge of vitalism as well.*
- *The only place that I can see that it is directly assessed is in communication papers, such as when we get the students to do a health talk or a community event*
- *Vitalism would be expressed in the assessment, where we try to get students to relate research to their patients with the chiropractic perspective of the way the research may relate to self-regulating, adapting, healing, self-coordinating. So, it's about communication and it's also about if we ask them to describe subluxation models, or how chiropractic works.*
- *We directly ask them about the vitalistic principles in multiple choice and written examination, and also, we get them to debate concepts from more of a mechanistic or more of a vitalistic point of view.*

Some faculty indicated that they assessed vitalism indirectly through methods such as including it in marking guides where chiropractic principles need to be a part of the answer.

- *It would be more indirect. So, we'd ask them to explain how they might communicate with the patient with the expectation that they'll include neo-vitalism in it.*
- *It's indirectly assessed.*

- *In class presentations, whether it be a group of individuals, I think most of us expect to see some vitalism coming through in those presentations, regardless of what the course actually is.*
- *Only indirectly, through talking about things we cannot measure through purely organic processes.*
- *You have to understand the mechanistic stuff, but understand the vitalistic viewpoint as well.*

Some did not include vitalism at all.

- *It's probably not included in my assessments as my questions are all sort of black and white so I'm probably not assessing vitalism in my assessment at this point.*

Although it is clear that most faculty included vitalism in their courses, it is also clear that many faculty questioned whether it should be directly assessed. It may be that although a vitalistic point of view affect the flavour of the delivery, it would be too contrived to include it in the content of an assessment. Faculty that included vitalism in their courses were not always aware of how other members of faculty included it in different areas of the curriculum, and in some circumstances, staff perceived it to be too difficult.

Question 5

What areas (if any) of the curriculum do you believe vitalism cannot be included?

Most of the participants indicated that vitalism can be included to some extent in all areas of the curriculum; either embedded in the curriculum, taught directly or used to frame student thinking.

- *I think you can embed vitalistic principles into all parts of our curriculum, even in business.*
- *Vitalism could be included in all subjects. It would maybe depend on how it was taught.*
- *I think that it can be included everywhere in the curriculum.*
- *Because the courses are all about the body and how they work, and the reason we're using chiropractic is to facilitate the body's ability to express itself better, so they should be able to include it in every aspect of the curriculum.*
- *I suppose it's almost a centrist type of learning. You're trying to work around that continuum and say yes, we need to include vitalism in everything, and we do, but we also need to include mechanism because that is physically what we're operating with.*
- *I don't see any areas of the curriculum that it can't be included.*
- *No. It's the basis upon everything that we do as chiropractors.*

Some participants indicated that they believe that the basic science teachers would find it harder to incorporate vitalism.

- *I think in most areas of the curriculum it can be included, but possibly with a twist. If you take something like the basic sciences, it's more of a challenge.*
- *There are some topics within the curriculum that would be very, very difficult, like the pathology-related courses, in those classes either addressing it or assessing [the students] in any capacity I think it would be very hard to address vitalism.*
- *I think some parts of the curriculum lend themselves to [incorporating vitalism] more than others. An example of that would be in rehabilitation; [it's] more challenging to bring vitalism into that.*
- *It would be slightly difficult to include it in anatomy. Probably the practical things like radiography and maybe anatomy, but in everything else you probably could.*

As the basic science lecturers are made up of medical doctors and those who hold PhDs – that is, the non-chiropractors – it was appropriate for them to participate in a separate focus group, and for their answers to be presented separately here.

The non-chiropractors focus group indicated that they felt that vitalism could be included in the programme in some manner.

- *The more I'm learning about it, the more I think that it can be included everywhere in the curriculum.*
- *It should be able to, because the courses are all about the body and how they work, and the reason we're using chiropractic is to facilitate*

the body's ability to express itself better, which is all part of vitalism, so [faculty]they should be able to include it in every aspect of the curriculum.

Although many of the participants felt that vitalism could and should be included in all areas of the curriculum, it was also clear that there was a conception from the chiropractors that vitalism would not fit in the basic sciences courses. I decided to separate the basic science lecturers at the beginning of the research, as the lecturers I spoke with about my idea for the research indicated that they might feel restrained to speak up in front of chiropractors on what they felt was a very chiropractic subject. It is clear to me now that the two groups have much to learn from hearing about how each other go about bringing vitalism into the classroom. This is one of the ways in which this research will be utilised.

Document review

The New Zealand College of Chiropractic curriculum, strategy documents and website were analysed thematically. Themes included terms related to vitalism and curriculum, and additional keywords or phrases were included after semiotic analysis (Manning, 1994) of the interviews and focus groups. The words included: vitalism, vitalistic, neo-vitalism, chiropractic philosophy, philosophically congruent and vertebral subluxation.

I endeavoured to understand the documentation at the New Zealand College of Chiropractic to uncover where the College suggests the inclusion of

vitalism in the curriculum. The following is an illustration of where vitalism appeared in the institution's documents.

Strategic plan

Two strategic objectives in the teaching and learning section of the strategic plan state:

To integrate vitalistic principles in all teaching and learning. (New Zealand College of Chiropractic, 2016, p4)

To have a state-of-the-art Chiropractic Centre that integrates our vitalistic curriculum. (New Zealand College of Chiropractic, 2016, p4)

This is further explained in the body of the strategic plan:

This includes further integration of vitalistic principles and frameworks that guide the practical work completed by student interns. (New Zealand College of Chiropractic, 2016, p7)

To refine further the staff orientation programme to promote the culture and a clear understanding of the College's chiropractic philosophy. (New Zealand College of Chiropractic, 2016, p17)

Website

There are two references to vitalism on the college website.

The philosophy of chiropractic is vitalistic in that it acknowledges the body's ability to self-regulate, coordinate and heal. This philosophy guides our curriculum, strategy and culture throughout the College (New Zealand College of Chiropractic, 2017).

The philosophy of chiropractic emphasises the body's inherent tendency towards health and overall wellbeing (New Zealand College of Chiropractic, 2017).

Course outlines

The course outlines were examined for inclusion of vitalism or vitalistic principles in the courses. The words that seemed to infer vitalistic content or context were noted: vitalism, vitalistic, philosophically congruent, philosophical context, chiropractic philosophy, philosophically sound and vertebral subluxation. Using these keywords, the learning outcomes, synopses and weekly content lists that are in each course outline were examined for use of this terminology. There are 59 course outlines in the current degree curriculum.

The keywords were identified 39 times in 27 separate course outlines.

There were 16 occurrences in the learning outcomes, eight occurrences in the synopsis and 15 occurrences in the weekly content lists.

The course outlines contribute to the inclusion of vitalistic concepts in the curriculum, but do not account for the widespread use of vitalism by all lecturers that was indicated in the focus groups and interviews. I discuss this further in the next chapter.

CHAPTER V: DISCUSSION

Introduction

In this chapter, I discuss the findings as they pertain to the research objectives, to:

- Clarify the philosophical basis of a curriculum for the educators in the programme.
- Describe the inclusion of vitalism in the curriculum, and support the implementation in like colleges around the world.
- Better understand the philosophical drivers in curriculum, in a chiropractic education setting.

I will describe the lessons learned, their possible applications and some of the challenges of this research. Where existing literature allows, I have reviewed commonalities and considered differing views. I have explored the emerging theme of neo-vitalism from the literature and identified this as the definition primarily used by the New Zealand College of Chiropractic.

I explore the theme that arose in the chiropractic faculty focus group, of tension between vitalism and mechanism with reference to the existing literature, and have I discussed the history of this disagreement. I propose a solution to bridge the gap (or to facilitate greater mutual understanding) in the future.

Vitalism at the New Zealand College of Chiropractic

Most College faculty members, both chiropractors and non-chiropractors, understand vitalism in a neo-vitalistic paradigm. They define vitalism as a body that is capable of self-organising, self-regulating and self-healing. This is becoming the predominant definition of vitalism in chiropractic (Richards, 2016).

Vitalism is clearly included across the curriculum. Each lecturer may use it at a different level. It seems, from these focus groups and interviews, to be used in five ways.

Firstly, at a minimum, vitalism is used to set the scene in an introductory class. The lecturer will ask the class to consider the self-organising, self-regulating and self-healing properties of the body as a guiding principle.

Secondly, vitalism is part of the course's overt curriculum, as written in the course outlines of classes like philosophy. In these courses, vitalism is defined, and the historical influence of vitalism on the profession is presented and discussed.

Thirdly, vitalism is mentioned regularly in the delivery of the course, and gives context to many parts of the course topics or as a discrete topic when the opportunity arises. These courses may compare and contrast vitalistic approaches to other approaches.

Fourthly, vitalism may be embedded into the delivery of the course, as it is the basis for decision-making and is reflected in assessment. This is most

common in technique courses, where students are learning to make decisions about where and when to apply a chiropractic adjustment to the spine.

And fifthly, vitalism is used as an underlying educational philosophy, to guide the management of the classroom and the assessment of learning. This appeared in one of the interviews, where the lecturer described their thoughts on vitalism as a way of thinking about the classroom as capable of self-regulating and self-organising. The lecturer described a student-led approach to topic direction and class discussions

There was no indication that vitalism was not included in one of the above ways in any of the interviews or focus groups. When chiropractic focus group members were asked if there were places vitalism could not be included in the curriculum, the chiropractors thought it would be difficult to include it in the basic science lectures, however, the basic science focus group members indicated that they use it regularly in the classroom, when appropriate, to indicate that the body is self-organising and self-regulating.

The perception of the faculty was that the more difficult place to include vitalism is in the assessment of their courses. Several indicated that although they include vitalism in the scene setting of their classroom delivery, or refer to self-healing, self-regulating and self-organising regularly, vitalism is not asked about directly in their assessments. A vitalistic point of view is often expected indirectly in the way in which answers are approached, especially in patient management situations and communication-based assessments.

This is an area that needs more development in the faculty: how do we incorporate the concepts or essence of vitalism into the assessment of all the College courses, either directly or indirectly? There are places in the curriculum where it is not appropriate to talk about vitalism directly, but there are many places where the answer expected in assessments needs to include acknowledgement of the self-healing, self-organising and self-regulating nature of the human body, or of the role of the nervous system in this process. Perhaps what is needed is to remind the faculty that this is all that is needed; to consider vitalism in their course assessment in the same way in which they expect evidence-based answers.

An interesting concept appeared in the chiropractic focus group, relating to vitalistic assessment – using a vitalistic way to assess students versus assessing vitalism as a topic. The concept as discussed involves a higher-level thinking and acceptance of complexity. The participants indicated that they felt mechanistic assessment was very black and white, and that they examined small components of content separately. While vitalistic assessment was considered amorphous, with multiple correct answers being possible, the ability to justify their point was paramount. They indicated that there was an increase in this type of assessing as the student entered the clinical portion of the programme.

Another interesting (although singular) comment was that the students think that they can use vitalism as a cop-out; that when they cannot remember the mechanistic details they defer to a vitalistic statement, trying to avoid finding

an answer that meets both points of view. This answer seems to be in opposition to the previous point of view. I am not sure I agree with this as an end, even if the student does seem to be attempting to do this; it cannot be accepted without question by the lecturer. A comment made by another participant sums up my feeling well: "Surely our job would be to facilitate the bringing together of these two concepts". In fact, that is an expectation of the faculty at the New Zealand College of Chiropractic; that they can guide the students to include both evidence-based and philosophical considerations when managing their patients and answering their assessments.

Does what we do match what we say?

Analysis of the course outline documents revealed mention of vitalism or vitalistic content in 27 of the 59 courses that make up the degree. The course outlines were examined for the words vitalism, vitalistic, philosophy, and vertebral subluxation. Vitalistic content was apparent 39 times in the learning outcomes, synopses or lecture topic lists of 27 courses.

The course outlines contribute to the inclusion of vitalistic concepts in the curriculum, but do not account for the widespread use of vitalism by all lecturers that was indicated in the focus groups and interviews.

It seems from the interviews and focus groups that lecturers are mentioning vitalism in their courses even when it is not in the course outlines. The use of vitalism in the more overarching documents is apparent, in that references to vitalism appear on the website and in the strategic plan. These documents are more likely to have an impact on the culture and environment in which

the lecturers work, thereby creating a context in which vitalistic content is encouraged.

To encourage the use of neo-vitalism in the courses, it could be included as part of the synopsis in the course outline documents. A review of these documents by the relevant deans and heads of departments, to help lecturers consider where vitalistic viewpoints can be included, is recommended.

The focus groups and interviews indicated a lesser use of vitalism in the assessment of the courses. This is consistent with the appearance of vitalism in the learning outcomes in the course outlines; only 16 of the 39 occurrences were in the learning outcomes. Assessment is based on the learning outcomes, and if vitalism is absent from the learning outcomes, it cannot be directly assessed.

The differences between the use of vitalism in courses and a clear understanding of colleagues; positions is something that as a leader of the academic programme, I will endeavour to explore.

Immediate application to the New Zealand College of Chiropractic

There is only one institution in New Zealand that teaches chiropractic. What can the College learn from this study?

As a manager and a leader of the academic programme at the College, this study has enabled me to have a greater understanding of the current use of vitalism in the curriculum. It has provided insight into the practice of my

lecturers. This should start a better discussion about the appropriate inclusion of vitalism in programme committees, create a deeper understanding during course evaluation meetings and result in some training and discussion sessions in faculty development meetings. It is important that faculty understand how each of their colleague's approach vitalism in their part of the curriculum. They can offer insights to each other that could be invaluable in the classroom. In addition, the incorrect assumptions about not including vitalism in the basic science classes could be cleared up by the lecturers from each of those courses.

The chiropractor focus group clearly described mechanism and vitalism on a continuum, suggesting that some content can be both mechanistic and vitalistic. But the group also suggested that very mechanistic content cannot be vitalistic.

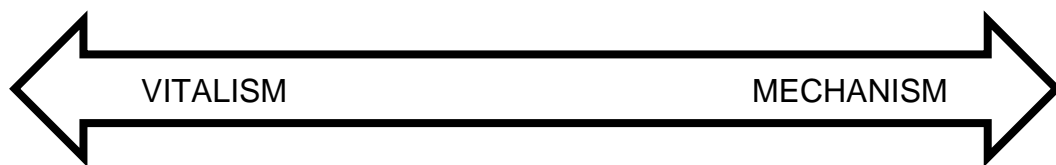


Figure 1: A continuum, vitalism to mechanism.

I would like to suggest a different way of thinking about this, which would involve all content in chiropractic education being essentially the same (in fact, our accreditation bodies control this to some extent).

“Principles and practice: Topics expected to be addressed in this context include: the history of the development of the chiropractic profession, the theories and underlying principles upon which case management is based, the role of the chiropractor as a primary contact health care provider and the

chiropractic profession’s relationship to other professions and organisations” (CCEA, 2009, pg. 15). In the table below are the subjects listed in the CCEA Standards for Chiropractic Programmes (CCEA, 2009, pg. 16).

Basic sciences	Clinical sciences	Behavioural and social sciences
anatomy, biochemistry, physiology, neurology, microbiology, histology, embryology, pathology, biophysics, molecular and cell biology, genetics, immunology and other appropriate subjects	physical diagnosis, clinical diagnosis and lab diagnosis, mental health assessment, orthopaedics, gynaecology, obstetrics, paediatrics, geriatrics, dermatology, otolaryngology, ophthalmology, diagnostic imaging procedures and interpretation, nutrition, rehabilitation, ergonomics, pharmacology and other appropriate subjects	psychology, sociology, biostatistics, epidemiology, hygiene and public health, professional practice ethics, practice management and other appropriate subjects as they apply to chiropractic

Table 1: Content requirements from the Council on Chiropractic Education Australasia

The emphasis of certain topics may be different, and the credit value or student learning hours given to certain topics certainly differ slightly. In fact, autonomy and uniqueness are encouraged, and create a diversity that is important in education and research. “The application of the Standards in the accreditation process is intended to preserve the autonomy and uniqueness of education institutions and encourage innovative and experimental programs in a manner that ensures quality and integrity of the institution”

(CCEA, 2009, p. 1). The biggest difference comes not from what we teach, but how we teach it. Vitalism or mechanism become the points of view from which all content can be looked at; they provide a different philosophical stance. This may be obvious to those coming from a purely education background, as the philosophy of education is well-founded and openly discussed in education curriculums, but it is a strange concept to some from a science background. Vitalism is the lens through which we teach all content.

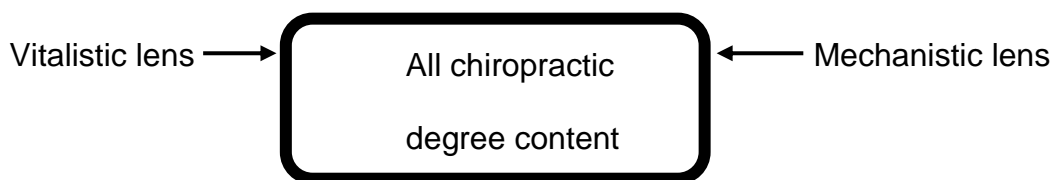


Figure 2: A model of the influence of philosophy on curriculum content

While reading the focus group transcripts, several times I read comments such as “What I teach is just the mechanics of examination” or “What I teach is very black and white”; comments indicating that it is hard to bring in vitalism as a topic during these classes. I disagree. I suggest that, if we look at this from a holistic point of view, it is not difficult at all – it is about the way in which we teach the content. It is about the language we use to set the scene. It is not solely about the actions we are getting the student to perform, but rather, it is about the way we encourage the student to think about that action and the reasons behind the performance of that patient examination that determine a vitalistic point of view.

The error that could be made is to think about vitalism as content that must be delivered, rather than as a philosophical lens through which to view the

delivery of the content. We do not need to say this part is vitalism or refer to vitalism by name. Every time we suggest that the body is self-regulating, self-organising or self-healing, we are representing a vitalistic point of view.

Another way to think about mechanism and vitalism is that these two philosophies are not in opposition; that we can have both operating in the same environment. As Koch (1996) suggests, for a fully functioning healthcare system, we need both systems working together. Both systems can fulfil separate but important roles in the healthcare system (Koch, 1996). This approach benefits the patient, as it offers them a choice. Those with a more natural or holistic inclination will choose a vitalistic chiropractor, while those who are looking for a mechanistic solution to their problem will seek out a chiropractor with that bent.

Curriculum vs culture

It is encouraging that the participants indicated that vitalism is truly represented at this institution as part of the culture, rather than being restricted to a curriculum item. Many of the participants in the study regarded vitalism as the 'vibe' or as part of the values of the College. A philosophical culture of vitalism pervades the institution; it is in the meeting rooms and committees. The Board of Trustees is run according to vitalistic principles. Decision-making at the highest levels, as well as the day-to-day classroom activities, has a vitalistic focus or is viewed through a vitalistic lens. The research department has a vitalistic focus in all its research, and the students see their patients inside a vitalistic umbrella.

Anything that is not within this vitalistic domain is immediately apparent. The students notice it and comment on it in evaluations and surveys, the lecturers notice it and comment on the incongruence and the programme committee and academic board pay attention to it and try to find ways to bring the content under a vitalistic lens.

Intermediate applications (other chiropractic colleges)

Could there be applications from this research at the New Zealand College of Chiropractic for other chiropractic colleges, who identify as vitalistic but wish to integrate vitalism further into the curriculum than philosophy class?

Chiropractic has a small number of institutions (40 worldwide), of which only a small proportion teach from a vitalistic point of view (about 25%). However, this is growing, and many international chiropractic groups acknowledge the importance of teaching the philosophy behind chiropractic.

A conference was called by the World Federation of Chiropractic in 2000.

There were 36 of the then 38 accredited chiropractic colleges at this meeting, as well as most of the accrediting bodies and important political and professional groups from chiropractic. The philosophies discussed at this conference that might be included in the taught philosophy content were holism, conservatism, vitalism, humanism and naturalism. Although there were differing opinions on which philosophy should be primary, a consensus was reached: “[The] study of the discipline of philosophy, including the philosophy of chiropractic and its place within the wider context of the

philosophy of health care, should be an important component of the curriculum in all chiropractic education” (WFC, 2000, p. 6).

However, there is still some disagreement as to whether philosophy should play a role in chiropractic education. Keating (2002) argues that a profession cannot hold onto a vitalistic philosophy and be scientific at the same time. Nelson et al. (2005, p. 6) suggest that “Chiropractic can choose to retain its vitalistic component only if it chooses to operate completely outside the scientific healthcare community”. I argue that perhaps the authors have forgotten that scientists often have a philosophical point of view as well, and that his dogmatic positivist and empiricist belief that that nothing can be true or valid unless proved by science might not allow room for the whole of the human experience. I also contend that science and vitalism can co-exist in one curriculum; just because something can be proved by science does not necessarily follow that it is un-vitalistic. Richards (2016) far more moderately and inclusively suggests that the best solution for modern healthcare is for these duelling philosophies to co-exist and work together to solve healthcare issues (Richards, 2016). Chiropractic was founded on a trifold base of philosophy, art and science, and without any one of these, our profession becomes less valuable. Villanueva-Russell (2005) suggests that we cannot survive without science: “Chiropractic cannot survive totally outside the realm of science. From the beginning, D.D. Palmer announced that chiropractic would be a “science, art and philosophy,” so estrangement from science has never even been entertained by the evolving profession” (Villanueva-Russell, 2005, p. 548).

I contend that philosophy enriches any profession, and that the debate that philosophical differences bring about enables a profession to explore hidden ideas and test its own assumptions. Senzon (2010, p. 2) suggests that “Ideally, philosophy guides clinical choices, professional development, research foci, political initiatives, policy, doctor-patient interactions, ethics, and education”.

Villanueva-Russell (2005) suggests that because vitalism is different, and brings a different perspective to healthcare, this makes it important. “Vitalism is also important because it runs counter to the empirical, scientific evidence” (Villanueva-Russell, 2005, p. 547).

At the New Zealand College of Chiropractic, the lecturers in almost every course use a neo-vitalistic philosophy to set the ‘big picture’ for the class. Neo-vitalism is embedded in almost every classroom environment and used to frame the content delivered. It is used in the clinical programme to select management plans for the patient, and in the decision-making process during each patient visit. Further, it is used by some lecturers to design their classroom activities and assessments. They consider that the class, in and of itself, is self-organising, self-regulating and self-healing, and the lecturer endeavours to utilise these self-organising abilities for class discussions and activities. Any institution wanting to embed its philosophy into the curriculum must firstly consider how to embed it into the culture of the institution, so that all levels, from its students to its leaders, have a clear understanding of the philosophy.

Tension in the profession: Mechanism vs vitalism

Earlier, I alluded to the fact that one or two of the faculty who participated in the focus group find themselves torn between mechanism and vitalism when teaching certain topics. This is not a new tension in the chiropractic profession.

Specific terminology can trigger antagonism in discussions between chiropractors with differing philosophies. Senzon (2003) questions how chiropractic can keep its distinct philosophy if the profession keeps running into linguistic problems. Perhaps if we, as a profession, can agree on neo-vitalism instead, we can move forward into a place of greater agreement. Richards' (2016) treatise on Dualism asks the same question: surely as professionals, we can agree that there is validity in both points of view, and that we have much to offer each other, if only we could find that common ground?

Common ground (mechanism and vitalism)

More recently, writers have endeavoured to find a common ground; a place where the two groups can meet in the middle or find some common agreement (Koch, 1996; Nelson et al., 2005; Richards, 2016).

Neo-vitalism

Nelson et al. (2005, p. 6), clearly empiricists, say, "A distinction can be drawn between the "classical vitalism" described above and a "modern vitalism" that can be accommodated by conventional biomedical science. This modern vitalism is best described by the phrase *vis medicatrix naturae* – the healing

power of nature. The truth of this proposition is indisputable. This modern vitalism can also serve as a useful and valid guiding clinical principle. It implies, correctly, that these natural healing systems should be given every opportunity to operate with minimal interference by outside agencies, including by chiropractors. This sort of therapeutic minimalism is, in fact, an important part of model that we will propose”.

Another possible place of commonality is borrowed from complex systems theory. Callender (2007) explains that there are multiple connections between neo-vitalistic principles and systems theory. Complex systems theory is a scientific framework that explains how rules govern emergence, and the constraints mediating self-organisation and system dynamics (Kaiser & Madey, 2009). Complex adaptive systems theory can be used to study living things. As aforementioned, this theory developed out of chaos theory in the mid-twentieth century. Biologists have been studying complex adaptive systems for over half a century, and the philosophy of chiropractic and modern theories in biology have many parallels (Senzon, 2003); in fact, they even developed at the same time (Callender, 2007). In the 1950s, Von Bertalanffy started biologists on a path to a new biology based in complex adaptive systems theory. He saw systems theory as a replacement to the mechanism/vitalism clash by accepting that life was more than mechanical, but that the organising intelligence was not separate from the body (Callender, 2007). Berman (in Callender, 2007) presents systems theory as an improvement on mechanism by not only looking at the parts, but by accepting that the sum of the parts is greater, and that all situations possess

a patterned or interrelated reality that cannot always be measured by atomistic analysis.

Biologists who completely reject old vitalism, where the force was added from the outside, welcome the idea in systems theory and neo-vitalism that there is some kind of organisation that is distinctive to the living thing; an internal self-organising principle.

Senzon (2003) suggests that if complex systems theories were taught in chiropractic curricula, it would allow scientists and chiropractors to mutually benefit from a common understanding. "There is ample data on physiology, homeostasis, morphogenesis, and embryonic development, to incorporate some of the new biological theories into the chiropractic curriculum. This could have the benefit of lending scientific credence to the organizational aspect of the theory of innate intelligence. It would give students some hard facts to base the chiropractic theories on" (Senzon, 2003, p. 3).

I am left with a question that I am currently unable to answer... should the chiropractic profession adopt a new terminology? The word 'vitalism' seems to create tension in a room and light a fire of dissent within the scientific community. Would we be better off considering a less provocative term?

Does complex adaptive systems theory or neo-vitalism offer a way forward in co-operation?

Challenges

Ethical issues have been discussed in previous chapters, but I would like to explain the concerns that arose after the fact. In one of the focus groups, I felt that the focus group coordinator lost control of the group's discussion.

They went a long way off topic, into complicated (for a layperson) chiropractic jargon and topic areas. Although this was interesting, it did not pertain to vitalism. Perhaps a chiropractor as the focus group coordinator might have been better able to recognise this and bring the group back to topic more promptly. Perhaps if I had been running the focus groups, I might also have explored in more depth the idea of a continuum between mechanism and vitalism, and probed for any ideas on how to bridge the gap between these two ideologies. I certainly plan on this being a topic for discussion at post-thesis faculty meetings. The richest source of information for change and improvement comes from those at the coalface.

I found it was difficult as the primary researcher to read transcripts of the focus groups when I was not there, although the transcriptions are accurate (they were checked by a participant through delivery by a third party). They do not contain the tone and inflection that is involved in speech. Because of this, it is possible that I could have misinterpreted the meaning of the participants. Post checking of the findings chapter helped to ameliorate this, but the tone cannot be replaced.

Another issue was that during the discussions, there were several mentions of the courses that individuals teach. I have tried to remove these so that the participants cannot be identified through the reading of this thesis, but that has created an occasional loss of context for the quotes.

Insider research often presents its own challenges, and I have been unable to control fully whether the answers given portray what my colleagues

thought I wanted to hear or whether they represent their own independent thoughts. This was minimised through the use of the independent third party to conduct the focus groups.

The focus group was once or twice distracted by their own topics. The chiropractic focus group had an interesting conversation about vitalistic learning, and how the move from conscious competence to unconscious competence could be vitalistic learning. They seem to suggest that once the student is self-regulating and self-organising, the knowledge that they are then competent chiropractors follows. They also suggest that the measurement of this transition is difficult to measure objectively. This is beyond the scope of my research project, but provides an interesting topic for future discussion.

CHAPTER VI: CONCLUSION

Introduction

The purpose of this research was to describe the manner in which a vitalistic philosophy is included in modern chiropractic education. My intention was to uncover the contemporary working definition of vitalism within the curriculum, in order to test it against the literature and offer pragmatic advice within the New Zealand College of Chiropractic on a more cohesive approach to teaching vitalistic chiropractic in an evidence-based healthcare environment. My intention was to give voice to lecturers' beliefs and practices relating to vitalism's place in the curriculum. I wanted to investigate the current literature

surrounding neo-vitalism and build an informed opinion about vitalism as a modern philosophy.

I used my position as an insider researcher to conduct a single site case study at the New Zealand College of Chiropractic to answer my research question: How do experienced chiropractic educators in a philosophically-based chiropractic college implement vitalism in a chiropractic curriculum?

Summary of findings

The findings of this research show that lecturers at the New Zealand College of Chiropractic utilise a construct of philosophy that is neovitalistic in nature. They describe the vitalism they teach in the curriculum as a recognition of the self-healing, self-regulating and self-organising ability of the body.

The lecturers interviewed were unanimous in their definition of contemporary vitalism, but had varied ways in which vitalism was delivered in their classrooms. On a small scale, they may mention vitalistic themes of self-organisation in the introductory lecture. On a larger scale, they embed it in every lecture and bring a vitalistic viewpoint to all discussions.

Another aspect of the curriculum is assessment. The lecturers who indicated they assess vitalism directly were very few, but as only 16 of the 59 courses that make up the degree have vitalism or vitalistic concepts mentioned in the learning outcomes, the responses were appropriately matched in the curriculum documents. Other lecturers indicated that vitalism may be indirectly included in their assessment, especially those teaching patient management classes.

Teacher confidence in being able to bring together the mechanistic and vitalistic ends of the curriculum, or to explain something they view as mechanistic from a vitalistic lens, was variable. This will require some training and development during future faculty meetings.

My document review was consistent with the interview and focus group responses. The inclusion of vitalism in the strategic plan and website matched the comments made by faculty that there is a culture or 'vibe' of vitalism throughout the College. The faculty's indication that they directly assess vitalism in their courses was consistent with the number of courses that use vitalism in the learning outcomes from the course descriptors.

At times, it was clear that the faculty were not aware of the ways in which their colleagues included vitalism in their delivery, thus some opportunities for sharing practice in this area need to be created.

Recommendations

Opportunities for internal collaboration and idea sharing need to be created. It is clear that the faculty, and therefore the curriculum, at the College would benefit from a wider knowledge base and collegial development. Some faculty could be set up with mentors, who have a deeper understanding of neo-vitalism, to help them develop appropriate links to neo-vitalism within their subject area. As mentioned earlier, neo-vitalism and its appropriate inclusion in the curriculum need to be explored at the programme committees. The balance between our philosophical base and evidence base

in chiropractic needs to be more clearly explained within the course documents.

There is a widespread embedded culture of contemporary vitalism at the College. This seems to have contributed to the inclusion of neo-vitalistic principles being more widespread than the course outline documentation would first suggest. Any chiropractic programme wanting to sit within a neo-vitalistic paradigm should ensure that a strategy be implemented to set up a culture of vitalism throughout all levels of the programme.

Terminology is clearly a potential area of dissent within the chiropractic profession, and it may be useful to adopt a more contemporary vocabulary to facilitate a more collaborative atmosphere. Terminology that does not immediately antagonise the mechanists while allowing the vitalists to continue to focus on the self-organising capabilities of the body would be useful.

Neo-vitalism and complex adaptive systems theory seem to offer a potential common ground. Continued dialogue and exploration from both mechanists and vitalists in the profession will be necessary to facilitate this concord.

Complex adaptive systems theories would be an excellent addition to the College chiropractic curriculum. This would enable students to begin to see the art and philosophy of the profession being agreed in a scientific realm, and additional language to communicate the philosophical view to groups where 'vitalism' might otherwise create some tension.

Limitations

There are some limitations to insider research, however, it also has its advantages. I could not remove my memories and pre-conceptions from my brain while conducting this research. I hope I have managed to balance an open mind with my institutional knowledge and experience. I was certainly surprised by some of the findings. I was unaware that the mechanism-vitalism tension was so keenly felt at the College, and I was surprised by the clear grasp of vitalism that we found in the non-chiropractor focus group.

As with most case studies, the sample size was small; it may even be small in comparison to staffing at the College. As I was blinded to the number of participants in each focus group due to ethical considerations, I am unable to ascertain whether my sample size is a representative sample of College faculty. The transcripts do appear to have multiple voices, and low attendance was not reported by the independent third-party interviewer.

Another limitation of the single-site case study method chosen is the site itself. The College has a strong vitalistic reputation, and hiring policies and the type of person attracted to teaching at the College would normally have a vitalistic tendency. Although some of the literature explored explains the opposing mechanistic point of view, strong opposition to vitalism is missing from the findings, but may well be found in other institutions.

Other limitations related to ethical boundaries because of the managerial power relationship between myself and the participants. As such, it was necessary to utilise a third-party interviewer. The third-party interviewer's lack

of knowledge of vitalism potentially limited potential lines of enquiry in the focus groups. The interviewer was chosen as she had some chiropractic experience as a patient, and was also an experienced educator and interviewer. These skills were felt to be sufficient, and I feel they did allow for the best balance in the given situation.

As with all qualitative research, and especially case studies, there is a lack of generalisability. Further research could be done in more chiropractic institutions to include a broader sample.

Suggestions for further research

Based on the results of the study, I make three recommendations for further study.

1. Firstly, a larger study involving several sites would eliminate some of the limitations outlined in the previous section. Alternative sites would help to eliminate insider research bias, and without a manager power relationship, the researcher would be free to conduct their own interviews and focus groups.
2. Secondly, a clearer distinction between vitalism and neo-vitalism could be drawn, and complex systems theory understanding could be explored. Further, if institutions outside the vitalism sphere could be included, and a lexicon of common understanding could be developed, complex systems and neo-vitalism could be investigated.

3. Finally, this research only investigated the faculty perspective. Future studies could seek the student voice and measure their understanding of contemporary vitalism in a chiropractic curriculum.

I would like to be able to walk into a room of colleagues and not have to watch my philosophical language all the time.

Concluding notes

The last point is exemplified by a recent experience I had. A colleague asked me what my thesis was about. When I told him that the title of my thesis was 'vitalism in a chiropractic programme', he responded with a grimace and turned to another conversation. One of the reasons I chose this topic was to expose the effect of this type of attitude on curriculum development. This study has shown that lecturers feel these tensions within the profession, which in turn affect the delivery of the curriculum. Our students newly graduated from a vitalistic programme go out into a profession where they may find their previously held beliefs on vitalism challenged or even mocked. It would be great if this thesis could begin a conversation of understanding, and if the improvements we can make to our curriculum as based on the findings could better educate our graduates to communicate in the workplace.

It is hoped that by reading this thesis and being aware of the influences of a vitalistic philosophy on a curriculum, stakeholders will take corrective actions that would help the communication of a vitalistic philosophy.

The search for the connection between science and philosophy will go on,
but perhaps we will realise we are not so different after all.

*“Philosophers are people who know less and less about more and more until
they know nothing about everything. Scientists are people who know more
and more about less and less until they know everything about nothing.”*

Anon

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Appendix A: Participant recruitment sheet

- Are you interested in how chiropractic is taught with a vitalistic focus?
- Are you a lead lecturer at a chiropractic college?
- Are you a faculty member at NZCC?
- Are you willing to be part of a focus group about your perspectives on how the concepts of vitalism are incorporated into the delivery of a chiropractic curriculum?



If so, we are conducting a research project and looking for faculty to take part in two focus groups (one for chiropractors and one for non-chiropractors) comprising of 5–10 participants. This study examines how experienced chiropractic educators incorporate vitalistic concepts into the delivery of their varied subjects.

Participation in the focus groups is confidential and the groups will be conducted by Linda Daniels, who is independent of the New Zealand College of Chiropractic.

If you are interested in participating or would like more information, please contact Linda by email: XXXXX

Approved by the Auckland University of Technology Ethics Committee on 6/5/16. AUTEK reference number 16/143

Appendix B: Participant information sheet

Date information sheet Produced: 27 January 2016

Project title: How expert chiropractic educators believe vitalism is implemented in their everyday work

An invitation

My name is Marina Fox and I am completing my Master's in education. I would like to invite you to participate in my research project on chiropractic education. Participation in this project is voluntary, and you may withdraw at any time prior to the completion of data collection March 31, 2016. There will be no record of participation available to me and therefore, whether you choose to participate or not will neither advantage nor disadvantage you in your future employment at NZCC.

What is the purpose of this research?

This research will contribute to my Master's of Education qualification. It may be used in poster presentations at chiropractic education conferences or similar, and articles arising from it will be submitted for publication to the Journal of Chiropractic Education.

Vitalism is defined as the theory that the origin and phenomena of life are dependent on a force or principle distinct from purely chemical or physical forces (Oxford University Press, 2015). It was the philosophy on which chiropractic as a profession was founded in the nineteenth century. The New Zealand College of Chiropractic considers staying true to these founding principles to be of utmost importance in chiropractic education in the twenty-first century. The College therefore bases all its policy and curriculum development around a vitalistic chiropractic philosophy.

I would like to investigate how this philosophical point of view is integrated into the taught curriculum of a modern chiropractic learning institution.

How was I identified, and why am I being invited to participate in this research?

You have been invited to participate in this research because you are currently or have recently been employed as a faculty member at the New Zealand College of Chiropractic and have been contacted through the College internal email.

What will happen in this research?

This research will involve focus groups that will discuss how vitalism is used or implied in the classroom. You will be invited to participate in a focus group

of fellow faculty. To allow for open discussion, an independent third party has been hired to conduct his group. You will be asked to answer questions about vitalism and your teaching. Notes will be taken and audiotaping and transcription will be used. I will then receive de-identified transcripts to use in the writing of my thesis. The findings of this thesis could then be presented in articles published in the Journal of Chiropractic Education or at a poster presentation.

What are the discomforts and risks? How will these discomforts and risks be alleviated?

To avoid a conflict of interest, an independent third party will conduct the focus groups. To avoid any employment discomfort, management will not form part of the focus group and will be interviewed *separately*.

What are the benefits?

This research will contribute to my Master's of Education qualification. I hope it will benefit some readers in their understanding of how to bring a vitalistic paradigm into their teaching.

How will my privacy be protected?

Only the independent focus group conductor will know the identity of the participants involved. Transcripts will not have identifying information on them, and will be kept by the independent third party in a secure location.

What are the costs of participating in this research?

The focus group will take up to 40 minutes of your work day. If you wish to review the transcript notes, a further hour may be needed.

What opportunity do I have to consider this invitation?

You have two days to consider this invitation.

How do I agree to participate in this research?

If you agree to participate in this research, you will need to complete the consent form accompanying this information sheet and return it via email to lindadaniell43@gmail.com

Will I receive feedback on the results of this research?

Yes, feedback on the results will be available once the thesis is published. You may read the thesis, which will be available in the library.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Andy Begg: andy.begg@aut.ac.nz, 921 9999 ext. 7355.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, Kate O'Connor: ethics@aut.ac.nz, 921 9999 ext. 6038.

Who do I contact for further information about this research?

Please keep this information sheet and a copy of the consent form for your future reference. You are also able to contact the research team as follows:

Researcher contact details: Marina Fox, marina.fox@nzchiro.co.nz , 526 6789 ext. 230.

Project supervisor contact details: Andy Begg, andy.begg@aut.ac.nz, 921 9999 ext. 7355.

Approved by the Auckland University of Technology Ethics Committee on 2/5/16. AUTECH reference number: 16-143.

Appendix C: Consent forms

Project title: How expert chiropractic educators believe vitalism is implemented in their everyday work

Project Supervisor: **Andy Begg**

Researcher: **Marina Fox**

- I have read and understood the information provided about this research project in the information sheet.
- I have had an opportunity to ask questions and have them answered.
- I understand that notes will be taken during the interviews, which will also be audio recorded and transcribed.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to the completion of data collection, without being disadvantaged in any way.
- If I withdraw, I understand that all relevant information, including tapes and transcripts, or parts thereof, will be destroyed.
- I agree to take part in this research.
- I wish to receive a copy of the report from the research (please tick one): Yes No

Participant's signature:.....

Participant's name:

Participant's contact details (if appropriate):

.....
.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 2/5/16 AUTEK.
Reference number 16-143.

Note: The participant should retain a copy of this form.

Consent form for use when focus groups are involved.

Project title: How expert chiropractic educators believe vitalism is implemented in their everyday work

Project Supervisor: **Andy Begg**

Researcher: **Marina Fox**

- I have read and understood the information provided about this research project in the information sheet.
- I have had an opportunity to ask questions and have them answered.
- I understand that the identities of my fellow participants and our discussions in the focus group are confidential to the group, and I agree to keep this information confidential.
- I understand that notes will be taken during the focus group, which will also be audio recorded and transcribed.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to the completion of data collection, without being disadvantaged in any way.
- If I withdraw, I understand that while it may not be possible to destroy all records of the focus group discussion of which I was part, the relevant information about myself including tapes and transcripts, or parts thereof, will not be used.
- I agree to take part in this research.
- I wish to receive a copy of the report from the research (please tick one): Yes No

Participant's signature:.....

Participant's Name:.....

Participant's contact details (if appropriate):

.....
.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 2/5/16. AUTEK reference number 16-143.

Note: The participant should retain a copy of this form.