Assessment of Organizational Culture in Chiropractic Education and its Influence on the Implementation of Revised Accreditation Standards

Karen A. Bobak
St. John Fisher College

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Assessment of Organizational Culture in Chiropractic Education and its Influence on the Implementation of Revised Accreditation Standards

By

Karen A. Bobak

Submitted in partial fulfillment of the requirements for the degree Ed.D. in Executive Leadership

Supervised by

Mary S. Collins, PhD, RN, FAAN

Committee Member

Cynthia McCloskey, DNS, APRN-BC, WHNP

Ralph C. Wilson, Jr. School of Education

St. John Fisher College

August 2013
Dedication

I dedicate my dissertation work to my wonderfully supportive family. I am richly blessed to have had the encouragement and reassurance of my husband, Brett Bobak as well as that of my daughters Sara Bobak and Alycia Bobak. They continually conveyed their belief in my ability to complete the dissertation process and remained my unwavering inspiration.

I also dedicate this dissertation to my sister-in-law and dear friend, Signe Bobak, Ph.D. who helped me through the many challenges of the dissertation process and who spent countless hours proofreading and commenting on my work.

I dedicate this work to the memory of my parents, Stanley and Mary Ostrowski, whose words of encouragement and high ethical standards live on in my heart.

I would also like to express my deepest appreciation to my committee chair, Mary S. Collins, PhD, RN, FAAN and my committee member, Cynthia McCloskey, DNS, APRN-BC, WHNP. Their patience, wisdom and inspiration have been the force that has transformed my ideas into scholarship. I will forever be grateful for the guidance they provided and the experiences they have shared.

In addition, I also thank the members of my team, Joshua Fegley, Deborah Pearce and Sean Tracy, for helping me through this process and providing camaraderie, insight and laughter.
Biographical Sketch

Dr. Karen Bobak earned her BA degree in Biology from Canisius College in 1982 and her BS degree in Human Biology in 1984 from National College of Chiropractic. She went on to earn her doctor of chiropractic degree from the National College of Chiropractic in 1986. Following the receipt of her DC degree, Dr. Bobak entered private practice where she provided direct patient care for over twenty years.

Dr. Bobak began her academic career when she accepted a position on the faculty of New York Chiropractic College in 1994. She currently serves NYCC as the Dean of Chiropractic Education and holds the academic rank of associate professor.

Dr. Bobak came to St. John Fisher College in the summer of 2011 and began doctoral studies in the Ed.D. program in Executive Leadership. Dr. Bobak pursued her research in the assessment of organizational culture in chiropractic education under the direction of Dr. Mary Collins and received the Ed.D. degree in 2013.
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I want to acknowledge and express my sincere thanks to New York Chiropractic College for the funding of educational expenses in support of my participation in the Ed.D. in Executive Leadership program.
Abstract

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finding was considered to carry significant importance when considering participant’s response to change initiatives. Merging of the quantitative and the qualitative findings in the mixed method analysis revealed that there was qualitative evidence to support the quantitative findings of primary culture types, internal organizational focus and a preference of organizations toward stability and control. This study offers a new understanding of organizational cultures for leaders in chiropractic education that can serve to support efforts to implement change. Several recommendations are outlined including the use of change strategies that are in line with the values of the organizational culture.
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Chapter 1: Introduction

Introduction

The programmatic accreditation standards of chiropractic education are changing from numerically based standards to competency based standards. The new standards are being phased in throughout the profession by the Council on Chiropractic Education, effective January 2012 (Council on Chiropractic Education, 2011). This update to the standards requires a shift in the documentation of compliance that each doctor of chiropractic program must provide.

Developing and implementing new processes to demonstrate compliance with competencies rather than numerically based standards requires change to existing methods of program evaluation and curriculum review. Doctor of chiropractic programs must design updated plans demonstrating the alignment of student learning outcomes throughout the curriculum. All of these changes must then be reflected on self-study documentation provided to the Council on Chiropractic Education. Moving a doctor of chiropractic program forward to new levels of competency based assessment accountability requires the mutual collaborative efforts of all faculty and administrative constituents. Because this mandated change requires a significant shift in the existing day-to-day practices of faculty workload as well as program and student assessment, it is vital to understand the potential sources of support or resistance that may interfere with successful implementation. Multiple factors, both driving change and resisting change can affect the success of newly developed initiatives for accreditation. It has been
estimated that only 38% of executives surveyed regarding organizational changes thought these initiatives were successful (Erwin & Garman, 2010).

**Background**

The chiropractic profession is a health care discipline that focuses on the relationship between the structure and function of the human body. The profession was founded in 1895 by D.D. Palmer in Davenport, Iowa. Palmer reasoned that a spinal lesion or subluxation could interfere with the normal functioning of the nervous system. He devised an approach to apply a manual thrust or adjustment to specific vertebral bony contact points as a method of correction for the spinal lesion. In 1897 the Palmer College of Cure was opened in Davenport, Iowa and operated as the first chiropractic college. At that time, there were no existing standards on accreditation or professional regulation and therefore, a chiropractic education could be completed in a few months with program based requirements. This limited instructional training was based on the founder’s view that a chiropractor did not need to be trained in diagnosis or clinical sciences (Janse, 1976). Further, with few state regulatory requirements, establishing a chiropractic practice could be as simple as locating an office space. With this lack of regulation, privately owned chiropractic schools opened and provided education based on each founder’s unique philosophy of health care. In 1906, John Howard, a graduate of the Palmer school, founded the National School of Chiropractic in Chicago, Illinois. Howard challenged the earlier views on education and identified that chiropractic education should require a background in the basic sciences, clinical sciences and clinical experience (Peterson & Bergmann, 2002).
The release of the 1910 Flexner Report to the Carnegie Foundation for the Advancement of Teaching had a significant impact on medical education as well as on chiropractic education. While this report focused in the deficiencies that existed in medical education, it compelled chiropractic education to review and reform its practices as well. Further, the introduction of basic science legislation in various states during the 1920s created independent Boards of Basic Science Examiners. The intention in forming these boards was the elimination of “unorthodox healers” from practice. These boards had the authority to examine candidates for licensure in medicine, naturopathy, osteopathy and chiropractic. As a result, further curricular changes and improvements occurred in chiropractic programs (Keating, 2003). In an effort to support the profession and its developing standards of training, the National Chiropractic Association (NCA) was established in 1930 with representation from the existing chiropractic institutions. While the NCA supported continued discussion on education reform, challenging differences between schools continued to exist.

In 1935, the NCA reported that there were 37 chiropractic colleges in the United States (Peterson & Bergmann, 2002). It further noted that each of these were privately run and followed different educational standards. With that assessment, the NCA created the Committee on Educational Standards (CES). In 1938, this committee began work on the first educational standards as well as a self-study questionnaire for the chiropractic colleges. The following year, the NCA employed an inspector to visit the various institutions and to evaluate chiropractic programs against their submitted self-studies and the newly developed educational standards. As a result of these efforts to strengthen
professional education, chiropractic institutions that were not able to meet the newly defined educational standards began to close.

As a continuing part of the standardization process, the Council on Education was formed from members of the CES and institutional representatives. This group continued the process of strengthening academic programs and began working with the United States Office of Education for official recognition. It is the Council on Chiropractic Education (CCE) that would later be recognized by the United States Department of Education as the accrediting agency of the chiropractic profession. In 1968, the doctor of chiropractic degree became recognized as a first professional degree. The present-day practice of chiropractic focuses on improving and preserving patient health through diagnosis and conservative patient management, with an emphasis on manual manipulative therapy. The doctor of chiropractic educational program requires a minimum of 4,200 instructional hours to include basic sciences, clinical sciences and clinical experience. Doctors of chiropractic are trained to recognize the value and responsibility of working in cooperation with other health care practitioners when in the best interest of the patient (Association of Chiropractic Colleges, www.chirocolleges.org).

With the development of an accreditation process and the establishment of educational standards, all CCE accredited institutions must teach a comprehensive program of basic sciences, clinical sciences and provide for varied clinical experiences. Still, institutional interpretation of the standards has allowed for diversity among the 18 currently CCE accredited chiropractic colleges in the United States. It is this diversity that has had a significant impact on individual programmatic curricula. The previously
existing accreditation standards had remained constant since 1996. However, CCE recently revised their accreditation standards to be effective in January 2012. The standards require that the educational components be structured and integrated to demonstrate achievement of required competencies (Council on Chiropractic Education, 2011). By developing and applying competencies to the areas of skills, attitudes and knowledge, CCE has identified seven meta-competencies as new accreditation standards. Doctor of chiropractic programs (DCP) are now being asked to demonstrate curriculum alignment to these seven meta-competencies:

1. **Assessment and Diagnosis**
   An assessment and diagnosis requires developed clinical reasoning skills. Clinical reasoning consists of data gathering and interpretation, hypothesis generation and testing, and critical evaluation of diagnostic strategies. It is a dynamic process that occurs before, during and after the collection of data through history, physical examination, imaging and laboratory tests.

2. **Management Plan**
   Management involves the development, implementation and documentation of a patient care plan for positively impacting a patient’s health and well-being, including specific therapeutic goals and prognoses. It may include case follow-up, referral, and/or collaborative care.

3. **Health Promotion and Disease Prevention**
   Health promotion and disease prevention requires an understanding and application of epidemiological principles regarding the nature and identification of health issues in diverse populations and recognizes the impact
of biological, chemical, behavioral, structural, psychosocial and environmental factors on general health.

4. Communication and Record Keeping

Effective communication includes oral, written and nonverbal skills with appropriate sensitivity, clarity and control for a wide range of healthcare related activities, to include patient care, professional communication, health education, and record keeping and reporting.

5. Professional Ethics and Jurisprudence

Professionals comply with the law and exhibit ethical behavior.

6. Information and Technology Literacy

Information and technology literacy are manifested in an ability to locate, evaluate and integrate research and other types of evidence, including clinical experience, to explain and manage health-related issues and use emerging technologies appropriately.

7. Intellectual and Professional development

Intellectual and professional development is characterized by maturing values and skills in clinical practice; the seeking and application of new knowledge; and the ability to adapt to change.

With that, documentation of the curriculum alignment as well as evidence regarding student achievement of these seven meta-competencies will now be required for accreditation.
Problem Statement

The 2012 updated Council on Chiropractic Education Standards of Accreditation require each doctor of chiropractic program (DCP) to collect data and provide evidence regarding the effectiveness/appropriateness of the curriculum as well as qualitative and quantitative measures used to assess competency. In the absence of a definition of competency by the CCE, this study will be using the available definition by the World Health Organization. “Competence in the practice of chiropractic requires the acquisition of relevant knowledge, understanding, attitudes, habits and psychomotor skills.” (World Health Organization, WHO Guidelines on Basic Training and Safety in Chiropractic, Geneva, 2005). Further, each DCP must provide evidence of ongoing self-assessment and a system of monitoring required educational outcomes. As these new requirements are broad and program wide, all DCP faculty are impacted in the process of documenting compliance. When a program or institution reacts to an essential external demand, like that of accreditation change, internal processes change to reflect the new focus (Billot, 2010). However, because these revised standards are so new, no established process to demonstrate or document alignment has been identified as a useful model by the academic institutions.

Developing and implementing a change process to demonstrate alignment with updated accreditation standards is a challenge that is currently facing all chiropractic colleges across the United States. As chiropractic institutions develop change strategies, it is important to recognize that the cultures of organizations are thought to regulate how the organizations manage external forces and internal pressures (Kuh & Whitt, 1988). The understanding of organizational culture will help leaders to manage change more
effectively and efficiently (Tierney, 2008). An appraisal of existing organizational cultures in the 18 CCE accredited chiropractic Colleges is therefore warranted to assess how organizational cultures effect change processes and strategies. While previous studies have demonstrated a correlation between commitment to change and positive work outcomes (Machin, Fogarty & Bannon, 2009), developing an awareness of the existing cultures can allow for an understanding of the influence culture has as a factor supporting or resisting change. Culture provides a structure for creating order out of new and difficult challenges (Bergquist & Pawlak, 2008). If leaders do not become mindful of the cultures in which they work, the cultures will manage the leaders (Schein, 1992). The focus of this study is then to examine the organizational cultures of the 18 CCE accredited chiropractic colleges within the United States and to assess if the cultures support or resist the implementation of change.

An organizational culture is based on the values and beliefs that are shared by its members. Culture is an internal force with origins in the history of the organization while it derives its strength from internal standards, processes and goals (Tierney, 2008, p. 24). If an existing culture is not aligned with a proposed change, it can immobilize the planned change efforts (Freed, 1997). Organizational culture is formed over decades and plays an important part in influencing people (Smart, Kuh, & Tierney, 1997). Culture also helps to identify the reactions people will have to significant events (Bergquist & Pawlak, 2008). Kuh and Whitt (1988) defined culture as;

the collective, mutually shaping patterns of institutional history, mission, physical settings, norms, traditions, practices, and beliefs that influence the behavior of individuals and groups, and provide a frame of reference within which to interpret
the meaning of events and actions on and off the campus. (Kuh & Whitt, 1988, p. 6)

Having an understanding and sensitivity to an existing culture decreases the likelihood of conflict and resistance when developing and pursuing institutional goals (Kuh and Whitt, 1988). A lack of understanding about the role that culture plays in improving institutional performance inhibits the ability of an institution to react to new challenges (Tierney, 2008). An organization’s culture is said to mediate how an institution manages external forces and internal pressures (Smart, Kuh, & Tierney, 1997). Disruptions in academic cultural identity are seen whenever academic work is reorganized around systems that upset the traditional values (Winter, 2009). Participant resistance to change, however, is noted to decrease in collaborative and supportive environments (Burnes & James, 1995).

For higher education faculty, cultural identity is tied to their past experiences and perceptions of their current professional roles. It is fundamentally connected with the practices and academic identity of other faculty with that affiliation (Billot, 2010). While institutions are undoubtedly influenced by powerful external forces, they are also formed by strong internal cultural forces (Tierney, 2008). If either external or internal forces challenge an existing culture, the challenge will tend to be resisted because of fear and instability (Bergquist & Pawlak, 2008). Significant change can disrupt the balance of power and influence within the existing culture. An understanding of the institutional culture helps leaders to identify potential struggles and manage change more completely. By evaluating organizational culture, leaders are able to enact reasonable change and minimize opposition (Tierney, 2008). Faculty must be able to see the benefit of the change before they will be willing to offer support (Trader-Leigh, 2002). Involving
faculty members in a change process and gaining their commitment to the change is therefore seen as crucial to success. Commitment is an important factor involved in the support of change (Herscovitch & Meyer, 2002). Change that is forced on faculty is likely to meet a force of fierce resistance (Littlefield, 1989). Commitment to change, however, has been defined as “a force that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative” (Herscovitch & Meyer, 2002, p. 475). It is therefore important to understand the role that culture plays as a factor to either support or resist the development of a change process.

**Theoretical Rationale**

In the 1940s, Kurt Lewin developed the Field Theory as a way to describe group behavior and a Three-Step Model as a method to facilitate change within a group (Burnes, 2004). According to Lewin’s model, successful change includes unfreezing the present level of performance, learning new concepts and moving to a new level and finally freezing performance at the new level. Lewin (1947) observed that group life is never without change. Rather, he believed that there were simply differences in the amounts and types of change. Still, he acknowledged that a constancy can exist in group life, where maintaining the same conditions will lead to the same effects and productivity of the group is unaffected (Lewin, 1947). Lewin went on to state that when working to initiate a change in this constancy, two questions should be considered: why do the present circumstances exist at a particular level and what are the conditions for changing these circumstances (Lewin, 1947)? He then noted the importance of assessing the existing condition forces or aspects of behavior that would support or oppose a desired change. Lewin believed that the degree of constancy of the group is dependent on the
distribution of forces toward or away from the present situation. If forces supporting and resisting change are of equal strength, no change will occur. Further, Lewin stated that social change could be achieved more easily with a decrease in the tension of the resisting forces (Lewin, 1947). He identified that in most cases of group settings, there is fluctuation in a variety of forces that have an effect on group performance and social change. He classified this grouping of forces as a force field and stated that the cumulative resultant strength of the forces would either allow for resistance or support a change (Lewin, 1947). To overcome the initial resistance within a force field, additional force may be required to “unfreeze” the existing construct. Lewin also noted that while identification and modification of forces within the field is necessary to initiate change, decreasing the efforts to affect the forces will allow for the change process to return to its previous level. This stage of “moving” reinforces the change efforts by facilitating and stabilizing the field to a new level. Permanency of new changes implies that a new force field has been made secure from falling back to previous levels. According to Lewin, this final stage of “refreezing” indicates that the group has made a commitment to the change. In a planned change process, permanency should be included in planned objectives (Lewin, 1947).

Lewin also stated that motivation alone is not enough to successfully lead change. In an effort to change a social construct, the entire social field must be considered. This should include subgroups, relationships and value systems. Schein (2010) noted that all human systems attempt to sustain equilibrium and to maximize their autonomy. He also noted that culture is one of the ways in which organizations preserve integrity and autonomy. Kezar and Eckel (2002) reported that in higher education, organizational
culture is connected to the change process. Change processes can be supported by enacting culturally sensitive strategies or resisted by violating existing cultural norms (Kezar & Eckel, 2002). The significance of the influence that organizational culture has on supporting or resisting the change process, can be assessed by applying Lewin’s Field Theory.

Statement of Purpose

The purpose of this study is to identify the current cultures within the 18 CCE accredited doctor of chiropractic educational institutions within the United States and to assess if the organizational cultures support or resist the implementation of change. This study seeks to gather quantitative data through a survey delivered to faculty and administrators and qualitative data through the use of focus groups.

Research Questions

1. What are the existing organizational cultures within each the 18 Council on Chiropractic Education accredited chiropractic institutions in the United States?

2. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which support the implementation of change based on revised accreditation standards?

3. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which resist the implementation of change based on revised accreditation standards?
Potential Significance of the Study

All CCE accredited doctor of chiropractic programs within the United States are currently mandated to provide evidence of compliance with new meta-competency standards. The demonstration of compliance for each institution will be staggered and will coincide with their next CCE accreditation site visit. Successfully demonstrating compliance will allow for each institution to maintain programmatic accreditation and therefore maintain eligibility for participation in Federal Title IV financial aid funding. While stakeholder feedback was solicited by CCE during the development of the updated standards, it now falls to each individual institution to assess potential forces that will resist or support the implementation of these needed changes. When facing a challenge like a broad based change, culture provides a way of comprehending and reacting to the challenge (Bergquist & Pawlak, 2008). Identifying the characteristics of organizational cultures can provide an understanding to allow for improved implementation of the change and establishing permanency of the desired outcome. Culture is a modifying element of an institution’s strategy to respond to change. Change implementation strategies are more successful when aligned with the organizational culture (Kezar & Eckel, 2002).

Each of the CCE accredited DC programs in the United States will be surveyed to identify individual organizational culture. This cultural framework will then be used to examine the relationship of culture to the change processes. The phenomenon of 18 institutions undergoing an identical mandate for change provides an opportunity to study the elements of culture that support or resist change implementation. These findings can
inform leaders, facilitate change process development and increase the likelihood of
success.

Definitions of Terms

Accreditation – In higher education, accreditation is a peer reviewed process established
to assess institutional effectiveness, student outcomes relative to the stated institutional
mission (Middle States Commission on Higher Education, 2006) The goal of
accreditation is to ensure that education provided by institutions of higher education

Force – An influence acting in an organization such that the state of the organization is
changed (Schwering, 2003).

  Driving Force – Defined by Lewin (1946) as influences working toward a desired
goal. They tend to bring about change.

  Resisting Force- Defined by Lewin (1946) as influences working to oppose the
driving forces.

Organizational Culture- Defined as the collective set of norms, values and practices that
provide a frame of reference and guide individual and group behavior (Kuh &Whitt,
1988).

Chapter Summary

The Council on Chiropractic Education has implemented updated standards of
accreditation required for each doctor of chiropractic program (Council on Chiropractic
Education, 2011). Each DCP must provide evidence of ongoing self-assessment and a
system of monitoring the required new educational outcomes. These updates constitute a
significant change in program evaluation and curriculum review. As chiropractic
institutions develop change strategies, it is important to recognize that the cultures of organizations are thought to regulate how the organizations manage external forces and internal pressures (Kuh & Whitt, 1988). The focus of this study then is to examine the organizational cultures of the 18 CCE accredited chiropractic Colleges within the United States and to assess if the cultures support or resist the implementation of change.

**Summary of Remaining Chapters**

Chapter 2 provides a review of the literature investigating concepts related to this study. Chapter 3 describes the research methods and setting, including research questions, research participants, data collection instruments and research procedures followed. Chapter 4 presents the results of the research study, including data, analysis and findings. Chapter 5 discusses the interpretation of research results detailed earlier.
Chapter 2: Review of the Literature

Introduction and Purpose

Updated programmatic accreditation standards for chiropractic education are being phased in throughout the profession by the Council on Chiropractic Education, effective January 2012 (Council on Chiropractic Education, 2011). This update to the standards requires a shift in the documentation of compliance that each doctor of chiropractic program must provide. Developing and implementing new processes to demonstrate compliance requires the mutual collaborative efforts of all faculty and administrative stakeholders. Because this mandated change requires a significant shift in the existing day-to-day practices of faculty workload as well as program and student assessment, it is vital to understand the potential sources of support or resistance that may interfere with successful implementation. Multiple factors, both driving change and resisting change can affect the success of newly developed initiatives for accreditation. The purpose of this literature review is to examine the following concepts as they relate to organizational change; (a) accreditation in higher education; (b) organizational culture; (c) model of change; (d) forces influencing change; (e) values alignment.

Accreditation in Higher Education

The Council for Higher Education Accreditation (CHEA), defines accreditation as, “a collegial process based on self and peer assessment for public accountability and improvement of academic quality. Peers assess the quality of an institution or academic program and assist the faculty and staff in improvement” (Council for Higher Education
Accreditation, 2010). CHEA applies six standards to accrediting agencies who seek recognition: (a) advances academic quality (b) demonstrates accountability (c) encourages, where appropriate, self-scrutiny and planning for change and for needed improvement (d) employs appropriate and fair procedures in decision making (e) demonstrates ongoing review of accreditation practices (f) possesses sufficient resources (Council for Higher Education Accreditation, 2010). The federal government, through the United States Department of Education, also recognizes accrediting organizations.

The U.S. Department of Education does not accredit educational institutions and/or programs. However, the Secretary of Education is required by law to publish a list of nationally recognized accrediting agencies that the Secretary determines to be reliable authorities as to the quality of education or training provided by the institutions of higher education and the higher education programs they accredit. The U.S. Secretary of Education also recognizes State agencies for the approval of public postsecondary vocational education and nurse education (U.S. Department of Education, 2012).

Federal recognition, as distinct from CHEA recognition, aims to assure that the standards of accrediting organizations meet expectations for institutional and program participation in federal initiatives, such as student aid.

Accreditation of higher education institutions and programs is a voluntary process. However, student opportunities for federal financial aid and participation in professional licensure examinations are restricted to students who attend accredited programs (Svensson et al., 2011). Accrediting agencies must confirm that educational programs are based on current or emerging standards of practice (Svensson et al., 2011).
Accrediting agencies must, therefore periodically review and update their existing standards to reflect emerging trends in professional and educational methods.

In 2007, the Accreditation Council for Pharmacy Education (ACPE) revised its standards based on understandings from within the profession and changes within healthcare (Mort, Laible, & Johnson, 2011). In a descriptive review, Phillips et al. (2010) outlined a comprehensive plan aimed at maximizing involvement of key stakeholders in the accreditation self-study process. The authors identified that the implementation of the update accreditation standards presented doctor of pharmacy programs with several unknowns and they further recognized that there was potential for adverse accreditation action due to partial or non-compliance of the new standards. Because of the significant demands the programs faced with the updated accreditation standards, the authors noted that stakeholder involvement would be vital to assure success (Phillips et al., 2010).

Further, the revised standards included changes to the programmatic self-study process. This new self-study process included the Overall Organization and Clarity section and requires stakeholder participation and awareness, particularly faculty, staff and students, in the areas of: (a) participation (b) completeness and transparency (c) knowledge of self-study (https://www.acpe-accredit.org/pdf/CPE_Policies%20_Procedures.pdf).

The authors outlined the process of establishing a self-study committee comprised of faculty, staff, students, preceptors, alumni and a state association member. The committee was charged with not only addressing the specific ACPE self-study topics but with integrating a communication plan as well. To balance the amount of work, subcommittees were established from many of the college’s standing committees. The self-study committee decided that broad transparency of data should include complete
access by committee members and other select groups. Regular communication of updates was made available via e-mail to students, faculty, staff and alumni. A self-study theme of “Our Future, Our Self-Study” was designed to foster ownership of the self-study process (Phillips et al., 2010). Each subcommittee was asked to provide quarterly reports to the self-study committee to be sure data was being analyzed and incorporated as needed.

The process of engagement described by Phillips et al. (2010) was noted to unify stakeholders and to directly support the culture of the institution. The final report became a group project in both content and effort as stakeholders were perceived to have more ownership and influence over the process as well as a stronger commitment to the planned changes. Further, the study noted that stronger outcomes and actions are likely when multiple perspectives are assembled (Phillips et al., 2010).

In 2011, Mort, Laible, and Johnson used quantitative methods to examine the impact of changes implemented in a doctor of pharmacy program to comply with the new accreditation standards. It was noted that the standards were revised in an effort to foster student growth and develop future practitioners who could provide effective patient care in a collaborative setting (Mort, Laible, & Johnson, 2011). The authors compared the preparedness of students for their first advanced pharmacy practice experience (APPE) from both the old and the changed curriculum. Based on the revised ACPE standards, the doctor of pharmacy curriculum was modified to include introductory pharmacy practice experiences, second-year therapeutics, classroom integration of practice experiences, an electronic portfolio system, lifelong learning experiences and additional biomedical sciences (Mort, Laible, & Johnson, 2011).
The authors developed a tool for faculty to use containing 9 statements to reflect relevant attributes of student preparedness. Full time faculty were asked to evaluate two cohorts of students. The first cohort was evaluated in 2004, prior to the implementation of the new accreditation standards. The second cohort was evaluated in 2010 and was the first cohort to complete the entire revise curriculum. The results of the study indicated a significant improvement in all nine areas of student preparedness of the 2010 group when compared to the 2004 group (Mort, Laible & Johnson, 2011). While this study did not identify the change process used to implement the curricular revisions and did not identify specific elements within the revisions responsible for the improvement in evaluation scores, the results did support the importance and usefulness of the updated ACPE accreditation standards in facilitating improved student outcomes.

In addition to programmatic accreditors, regional accreditors of higher education institutions, such as the Southern Association of Colleges and Schools (SACS), are requiring increased levels of documentation and accountability to demonstrate institutional effectiveness. Criteria for institutional effectiveness typically includes data and documentation on student learning outcomes assessment, academic program review, strategic planning, performance scorecards, performance benchmarking and quality measurements (Welsh & Metcalf, 2003). However, even as institutions face increased demands and expectations for accountability, gaining campus interest and support for these efforts has been tenuous (Welsh & Metcalf, 2003). In identifying these challenges, Welsh and Metcalf (2003) studied the sources of faculty support for the development and implementation of institutional effectiveness activities in higher education. The authors used quantitative methods and sought to answer three research questions.
First, to what extent do faculty support institutional effectiveness activities?
Second, are there factors that help understand what affects faculty support for institutional effectiveness activities in higher education? Third, do the data suggest any institutional practices that might help cultivate faculty support for institutional effectiveness activities? (Welsh & Metcalf, 2003, p. 35)

The authors noted that while outcomes based on the institutional effectiveness initiatives require significant faculty support for appropriate implementation, they found little evidence in the literature of institutional effectiveness improving programs. The authors did however identify that there is evidence of faculty resistance as a reason for the failure of effectiveness initiatives.

For this study, the authors developed a questionnaire that addressed four predictor variables on perceived importance to institutional effectiveness activities. These variables were; perceived motivation index, depth of implementation index, definition of quality index, and level of involvement index. The questionnaire was mailed to 704 faculty who served on self-study steering committees. A total of 386 questionnaires were returned for a response rate of 54.8%. The data was then analyzed using parametric statistical methods. The data revealed that three of the predictor variables were significant predictors: perceived motivation, personal level of involvement, and definition of quality (Welsh & Metcalf, 2003).

The authors pointed out that the data from this study suggested three tentative best practices that might support institutional efforts to develop faculty support for effectiveness initiatives. The study suggested that institutional improvement is a more compelling reason for faculty to support effectiveness initiatives than external mandates.
The study further suggested that faculty are more likely to support institutional effectiveness activities if they lead, own and participate in the process. This indicates that institutions will increase faculty support for institutional effectiveness initiatives by ensuring faculty personal involvement in new effectiveness activities. The study also indicated that outcomes-oriented faculty are strong advocates of institutional effectiveness initiatives. With that, an institution is more likely to build faculty support for the effectiveness initiatives if an outcomes-oriented perspective to quality is promoted. The authors identified that faculty support and involvement are critical to the successful implementation of new effectiveness initiatives. It was noted that administrators should not expect spontaneous faculty support for new programs. Rather, faculty comments indicated that faculty strongly believe that effective communication of processes and results are a critical feature in developing support for institutional effectiveness activities (Welsh & Metcalf, 2003).

As discussed earlier, institutions of higher education continue to face the challenges of demonstrating compliance with updated accreditation standards. However, Ebrall, Draper and Repka (2008) discussed and described concerns regarding outdated programmatic accreditation standards for chiropractic education in Australia in light of contemporary practice demands and future healthcare needs. The Council on Chiropractic Education Australasia (CCEA) is the programmatic accreditor for the institution where the authors maintain an affiliation. The authors pointed out that there have been concerns regarding the accountability within the CCEA accreditation process as well as concerns that the accreditation may actually hinder innovation in the programmatic educational process. In this light, the authors questioned how the chiropractic educational programs
can remain relevant to the demands of society when accreditation standards and curriculum design have undergone little structural change in decades (Ebrall, Draper, & Repka, 2008). The authors further outlined concerns that while clinical learning must reflect the communities in which chiropractic is practiced, the measures of student development are focused by an accreditation environment that perpetuates restrictive quantitative assessments. Information from CCEA does however note that chiropractic educational programs are free to utilize a variety of curriculum and assessment models.

The *curriculum and instructional methods* should be based on sound learning principles and should foster the ability to participate in the scientific development of chiropractic as professionals and future colleagues. The curriculum should emphasize active participation of students in the education process, provide opportunities for studying certain areas in greater depth through optional or elective units, and allow exposure to a wide range of institutional and community experiences. While didactic teaching can be an effective means of explaining important concepts and principles, and clinical clerkships embody sound educational principles of active student participation and problem-solving, the CCEA encourages chiropractic institutions to consider other educational strategies that promote student-centred rather than teacher-centred learning, promote active student enquiry, stimulate analytical and knowledge organisation skills, and foster lifelong learning skills. (Council on Chiropractic Education Australasia, Standards for First Professional Award Programs in Chiropractic, p.13. 2009).

However, the authors argued that a cleared and closer link is needed between academic classroom curricula and clinical expectations for the chiropractic student.
Based on these concerns, the authors outlined a structured, evidence informed process for updating and reforming chiropractic education in Australia. The initial project described in this process involved the review of all clinical learning activities for affiliated nursing, psychology, Chinese medicine and disability studies divisions (Ebrall, Draper, & Repka, 2008). Consultations with CCEA, Chiropractic Association of Australia (CAA) and the Chiropractor’s Registration Board of Victoria (CRBV) were planned in order to help identify and clarify critical clinical capabilities for graduates as well as the clinical competencies for the clinical supervisors. The authors further noted that this stage of the review process should incorporate a review of Work-Integrated Learning (WIL) standards as a modification of the Biggs Hierarchy of Knowledge (Biggs & Collis, 1982) in an effort to facilitate deeper student learning (Ebrall, Draper, & Repka, 2008). In this portion of the review process, the authors outlined the use of student focus groups in order to gain greater insight into the existing clinical and assessment practices followed by workshops to identify challenges and opportunities in implementing the WIL standards.

The authors recognized that this proposed process was a significant change from existing practices. They therefore identified the need to inform and support clinical faculty with professional development training focused on the topic of teaching and learning in the clinical setting. It was identified that the existing position requirements for new clinical faculty were licensure and 3 years of practice experience. Further, there was no mechanism in place to mentor or assist new faculty in the development of skills as a clinical educator. In addition, the authors recognized that clinicians had little formal exposure to what was being taught in by the classroom faculty in the earlier portions of
the curriculum. This created a significant gap in the ability to reinforce the knowledge and skills that students had previously acquired (Ebrall, Draper, & Repka, 2008).

In identifying and outlining existing challenges to a chiropractic educational program in Australia, the authors sought to describe the nature and extent of change that might enhance the depth of student learning. They further reasoned that any modifications to the methods of critical assessment within the educational program would need to be accompanied by improvement in training and development of clinicians. Although the authors proposed follow up articles to document a longitudinal development of the change process, a review of the literature found no new studies at this time.

**Organizational Culture**

Cameron and Quinn (2011) stated that “the concept of culture refers to the taken-for-granted values, underlying assumptions, expectations and definitions that characterize organizations and their members” (p. 18). The concept of organizational culture has been described from two different perspectives. The anthropological perspective treats culture as something an organization *is*. Proponents of this perspective define culture as unique to the organization and can only be assessed through qualitative methods. The sociological perspective holds that culture is something that an organization *has* (Cameron & Quinn, 2011). From this perspective, researchers consider culture as a variable that can influence, or be influenced, by other variables within the organization and are likely to use quantitative methods for assessment (Kwan & Walker, 2004).

Kwan and Walker (2004) reviewed the concept of organizational culture and the various methods that have been used to define and differentiate organizational culture
types. The purpose of this quantitative study was to review and validate the competing values (CV) model of organizational culture and to determine if it could be used to differentiate organizations from one another. The competing values model was first developed by Quinn and Rohrough (1983) to categorize general organizational phenomena. It was then adapted by Cameron and Ettington (1988) as a way to describe organizational culture (Kwan & Walker, 2004). The authors stated that the CV model uses 2 underlying dimensions as a framework. The first dimension is focused on internal / person oriented emphasis verses external / organization oriented emphasis. The second dimension focused on stability / control verses flexibility / change (Kwan & Walker, 2004). These two axes form a four quadrant typology of organizational cultures. Figure 2.1 is a presentation of the Competing Values Model.

![Competing Values Model](image)

*Figure 2.1. Competing Values Model.*

The original instrument to assess organizational culture based on the competing values model was developed by Cameron and Ettington (1988) and used a scenario
approach where respondents were asked to divide 100 points among four scenarios. Quinn and Spreitzer (1991) later stated that the Cameron and Ettington (1988) approach resulted in ipsative data in which measures were not suitable for some correlation based statistical analysis (Kwan & Walker, 2004). Based on this concern, Quinn and Spreitzer (1991) developed a Likert scale instrument using the basis of scenario descriptions and asserted that it was a valid and reliable instrument for assessing organizational culture (Kwan & Walker, 2004).

For this study, the authors utilized the competing values model to assess organizational culture within seven higher educations in Hong Kong. Additionally, the authors included specific items on the assessment that were applicable to the Hong Kong higher education context. Questionnaires were sent to all teaching staff in all departments offering undergraduate programs at the seven higher education institution in Hong Kong. 459 questionnaires were returned and usable (Kwan & Walker, 2004).

The authors went on to state that the results of their inter-institutional comparison suggested that the four cultural types described in the CV framework could serve as a valid basis on which the Hong Kong higher education institutions could be differentiated and therefore, the validity of the CV framework in describing the organizational culture of an institution was empirically supported (Kwan & Walker, 2004). They noted that the findings reflected that the rational and developmental cultures were the two central dimensions on which Hong Kong higher education institutions could be differentiated from each other. The authors suggested that several factors could account for the differences including, but not limited to, the institution age, history, leadership, academic focus, population and funding sources (Kwan & Walker, 2004).
In studying strategies for the implementation of change in higher education, Kezar and Eckel (2002) sought to examine the effect of organizational culture on institutional change processes. The authors used an ethnographic methodology to study the change initiatives at six institutions over a five-and-a-half year period. Specifically, the authors sought to assess if change processes were supported by strategies that were sensitive to culture or resisted by strategies that violated the cultural norms. This study utilized two different conceptual frameworks of culture. The authors sought to utilize a multiple-lens perspective to interpret and understand academic culture. The first framework utilized was developed by Bergquist (1992) and outlined four academic cultural archetypes. Bergquist (1992) hypothesized that different change strategies are needed for each of the different academic cultures. He described these academic cultural archetypes as collegial culture, managerial culture, developmental culture and negotiating culture. The second framework adopted for this study was developed by Tierney. Tierney (1991) outlined six categories or essential concepts of academic culture. These categories include environment, mission, socialization, information, strategy and leadership. Assuming that values, beliefs and assumptions of an institution are reflected in institutional processes, Tierney (1991) suggested that a clearer understanding of institutional culture is developed by analysis of each of the six categories.

For this study, Kezar and Eckel defined institutional change as pervasive, deep and touching upon values, beliefs and structures. They then defined five core change implementation strategies as senior administrative support, collaborative leadership, robust design, staff development and visible actions. These groupings of strategies were based on work developed by Lindquist (1978). With these criteria in place, the authors
examined six institutions using the Bergquist cultural archetypes and the Tierney categories of culture to define each institutional culture. The results were then examined in relation to the way change occurred using the five core strategies of change implementation (Kezar & Eckel, 2002).

The authors reported that participant-observers provided information each semester by responding to open-ended questionnaires and by attending biannual project meetings. Outside researchers visited each campus twice per year for the first three years and once during the fourth year. In addition, researchers reviewed internal institutional documents. The authors noted that three different approaches to data analysis were conducted. First, a theme analysis of change strategies was conducted based on Lindquist’s framework. Categorical analysis was used to search for macro and micro themes. Second, institutional cultural profiles for each institution was developed based on the Bergquist and Tierney frameworks. Third, the Bergquist and Tierney frameworks were applied to determine if any institutional culture patterns could be identified in the change strategies. The authors stated that themes were identified and profiles of institutional culture, change strategies and the relationship between the conditions were developed. These results were sent to site researchers for confirmation.

The authors found that analysis of the results suggested that there was a relationship between institutional culture and change at every institution studied. In exploring the nature of the relationship, the authors identified several patterns. First, studying the strategies used by the institutions through a cultural approach appeared to provide a rich description of strategies as it provided important details relative to how each campus enacted change in different ways. The authors noted that “Where strategies
for change violate cultural norms, change most likely will not occur” (Kezar & Eckel, 2002, p. 456).

The second pattern identified was related to Bergquist’s four cultural archetypes. The authors identified that the archetypes were a helpful lens for understanding ways in which culture was related to change. The findings indicated a relationship between the cultural archetypes and the way change was enacted. The third finding that was noted by the authors was the discovery that each campus change process could not be explained by the use of the archetypes alone. Examining institutional culture in depth beyond the archetypes provided a deeper understanding of the change processes Kezar & Eckel, 2002).

The fourth finding identified by the authors was the understanding that defining the cultural archetypes and the details of institutional culture may help to determine the appropriateness of strategies in the change process. The authors note that these results affirm that change strategies seem to be successful if they are aligned with the culture. Further, leaders may be more successful in facilitating change processes if they understand the cultures in which they are working (Kezar & Eckel, 2002).

Merton, Froyd, Clark, and Richardson (2009) used a qualitative case study methodology to examine the effects of organizational cultures curricular change processes. The authors reported that Kezar and Eckel (2002) found that for organizational change to occur, the strategies used to implement change must be “culturally coherent or aligned with the culture” (Kezar & Eckel, 2002, p. 457). The authors further stated that in order to develop aligned strategies, leaders must be able to identify significant features of their culture and recognize how these different features might support or resist the change
being considered. The two curricular changes that were studied by the authors involved revisions to a freshman engineering curriculum and another revision to a sophomore engineering curriculum. The authors spent two days at the study institution and interviewed 25 faculty, administrators and staff who were closely involved with the two change processes (Merton, Froyd, Clark, & Richardson, 2009).

During each interview, the authors asked each participant what they thought were key decision points in the change process. The author also inquired about what factors had facilitated or inhibited the change processes and what lessons had been learned. The interviews were audio-taped and were transcribed verbatim. The authors noted that there were two key features that contributed to their interpretation of the organizational culture. These features were identified as the presence of an institutional story or “organizational saga” and the shared values, beliefs and expectations held by faculty (Merton et al., 2009). The authors then summarized the essential elements of organizational culture as:

*Commitment to excellence* – both the quality of the education and their national reputation were highly valued

*Valuing autonomy in teaching* – the faculty were student-centered and they saw teaching as their primary responsibility; at the same time, they valued their autonomy in the classroom – how they taught was a faculty prerogative.

*Strong sense of community* – faculty were loyal to and identified with the Institute; they felt closely connected to each other and viewed themselves as part of a large community.
Shared governance – the faculty expected decisions affecting the entire Institute to be made through consultation and responsive conversation. (Merton et al., 2009, p. 229)

From the interview data collected, the authors reported that participants placed a high value on teaching and learning, the institutional mission and a commitment to inclusiveness. This identification of the organizational culture traits aligned with what Bergquist (1992) referred to as “developmental” culture (Merton et al., 2009). According to Bergquist, this culture type supports participative decision making and members of the community are free to question administrative decision making (Bergquist, 1992).

The authors went on to review the freshman and sophomore curriculum changes in light of the organizational culture. The freshman curriculum change was identified to be innovative and ambitious, but a source of conflict. Further, the authors noted that these conflicts could not be completely resolved; the curricular change was terminated (Merton et al., 2009).

The sophomore curriculum change was identified by the authors to be more moderate and its implementation was less problematic. This curricular change remained in place at the time of the study. Based on their data analysis, the authors asserted that the termination of the freshman curriculum change and the sustained operation of the sophomore curriculum change were directly connected to how well the leaders aligned their change strategies with the organizational culture. The authors noted that the leaders of the freshman curriculum change defined excellence as integration of the new curriculum. Even with significant opposition, these leaders were unwilling to compromise and give up on their ideal (Merton et al., 2009).
In contrast, the authors reported that the leaders of the sophomore curriculum change saw more value in a curriculum that was more likely to be seen by faculty as an improvement. Excellence, for these leaders, was found to be linked to practicality and to creating a curriculum that would work for both faculty and students. Leaders of both the freshman and the sophomore curriculum changes valued teaching. However, because the freshman change had such a large emphasis on integration, faculty members from different disciplines were forced to work in a manner that was viewed as significantly different. In the change of the sophomore curriculum, the faculty were given more freedom to choose how courses were taught.

In implementing the freshman curriculum change, the authors reported that the leaders created what faculty perceived as a separate team (Merton et al., 2009). The authors also noted that these leaders made little effort to communicate while they were developing the change. Faculty reported that these leaders tended to make decisions through personal connections with administrators rather than through formal channels like curriculum committee and were therefore thought of as not accountable and not responsive to faculty concerns. Faculty became divided and faculty teaching the new freshman curriculum became isolated and the sense of community was lost (Merton et al., 2009).

In contrast, the authors reported that the leaders of the sophomore initiative maintained communication with the entire faculty. This communication provided opportunities for sharing ideas and receiving feedback. There was an expectation by the faculty that decision making was to be a collaborative process. With that, the leaders of the sophomore curricular change were reported to function in a collaborative manner that
was more in line with shared governance (Merton et al., 2009). When concerns developed and faculty feedback was provided, the authors noted that many of the suggestions were incorporated into the curricular development. These leaders worked to develop a curriculum that was consensus based and because of this, faculty perceived them as being accountable (Merton et al., 2009).

The authors stated that in general, the leaders of the freshman curriculum change chose practices that were counter to the organizational culture of the institution. The authors determined that the failure of the freshman curriculum resulted from the misalignment of the values that the leaders embedded into the change and the organizational culture. Additionally, it was noted that the leaders of the sophomore curriculum carefully chose change strategies that were congruent with the culture. This study illustrates how leaders, with the understanding of organizational culture, can design change initiatives and achieve sustained change (Merton et al., 2009).

The identification of organizational culture was also examined by Smart and St. John (1996). The primary purpose of their quantitative study was to test the hypothesized link between organizational culture and effectiveness and to determine if the benefits of a particular culture type are dependent on the strength of the culture. This study used a two-dimensional typology of organizational cultures developed by Cameron and Ettington (1988). This two-dimensional framework generates four culture types; clan, adhocracy, hierarchy and market. The authors’ first hypothesis was that colleges and universities that have institutional practices that are congruent with the accepted beliefs of the institution are more likely to be effective than those where incongruities are found. Their second hypothesis involved culture type and the value of individual choice. The authors
theorized that organizations that value free and informed choice, valid information and internal commitment at both the supportive and the practical levels are more likely to be effective than those with cultures that emphasize rationality and goal attainment (Smart & St. John, 1996).

The initial data for this study was part of a national study of organizational effectiveness (Krakower & Niwa, 1985). Of the 718 institutions invited to participate, 334 (46%) agreed. The participating institutions were both public and private and varied in size based on student populations. The president of each participating institution designated a contact person who provided names of trustees, administrators and department chairs. An average number of 21 surveys were sent to each institution. The overall response rate was 49% with 10.2 being the average number of respondents per institution. The authors selected trustees, administrators and department chairs for the study because they felt this group represented the formal position holders who are the major decision makers (Smart & St. John, 1996). The authors noted that this decision was based on their review of work in previous studies. Each respondent completed the Institutional Performance Survey (IPS) developed at the National Center for Higher Education Management (Krakower & Niwa, 1985). The IPS was used to obtain information about effectiveness, culture, decision–making, process, strategic orientations and structural characteristics. Organizational effectiveness was assessed using 32 Likert-type items. Culture type was measured through the use of written cultural scenarios framing the four ideal culture types (Cameron & Ettington, 1988). The score for each respondent on the four culture scale was obtained by averaging their ratings for each culture type across the four aspects of institutional character, institutional leader,
institutional cohesion and institutional emphasis. The authors noted that there is consistent empirical evidence supporting the validity of the four organizational culture types that evolve from the responses to the cultural scenarios (Smart & St. John, 1996).

Following analysis of the data, the authors noted that differences in the effectiveness of institutions on the basis of their culture type and strength are not conditional on the size or affluence of the institution. Further, the authors stated that their analysis indicated that the effectiveness of institutions was conditional on both their culture type and their culture strength (Smart & St. John, 1996). The authors reported that findings of this study suggested that there is no one best type of culture, rather, different culture types are related to higher levels of performance on different effectiveness dimensions. The authors concluded that their findings regarding the benefits of each culture type are conditional on the presence of an alignment between the accepted cultural values and the actual management practices. Further, the authors stated that the alignment between cultural values and management practices is essential to efforts to improve organizational performance (Smart & St. John, 1996).

In another quantitative study, Smart, Kuh, and Tierney (1997) studied the relationship among organizational culture, organizational effectiveness and approaches to decision making in two year higher education institutions. The authors used causal modeling procedures (Smart, Kuh, & Tierney, 1997) to estimate the contributions of the factors considered important to organizational effectiveness. The authors randomly selected 30 public, two year institutions to participate. All full time administrators and a random sample of full time faculty were invited to participate. The final study results were based on the responses of 639 participants who provided complete data sets.
The authors ordered four sets of variables in the causal sequence model. The first set listed seven exogenous variables that included:

- College size based on enrollment
- College financial health
- College enrollment health
- College transfer emphasis
- College career emphasis
- College adult student enrollment
- College union status (Smart et al., 1997)

The second set of variables was comprised of the four types of organizational culture as developed by Cameron and Ettington (1988). The four culture types were identified by the authors as (a) clan, (b) adhocracy, (c) bureaucracy, and (d) market. The authors noted that the four culture types differ in the degree to which they emphasize the importance of (a) people versus organization, (b) stability/control versus change/flexibility, and (c) mean versus ends (Smart et al., 1997).

The authors reported that the third set of variables was comprised of how respondents characterized the manner in which resource allocation decisions were made. These variables were listed as rational/collegial or autocratic/political. Lastly, the fourth set was defined by the authors as a single dependent variable reflecting global organizational effectiveness. The authors used the organizational effectiveness scale developed by Cameron (1978; 1986) summing the mean scores for the respondents on nine effectiveness dimensions (Smart et al., 1997).
The authors reported that their analysis of the study data indicated that organizational effectiveness at 2-year higher education institutions was a function of the interaction among the external environment, organizational culture and the preferred decision making approach. All four organizational culture types were found by the authors to have had a significant direct and indirect influence on effectiveness. Additionally, the authors noted that the study results indicated that institutions with adhocracy or clan cultures are at an advantage when dealing with potentially damaging conditions from the external environment. They further stated that the results of this study confirmed that identifying and managing organizational culture was a critical skill for institutional leaders (Smart et al., 1997).

Yauch and Steudel (2003) outlined the benefits of using mixed research methods in their study of organizational culture. The goal of their study was to identify key cultural factors that could aid or hinder the implementation of a new manufacturing process at two different companies. In their study, the authors used both quantitative and qualitative methods to assess organizational culture. They relied more on qualitative participant observation data but supplemented the findings with quantitative survey results (Yauch & Steudel, 2003). The purpose of this article was to describe the cultural assessment techniques that the authors used and compare the strengths and weaknesses of the techniques.

The qualitative assessment techniques that the authors used included document review, participant observation and group interviews. These interviews were semi-structured and purposefully separated upper management, middle management and floor employees. Quantitative data was collected by the authors using the Organizational
Culture Inventory® (OCI) which was developed by Cooke and Lafferty (Cooke & Lafferty, 1987) and is available commercially from Human Synergistics International. The authors provided paper surveys to randomly selected employees to identify the existing cultural style.

At the completion of their study, the authors identified that combining the qualitative and qualitative methods of research led to a deeper understanding of organizational culture and enabled an analysis of the values and assumptions that were driving behavior within the organizations (Yauch & Steudel, 2003). The authors recognized that the strength of the qualitative approach was the ability of the researchers to probe for underlying values, beliefs and assumptions using a broad, open-ended format. This allowed for the participants to raise issues that mattered most to them. In referring to the study participants, the authors further stated that; “To gain a full appreciation of an organization, it is necessary to understand what is driving their behavior” (Yauch & Steudel, 2003, p. 472). A weakness of the qualitative approach that the authors identified was that this process can be time consuming. The authors spent 2-3 weeks observing each company before conducting the group interviews resulting in an approximately 1.5 year involvement with each company. Additionally, the authors noted that a particular problem or issue could go unnoticed using qualitative methods. Because these methods were open-ended, the participants had more control over the content of the data being collected. Therefore, a particular topic might not appear if the participants did not find it important or if the participants intentionally covered it up (Yauch & Steudel, 2003).
The quantitative survey method used by the authors was seen to also have significant advantages. Using the survey method was found to be a way to rapidly collect and analyze data. Further, the authors stated that data obtained for the quantitative surveys could facilitate comparison between organizations. A specific weakness that the authors identified with the survey method for this study was the inability of some participants to read and understand the survey questions. More general weaknesses were identified as participant interpretation of the survey questions and the inability of the survey method to collect data about the participant reasoning behind their answers (Yauch & Steudel, 2003).

In combining the quantitative and qualitative methods into a mixed method approach, the authors recognized that significant benefits were achieved. The authors were able to recognize two cultural factors that were found to have a negative impact on the implementation of new manufacturing processes. Avoidance factor, the tendency of an organization’s members to shift responsibility to others to avoid blame, was identified through both qualitative and quantitative methods. The survey method was able to identify this factor while the qualitative method was able to more precisely explain the behavior. The authors identified this as an example of how the mixed method approach supports triangulation of evidence. By allowing for the qualitative and quantitative evidence to converge, unique cultural factors were recognized with greater depth (Yauch & Steudel, 2003). A second factor, rigid group boundaries, was identified only through qualitative assessment as the quantitative survey tool did not include a question pertaining to this issue. The authors identified this ability to more fully explain results as
an example of complementarity that can be seen by using a mixed method approach (Yauch & Steudel, 2003).

From this study, the authors concluded that the assessment of organizational culture is an extremely difficult task to complete using either qualitative or quantitative methods. However, combining the qualitative and quantitative approaches into a mixed methods study revealed different aspects of organizational culture. It was noted that using mixed methods to acquire data allowed for a more comprehensive set of cultural factors to be collected, the validity of the results was increased, and the impact of personal biases on the analysis was reduced (Yauch & Steudel, 2003).

**Model for Change**

Organizational development (OD) has been a major approach to organizational change for several decades (Burnes & Cooke, 2012). Kurt Lewin, known as the “father of organizational development,” provided this field with core tools, rationales and values by means of his significant contributions of action research, group dynamics, field theory, and the three step model of change (Burnes & Cooke, 2012). Burnes and Cooke (2012) pointed to Lewin’s adhocracy-democracy studies (1943) that showed that leaders who encouraged democratic participation had better outcomes than autocratic leaders. Between the years of 1939-1947, Lewin applied planned change and participative practices to many real-life situations. In facilitating and structuring workshops, the first training groups were developed as an approach to planned change (Burnes & Cooke, 2012). The continued development of OD, incorporated Lewin’s belief that for change to be effective, it must take place at the group level and it must be a collaborative process.
Later, Lewin’s three step model of change became the basis of additional change models in OD as well as in other diverse and unrelated disciplines (Burnes & Cooke, 2012).

In a descriptive case study of a mid-western nursing school which had experienced a significant rise in student enrollment and the addition of new programs, Schriner et al. (2010) discussed an organizational change focusing on reorganizing a nursing school as well as its administrative structures. The authors stated that this change was required as a result of the increased student population, limited number of faculty and a disproportionate administrative workload. By the fall of 2005, the authors noted that the dean held sole responsibility for all 37 faculty positions, staff, administrative responsibilities, student concerns and program development. The authors also recognized that the administrator to student ratio changed significantly from 1:163 in 1997 to 1:518 in 2005 (Schriner et al., 2010). The authors further noted that when the need to restructure was recognized, a review of the relevant literature was undertaken. Lewin’s Force Field model of change (Lewin, 1947) was then selected as the framework around which the change initiatives would be developed.

Following the Lewin model, the authors identified the processes that the program used in the unfreezing, moving and refreezing stages of change. As part of the unfreezing stage, the authors that faculty involvement was solicited as part of a developmental task force. This task force then developed a questionnaire to gather data on the strengths and weaknesses of the existing organizational structure. The task force members then used the tool to interview faculty and administrators. The authors noted that the task force findings revealed the need for additional faculty and staff to manage the increased student population as well as the need to address the uneven distribution of administrative
workloads (Schriner et al., 2010). The authors described the movement stage of change as including the task force work to develop a plan that would add faculty, rewrite the dean’s job description and revise portions of the curriculum in recognition of recent program additions. This stage of change, however, was identified by the authors as encountering resistance from the vice president of academic affairs regarding the financial implications of their proposal. Lewin (1947) stated that to overcome inner resistance, additional force may be needed. With that, the authors noted that the dean began negotiations with the college administrators in support of the task force. These negotiations resulted in the development of a new modified plan that was then presented to the faculty for their approval (Schriner et al., 2010)

Lewin’s final stage of refreezing involved the integration of the change proposals. Following the implementation and evaluation of this new organizational plan, the authors identified limitations in the process they had used. They identified the importance of involving faculty in the change process to minimize resistance to change and to reduce the impression that change is being forced and limiting faculty independence. They further identified that value of the interview process for data collection as well as an avenue for supporting communication and collegiality. Additionally, the authors noted that although the changes that were implemented did not garner the resources that were initially requested, the faculty and administration deemed the reorganization successful because it led to more efficient use of available resources (Schriner et al., 2010).

Lewin’s three stage model of change was again used as part of an assessment process in a nonprofit organization. A community based nonprofit agency underwent an internal assessment to address a decline in the use of services and the loss of key funding
streams. In this retrospective case study, Medley and Akan (2008) identified evidence of the stages of Lewin’s three stage model of change (Lewin, 1947) involving the unfreezing, moving and refreezing of organizational processes. This self-assessment process ultimately led to the reorientation of management, revision of programs and the reshaping of the organizational image (Medley & Akan, 2008). The authors noted that the unfreezing stage was initiated when the organization conducted a public survey to measure perceptions of the organization. Findings from the survey indicated to the organization’s leadership that a critical gap in awareness of services existed in key constituent groups (Medley & Akan, 2008). The organization provided job training, employment services and general Equivalency Diploma (GED) classes. However, the authors noted that survey results indicated that only 9.4% of those surveyed with less than a high school education reported that they knew of the organization’s services. Additionally, the survey indicated that many of the respondents were unable to state the main work of the organization (Medley & Akan, 2008). The authors noted that this problem of public awareness suggested to the organization’s management that there was a need to change how the organization was marketed.

The authors went on to identify the moving stage of the change process that followed the organization’s leadership analysis of the survey results. Following this analysis, leadership determined that more substantive job assistance was required for sustained employment success for clients along with new ideas to assist clients build assets through home ownership. Additionally, the authors stated that new marketing methods designed to change the level of the organization’s visibility were implemented. The refreezing stage of the change process was noted by the authors to be apparent
following the strategic planning process. At that point, the organization issued a refined mission statement that reflected the clarified program initiatives (Medley & Akan, 2008). In reviewing the organizational change process, the authors concluded that Lewin’s concepts are fundamental to successful planned organizational change (Medley & Akan, 2008). They further suggested that nonprofit organizations seeking to respond to changing needs or demands can strengthen their outcomes by incorporating the concepts of the Lewin model at an early stage.

In a mixed method research study, Zand and Sorsensen (1975) investigated successful and unsuccessful application of management science using Lewin’s Force Field theory (Lewin, 1947). Management science is “concerned with designing and developing new and better models of organizational excellence” (http://dictionary.cambridge.org/dictionary.business-english/management-science). The authors hypothesized that forces favorable to each phase of change (unfreezing, moving, refreezing) would be positively correlated with success while unfavorable forces would have a negative correlation to the success of change. The authors further hypothesized that the forces favorable to unfreezing, moving and refreezing would be positively correlated to each other and the forces resisting unfreezing, moving and refreezing would likewise be correlated to each other (Zand & Sorensen, 1975).

To test their hypotheses, the authors recorded interviews with 11 management scientists. Each of the scientists was asked to describe one change process that was successful and one change process that was unsuccessful. The scientists were also asked for the criteria they used to define success as well as an objective measure and observable behaviors that would indicate higher or lower levels of success. The interviews were then
analyzed for content units. The authors noted that 201 units relevant to the phases of
Lewin’s theory were identified along with 51 units relevant to the measuring of success.
Using a Q-sort procedure, the 201 units relevant to the phases of change were classified
into one of the four categories of unfreeze, move, refreeze, other (Zand & Sorensen,
1975). If a unit was assigned to one of the phases of Lewin’s change theory, it was again
sorted into one of 7 levels ranging from highly favorable to highly unfavorable. This data
was then used to develop a questionnaire with 64 items related to unfreezing, moving and
refreezing as well as levels of success. The authors then sent the questionnaires to 391
management scientists. Of this number, 154 provided usable responses.

Following their analysis of the data from the questionnaire responses, the authors
found that the correlations and levels of significance supported their hypotheses. The
authors noted that the indices of forces favorable to each phase of change correlated
positively with success and the indices of forces unfavorable to each phase of change
correlated negatively with success (Zand & Sorensen, 1975)

The results of this study indicate the importance of identifying and monitoring
supportive and resistive forces at each stage of change. The authors further commented
that if strong resentment exists during the unfreezing stage, and remains unaddressed,
strong resistance will likely develop in the moving phase. Movement is not favored when
leaders and followers are considered adversaries. Refreezing, however, was said to be
favored by evidence of success and positive feedback that is shared regarding the change
process (Zand & Sorensen, 1975).
Forces Influencing Change

The development and implementation of a change process can be a challenge for leaders as they work to move an institution in a new strategic direction. It necessitates that leaders review the multiple forces and perspectives surrounding the change initiative. Craig (2004) reviewed internal and external forces that drive and resist change in higher education institutions. The author noted that higher education has often served a change agent for society. However, external factors such as updates to technology and educational standards force institutions to determine how they will manage themselves for success. The author noted that because institutions face such significant forces, a response requires the involvement of the entire organization (Craig, 2004). Successful organizational change efforts include an understanding of why people resist change and the essential role of organizational leaders.

Craig (2004) reported that inertia and adaptation are two organizational theories that are ascribed to higher education. Inertia was defined as the tendency for a large organization to resist change (Gumport & Snydman, 2002). Conversely, adaptation was defined as the ability of an organization to demonstrate flexibility (Gumport & Snydman, 2002). Flexible organizations that develop successful internal and external partnerships and encourage mobility and risk-taking are more likely to be adaptive organizations (Craig, 2004).

The author also noted that there is a strong tendency for groups within an organization to resist change because change jeopardizes the status quo and the comfort of the group. Further, change initiatives are more likely to succeed when stakeholders engage in dialogue to explore assumptions, beliefs and values. The author noted that
understanding the changes proposed and reasons why they are necessary to the program or curriculum helps to prepare organizations in process development. Craig (2004) went on to state that unless culture is directly addressed, leaders can expect resistance to change efforts. “Failure to consider the critical role of culture within organizations is often a reason that attempted changes fail.” (Craig, 2004, p. 83)

In a case study investigating faculty resistance to a change implementation, Lin, Singer and Ha (2010) examined the resistance university faculty members demonstrated regarding their use of Blackboard as a new learning management system. In this study, the authors posed one research question: “How do university members structure their use of technology and resistance to it?” (Lin, Singer, & Ha, 2010). The authors investigated tensions revolving around organizational change in higher education through a structure enactment framework (Giddens, 1979).

The authors conducted a campus wide assessment regarding the use of the learning management system by employing surveys and semi-structured interviews. Participants in the study included 1,022 university employees. Of these participants, 47% were faculty, 27% administrative staff, 24% classified staff and 2% administrators. Participants had a median age of 46 years old with a median tenure of 8 years of employment at the university. The survey questionnaires consisted of 55 closed and 3 open-ended questions designed to gather information on technology use and on perceptions of policies relating to technology. For the interview portion of the study, the authors recruited 20 faculty and staff to participate in the interview process. To code the collected data and to develop themes, a two-round qualitative analysis process was utilized. The authors created separate categories representing university officials’
perceptions and university members’ perceptions. Interpretations of meanings attached to technology adoption, implementation, use and resistance from both categories were coded, compared and contrasted (Lin et al., 2010).

Following their review of the data, the authors identified a divide between university administrators and faculty/staff members based on the positions they held regarding the use of the new technology. The authors reported that 346 participants demonstrated some pro-use tendencies regarding the implementation of the new learning management system. However, evidence of limited-use and resistance were demonstrated in participants’ feedback. Faculty gave various reasons for their negative feelings toward the system, but the overlying concern they held was that they felt it would negatively impact their teaching. Many faculty held to a traditional view of a teacher-centered teaching style that included classroom interaction and resistance to online methods (Lin et al., 2010).

The study suggests that structure can be both enabling and constraining regarding the technology change (Lin et al., 2010). The enabling effect of structure was seen when faculty drew on professional values to enhance their teaching activities. The constraining effects of the same structure were seen when faculty drew on the same professional value to changes to the traditional classroom methodologies (Lin et al., 2010). The authors suggested that when institutions of higher education implement strategic changes, faculty members may resist the efforts if they perceive that the changes contradict their professional beliefs. The authors further noted that organizational characteristics constitute an importance source of influence in the enactment of change. The authors went on to state that although organizational characteristics represented an
enabler of resistance, it was the professional ideals of the individual faculty that shaped the enactment of their resistance (Lin et al, 2010). Additionally, that authors stated that in higher education institutions, change was inevitable and resistance to change should be attended to with regular dialogic communication to facilitate the change (Lin et al., 2010).

When building consensus to support the challenges that arise with organizational change, the commitment of individuals to the ongoing success of the organization should be considered as a force to drive the change effort (Lewin, 1939). Marchiori and Henkin (2004) considered this perspective in their quantitative study of faculty at chiropractic colleges. The purpose of their study was to assess the levels of organizational commitment in the context of chiropractic colleges to better inform the environment for the curricular and organizational changes the authors noted to be present (Marchiori & Henkin, 2004). The authors utilized the three dimensional model proposed by Meyer and Allen (1984) as a bases for their assessment. The three dimensions were defined as affective commitment, continuance commitment and normative commitment. Affective commitment is said to involve an emotional connection of the individual and the organization. Continuance commitment is related to the individual’s perceived cost of leaving or staying at the organization. Normative commitment is related to perceived pressures of an individual to support organizational goals (Marchiori & Henkin, 2004). Faculty characteristics of age, gender, years in higher education, years at current institution as well as workplace predictors of academic rank, primary area of assignment, employment status, and chiropractic college were referenced by the authors to the three dimensions of organizational commitment.
To assess the levels of organizational commitment of chiropractic college faculty, the authors sent surveys to the full and part-time faculty of 18 North American chiropractic colleges. Of the 1,121 surveys distributed, 609 were returned. Organizational commitment was then measured using an instrument developed by Meyer and Allen (1984). Organizational commitment is assessed along the dimensions of behavioral (continuance), affective and normative commitment using Likert-type questions for each level. Average and standard deviation of levels of organizational commitment were calculated.

The authors reported that the results of their data analysis revealed that affective commitment did not vary significantly across institutions. Further, the authors noted that none of the variables studied, except years working in higher education, significantly explained the emotional attachment of the faculty to their institutions. However, it was found that the continuance dimension of commitment did differ among the institutions. The variable of “which college” was found to be an important predictor of continuance commitment (Marchiori & Henkin, 2004).

The authors found that full time employees and senior faculty appeared more likely to demonstrate continuance commitment. However, the authors noted that higher levels of continuance commitment may not necessarily be understood as positive to the health of an organization. Marchiori and Henkin (2004) reported that faculty displaying high levels of continuance commitment are more likely to stay with the organization for salary and benefit reasons and are less likely place the interests of the organization above their own interests. Gender was found to be the only predictor in the normative dimension of organizational commitment with women showing significantly higher
scores than men. These findings suggested that long-term tenure in higher education is a significant factor in the affective commitment among faculty at the chiropractic colleges that were studied. Additionally, the authors noted that female faculty at the chiropractic colleges that were studied may demonstrate higher levels of commitment associated with intrinsic work related morals and standards aligned with the normative dimension (Marchiori & Henkin, 2004).

Value Alignment

Professional and organizational values have been identified as a component of organizational culture (Cameron & Quinn, 2011). From the perspective of professional health care education, Pololi, Kern, Carr, Conrad, and Knight (2009) sought to examine the alignment of faculty values with the values of their respective institutions. The authors noted that values serve as motivators and alignment of values may impact the function and success of an institutional process. The authors also stated that an organization can achieve congruence when principles and actions are aligned (Pololi, Kern, Carr, Conrad, & Knight, 2009).

In this study, semi-structure interviews of 96 faculty members from five U.S. medical schools were conducted and dominant themes that emerged from the data were reviewed. Questions were reported to be open-ended, non-leading and unbiased. Questions focusing on values included: When have you felt most successful in your work? What do you see as valued at your institution? How do your personal values align or conflict with what you experience in academic medicine? The authors noted the dominant themes of the interviews that reflected faculty core values were described as clinical caring, social mission, teaching, intellectual rigor, discovery and self-direction.
Further, the authors reported themes that emerged from the data with respect to non-alignment of faculty and institutional values included a sense of betrayal of public trust by academic medicine, value conflict with institutional culture regarding ethical issues such as responsibility to the local community or fraudulently creating research data and discomfort with the expectation of self-promotion.

The authors found that faculty reported that their perceptions in institutional values were based on observations of behavior among leadership and management rather than on the mission statement (Pololi et al., 2009). The authors stated that this study was able to explicitly identify faculty values in a setting of academic medicine and that the study also identified faculty perceptions regarding the lack of alignment of their values with the perceived institutional values. Further, the study identified that individuals acting according to their values as opposed to acting to please others displayed a trait of authenticity in the workplace. Lack of value alignment in this study was associated with dissatisfaction, demoralization and occasionally intent to leave their institution (Pololi et al., 2009).

When conflicts arise between personal and institutional values, faculty may feel the need to repress their own values. In this incongruence, individuals may falsely report to support institutional values and create an apparent congruence rather than an actual congruence. When false representations are created by individuals in apparent support of institutional values, a façade of conformity is said to exist (Hewlin, 2003). In reviewing value alignment as a barrier to organizational change, Stormer and Devine (2008) considered the impact of facades of conformity on the building of consensus and faculty support in an exploratory qualitative study using systematic self-observation. Stormer and
Devine (2008) studied the tension in values alignment to determine if academic professionals experience value conflict that causes them to create a façade of conformity (FOC). The authors also sought to determine what issues evoke that use of FOC and what behaviors are demonstrated when FOC is used.

The authors collected data from faculty at five Canadian public research universities. The participants were asked to recall instances where they “acted at work as if they embraced organizational values when they really didn’t in order to survive and/or succeed within the organization” (Stormer & Devine, 2008, p. 118). Participants were asked to provide up to ten examples of façades of conformity. Approximately 7000 surveys were sent to faculty members and 260 faculty responded to the survey. A total of 269 open-ended items were collected. The authors noted that FOC was expressed in two different ways. Direct FOC was defined as a respondent describing conformity in appearance and action. Indirect FOC was said to occur when a respondent avoided an action. Emerging themes were then compared and rearranged into global themes which resulted in the construction of three thematic networks. The first network addressed the presence of FOC. The second network addressed the absence of FOC, and the third network addressed the dynamic nature of FOC (Stormer & Devine, 2008). In the first network, FOC was found to be used in relation to four topics; diversity, job demands, market model of the profession, and group membership. Absence of FOC was described in the second network. Here, individuals who did not act at work, tended to be aware of potential repercussions. In the third network, the use of FOC was also noted to be dynamic such that faculty may use FOC in certain situations (Stormer & Devine, 2008).
The authors noted that the results of this study revealed that academic professionals are capable of expressing or suppressing their true values. Further, the authors stated that while an individual’s actual values remain stable over time, behavioral expression of values does not necessarily remain stable. Evidence of FOC demonstrates that individuals are capable of falsely displaying values they perceive to be desirable to an organization, thereby creating apparent rather than actual value congruence.

These results can be helpful in reviewing why organizational change initiatives slow or stop even after employee buy-in seems to have been achieved. The authors reported that the results suggested that neither the organization nor the employee gains benefit from apparent value congruence as it demonstrates a lack of transparency (Stormer & Devine, 2008). The authors theorized that leaders who force value congruence in a change initiative may actually encourage individuals to increase use of FOC.

**Chapter Summary**

This chapter examined research studies on accreditation of higher education institutions, Lewin’s model of change, organizational culture, forces influencing change and values alignment. While Svensson et al., 2011 stated that accreditation was a voluntary process, it is required of institutions for allow for student eligibility in federal financial aid programs and professional licensure examinations. As such, accreditation is a required reality for higher education institutions. Facing compliance with updated accreditation standards can force higher education institutions to change internal processes. However, effective communication of planned change processes and engagement of stakeholders were stated to be critical in developing support for new institutional activities (Phillips et al., 2010; Welsh & Metcalf, 2003).
Schriner et al. (2010), Medley and Akan (2008), Zand and Sorsensen (1975) recognized the challenges associated with organizational change and focused on Lewin’s (1939) force field theory and the three step model for change to frame the change process. Identifying the forces that support or resist change gives leadership the opportunity to alter change implementation strategies and increase the likelihood of success. Involving faculty in the change process was recognized to minimize resistance to change (Schriner et al., 2010).

Many authors have demonstrated the value of the assessment of organizational culture as it relates to the implementation of a change process. While organizational culture has been studied in higher education settings, no documented assessment of organizational culture in chiropractic colleges has been identified. The findings suggest that there is a need to investigate the role of organizational culture as a factor influencing the implementation of updated accreditation standards in the 18 CCE accredited chiropractic colleges in the United States. The next chapter provides details regarding the research methods that are used in this study.
Chapter 3: Research Design Methodology

Introduction

The programmatic accreditor for doctor of chiropractic educational programs, the Council on Chiropractic Education (CCE), has revised the Standards of Accreditation required of each doctor of chiropractic (DC) program effective January 2012. DC programs will now be required to collect data and provide evidence regarding the effectiveness/appropriateness of the curriculum as well as qualitative and quantitative measures used to assess competency (Council on Chiropractic Education, 2011). Applying competencies to areas of skills, attitudes and knowledge, seven meta-competencies have been identified as new accreditation standards.

Developing and implementing a change process to demonstrate alignment with transformed accreditation standards is a challenge that is currently facing all CCE accredited chiropractic colleges across the United States. Organizational culture is thought to mediate how an institution of higher education contends with external change forces (Smart, Kuh, & Tierney, 1997). Further, organizational culture provides a frame of reference for an institution to interpret meaning of changes and establish actions (Kuh, 1993). A lack of understanding about the role that organizational culture plays in improving institutional performance can inhibit the ability of the institution to react to new challenges (Tierney, 2008). Museus (2007) stated “the collective pattern of values, norms, beliefs, and assumptions that comprise a campus’s culture constitutes one of the most powerful forces shaping the behavior and experiences of faculty, staff and students
within postsecondary institutions” (p. 29). Further, Schein (2010) noted that “Cultural forces are powerful because they operate outside of our awareness” (p. 7). Often, when leaders try to implement change, they encounter resistance to change at a level that seems beyond reason. It is the work of leaders to recognize the characteristics of the existing culture and to manage the culture in such a way that the organization can survive in a changing environment (Schein, 2010). Cameron and Quinn (2011) further noted that with increasing complexity and unpredictability of external environments, organizational culture provides the glue that holds an organization together and fosters adaptability by providing a clear set of principles to follow when developing change strategies. Therefore, an appraisal of existing organizational cultures is warranted to understand and assess the ability of doctor of chiropractic programs to support or resist change.

The purpose of this study is to identify the current organizational culture within doctor of chiropractic educational institutions and to assess how the culture supports or resists the implementation of change. This study gathered quantitative data through a survey delivered to faculty and administrators and qualitative data through the use of focus groups.

**Problem Statement**

The 2012 updated Council on Chiropractic Education Standards of Accreditation require each doctor of chiropractic program (DCP) to collect data and provide evidence regarding the effectiveness/appropriateness of the curriculum as well as qualitative and quantitative measures used to assess competency. Developing and implementing a change process to demonstrate alignment with updated accreditation standards is a challenge that is currently facing all 18 CCE accredited chiropractic colleges across the
United States. As chiropractic institutions develop change strategies, it is important to recognize that the cultures of organizations are thought to regulate how the organizations manage external forces and internal pressures (Kuh & Whitt, 1988). The understanding of culture will help leaders to manage change more effectively and efficiently (Tierney, 2008). An appraisal of existing organizational cultures in the 18 CCE accredited chiropractic colleges is therefore warranted to assess how organizational cultures affect change processes and strategies. While previous studies have demonstrated a correlation between commitment to change and positive work outcomes (Machin, Fogarty, & Bannon, 2009), developing an awareness of the existing cultures can allow for an understanding of the influence organizational culture has as a factor supporting or resisting this change. An organizational culture is based on the values and beliefs that are shared by its members. Culture is an internal force with origins in the history of the organization that derives its strength from internal standards, processes and goals (Tierney, 2008) If an existing culture is not aligned with a proposed change, it can immobilize the planned change efforts (Freed, 1997). The focus of this study was to examine the organizational cultures of the 18 CCE accredited chiropractic colleges within the United States and to assess if the cultures support or resist the implementation of change.

**Research Questions**

1. What are the existing organizational cultures within the 18 Council on Chiropractic Education accredited chiropractic institutions in the United States?
2. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which support the implementation of change based on revised accreditation standards?

3. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which resist the implementation of change based on revised accreditation standards?

Research Design

One of the major disputes in the study of organizational culture is the issue of research methodology. Jung et al. (2009) identified seventy instruments for exploring and assessing organizational culture. Self-report questionnaires were the most prominent approach identified in examining organizational culture as they were found to be cost effective, easy to administer and easy to analyze. Quantitative approaches to the examination of organizational culture appear to be preferred in circumstances where more intrusive methods are ruled out due to time constraints or limiting organizational policy (Jung et al., 2009). However, quantitative methods have been described as insufficient for uncovering an in-depth understanding of how or why the properties of organizational culture shape group actions and experiences (Museus, 2007). Quantitative tools were said to potentially limit the researcher’s perspective by focusing attention on fixed dimensions and may restrict the ability to identify complex patterns within other aspects of the organizational culture (Schein, 2010).

Kwan and Walker (2004) noted that qualitative researchers have argued that quantitative surveys cannot identify deeper, hidden aspects of organizational culture. Kuh and Whitt (1988) noted that organizational culture is so complex that participant
observation, interviews and document analysis are needed for careful assessment. Qualitative methods were affirmed by Museus (2007) as indispensable in attempting to understand the impact of cultural elements on individual and group behaviors.

The difference in the researchers’ use of quantitative or qualitative methods in the assessment of organizational culture has been attributed to two different perspectives in the study of organizational culture (Kwan & Walker, 2004). The anthropologic perspective treats organizational culture as something the organization is. From this perspective, the organizational culture is unique and only qualitative methods are appropriate for assessment (Kwan & Walker, 2004; Cameron & Quinn, 2011). The sociologic perspective treats organizational culture as something an organization has. This perspective considers organizational culture as a variable that can influence or be influenced by other variables (Kwan & Walker, 2004; Cameron & Quinn, 2011). Mohan (1993) (as cited in Hawkins, 1997) stated that in order to measure different levels or organizational culture, both qualitative and quantitative methods of analysis should be used. Mohan (as cited in Hawkins, 1997) further argued that in order to develop a holistic portrait of organizational culture, the triangulation of both approaches was necessary to ensure that alignment and validity of data could be tested across different perspectives. Jung et al. (2009) also noted that if qualitative and quantitative methods offer different strengths and weaknesses, then choosing between the two methods centers on the depth and breadth of the data required in answering the research questions. Combining quantitative and qualitative methods in a complimentary fashion is thought to lead to a deeper understanding of organizational culture (Yauch & Steudel, 2003). Further, Jung
et al. stated that one way to gain the strengths of both quantitative and qualitative methods is to combine both approaches.

The research design that was selected to answer these research questions in this study is a sequential mixed method design. This study sought to identify: (a) the organizational cultures in chiropractic colleges, (b) which perceived characteristics of organizational culture support the implementation of change to competency based accreditation standards, and (c) which perceived characteristics of organizational culture resist the implementation of change to competency based accreditation standards. Because of these key considerations, as well as in consideration of studies previously noted, the mixed method design was deemed appropriate. The mixed method research approach combines both qualitative and quantitative forms of inquiry and mixes both approaches within the study (Creswell, 2009). Therefore, the mixed method approach “is more than simply collecting and analyzing both kinds of data; it also involves the use of both approaches in tandem so that the overall strength of the study is greater than either qualitative or quantitative research” (Creswell, 2009, p. 4). Further, the sequential explanatory strategy of mixed methods design is “characterized by the collection and analysis of quantitative data in the first phase of research followed by the collection and analysis of qualitative data in the second phase that builds on the results of the initial quantitative results (Creswell, 2009, p. 211). Data from the qualitative phase is used to help explain the quantitative results. Figure 3.1 outlines the sequential mixed method design.
Phase 1 of the study was connected to phase 2 through the preliminary analysis of data. Participants were invited to join in the focus groups following their completion of the phase 1 quantitative survey. Creswell also pointed out that in mixed method research; studies are supported by the pragmatic worldview. The pragmatic worldview focuses attention of the research problem, and then uses a variety of approaches to derive knowledge about the problem. “Thus for the mixed methods researcher, pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis” (Creswell, 2009, p. 11).

**Instruments Used in Data Collection**

In this study, quantitative data was collected and analyzed through an online survey in phase 1 using descriptive data analysis. This was followed by the collection and analysis of qualitative data through focus groups in the second phase. Prior to any data collection, this study proposal was submitted to the St. John Fisher College Institutional Review Board (IRB) for approval.

The quantitative survey instrument used in this study was the Organizational Cultural Assessment Instrument (OCAI). This instrument is based on the Competing
Values Framework which was developed from research on the major indicators of effective organizations (Cameron & Quinn, 2011). Following statistical analysis of the indicators, two major dimensions emerged. One dimension emphasizes flexibility and discretion versus stability and control. The second dimension emphasizes internal orientation, integration and unity versus external orientation, differentiation and rivalry (Cameron & Quinn, 2011). Crossing these two dimensions, four quadrants are formed. These quadrants represent what people value about the organization’s performance and define the core values on which judgments about organizations are made (Cameron & Quinn, 2011). Each quadrant was given a label that was later identified as a culture type. These four culture types were identified as (a) clan, (b) adhocracy, (c) Hierarchy, (d) market. The OCAI allows the researcher to identify culture type based on the dominant orientation of the culture (see Appendix A).

The OCAI is designed to help identify the current culture of an organization by assessing six key dimensions of organizational culture. Cameron and Quinn (2011) stated that “The key to assessing organizational culture, therefore, is to identify aspects of the organization that reflect key values and assumptions in the organization and then give individuals an opportunity to respond using their underlying archetypal framework” (Cameron & Quinn, 2011. P. 183). The six dimensions used as the basis for the OCAI are:

- The dominant characteristics of the organization, or what the overall organization is like;
- The leadership style and approach that permeate the organization;
• The management of employees or the style that characterizes how 
employees are treated and what the working environment is like;
• The organizational glue or bonding mechanisms that hold the organization 
together;
• The strategic emphases that define what areas of emphasis drive the 
organizations strategy
• The criteria of success that determine how victory is defined and what gets 
rewarded and celebrated (Cameron & Quinn, 2011, p. 183).

Each of these six dimensions reflects a fundamental component of organizational 
culture. For each of these dimensions, four scenarios were developed to describe each of 
the four types of organizational culture. Using an ipsative rating scale, participants are 
asked to divide 100 points among the four scenarios, depending on how comparable each 
scenario is to their own organization. An ipsitive scale necessitates the participants use 
their own values as the gauge for their choices (Bartram, 2007). In dividing 100 points, 
the participants are forced to designate points among the four scenarios. In rating one 
scenario with a greater number of points, a participant is forced to rate other scenarios 
with fewer points. The 100 point ipsitive response scale was chosen over the Likert scale 
because the ipsitive scale has a greater ability to differentiate distinctive aspects of 
organizational culture (Cameron & Quinn, 2011). The scores for each scenario are then 
added together to determine the total score for each of the four culture type quadrants 
found on the Competing Values Framework. The higher the score, the stronger the 
organization possesses that particular type of culture.
Focus group interviews were used as the qualitative method of data collection in phase 2. Schein argued that since culture is a set of shared assumptions, it is more appropriate and valid to obtain data from group settings rather than from individual interviews (Schein, 2010). Additionally, the focus group participants were provided an opportunity for personal reflection regarding organizational culture because of their earlier involvement with the OCAI. The focus groups were structured using open-ended questions. This approach was appropriate because this study was seeking to identify participant common or shared experiences on organizational culture (Creswell, 2007). Focus group interviews facilitate interaction among the participants and are, therefore, an effective tool for exploring a shared experiences (Creswell, 2007). Focus group interviews are appropriate for this study because they provide the opportunity for individuals to share their thoughts with not only the researcher, but the other focus group members as well. The interaction and discussion among members of the focus group has the potential to bring out spontaneous and meaningful views that might not be found in individual interviews alone (Kvale & Brinkman, 2009). A challenge that is associated with qualitative investigations is for the researcher to suspend judgment regarding the experience itself. This suspension of judgment, known as bracketing or epoche, is used in order to arrive at an unbiased and objective portrayal of the experience (Kvale & Brinkman, 2009).

The next section includes the study population and sample selection (quantitative) or a description of study participants and how they were chosen (qualitative),
Procedures Used

Phase 1 of this study identified the dominant organizational culture types at the 18 CCE accredited doctor of chiropractic programs in the United States. In an earlier study utilizing the OCAI, Kwan and Walker (2004) reported a survey response rate of 12%. Based on their comparative study of response rates of university academics, the response rate they achieved was considered acceptable. Additionally, Smart and St. John (1996) identified an average of 10.2 respondents per institution as acceptable in their study utilizing the OCAI. This current study followed these previously determined acceptable measures for survey response rate. For this study, hard copies of the OCAI survey were made available for the 2013 ACC/RAC Conference attendees to supplement the completed online survey responses.

Following the phase 1 quantitative analysis, phase 2 of the study examined the characteristics of organizational culture through faculty and administrative focus group interviews. The focus group interviews continued to collect perceptions begun to be made explicit in the survey data collection. Participants in focus groups were organized around general, open-ended questions to allow for gathering textual descriptive data (Creswell, 2007). Tierney (1988) outlined the essential cultural concepts that should be studied as part of a qualitative assessment of organizational culture. These include:

- Environment: How does the organization define its environment? What is the attitude toward the environment? (Hostility? Friendly?)
- Mission: How is it defined? How is it articulated? Is it used as basis for decisions? How much agreement is there?
• Socialization: How do new members become socialized? How is it articulated? What do we need to know to survive / excel in this organization?

• Information: What constitutes information? Who has it? How is it disseminated?

• Strategy: How are decisions arrived at? What strategy is used? Who makes decisions? What is the penalty for bad decisions?

• Leadership: What does the organization expect from its leaders? Who are the leaders? Are there formal and informal leaders? (Teirney, 1988, p. 8)

Using Teirney (1988) as a model for the purpose of this study, the following focus group questions were adapted to more accurately reflect the research questions:

1. Tell me about the organizational culture on your campus.

2. Tell me about the experiences you are having on your campuses regarding the implementation of the new CCE accreditation standards
   ○ How are decisions made regarding strategies for the implementation of the new CCE standards?
   ○ How is this information regarding these strategies shared with faculty, staff and students?
   ○ Does this process reflect the organization’s mission?

3. Please tell me about areas of support for these standards and the accreditation process at your institution.

4. Please tell me about areas of resistance for these standards and the accreditation process at your institution.
5. Please tell be about the one best example you have to illustrate the experience at your organization with the implementation of the new CCE standards.

6. What has your experience with the implementation of the new CCE standards told you about your organizational culture?

Further probing questions were added as needed to gain supplementary details on faculty perceptions. Along with audiotape data from each focus group interview, notes were taken during the interviews to document additional details on faculty interactions. In addition to the researcher, alternate focus group facilitators were identified. This allowed for multiple focus groups to run simultaneously. The alternate facilitator was prepared for the focus group in the following way: (a) instruction on the study definition of organizational culture; (b) instruction on the focus group questions; (c) instruction on the time limit expectation; (d) instruction on the importance of focus group audiotapes and facilitator notes; (e) instruction on the importance of participant informed consent.

Additional follow up telephone interviews were also used to allow for greater institutional representation in the qualitative phase of the study.

Research Participants

The participants for this study were an intentionally selected sample to provide information on the faculty and administrative perspectives of culture and the forces supporting or resisting change initiatives. Full time faculty who provide instruction in basic sciences, clinical sciences or clinical care settings of chiropractic colleges across the United States were invited to participate in both phase 1 quantitative online survey and phase 2 qualitative focus group portions of this study. Administrators in the 18 CCE accredited DCP’s were also invited to participate in both phases of the study. An e-mail
contact list of potential participants for phase 1 of the study was generated from directory information available on websites maintained by each institution. Completion of the phase 1 quantitative survey was a prerequisite for both faculty and administrator participants of the phase 2 focus groups. Hard copies of the survey instrument were made available to all potential focus group participants who did not complete the survey online.

Participants in qualitative studies must be limited to only those individuals who have experienced the problem in question (Creswell, 2007). Therefore, at the time of the interviews, the participants had been employed by their respective institutions for at least one year. This time frame allowed for faculty and administrators to develop sensitivity to their institutional culture. Organizational culture is very powerful and can affect the way faculty interact with their colleagues (Bergquist & Pawlak, 2008). A contact person was identified for each institution and invitations to participate in focus group interviews were distributed via the institutional contact prior to the March 2013 conference. The invitations included: (a) a description of what taking part in the focus group will involve; (b) an explanation of how confidentiality will be managed; (c) a description of how the result will be analyzed; (d) an explanation of how a member check process will be utilized to support validation of the data; (e) a description of what will be done with the study results or actions that might take place; (f) details on contact information to answer participant questions. After agreeing to take part in the interview process, participants were asked to sign an informed consent statement and a list of interview questions was shared with them. Seven focus group interviews were held. Three focus group interviews were held for administrator participants and three focus group interviews were held for faculty participants. One supplemental individual administrator interview was conducted.
The focus groups themselves were limited in number to a maximum of six participants so as to allow for adequate interaction (Kvale & Brinkmann, 2009).

It must also be recognized that each of the chiropractic institutions is on a different timeline schedule for the CCE accreditation review of their new standards implementation. While some institutions were very early in the change process, others were farther ahead and working toward the development of documentation of their progress. However, since none of the institutions had completed a full implementation of change, participants were unable to provide any retrospective comments.

**Research Context for Qualitative Data Collection**

The implementation of the updated CCE accreditation standards is affecting all 18 CCE accredited doctor of chiropractic programs in the United States. Therefore, it was deemed appropriate to include participant representation from each of these chiropractic programs in both the quantitative and the qualitative portions of this study. The Association of Chiropractic Colleges Research Agenda Conference (ACC/RAC) is an annual forum that brings together administration, faculty and staff from all chiropractic colleges for group meetings and peer-reviewed presentations. These events emphasize the educational structure, administration and teaching at chiropractic colleges as well as research and training of chiropractic college faculty, students, practitioners and professional staff (Association of Chiropractic Colleges, 2012). As this study was commenting on perceived characteristics of faculty and administration from all US chiropractic programs, it was vital to invite faculty and administration from each program to participate. This conference setting provided the opportunity for face-to-face interaction with faculty who provide instruction in the basic science, clinical science and
clinical service portions of all DC curricula across the United States. The potential representation of the 18 institutions was felt to be significant because the updated accreditation change impact all aspects of the DC curriculum. In addition, details regarding faculty demographics, including number and types of academic degrees held by the participant, length of service at the current institution a participant has been affiliated with were gathered and reviewed as potential factors influencing faculty perceptions regarding change implementation.

**Data Analysis**

Data analysis for the sequential explanatory mixed method design occurs in three phases. Quantitative data was collected and analyzed first (Creswell & Plano Clark, 2011). This was followed by the collection and analysis of qualitative data and finally by the mixing of the data to reveal how the qualitative results help to explain the quantitative findings. Data from the Organizational Culture Assessment Instrument online survey phase of the study were collected electronically through Qualtrics ® survey software. The use of the ipsative response scale has been shown to provide greater differentiation among the types of organizational cultures and was therefore selected over the Likert response scale (Cameron & Quinn, 2011). When participants are asked to divide 100 points among the four scenarios, a high score in one scenario necessitates low scores in the other scenarios. The use of the ipsative response scale to facilitate the differentiation among types of organizational culture is seen as a strength in answering the first research question.
1. What are the existing organizational cultures within the 18 Council on Chiropractic Education accredited chiropractic institutions in the United States?

For the qualitative phase of this study, each of the focus group interviews was audiotaped. The text of each interview was then transcribed and reviewed for themes and significant phrases that pertain directly to organizational culture and forces effecting change to required new accreditation standards (Creswell, 2009). Phase 2 data analysis followed the approach outlined by Creswell (2007):

- The researcher begins with a full description of his or her own experience of the phenomenon.
- The researcher develops a list of significant statements about how individuals are experiencing the topic.
- The researcher then takes the significant statements and groups them into themes.
- The researcher writes a textural description of what the study participants’ experiences.
- The researcher writes a structural description of how the experience happened.
- The researcher writes a composite description of the phenomenon by incorporating the textural and structural descriptions (Creswell, 2007, p. 159)

NVivo 10 (QSR International, 2013) was used to assist with the data management. The rigor of the study was supported through the use of validation strategies including the use of an experienced qualitative researcher serving as an external
auditor of the data (Creswell, 2007). The data gathered in phase 2 of this study was used to answer the second and third research questions.

2. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which support the implementation of change based on revised accreditation standards?

3. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which resist the implementation of change based on revised accreditation standards?

Following phase 2 of the study, the results of the quantitative and qualitative data analysis were integrated through between-method triangulation of the data (Johnson, Onwuegbuzie & Turner, 2007). The integration of the data was used to help develop detailed descriptions of participant perceptions of organizational culture and characteristics that may be either driving or resisting change. Allowing the participants the opportunity to review description for accuracy, member checking, was offered as a strategy to improve the study’s qualitative validity (Creswell, 2009). None of the participants took advantage of this opportunity. Identified themes were compared and contrasted against findings recognized in the literature review to determine if previously classified culture types are recurring in the study. The rigor of the study was also maintained through the use of an experienced qualitative researcher as an external auditor to establish confirmability, the complimentary analysis of the quantitative and qualitative phases of the study and the methodological triangulation of the findings (Creswell & Clark, 2011).
Summary

This chapter is an overview of a sequential mixed method research study. It describes both quantitative and qualitative approaches as appropriate methods to capture data regarding organizational culture. The OCAI survey questionnaire has been used extensively in previous studies and has been found to provide an accurate assessment of organizational culture (Cameron & Quinn, 2011). The organization of focus groups provided the faculty and administration with an opportunity to describe their perception of organizational culture and what they perceive as the forces within the culture that either support or resist a mandated external change. The challenge of developing a change process to respond to updated accreditation standards is a problem that is facing all chiropractic colleges across the United States simultaneously. A national conference with faculty representation from all 18 CCE accredited chiropractic colleges provided an opportunity to interview faculty in a face-to-face focus group format and gather their perceptions regarding this experience. The study was designed to answer the research questions and to provide data that can used to support the implementation of change processes across the chiropractic profession.
Chapter 4: Results

Introduction

The purpose of this study is to identify the current cultures within the 18 CCE accredited doctor of chiropractic educational institutions within the United States and to assess if the organizational cultures support or resist the implementation of change. The purpose of this chapter is to present the findings from the data analysis based on a quantitative analysis of the Organizational Cultural Assessment Instrument survey and a qualitative directed content analysis of faculty and administrator focus groups in order to answer the research questions:

1. What are the existing organizational cultures within the 18 Council on Chiropractic Education accredited chiropractic institutions in the United States?
2. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which support the implementation of change based on revised accreditation standards?
3. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which resist the implementation of change based on revised accreditation standards?

The research design that was selected to answer these research questions was a sequential mixed method design. The mixed method research approach combines both qualitative and quantitative forms of inquiry and mixes both approaches within the study
(Creswell, 2009). Phase 1 of the study used the Organizational Cultural Assessment Instrument (OCAI) as the quantitative survey instrument. This instrument uses six items to describe some of the central expressions of organizational culture including dominant characteristics, organizational glue, leadership, management of employees, strategic emphasis and criteria of success. Each of these six items is presented with four different scenarios differentiating the four organizational culture types of clan, adhocracy, market and hierarchy that are based on the Competing Values Framework (Cameron & Quinn, 2011). This framework was developed from research on the major indicators of effective organizations and builds on two underlying dimensions. The first dimension differentiates an internal orientation and integration from an external orientation and rivalry. The second dimension differentiates flexibility and dynamism from stability, order and control. The two axes of these dimensions form a four quadrant typology of organizational cultures. Each quadrant was given a label to identify the four culture types as (A) clan, (B) adhocracy, (C) market, (D) hierarchy.

A) Clan culture is characterized as having an internal focus and flexibility. Clan cultures emphasize loyalty, tradition and concern for people while encouraging mentorship and facilitation as a leadership style.

B) Adhocracy culture is characterized by flexibility, individuality and an external focus. It encourages an entrepreneurial leadership style and supports innovation and growth.

C) Market culture is characterized by an external focus and an emphasis on competition and winning. The market culture encourages attainment of goals and supports a hard driving leadership style.
D) Hierarchy culture is very formalized and structured. The hierarchy culture maintains an internal focus with an emphasis on stability and control. It encourages an efficiency minded coordinator as a leadership style and focuses on formal rules and policies.

Phase 2 of this study used focus groups of faculty and administrator participants to obtain qualitative data on the participant’s experiences of organizational culture within the CCE accredited chiropractic institutions in the United States. A phenomenological approach using directed content analysis was used to review the transcribed focus group data. This directed content analysis was guided by the concepts of the Force Field Analysis of Change (Lewin, 1947). According to Lewin’s model, successful change includes unfreezing the present level of performance, learning new concepts and moving to a new level and finally freezing performance at the new level. The Force Field Analysis involves identifying the conditions of the present state, identifying the conditions of the desired state and identifying the forces that support or resist the development of the desired state (Lewin, 1947). Data analysis also includes demographic information regarding the focus group participants involved in the study.

This chapter has four sections. The first section examines the quantitative survey results and analysis. The second section discusses the results and qualitative analysis of faculty and administrator focus groups. The third section details the analysis of the quantitative and qualitative results from the perspective of mixed method research. The final section provides a summary of the analysis presented in this chapter.
Quantitative Results

For the quantitative assessment of organizational culture, the Organizational Culture Assessment Instrument (OCAI) (Cameron & Quinn, 2011) was used. Qualtrics® Survey Software was used to e-mail the OCAI to 888 faculty and administrators of the 18 CCE accredited institutions on the United States. The e-mail addresses were obtained through websites maintained by each institution. The initial distribution of the OCAI resulted in the successful distribution of 836 surveys, as 52 of the e-mail addresses were initially identified as invalid. Following review for errors in entering addresses, the 52 surveys were resent. This distribution resulted in the identification of 2 invalid addresses for a final total distribution of 886 OCAI surveys. Of the 886 surveys distributed, 235 online surveys were started. Case wise deletion was used to remove any incomplete participant response data. As a result of this process, 182 complete online participant responses were analyzed. An additional 5 surveys were completed in hard copy format and added to the survey results resulting in an overall total of 187 participant responses and a response rate of 21%. The survey data includes responses from 17 of the 18 CCE accredited institutions.

Research Question One

What are the existing organizational cultures within each the 18 CCE accredited chiropractic institutions in the United States?

Research question 1 is answered by the quantitative analysis of the OCAI survey responses. The OCAI survey used a constant sum ipsative scale to collect data where participants were asked to distribute 100 points among four scenarios for each of six questions, depending on how comparable each scenario was to their own organization. In
dividing 100 points, the participants are forced to designate points among the four
scenarios. In rating one scenario with a greater number of points, a participant is forced to
rate other scenarios with fewer points. The 100 point ipsitive response scale was chosen
over the Likert scale because the ipsitive scale has a greater ability to differentiate
distinctive aspects of organizational culture (Cameron & Quinn, 2011). These questions
reflect the six different cultural dimensions which are dominant characteristics,
organizational leadership, management of employees, organizational glue, strategic
emphases and criteria of success. At the completion of the survey, the data was
downloaded to Excel for analysis. Case wise deletion was used to remove any incomplete
participant response data. Following this process, 187 complete participant responses
were analyzed.

For each of these participants, the average score for responses A, B, C, and D was
calculated. These four responses represent the four culture types identified by Cameron
and Quinn (2011) as (A) clan, (B) adhocracy, (C) hierarchy, (D) market. The mean of all
participant scores was then calculated for each of the four responses; A, B, C, and D. The
differences between each of the responses were also calculated. These results are
displayed in Table 4.1 and will be discussed in the analysis.
Table 4.1

*OCAI Response Means and Response Differences for All Participants*

(N=187)

<table>
<thead>
<tr>
<th>Response</th>
<th>Mean (M)</th>
<th>Difference With Clan Culture</th>
<th>Difference With Adhocracy Culture</th>
<th>Difference With Market Culture</th>
<th>Difference With Hierarchy Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Clan Culture)</td>
<td>29.00</td>
<td>12.02</td>
<td>4.98</td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>B (Adhocracy Culture)</td>
<td>16.98</td>
<td>12.02</td>
<td>7.04</td>
<td>13.03</td>
<td></td>
</tr>
<tr>
<td>C (Market Culture)</td>
<td>24.02</td>
<td>4.98</td>
<td>7.04</td>
<td>5.99</td>
<td></td>
</tr>
<tr>
<td>D (Hierarchy Culture)</td>
<td>30.01</td>
<td>1.01</td>
<td>13.03</td>
<td>5.99</td>
<td></td>
</tr>
</tbody>
</table>

The means of the OCAI responses for all participants were then plotted on the Competing Values Framework (Cameron & Quinn, 2011) to create an Organizational Culture Profile. This format allows the data to be visually displayed and gives a better sense of the existing organizational culture. Cameron and Quinn (2011) noted that “having a comprehensible picture of a culture makes it easier to systematically implement change in a consistent, coherent and consensual way” (p.81). The Organizational Cultural Profile of all OCAI survey participants is displayed in Figure 4.1.
The analysis of these results reflects the overall current organizational culture type as perceived by the survey participants. The prevailing culture of the 17 CCE accredited chiropractic institutions who participated in the survey is the hierarchy (D) culture (mean = 30.01). The second most common culture was identified as the clan (A) culture (mean = 29.00). The difference in the mean scores between the clan (A) culture and the hierarchy (D) culture is 1.01. A two sample $t$-Test assuming unequal variances was computed to determine if the difference between the clan culture mean and the hierarchy culture mean was significantly different. There was no statistically significant difference found between the means of the clan culture and the hierarchy culture.
sample \( t \)-Tests assuming unequal variances were computed to determine if the difference between all other response means had statistical significance. The level of significance was set at .05 for all statistical analysis in this study. The results revealed that the differences between all result means, except the clan (A) and hierarchy (D) difference were statistically significant. These results are found in Table 4.2.

Table 4.2

*Significance between OCAI Response Mean Differences*

<table>
<thead>
<tr>
<th>Mean Comparison</th>
<th>Difference in Means</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clan (A) / Adhocracy (B)</td>
<td>12.02</td>
<td>7.78</td>
<td>1.65E-13*</td>
</tr>
<tr>
<td>Clan (A) / Market (C)</td>
<td>4.98</td>
<td>2.81</td>
<td>0.005*</td>
</tr>
<tr>
<td>Clan (A) / Hierarchy (D)</td>
<td>1.01</td>
<td>-0.54</td>
<td>0.59</td>
</tr>
<tr>
<td>Adhocracy (B) / Market (C)</td>
<td>7.04</td>
<td>-5.53</td>
<td>6.85E-08*</td>
</tr>
<tr>
<td>Adhocracy (B) / Hierarchy (D)</td>
<td>13.03</td>
<td>-9.18</td>
<td>9.76E-18*</td>
</tr>
<tr>
<td>Market (C) / Hierarchy (D)</td>
<td>5.99</td>
<td>-3.60</td>
<td>0.0004*</td>
</tr>
</tbody>
</table>

*\( p < .05 \)

Results of the significance between OCAI response mean differences and a visual analysis of the Overall Organizational Cultural Profile for all participants indicated a strong difference in the competing values of internal focus verses external focus for the 17 chiropractic institutions that participated in this study. To further investigate this, the participant scores for responses clan (A) and hierarchy (D) were averaged to determine the mean of the internal focus of the overall organizational culture. This mean was found to be 29.50. The participant scores for responses adhocracy (B) and market (C) were
averaged to determine the external focus of the overall organizational culture. This mean
was found to be 20.50. A paired two sample $t$-Test for means was computed to determine
if the difference between internal and external focus was significantly different.

Additionally, review of the Overall Organizational Cultural Profile indicated differences
in competing values of organizational flexibility versus control. To further investigate
this, the participant scores for responses clan (A) and adhocracy (B) were averaged to
determine the mean of the flexibility of the overall organizational culture. This mean was
found to be 22.99. The participant scores for responses market (C) hierarchy (D) were
averaged to determine the stability of the overall organizational culture. This mean was
found to be 27.01. A paired two sample $t$-Test for means was computed to determine if
the difference between flexibility and stability was significantly different. The differences
between the competing value of internal focus versus external focus as well as the
competing value of flexibility versus control were both found to be statistically
significant. Results are displayed in Table 4.3 and in Table 4.4.

Table 4.3

*Significance of Difference between Internal Focus versus External Focus Competing
Values*

<table>
<thead>
<tr>
<th>Competing value</th>
<th>Mean</th>
<th>Difference</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Focus</td>
<td>29.50</td>
<td>9.00</td>
<td>7.80</td>
<td>4.38E-13*</td>
</tr>
<tr>
<td>External Focus</td>
<td>20.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
Table 4.4

Significance of Difference between Flexibility versus Stability Competing Value

<table>
<thead>
<tr>
<th>Competing value</th>
<th>Mean</th>
<th>Difference</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td>22.99</td>
<td>4.02</td>
<td>-2.44</td>
<td>0.02*</td>
</tr>
<tr>
<td>Stability</td>
<td>27.01</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

The results of the OCAI were further delineated to analyze differences between participants who identified their institutional role as either faculty or administrator. The mean of faculty participant scores and the mean of administrator participant scores were then calculated independently for each of the four responses. The results are displayed in Table 4.5. These means were then plotted on the Competing Values Framework to create a detailed Organizational Culture Profile. These results are displayed in Figure 4.2.

Table 4.5

Administrator and Faculty OCAI Response Means and Differences

<table>
<thead>
<tr>
<th>Response</th>
<th>Administrator N=40</th>
<th>Faculty N=147</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Clan Culture)</td>
<td>29.49</td>
<td>28.86</td>
<td>.63</td>
</tr>
<tr>
<td>B (Adhocracy Culture)</td>
<td>18.57</td>
<td>16.54</td>
<td>2.03</td>
</tr>
<tr>
<td>C (Market Culture)</td>
<td>23.10</td>
<td>24.27</td>
<td>1.17</td>
</tr>
<tr>
<td>D (Hierarchy Culture)</td>
<td>28.84</td>
<td>30.33</td>
<td>1.49</td>
</tr>
</tbody>
</table>
Figure 4.2. Organizational Culture Profile differentiated for Administrator and Faculty participants of the OCAI Survey.

A paired two sample $t$-Test assuming unequal variances was computed for each of the four responses to determine if the difference between the faculty and administrator responses on the OCAI survey were statistically significant. The results of this calculation are found in Table 4.6. No statistical significant difference was identified in
any of the four response categories. These results were further analyzed by an
experienced quantitative researcher because of the variations seen in the degrees of
freedom ($df$) for each calculation. It was recognized that the degrees of freedom ($df$) are
adjusted down based on the degree of heterogeneity of variances across the faculty and
administrator groups. This results in a more conservative test of the mean differences and
results in different degrees of freedom ($df$) for each analysis.

Table 4.6

Means and Response Differences between Faculty and Administrator OCAI Survey

Participants

<table>
<thead>
<tr>
<th>Response</th>
<th>Administrator</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N=40$</td>
<td>$N=147$</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>Mean</td>
<td>$df$</td>
</tr>
<tr>
<td>A (Clan Culture)</td>
<td>29.49</td>
<td>28.86</td>
</tr>
<tr>
<td>B (Adhocracy Culture)</td>
<td>18.57</td>
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</tr>
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<td>24.27</td>
</tr>
<tr>
<td>D (Hierarchy Culture)</td>
<td>28.84</td>
<td>30.33</td>
</tr>
</tbody>
</table>

* $p < .05$

Quantitative Results Summary

The four culture types outlines by the Competing Values Framework and assessed
by the OCAI are (A) clan, (B) adhocracy, (C) market, (D) hierarchy cultures. Table 4.1
and Figure 4.1 indicate that the current leading culture type in the 17 CCE chiropractic
institutions that participated in this study is the hierarchy culture (D). The second most
prevalent culture was identified as the clan culture (A). The third and fourth most prevalent responses were the market culture (C) and the adhocracy culture (B) respectively. The recognized difference between the second most prevalent response clan culture (A) and the hierarchy culture (D) was not found to be statically significant. Statistical significance was found in comparing all other response means; (A) clan (M = 29.00), (B) adhocracy (M = 16.98), (C) market (M = 24.02), (D) hierarchy (M = 30.01). Further analysis of the OCAI survey data revealed that faculty participants identified hierarchy culture as being dominant while administrator participants identified clan as the prevailing culture. Again, although differences were identified, these differences were not found to be statistically significant. This analysis, however, will add helpful elements in answering research questions two and three;

2. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which support the implementation of change based on revised accreditation standards?

3. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which resist the implementation of change based on revised accreditation standards?

Further evaluation of the survey responses revealed a significant difference between the competing values of internal focus and external focus as well as the competing values of flexibility versus stability. The results indicate a stronger internal focus with a preference toward stability and control in the organizational cultures of the chiropractic institutions that participated in this study.
Research question 1 asks; what are the existing organizational cultures within each the 18 CCE accredited chiropractic institutions in the United States? The results of the OCAI survey indicate that the main organizational culture types as perceived by the survey participants are the hierarchy culture, which was defined as being very formalized and structured with a focus on formal rules and policies, and the clan culture, which is characterized as having an internal focus with an emphasis on loyalty, tradition and concern for people. The third most prevalent culture type that was perceived by the participants is the market culture which is characterized by a focus on external constituents, competition and profitability. The participants perceived the adhocracy culture as being the least prevalent. Adhocracy culture is characterized by flexibility, adaptability and entrepreneurial. A qualitative analysis of administrator and faculty focus groups are presented in the next section.

**Qualitative Results**

The purpose of this section is to present the findings of the qualitative analysis of administrative and faculty focus groups. A description of the sample precedes the qualitative analysis. The focus groups were held at the Association of Chiropractic Colleges Research Agenda Conference (ACC/RAC) March 14-17, 2013. Both faculty and administrators from each of the CCE accredited chiropractic colleges in the United States who completed the online OCAI survey were invited to participate in the focus groups. Hard copies of the survey instrument were made available to all potential focus group participants who did not complete the survey online. In addition, supplemental individual telephone interviews and focus groups were conducted to complete the data collection due to time constraints on the participants at the ACC/RAC Conference.
It is characteristic that in an institution of higher education, faculty and administrators have various degrees of work experience and various levels of familiarity within the organizational culture. This fact holds true for chiropractic institutions as well. Further, because of the curricular design and the educational expectations in the training of doctor of chiropractic students, a typical chiropractic program will be composed of basic science, didactic, clinical and faculty who possess a variety of different educational backgrounds and experience levels. Because of this variability in background, participant demographic information was collected prior to the start of each focus group. Tables 4.7 and 4.8 provide a summary of the participant demographic information.

Table 4.7

Focus Group Participant Academic Background Information (N=15)

<table>
<thead>
<tr>
<th>Participant Holds a Doctor of Chiropractic Degree</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>15</td>
<td>100%</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Degrees Held by Participants</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN-BS</td>
<td>2</td>
<td>13%</td>
</tr>
<tr>
<td>PhD</td>
<td>2</td>
<td>13%</td>
</tr>
<tr>
<td>MS</td>
<td>2</td>
<td>13%</td>
</tr>
<tr>
<td>MEd</td>
<td>3</td>
<td>20%</td>
</tr>
<tr>
<td>MA</td>
<td>1</td>
<td>7%</td>
</tr>
</tbody>
</table>
Table 4.8

*Focus Group Participant Institutional Experience (N=15)*

<table>
<thead>
<tr>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant Identified Primary Role as Faculty</td>
<td>7</td>
</tr>
<tr>
<td>Participant Identified Primary Role as Administration</td>
<td>8</td>
</tr>
</tbody>
</table>

**Length of Employment at Current Institution**

<table>
<thead>
<tr>
<th>Duration</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>1-2 years</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>3-4 years</td>
<td>3</td>
<td>20%</td>
</tr>
<tr>
<td>More than 5 years</td>
<td>12</td>
<td>80%</td>
</tr>
</tbody>
</table>

**Primary Teaching Responsibility (for Faculty N = 7)**

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Science</td>
<td>1*</td>
<td>14%</td>
</tr>
<tr>
<td>Clinical Science</td>
<td>7</td>
<td>100%</td>
</tr>
<tr>
<td>Clinics</td>
<td>1*</td>
<td>14%</td>
</tr>
</tbody>
</table>

*Note:* * = participant indicated more than 1 teaching responsibility

The eight administrator focus group participants each held mid to upper level academic administrative positions at their respective institutions. The focus groups were structured using open-ended questions, seeking to identify participant common or shared experiences on organizational culture. The focus group questions are listed in Appendix B. Following the completion of the focus group interviews, the audio recordings were transcribed verbatim and a directed content analysis was conducted on the focus group
transcript data. The goal of a directed content analysis is to validate or extend a theory or theoretical framework (Hsieh and Shannon, 2005). A directed content analysis is guided by a more structured approach and uses an existing theory or concept as initial coding categories. The theoretical framework that was applied to this study was Lewin’s Field Theory of Change (Lewin, 1947). This theory helped to focus research questions two and three:

2. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which support the implementation of change based on revised accreditation standards?

3. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which resist the implementation of change based on revised accreditation standards?

The directed content analysis method allows the use of concepts within Lewin’s Field Theory to categorize the qualitative data analysis in order to answer the research questions. Lewin (1947) stated that the degree of stability of the group is dependent on the distribution of forces toward or away from a present situation. If forces supporting and resisting change are of equal strength, no change will occur. He noted that the conversion of such commonplace concepts as goals, difficulties and aversions into force fields, makes it possible to link these factors in a way which reveals their functional similarities and differences.

Lewin (1947) also discussed that the process of change is not an instantaneous occurrence. Rather, change develops over time. Lewin felt that it was important to identify the conditions and the forces that effect change at any given time. He noted that
in order overcome resistance, additional force may be required to break a habit and unfreeze the existing conditions. Following the unfreezing, individuals must learn new habits and behaviors. A final state of permanency or refreezing cannot be accomplished until there is commitment to new behaviors. The concepts of Lewin’s Field Theory that directed the content analysis were a) field identification, b) unfreezing and c) learning and moving (Lewin, 1947). An overview of the directed content analysis themes and subthemes is found in Appendix H.

Each written transcript was read several times to uncover the themes that represented each of the concepts of Lewin’s theory. NVivo 10 (QSR International, 2013) was used to facilitate data management. The rigor of the study was supported through the use of validation strategies including the use of an experienced qualitative researcher who served as an external auditor of the transcribed data (Creswell, 2007). Following the focus group interviews, participants were offered the opportunity to review qualitative data. None of the participants took advantage of this opportunity.

**Concept One: Field Identification**

Lewin (1947) identified that within Field Theory, the importance of isolated elements or forces, cannot be judged without considering or diagnosing the field as a whole. At any given time, the field exists in a state of quasi-equilibrium where a dynamic tension exists between forces. The application of the Force Field Theory then begins with the identification of the forces that exist within the field. Themes that emerged under the concept of field identification included: a) status quo, b) restraining forces, and c) supporting forces.
**Theme one: status quo.** Lewin (1947) reported that as part of the examination of the total environment, an analysis of the social field should be considered. Identifying the organizational cultures as they currently exists within a field helps to define present circumstances and to provide an understanding of why conditions move at a particular level. Influencing an organization to make a change can involve breaking existing social habits. According to Lewin, social habits are usually considered obstacles to change. Details that emerged under the theme of status quo included the identification of different culture types that had been previously reflected in the literature (Cameron & Quinn 2011; Kezar & Eckel, 2002; Kwan & Walker, 2004; Smart & St. John, 1996). These included; a) structured, top down culture, b) supportive, teamwork culture, c) efficient business model culture, and d) creative, thinking out of the box culture.

*Sub-theme one: structured top down culture.* Some of the participants identified the structured top down culture as being very formalized and regulated. Participants related that this culture type maintains focus by emphasizing stability and control with strong, directive leadership that emphasizes formal rules and policies. Evidence of the structured top down culture was revealed through participant reflection on the current state of affairs at their particular institutions in preparation for change implementation:

The way that the culture was historically, was information was not shared, you just came to work, you did your job, you went home, you didn’t communicate with anybody and you definitely did not question anything that came from the top down (Transcript #1, p.3)
The implementation is fairly straight forward, here’s what they are, you will do it and there isn’t really an acceptance, there’s no moment of mourning, there’s no sort of, it’s you will do this (Transcript #2, p. 2)

So we did have some discussion on it but yeah it was basically these are the standards and we began implementing them. (Transcript #2, p. 3)

They (administration) just do things and they don’t consult the rest of the campus, they don’t have any kind of engagement. (Transcript #3, p. 1)

Sub-theme two: supportive teamwork culture. Some participants described the supportive teamwork culture as being encouraging and collegial with mentoring leadership that encourages community and loyalty. Evidence of the supportive teamwork culture was revealed through participant reflection on the current state of affairs at their particular institutions in preparation for change implementation:

…behavior of individuals and groups I mean we collectively kind of work together to do what we need to do and make it work and that includes like the faculty as well as our administration, in the department, (Transcript #2, p. 12)

…they (administration) encourage feedback from faculty, staff and students. They have open forums where they welcome everyone to come and speak with from the president on down to the deans, students, staff and faculty (Transcript #1, p. 4)

…when you’re in a day-to-day let’s get it done world we work really well as a team (Transcript #7, p. 13)

…the culture is really solid, very supportive of the faculty (Transcript #3, p. 1)
Sub-theme three: efficient business model culture. Fewer participants described the efficient business model culture. The participants related that this culture focuses on achievement of goals with efficiency and in a cost effective manner. Evidence of efficient business model culture was not found to be as the evidence for hierarchy or clan cultures:

I still see it as a top down organization very much but the focus is shifting to much more of a business model (Transcript #4, p. 1)

...(shifting) to more of a business model that looks for efficiency and effectiveness both in cost as well as in performance. (Transcript #4, p. 1)

Sub-theme four: creative thinking out-of-the-box culture. The participants who discussed the creative, thinking out of the box culture, highlighted the idea of risk taking and of organizing institutional processes from a different perspective. Evidence of the creative thinking out-of-the-box culture was found to be minimal:

What am I going to do now, okay, taking them out of the box. So they (faculty) were pretty excited that they could come up with some – oh yeah I can think about that now and use a different strategy to come up with that (Transcript #3, p. 5-6)

Theme two: restraining forces. Lewin (1947) recognized restraining forces as obstacles to be overcome in order to implement a change. Restraining forces serve to maintain the status quo and can be seen at either an individual or organizational level. Schein (2010) noted that difficulties with the implementation of change processes that result in resistance to change are frequently the result of individuals having to “unlearn” what has become embedded into the numerous activities of the organization. Sub-themes
that emerged under the theme of restraining forces included: a) loss of control, b) lack of connectedness c) institutional traditions and d) culture clash.

**Sub-theme one: loss of control.** Lewin (1947) noted that a change brought about by merely adding forces leads to an increase in tension and stress. Creating an environment where faculty are no longer familiar with, or clear about, the expectations of their position can decrease work morale and lower productivity. As an external force mandating changes, the CCE was frequently described as an adversary. Participants expressed their perspectives on being forced to change and discussed criticisms of the accreditor that created a negative tone of discord and gave the impression of undermining the implementation process:

I didn’t like it that suddenly the CCE had this big impact on what we were going to be doing at this big institution and literally the fashion and just from a content standpoint, there were requirements that were removed that I thought were essential and I don’t think it is in the best interest of the profession, ( Transcript #3, p. 4)

…meta-competency based accreditation process and the standards were going to be more qualitative and quantitative and now put the responsibility on the institutions and they were forced to grow up, you know, they were forced to mature (Transcript #6, p. 5)

You get the message out fairly quickly and the shared understanding of the existential threat of accreditation was fairly quickly understood and realized by most of the players and most because not all seemed to share that urgency (Transcript #1, p. 2)
If you said to the CCE we don’t like what you’re doing they could say we don’t want you to be accredited, and they’d come up with those competencies through their think tank. (Transcript #2, p. 3)

…some resentment and resistance that the accreditor is demanding this didn’t use those same methods in coming up with the current standards. You know, there’s no data behind it, there’s no information behind it, you know, how did these standards come to be. (Transcript #4, p. 9)

…it’s not being asked of us, it’s being told to us really, in a kind of asking way (Transcript #2, p. 6)

Who are we to criticize them, you know, I mean who are we to fight against them. (Transcript #2, p. 3)

**Sub-theme two: lack of connectedness.** The degree to which an individual is actively involved in bringing about a change is of significant importance. Without this involvement, no objective fact is likely to influence the perception of the change or the social conduct of the individual. Those who see themselves as being forced into a change will likely feel threatened or disloyal to the old system (Lewin, 1945). Participants expressed their perspectives on lack of involvement in change process development and on being forced to change by internal leadership decisions. They also shared their apparent confusion regarding the responsibilities and expectations associated with the new standards:

…some of the professors that have been there for a long time change is hard. Change is scary and change is sometimes it’s even confusing you know. But I’ve
done it this way all this time, why suddenly now are we changing the competencies (Transcript #2, p.2)

…things are changing but not necessarily based on good solid data and information. (Transcript #4, p. 9)

CCE doesn’t know what they’re talking about. (Transcript #2, p. 10)

First you got to shift the mindset, you’ve got to get them to understand, you’ve got to train them mentally and then you physically have to go and change their syllabi and it’s huge, huge. (Transcript #6, p. 15)

I guess it’s old dogs and new tricks is what it is you know, some people are just there’s a resistance to change what I’m doing and how I’m doing it, you know, and this has always worked and why do I have to do something a little differently when this has worked you know (Transcript #4, p. 10)

…these are things that have to be done and if I want to still have a job I better do them. (Transcript #6, p.17)

…characterize our culture in the midst of all of this need for change I sort of have to put your mind in a place where you’ve got an entire workforce that if you have to use a few descriptors you would have to say there’s a lot of concern about job security (Transcript #6, p.16)

Sub-theme three: institutional traditions. Lewin (1947) postulated that social habits are typically seen as being obstacles or resistance to change. Institutional customs, rituals and traditions evolve over time and become part of the culture of an institution. These social habits become part of the implicit standards that Schein (2010) referred to as
group norms. Participants shared their perceptions of their institutional expectations and traditions:

(Institution) is pretty deep in tradition in the history that really ties in quite a bit to what the college is really about and some of their focus. (Transcript #2, p.1)

…some of the professors that have been there for a long time change is hard. Change is scary and change is sometimes it’s even confusing you know. But I’ve done it this way all this time, why suddenly now are we changing the competencies (Transcript #2, p.2)

…the organization is a very traditional triangle; you got the grand puba at the top. You got a couple of sous chefs and below that you got a bunch of noodle makers and I hate to simplify that way but I mean that’s really what I think of the organization, it’s not very leading forefront in its dynamics. (Transcript #2, p.1)

…the older guard is, you know, comes from a model of clinical practice that they’ve got things figured out so don’t change anything because that will make change and they’re less comfortable with that. (Transcript #1, p.1)

The culture on our campus is shaped by the history of the campus (Transcript #7, p. 1)

Sub-theme four: culture clash. Because of its focus toward the external environment and transactions with customers, regulators and licensure agencies, the Council on Chiropractic Education (CCE) can be considered to represent a market culture. A market culture emphasizes a results-oriented workplace. Leaders in the market culture tend to be hard driving competitors (Cameron & Quinn, 2011). However, the values of the market culture are very different from the values that were identified within
the of the most predominant hierarchy culture. Individuals are often unaware of culture until it is contradicted. When an existing hierarchy culture faces the mandates of a market culture, a clash is inevitable and creates greater levels of resistance:

The CCE is going to ruin chiropractic, and it’s going to ruin chiropractic’s identity (Transcript #3, p. 8)

…you should be scared to death about what the CCE is doing (Transcript #3, p. 8)

I’m not a federalist or something but I very much dislike many government interference and one of the driving forces behind this whole thing is the feds telling us you won’t get loans if you don’t comply and I really, really dislike being held hostage. So there’s a gut level reaction right there. (Transcript #3, p. 12)

**Theme three: supporting forces.** According to Lewin (1947), forces that support a change process are those influences that bring about movement toward the intended goal. Change can occur only when those participants affected by the change develop attitudes and responses to carry out the change initiatives (Giardino et al., 1994). Sub-themes that emerged under the theme of supporting forces included: a) drivers of change, b) change champions and c) welcoming growth.

**Sub-theme one: drivers of change.** Lewin (1947) stated that sharing information regarding a proposed change in lectures and discussions can set up motivation to support the change. He further noted, however, that motivation alone does not lead to change.

Drivers of change may be either external or internal and help to link motivation to action toward the intended goal. The mandate to implement new CCE accreditation standards became a primary driver of change for the chiropractic institutions that participated in this study:
…accreditation changes are driving change by default in all the colleges
(Transcript #6, p. 5)

…you’ve got an external agency driving cultural change which I guess is fairly common because you know we have different task masters so our accreditation organization is a task master that drives change. The national boards for example they drive change because you need to have students to perform at a certain level in order to, and that’s tied back to accreditation for example, you know, pass rates
(Transcript #6, p.15)

(there) seems to be the trend in at least the professional degree programs in health care to better match your curriculum and what the goals, the learning objectives, the assessment, all of that are matched to real life practice patient needs, you know, health care needs (Transcript #6, p. 5)

…that’s being led by the dean, that discussion but it’s really being driven by the faculty so we’re going to revisit our mission values and goals, start with that, and then go back and take a look at our curriculum (Transcript#6, p. 3)

So a lot of what’s going to determine the success of colleges is going to be leadership and the trust in those leaders of those institutions, you know, and yes they’re going to have to manage change and they’ll drive change. (Transcript #6, p. 23)

Sub-theme two: change champions. The perception of change and the implications of the change can be expressed verbally or by the actions of individuals. Lewin (1947) stated that the effect of advice from a member of a group can have an impact on the social habits held by the group. Warrick (2009) defined a champion of
change as anyone within an organization who is supportive and skilled at facilitating the implementation of the change initiative. Schein (2010) describes these individuals as role models who are able to provide stakeholders with a strong positive vision of the goals of the change and facilitate activities around the change. Participants identified the impact of champions of change on their institutional change initiatives:

…they definitely are all about the students and they want the students to do very well, they want them to succeed, they want them to prosper after they graduate and go out and do whatever they’re going to do with that knowledge and skill that we have given them so that’s how it’s changing (Transcript #1, p. 20-21)

…we had so many people volunteer to be on the subcommittee …that we had problems finding spots to put them all (Transcript #7, p. 7)

…you know somebody who’s done something innovative, somebody who is really “on”, that will help get some of that popular resistant actually onboard with what we’re doing if we go to that level and use somebody who’s onboard (Transcript #4, p. 6)

…department chair… has really, really, really bought into helping her faculty get those SLO’s (student learning outcomes) right, establish benchmarking (Transcript #4, p. 6)

…it’s been an exciting project to have this bigger and more organized department, so that’s a piece that’s working actually very, very well and is moving fast because of one person’s enthusiasm and excitement for no other reason than she’s excited about it (Transcript #4, p. 8)
This person is actually thriving on it, you know, and the opportunity to make changes for the good and to have in this newer environment where things are run more like a business and not completely from the top down all the time, to have some autonomy and be able to say this is how my department should run and she’s really thriving on that and I think that’s really making a difference for her too so. (Transcript #4, p. 8)

Sub-theme three: welcoming growth. An individual’s support or resistance of change if frequently a result of the “social value” the individual places on the group opinion (Lewin, 1947). If individuals believe that they would be better off with the change initiative in place, they are more likely to learn the new knowledge, attitudes and behaviors required to implement the change (Schein, 2010).

…it’s all in the name of quality and growth, you know and it is that, we want to implement quality, we want to grow, we want to grow everywhere we can so yeah it’s happening fast, there’s a lot of transition (Transcript #4, p. 10)

…it actually feels that way now, like we’re actually improving the quality of growth, and moving in the right direction as opposed to digging ourselves out of a hole and fixing things, it feels like growth (Transcript #4, p. 12)

I think the culture is proactive as we can be, I don’t think we’re reactive, I think we’re proactive. (Transcript #3, p. 18)

I long for the day when the institution, and not just this institution but just on a whole where we can embrace change in a way that exemplifies all of the positive things that… was talking about, you know, give the benefit of the doubt that this is for the good, the greater good in the long run, embrace it, add to it, come to the
table with innovative ideas as opposed to just marching to the beat of a drum because you want to make sure you have a job next week (Transcript #6, p. 17)

I find that actually a little bit exciting just because it’s nice to recharge up what you’re doing. (Transcript #3, p. 17)

Some people are diving right in and just can’t wait to get it done (Transcript #4, p. 5)

…culturally is that it has caused some people to really step up and say yeah this is a great thing and we need to do this and they’ve gone onboard (Transcript #4, p. 9)

**Concept Two: Unfreezing**

After identifying the Force Field, Lewin (1947) recognized unfreezing as an early stage of the change process. He described this stage as the necessary freeing of the system and deliberately stirring up emotions. Schein (2010) referred to this introduction of new mandates and ideas into the existing field as disequilibrium. This stage of the change process can result in uneasiness and discomfort as the organization prepares for the implementation change. Themes that emerged under the concept of unfreezing included: a) ambivalence, b) communication and clarification, and c) more work to be done.

**Theme one: ambivalence.** Ambivalence refers to an individual being indecisive and simultaneously holding contradictory points of view (Oreg & Sverdlik, 2011). Lewin (1947) identified that ambivalence can exist when forces impact an individual from conflicting perspectives. The individual may experience conflict or frustration between the force of current position / group belonging and the force of change implementation.
Oreg and Sverdlik (2011) characterized ambivalent employees as being “constructive critics, entertaining the possibility of both maintaining the status quo and implementing change” (p. 338). While not clearly supporting change, ambivalent individuals maintain an openness to new knowledge. Participants expressed their ambivalence over maintaining the status quo and the implementation of change initiatives with careful compliance:

…enough people that are committed to education right, not necessarily any educational theory but committed to education and committed to benefit students where even if we secretly despise the process we’re going to do it. We’re going to do it to keep the peace, we’re going to do it to do best practices and who knows maybe I’ll learn something along the way and think okay that wasn’t so bad (Transcript #3, p. 13)

I’m not a rebel so I did the work and I did it to the best of my ability and I’m riding the tsunami (Transcript #3, p. 7)

…things are emerging and changing so much, we’re going to have to go with that flow too. (Transcript #3, p. 2)

…there’s individuals that grumble because they’re going to have to do more work, they’re going to have to increase the amount of assessment they do with students in particular in the clinics (Transcript #6, p. 8)

**Theme two: communication and clarification.** Lewin (1947) considered the channels of communication as one of the key factors within a social field. According to Schein (2010), communication is central to the well-being of an organization and an essential component of a change initiative. He described the importance keeping
communication task relevant, effective and truthful as a way of building trust between stakeholder groups. Participants expressed their perceptions of supportive communication from both the faculty and administrator points of view:

…it just became this buzz word that everyone was using but we each had attached a different meaning because nobody had formally said this is what we mean when we say meta competency (Transcript #6, p. 12)

…it isn’t really resistance as in I don’t want to do this, or I think this is stupid or anything of that nature (Transcript #7, p. 9)

It talks about quality education at all educational levels, prepares our students for improving the world and providing service, that type of thing and the faculty here embrace that. (Transcript #7, p. 7)

I do give credit to the administration, they communicated with us and kept communicating with us, and they come on, we got to do it. (Transcript #3, p. 7)

…it in general that process is a really good process because the feedback we got (Transcript #7, p. 6)

…it here guys, this is what we got to do and here’s how we can make the program better and they are all enthusiastic about it. (Transcript #7, p. 8)

**Theme three: more work to be done.** Lewin (1947) believed that a good leader was able to perceive subtle changes in the environment and make more accurate assessments of the meaning of the changes. Participants described how their institutions recognized a need for change and explained the efforts that were made within the institutions to align and engage stakeholders around the implementation of the new CCE accreditation standards:
It hasn’t been completely successful because we’ve realized that there’s a lot more to be done and like I said we’re going to go back and just start with our revising a mission vision, you know, goals, it will eventually flow through the entire curriculum. (Transcript #6, p.14)

It changed because of the push for quality…implementing change because of the demand for quality, demand for growth, (Transcript #4, p. 11)

…until we mandated it, it was like even my department chair was well nice idea but it wasn’t being done, (Transcript #1, p. 14)

…assessment culture certainly was not embedded in our institution and so we were doing things that people weren’t used to seeing (Transcript #1, p. 5)

So it forces us in a roundabout way to be able to put ourselves in a position to quantitatively assess what we’ve been saying we’ve been doing all along that wasn’t getting across by this year (Transcript #6, p. 5)

…when we’re collecting our data we’re actually utilizing it, sharing it with others and encouraging feedback and trying to discourage silos (Transcript #1, p. 5)

…you know part of that is as they say it’s getting the right people on the bus and then finding out the right seats on the bus (Transcript #5, p. 3)

**Concept Three: Learning and Moving**

Following the process of unfreezing, Lewin (1947) recognized that for the change process to continue, members of the organization undergoing change would need to “unlearn” old concepts and to move forward and learn the new concepts and expectation that would facilitate the implementation of change. Themes that emerged under the
concept of learning and moving included: a) the herculean task of change and b) fear of unfamiliar.

**Theme one: the herculean task of change.** According to Lewin (1947), an important factor in bringing about a change is the degree to which the individuals become actively involved with the process. Schein (2010) further stated that the individual must have a sense that they understand the goals and that they can manage the change process:

…sustaining that is another challenge but yeah the culture has changed with a deliberate on where we need to be, what are the threats, how we’re going to get there, how we’re going to address the threats and here’s the game plan, and here’s how you do it, from a faculty point of view here are the responsibilities (Transcript #1, p. 20)

I look at them and go how do I even test this and where do I … I understand what a meta competency is but if you give me a competency I know how to create an outcome and I now have to assess that outcome and I just, I look at some of the stuff on quality assurance (Transcript #2, p. 4)

…it’s been most currently focused on real pressing issues which has served to have them generally pulling in a single direction to get things better (Transcript #1, p. 3)

…it takes a village and it’s going to take a lifetime (Transcript #1, p. 15)

we have to go back and come up with our own sort of second and third order competencies that are ties to these meta competencies and then if needed develop levels of mastery for each of these so that we can monitor student progress through the curriculum and that’s a huge amount of work and you know in a small
college with budget constraints this is looking like a Herculean task (Transcript #6, p.14)

It’s the time it takes to understand them then the time it takes to implement and then the time it takes to analyze; it’s almost a full time job in itself. (Transcript #2, p. 9)

**Theme two: fear of unfamiliar.** Influencing individuals to change frequently involves breaking established practices or group norms. Lewin (1947) related fear of change to the discomfort of an unknown future with the change already in place. Schein (2010) later noted that for some individuals, this discomfort also implies that the thought of assimilating new ways of thinking and behaving creates a learning anxiety. While some participants seemed to have emerged from ambivalence to embrace change, other participants expressed their discomfort with the change implementation by revealing their fear and anxiety:

…change is being driven by a sense of fear and distrust (Transcript #6, p. 20)

… it’s like we’re scrambled because it’s like holy crap I got to do this and we all scramble over here. It’s like holy crap we got to do this and we all scramble over there. (Transcript #2, p. 12)

I think the fear factor there is sort of the elephant in the room and all the different types of sources of these fears, that’s a great point (Transcript #6, p. 17)

**Qualitative Analysis Summary**

Faculty and Administrators representing several chiropractic institutions participated in focus groups and shared their experiences and perceptions of new CCE accreditation standards and the processes that are being utilized to implement these
changes. The analysis of the qualitative data was directed by concepts of the theoretical framework of Lewin’s Field Theory of Change (Lewin, 1947). An overview of the directed content analysis can be found in Appendix H. The concepts utilized for the directed content analysis were; a) field identification, b) unfreezing and c) learning and moving. Themes emerged under these concepts that reveal the perceptions of the participants concerning the implementation of new accreditation standards. Themes that emerged from data analysis under the concept of field identification included: a) status quo, b) restraining forces and c) supporting forces. Themes that emerged under the concept of unfreezing included: a) ambivalence, b) communication and clarification, and c) more work to be done. Themes that emerged under the concept of learning and moving included: a) the herculean task of change and b) fear of unfamiliar. The themes provided a deeper level of understanding of institutional response accreditation mandates and participant perception of implementation of change in light of Lewin’s Field Theory. The results indicate that elements of both support for change and resistance to change can be identified within the chiropractic institutions that participated in this study.

Research question 2 asks: are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which support the implementation of change based on revised accreditation standards? The findings of this study indicate that the characteristics of organizational culture that support change can be identified under the themes of a) drivers of change, b) change champions, and c) welcoming growth.

Drivers of change were identified as being both the external CCE accreditation mandate and the internal leadership expectations. Change champions were identified as
participant peers who served as role models in actively facilitating the implementation of the change. Welcoming growth revealed the participant expressions of belief in the change or support for the change initiatives.

Research question 3 asks: are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which resist the implementation of change based on revised accreditation standards? The findings of this study indicate the characteristics of organizational culture that resist change can be identified under the themes of a) loss of control, b) lack of connectedness c) institutional traditions, and d) culture clash.

Loss of control was identified in critical terms by participants as the mandated implementation of the new CCE accreditation standards. Lack of connectedness was identified by participants as reflecting top down institutional leadership directives to comply with change initiatives. Institutional traditions were identified as being the customs and rituals of the institutions that become the day to day social habits and group norms. Culture clash was revealed in increased resistance some participants discussed as they faced the mandates of an external accrediting agency with market culture values. Chapter 5 will discuss the implications of these themes and findings. A mixed method analysis of data is presented in the next section.

**Mixed Methods Results**

Combining quantitative and qualitative methods in a complimentary fashion is thought to lead to a deeper understanding of organizational culture (Yauch & Steudel, 2003). The mixed method research approach combines both qualitative and quantitative forms of inquiry and mixes both approaches within the study (Creswell, 2009).
Specifically, this study employed an explanatory sequential mixed method design that allowed for data collection from the same participants in both the quantitative and the qualitative phases. This method then provided the opportunity to consider the extent to which the qualitative results added understanding to the quantitative findings (Creswell & Clark, 2011). This section describes how the information from the focus group data helps to explain the quantitative findings.

Although the qualitative content analysis was directed by Lewin’s Field Theory, elements reflecting the characteristics of organizational cultures described in the Competing Values Framework (Cameron & Quinn, 2011) were revealed in the qualitative data analysis. A merged analysis of the quantitative and qualitative findings allowed for interpretation across both phases of the study and allowed for meta-inferences to be drawn. Three concepts were revealed as the qualitative data added to the understanding of the quantitative results (Creswell & Clark, 2011).

**Concept 1.** The analysis of the OCAI survey indicates that the leading culture type identified in the 17 CCE accredited chiropractic institutions that participated in this study is the hierarchy culture. The second most prevalent culture was identified as the clan culture. The third and fourth most prevalent responses were the market culture and the adhocracy culture respectively. Based on the descriptive illustration outlined by Cameron and Quinn (2011), significant evidence of both the hierarchy culture and the clan culture was identified in the analysis of the focus group data. Cameron and Quinn (2011) characterized hierarchy culture as controlling, formal and structured. These authors described leaders in a hierarchy culture as rule enforcers. Participant descriptions revealed the existence of hierarchy culture:
the college approached it I think was more starting at the leadership level and then sort of filtering down to us as to this is what’s going to happen, what we need to do (Transcript #3, p. 4)

Everything that is decided by administration is decidedly important and we will decidedly do it whether we like it or not. (Transcript #2, p. 12)

The president put the pot of noodles on the stove and turned the heat on thou shalt boil and thou shalt become soft. There are not exceptions. (Transcript #2, p. 2)

Cameron and Quinn (2011) characterized clan culture as a family-type with a value on teamwork and employee involvement. These authors described leaders in a clan culture as supportive mentors. Participant descriptions revealed the existence of clan culture:

I see the college really concerned about what student input is as part of the culture and community and that it does feel to me like it’s a family in a sense, which is a really great thing to have to say about your work place. (Transcript #3, p. 2)

the atmosphere here is very much warm and welcoming and it sounds trite but very family like. (Transcript #7, p. 2)

I think that our culture, I mean I think we have like a family culture. We as faculty members will get together, we do definitely get together. (Transcript #2, p. 13)

Evidence of hierarchy and clan cultures detected in the qualitative data supports the findings of the quantitative phase of the study that identified that the primary organizational culture types existing in the 17 chiropractic institutions that participated in the OCAI survey are hierarchy culture and clan culture.
Concept 2. Evaluation of the OCAI survey responses revealed a significant difference between the competing values of internal focus and external focus. The results indicate a stronger internal focus in the organizational cultures of the chiropractic institutions that participated in this study. Organizations displaying an internal focus are described by Cameron and Quinn (2011) as person-oriented with an emphasis on unity and integration within the organization. Participant descriptions revealed the existence of a strong internal focus:

I think we really do look to see that we’re trying to make the mission happen (Transcript #3, p. 18)

It talks about quality education at all educational levels, prepares our students for improving the world and providing service, that type of thing and the faculty here embrace that. (Transcript #7, p. 7)

it’s been most currently focused on real pressing issues which has served to have them generally pulling in a single direction to get things better (Transcript #1, p. 3)

Evidence of internal focus was detected in the qualitative data from the chiropractic institutions that participated in the focus groups and supports the findings of the quantitative phase of the study. This inference can provide greater understanding in support of the development and implementation of change processes that are aligned with cultural inclinations.

Concept 3. Evaluation of the OCAI survey responses revealed a significant difference between the competing values of flexibility versus stability. The results indicate that the organizational cultures of the chiropractic institutions that participated in
this study maintain a preference toward stability and control. Organizations displaying a preference toward stability and control are described by Cameron and Quinn (2011) as being predictable, mechanistic and durable. Participant descriptions revealed the existence of preferences for stability and control with their institutions:

- we have embedded the practices from the earliest stages of chiropractic to today (Transcript #1, p. 1)
- pretty deep in tradition in the history, that really ties in quite a bit to what the college is really about and some of their focus (Transcript #2, p. 1)
- The culture on our campus is shaped by the history of the campus (Transcript #7, p. 1)

Evidence of a preference toward stability and control in the organizational cultures was detected in the qualitative data from the chiropractic institutions that participated in the focus groups. This supports the finding of the quantitative phase of the study. This inference also adds insight to the concept of resistance to change within the organizational cultures as new demands and expectations are placed on the chiropractic programs.

Although key aspects of organizational culture were identified through quantitative inquiry, the analysis of data across both phases of the study provided a greater depth of understanding of the findings. Employing the quantitative and qualitative methods in a complementary fashion produced more robust results than could be accomplished by using a single method. Using mixed methods strengthens the validity of the results (Yauch & Steudel, 2003). Figure 4.3 illustrates a visual model of the
sequential explanatory mixed method procedures that were used in this study (Ivankova, Creswell & Stick, 2006).

Summary of Results

The purpose of this study was to identify the current organizational cultures within the 18 CCE accredited doctor of chiropractic educational institutions within the United States and to assess if characteristics of the organizational cultures support or resist the implementation of change. This chapter presented the results of the study based on the analysis of the OCAI survey and the directed content analysis of faculty and administrator focus group interviews.

The quantitative analysis of the OCAI survey based on the Competing Values Framework indicated that the current leading culture type in the 17 CCE accredited chiropractic institutions that participated in this study is the hierarchy culture. The second most prevalent culture was identified as the clan culture. The third and fourth most prevalent culture types were found to be the market culture and the adhocracy culture respectively. Analysis of the quantitative data also revealed that faculty participants identified hierarchy culture as being dominant while administrator participants identified clan as the prevailing culture. In addition, results indicated that there is a stronger internal focus with a preference toward stability and control within the organizational cultures of the chiropractic institutions that participated in the survey.
Study Phase Procedure

Quantitative Data Collection

• OCAI Survey

Quantitative Data Analysis

• Descriptive Statistical Analysis
• Results Plotted and Assessed on the Competing Values Framework

Connecting Quantitative and Qualitative Phases

• Purposefully requiring focus group participants to complete OCAI Survey prior to focus group interviews

Qualitative Data Collection

• Faculty and Administrators were interviewed separately
• Total of 7 focus group interviews were held
  o 4 Administrator focus groups
  o 3 Faculty focus groups

Qualitative Data Analysis

• Directed Content Analysis based on Lewin’s Field Theory of Change
• NVivo 10 (QSR International) was used to facilitate data management

Integration of Quantitative and Qualitative Results

• Interpretation of merged quantitative and qualitative results
  o Qualitative evidence supports quantitative finding of primary culture types
  o Qualitative evidence supports quantitative finding of internal focus
  o Qualitative evidence supports quantitative finding of preference toward stability and control

An analysis of the faculty and administrator focus group data was directed by three concepts of Lewin’s Field Theory (1947). These concepts were identified as; a) field identification, b) unfreezing and c) learning and moving. Themes emerged under these concepts that reveal the perceptions of the participants concerning the implementation of new accreditation standards. Themes that emerged from data analysis under the concept of field identification included: a) status quo, b) restraining forces and c) supporting forces. Themes that emerged under the concept of unfreezing included: a) ambivalence, b) communication and clarification, and c) more work to be done. Themes that emerged under the concept of learning and moving included: a) the herculean task of change and b) fear of unfamiliar. The results indicate that elements of both support for change and resistance to change can be identified within the chiropractic institutions that participated in this study.

A merging of the quantitative and the qualitative findings in the mixed method analysis revealed that there was qualitative evidence to support the quantitative findings of primary culture types, internal organizational focus and a preference of organizations toward stability and control. The next chapter provides a discussion of the findings of the study along with implications and recommendations for future study.
Chapter 5: Discussion

Introduction

This chapter discusses the study findings and the implications of the findings for chiropractic institutions within the United States as they face changes mandated by their programmatic accreditor. The purpose of this study was to identify the current organizational cultures of the 18 CCE accredited doctor of chiropractic educational institutions within the United States and to assess if elements of the organizational cultures support or resist the implementation of change. This purpose identifies the complex nature of the challenges facing chiropractic education in the United States as it embarks on a large scale mandated change to competency based assessment. With that, the following research questions were asked:

1. What are the existing organizational cultures within each the 18 Council on Chiropractic Education accredited chiropractic institutions in the United States?
2. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which support the implementation of change based on revised accreditation standards?
3. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which resist the implementation of change based on revised accreditation standards?
The first research question was answered in the quantitative phase of the study. Following the analysis of the OCAI survey results within the Competing Values Framework (Cameron & Quinn, 2011), it was identified that the current leading culture type in the 17 CCE chiropractic institutions that participated in this study is the hierarchy culture (mean = 30.01). The second and third research questions were answered in the qualitative phase of the study. Following an analysis of focus group data directed by Lewin’s Field Theory Framework (1947), the findings indicated that characteristics of organizational culture that support change could be identified under the themes of a) drivers of change, b) change champions, and c) welcoming growth. The results further indicated that characteristics of organizational culture that resist change could be identified under the themes of a) loss of control, b) lack of connectedness, c) institutional traditions and d) culture clash. Analysis also revealed ambivalence, the simultaneous holding of contradictory perspectives, as a characteristic within some focus group participants. The findings of this study are significant for leaders of chiropractic institutions. As decision makers, leaders must recognize and understand the values and culture of their institutions before making rushed decisions or widespread changes (By, Diefenbach, & Klarner, 2008).

This chapter is divided into six sections. The first section reviews the use of the Competing Values Framework and the Organizational Culture Assessment Instrument. The second section reviews the use of Lewin’s Field Theory Framework. The third section discusses the implications of the findings. The fourth section discusses limitations of the study. The fifth section discusses recommendations and the final section provides a conclusion.
Use of the Competing Values Framework and the Organizational Culture Assessment Instrument

Many authors have addressed the need to identify organizational cultures (Freed, 1997; Museus, 2007; Smart et al. 1997; Sporn, 1996). Schein noted that, “culture is to a group what personality or character is to an individual. We can see the behavior that results, but we often cannot see the forces underneath that cause certain kinds of behavior” (Schein, 2010, p. 14). By establishing a outline for assessing organizational cultures, leaders are put in a better position to effect orderly change within the organization without creating avoidable conflict (Tierney, 2008).

The Competing Values Framework has been widely used by researchers to assess organizational culture (Kwan & Walker, 2004). This study also used the 2 dimensional Competing Values Framework outlined by Cameron and Quinn (2011). The horizontal dimension of the framework reflects a culture’s internal versus external focus. The vertical dimension reflects the culture’s preference for stability versus control. This framework then yields four culture types; a) clan culture, b) adhocracy culture, c) market culture, and d) hierarchy culture. The Organizational Culture Assessment Instrument (OCAI) assesses six key elements of organizational culture to develop an overview of an organization and its values when analyzed within the Competing Values Framework (see Appendix A).

The findings of this study identified the types of organizational cultures that exist within the 17 chiropractic institutions that participated and provided an indication of the status quo of the participant institutions. Tierney (2008) recognized that if the status quo is incompatible in a changing environment, the members of the institution must be made
aware that they may not be able to rely on old assumptions about the way things have historically been done. The results of the OCAI survey identified that all four organizational culture types described by Cameron and Quinn (2011) were recognized in the chiropractic institutions that participated in this study. In addition, characteristics of the organizational culture types were identified in the analysis of focus group transcripts during the second phase of this study. These characteristics were found to be represented at different levels, with the hierarchy culture being the most prevalent. Understanding the existing culture types within an organization provides the leaders with insights into the behaviors and values of members of the organization. Leaders in higher education should be able to understand the different cultures and the tensions that are created among them (Austin, 1994). Schein (2010) observed that a function of leadership is to perceive the existing culture and manage it in a way that the organization can survive a changing environment.

**Use of the Field Theory Framework**

Evidence found in the literature supports the usefulness of Lewin’s Field Theory of Change (1947) as a framework for understanding the process of organizational change (Giardino, Giardino, MacLaren, & Burg, 1994; Levi & Lawn, 1993; Medley & Akan, 2008). Use of the Field Theory involves the initial identification of the existing field along with both supporting and resisting forces. The next phase involves the unfreezing of existing behaviors. This phase is followed by moving and learning new behaviors that are required to implement change. The final phase involves the refreezing of new behaviors in order to maintain the change.
Lewin (1947) identified the importance of understanding the character of the field as a whole before any analysis can take place on portions of the field. He noted that individual isolated elements cannot be fully assessed without consideration of the whole situation (Lewin, 1942). He further discussed that it was impossible to predict the behavior of a group without first understanding the values, goals and standards of that group. This concept of Lewin’s theory was used to provide direction to the initial phase of this study; the identification of organizational cultures within the CCE accredited chiropractic institutions in the United States.

Supporting forces are those elements that move the organization closer to its goal and tend to bring about change (Lewin, 1947). Supporting forces can relate to the individual or to a group as a whole. The degree to which individuals are involved with the organizational change efforts has been found to have a significant effect on the level of participant support. When individuals are involved in the development of the change process, there is a perception of ownership, influence over the process and a stronger commitment to the change efforts (Phillips et al, 2010). This concept of Lewin’s theory was used to provide direction to the second phase of this study and to focus the second research question; are there characteristics of the organizational cultures in the CCE accredited chiropractic institutions that support the implementation of new accreditation standards?

No important change is without struggle (Trader-Leigh, 2002). Change processes that are inconsistent with the organizational culture will encounter significant resistance within the organization (Giardono et al., 1994). Implementing change strategies that work against the organizational culture creates the perception of forced change and loss
of control. Lewin (1945) noted that when an individual is forced into a new culture with a new set of values, the change will likely be met with hostility. The greater the commitment that the individual has to the old culture and values, the stronger the resistance will be to the imposed change. This concept of Lewin’s theory was used to provide direction to the second phase of this study and to focus the third research question; are there characteristics of the organizational cultures in the CCE accredited chiropractic institutions that resist the implementation of new accreditation standards?

Lewin’s model was used to provide direction to this study because of the significant change in accreditation standards that is currently facing chiropractic education in the United States. These changes have resulted in a challenge for most colleges as they adapt to the revised expectations. This study suggests that, in general, chiropractic education in the United States is in a stage of unfreezing, as it relates to the implementation on new CCE accreditation standards. Understanding the unfreezing stage can help chiropractic institutional leaders to assist faculty and staff with the change process.

Ambivalence is a theme that was revealed in this study under the phase of unfreezing. Oreg and Sverdlik (2011) identified that individuals who may be perceived as uninterested, may actually hold compelling but conflicting views about change. This underscores the concept that ambivalence exists at a time in the change process when new ideas are being introduced and disequilibrium occurs. Organizational change is not an instantaneous occurrence, rather change develops over time. Participant understanding of the change and participant support or resistance also evolves over time. Depending on the level of understanding at a given time, an individual may shift their resistance or
support for the change initiative. However, because ambivalent individuals seem to understand various perspectives, they can be described as being balanced and as holding a more realistic outlook of the threats and possibilities of the change initiative (Oreg & Sverdlik, 2011).

We may not like the work that we have to do, but we’re mature professionals.
We’ll have to just grapple with it, deal with it and do a great job with it

(Transcript #6, p. 16)

Ambivalent individuals can provide a critical vision of the overall change process. Because they maintain a broad understanding of many implications of the change initiative, ambivalent individuals can be of critical importance to institutional leaders. It is important that the perspectives of ambivalent individuals not be overlooked as their insights can provide the basis for future success of the change process.

**Implications of Findings**

The results of the OCAI survey identified that all four organizational culture types described by Cameron and Quinn (2011) were found in the Chiropractic institutions that participated in this study. Additionally, characteristics of the organizational culture types, as well as forces supporting and resisting change, were identified in the analysis of focus group transcripts during the second phase of the study. Understanding the existing culture types and forces supporting and resisting change within an organization, provides leaders with insight into the behaviors and values of the organization’s members. The findings of this study provide several implications related to the organizational cultures in chiropractic education and the forces supporting or resisting change. The implications for
chiropractic education as well as the implications for the agents of change are discussed in this section.

**Implications for Chiropractic Education**

*Alignment of Culture.* Understanding the organizational culture types as well as the values and beliefs associated with those cultures is of significant importance throughout chiropractic education as institutions attempt extensive change initiatives in response to the revised CCE accreditation standards. Kezar and Eckel (2002) reported that change processes will be hindered by disregarding cultural norms but, the processes will be advanced by implementing strategies that are in line with the culture. Collecting baseline data to identify the existing organizational culture is therefore vital to the process of implementing a major change (Jones, DeBaca, & Yarbrough, 1997). Cameron and Quinn (2011) defined the characteristics of the four organizational cultures based on the Competing Values Framework and identified critical strategies to support the efforts of organization leaders.

The hierarchy culture is characterized as being very formalized and structured. It maintains an internal focus with an emphasis on stability and control. Cameron and Quinn (2011) identified that when working within a hierarchy culture, leaders should clarify individual expectations, foster coordination within the organization and monitor processes and performance. Focus group comments supported these observations. Participants readily expressed their need for transparent communication and clear explanations.

The clan culture is characterized as having an internal focus and flexibility. It emphasizes loyalty, tradition and concern for people. Cameron and Quinn (2011)
identified that when working within a clan culture, leaders should facilitate cohesive teamwork, create opportunities for supportive feedback and help individuals improve their performance with development opportunities. Focus group participants expressed their respect for institutional history and their comfort with institutional customs and rituals. These norms serve as a solid base for participants. Chiropractic colleges with a clan culture must understand and respect long held traditions while developing change initiatives.

The market culture is characterized by an external focus with an emphasis on competition, winning and attainment of goals. Cameron and Quinn (2011) identified that when working within a market culture, leaders should foster competitive and aggressive emphasis, motivate individuals to be proactive and foster a customer service focus. For chiropractic colleges in the United States, CCE is the external agency that is mandating the attainment of updated goals and standards. While participants acknowledged the need to meet the accreditation standards, they expressed resentment over the loss of internal control.

The adhocracy culture is characterized by flexibility, individuality and an external focus that supports innovation and growth. Cameron and Quinn (2011) identified that when working within an adhocracy culture, leaders should encourage individuals to be creative, communicate a clear vision of accomplishment and promote the importance of continuous improvement. Limited evidence of adhocracy culture was identified in participant responses. Because of this, change initiatives for the CCE accredited chiropractic colleges that are developed based on the characteristics of flexibility and external focus are more likely to face resistance.
**Support of change.** The findings of this study indicated support for change efforts also exists within the participating chiropractic institutions. Evidence demonstrating support for change was found in the analysis of focus group data under the theme of supporting forces in the second phase of the study. Sub-themes that emerged under this theme included: a) drivers of change, b) change champions and c) welcoming growth.

**Drivers of change.** Accreditation is a significant driving force for change within higher education (Phillips et al., 2010; Mort et al., 2011). The findings of this study indicate that some participants recognize the importance of programmatic accreditation. Participants also expressed an appreciation for the consequences of noncompliance with accreditation standards and the sense of urgency that these new mandates created. Levi and Lawn (1993) noted that driving forces often exist outside of the organization and remain strong regardless of how the organization responds. The findings revealed that the participants understand the pressures that professional education is currently facing from a variety of sources. Participants related their understanding that curriculum and assessment alignment with the CCE accreditation standards is a mandate that will persist. There is an acknowledgement by the participants that regardless of the methods their institutions use to implement the new standards, the mandate of the accreditor must be met.

**Change champions.** The findings of the study reveal the strong effect that a champion of the change effort can have in moving an organization away from the status quo and toward an intended goal. The implementation of new accreditation standards requires faculty and institutional leaders to think differently about goals and accomplishments as well as behave differently regarding curriculum and assessment.
design. Having a role model demonstrate new attitudes and behaviors provides participants with a vision of expectations and often serves as a more powerful teaching tool than formal training mechanisms (Schein, 2010). Those in institutional leadership positions may have a vision of the intended goals of the change effort, but they may not be able to provide a clear image to all participants as to the impact the change will have across the curriculum. A role model from within the institution’s work groups provides participants the opportunity to be better informed about issues and concerns as well as the strengths of the change. Some study participants expressed enthusiasm when referring to those who served as champions at their institutions and conveyed the significance of the work of these individuals as a driving force of change.

**Welcoming growth.** Some participants in the study expressed a desire to not only meet the new CCE accreditation standards, but to work in a proactive manner to improve quality and promote institutional growth. In order to encourage organizational change, different institutional responses to the CCE mandates are being developed. Participant responses indicate that as information from their institution is shared, they develop a sense of the significance of the changes. By communicating the details for the institutional response to the mandated changes, participants appear to develop a comfort in knowing that their institution is growing to meet the demands. Communication appears to encourage participants to take a more active and positive role in implementation of change.

**Resistance to change.** Resistance has the potential to undermine the implementation of change initiatives and should therefore be of significance to institutional leaders. Individuals must be able to see the relevance of the initiatives and
how they will benefit from the change in order for them to support the efforts (Trader-Leigh, 2002). Schein (2010) noted that the key to appreciating resistance to change is to acknowledge that some existing behaviors may be difficult for individuals to give up and replace because they served a positive function. Some members of the organization may become anxious or fearful at the possibility of having to learn new tasks or take on different roles. Schein outlined the basis of this anxiety as

- fear of loss of power;
- fear of temporary incompetence;
- fear of punishment for incompetence;
- fear of loss of personal identity;
- fear of loss of group membership (Schein, 2010, p.303)

Any of these fears can create resistance and can motivate an individual to create excuses for not supporting or engaging in the change efforts. The findings of this study indicated that these fears exist within the participating chiropractic institutions and were reflected by the focus group participants under the themes of loss of control, lack of connectedness, institutional traditions, culture clash, the herculean task of change and fear of unfamiliar. Other authors have identified sources of resistance to change as “fear of the unknown, lack of information, threats to status, fear of failure and lack of perceived benefits” (Proctor & Doukakis, 2003, p. 268). Trader-Leigh identified sources of resistance as “self-interest, psychological impact, and tyranny of custom, redistribution effects, destabilization effects, cultural compatibility and political factors” (Trader-Leigh, 2002, p. 151).
Loss of control. Participants in this study expressed concern over their apparent lack of understanding of the new CCE accreditation standards and the process that was used to develop those new standards. This lack of clarity regarding the mandated changes revealed a fear of the unknown in the study participants. The mandate for change also revealed a sense of loss of power to the accrediting agency. Participants expressed concern regarding what they perceived as the removal of power from the institutions and the faculty to develop an appropriate curriculum and provide quality educational experiences. This loss was expressed in a negative tone that the participants used to describe CCE and conveyed a lack of trust in the accreditor. This implies a strong desire to maintain the status quo.

Lack of connectedness. Participants in this study expressed their lack of understanding of change processes that their institutional leadership had implemented. The findings also revealed a lack of participant involvement in the development of these processes. Some participants implied that institutional leadership did not seek out their perspective and that their voice was silent in the developments. This lack of engagement supports the participant fear of the unknown expectations and a fear of looking incompetent. These fears in turn reveal further support for maintaining the status quo and resisting change efforts.

Institutional traditions. Institutional traditions including both formal and informal customs, rituals and ceremonies provide a historic link to past events and significant accomplishments of an institution. They can provide a sense of pride and a sense of comfort to members of the institution. They provide a frame of reference that is often used to teach newcomers about the performance demands and social requirements (Kuh
The findings of this study revealed that institutional traditions can serve as a resistance to change efforts. Participants conveyed their respect for institutional history and their comfort with knowing the expectations of work. They clearly identified the difficulty with moving from their current level of performance to new expectations with a preference for the status quo.

…it was a culture where how long you’ve been with the organization was more important than necessarily how well you did your job (Transcript #4, p. 1)

…pushback comes from the faculty that have evolved through the old way, you know resisting the change (Transcript #2, p. 7)

Some participants also described their perception of being powerless to act or speak in a way that was not compliant with the directives of institutional leadership. These participants revealed a fear of punishment and job loss that resulted in resistance to change efforts and shifting of blame.

The president put the pot of noodles on the stove and turned the heat on. Thou shalt boil and thou shalt become soft. There are no exceptions. (Transcript #2, p. 2)

…there’s an us and them. I mean it’s Civil War most of the time (between) faculty and administration. (Transcript #2, p. 11)

Culture clash. With an external focus on regulators, CCE can be considered to represent a market culture. However, the values of the market culture are very different from the values that were identified within the predominantly hierarchy culture that exists in the chiropractic institutions that participated in this study. In developing a change process, it is important to recognize and to conform the processes to the culture of the
participants or risk the development of major resistance (Giardino et al., 1994). Some participants expressed strong resentment toward CCE. This resentment has the debilitating effect of increasing the force of resistance to change.

*The Herculean task of change.* Some participants in this study expressed their anxiety over what seemed to be the vast endeavor of change. They conveyed a sense of being overwhelmed by the volume of work that the updated accreditation standards created and revealed their apprehension over having to learn new tasks and be responsible to new expectations. Participants revealed a fear that they would not be able to meet the new standards and that they would be ineffective in their professional role.

*Fear of unfamiliar.* Fear was identified by some participants as a difficult challenge to overcome. Participants revealed a fear of the unfamiliar work expectations as well as a fear of potential consequences for not meeting those expectations. The existence of fear implies a lack of trust by the participants in the change process and in their own ability to meet the new requirements.

**Implications of Findings for Agents of Change**

The findings of this study identified that the most predominant culture type in 17 of the 18 CCE accredited chiropractic institutions is the hierarchy culture. This finding provides useful information to the institutional leaders serving as agents of change within chiropractic education as institutional leaders can use the information on culture for future efforts including strategic planning (Sporn, 1996). Smart and St. John (1996) reported that there is no one best culture type. Culture is rather a modifying factor in a change process (Kezar & Eckel, 2002). Institutional leaders can secure the benefits of the culture by connecting management practices with the cultural values (Smart & St. John,
1996). Freed (1997) went on to stress the importance of institutional leaders developing an understanding of the culture of their organization as a key factor in appreciating how members of the organization feel and act.

Identifying and understanding organizational culture allows institutional leaders the opportunity to build change processes that are grounded in the practices and values that have historically supported the institution. Findings of this study indicate that some participants value and respect the history of their institutions. Designing change initiatives that align with the existing culture allows institutional leaders the opportunity to engage the culture as an ally and potentially decrease resistance to change.

Understanding and appreciating the existence of ambivalence can create an opportunity for the leaders of change initiatives. In paying close attention to ambivalent individuals, institutional leaders can develop a better understanding of the elements that resist change implementation as well as the elements that support the change initiative. Identifying sources of resistance and conflict that were previously unrecognized, provides a chance to restructure the change process and to move forward on a more supportive and collaborative path (McRoy & Gibbs, 2009). Levi and Lawn (1993) noted that institutional leaders tend to spend more time focusing on forces that are driving change while directing little attention to the forces resisting change. The authors also noted that the resisting forces tend to exist within the organization and are more accessible to institutional leadership influence. Involving all participants in the change initiative is of great importance. These encounters provide the institutional leadership with the opportunity to monitor the shift of individual support or resistance to change. Engaging
ambivalent members of the organization can provide institutional leaders with a key opportunity to identify and potentially decrease resisting forces.

The literature supports the concept that communication is fundamental to the successful implementation of a change initiative (Proctor & Doukakis, 2003; Craig, 2004; Phillips et al., 2010; Schein, 2010). Communication is found to be vital to every stage of the change process from development through implementation. Findings of this study support the literature regarding the significance of communication. Participants expressed the value of receiving information regarding the change process. Findings further implied that regular communication contributed to participant support of the change initiative and helped to maintain engagement. Regular communication reduces resistance to change by providing an understanding of the change necessity and relevancy (Craig, 2004). Frequent and meaningful communication also decreases the opportunity for misinformation and rumors to be shared that can potentially increase levels of fear and frustration (Proctor & Doukakis, 2003).

Limitations

Several limitations were identified in conducting this research study. The methodology of this study sought to include input from all 18 CCE accredited chiropractic institutions in the United States for both the quantitative phase and the qualitative phase. However, not all chiropractic institutions that were invited elected to participate in this study. Participants on the phase 1 OCAI survey included 17 of the 18 CCE accredited institutions (94%).

Some participants shared comments regarding their confusion and unfamiliarity with the ipsative scale that was used with the OCAI survey. The use of the ipsative
response scale has been shown to provide greater differentiation among the types of organizational cultures and was therefore selected over the Likert response scale. However, because the ipsitive scale is not as commonly used as a Likert scale, participants may have had not understood its use. When participants were asked to divide 100 points among the four scenarios, a high score in one scenario necessitated low scores in the other scenarios. The comments suggested that some participants experienced difficulty with the survey and, as a result, either elected to not participate or to end the survey prior to its completion. Additionally, participants in the phase 2 focus groups included representation from 9 of the 18 accredited institutions. Potential focus group participants expressed their regret in not contributing to the study but pointed to the time constraints of meetings of the ACC/RAC national conference as a factor limiting their participation. However, the investigator does recognize that institutions not represented as focus group participants may hold different perspectives than those shared in this study and that their participation had the potential to alter the study findings.

Further, it must be recognized that each of the chiropractic institutions is on a different timeline schedule for the CCE accreditation review of their new standards implementation. While some institutions were very early in the change process, others were farther ahead and working toward the development of documentation of their progress. However, since none of the institutions had completed a full implementation of change, participants were unable to provide any retrospective comments. Although it is often the retrospective comments that provide the most salient insight into a change process, the participants in this study were still developing their views on the implementation of the change initiatives.
Apparent investigator bias is another element that can be perceived as a limitation of this study. The investigator currently serves in an administrative role at one of the CCE accredited institutions that were included in this study. With that, every effort was made to bracket any preconceived thoughts or opinions regarding the research topic during data collection and analysis in order to preserve that trustworthiness of the study findings. As an example, the presupposition that the clan culture was the predominant culture within chiropractic education was not supported by the findings of this study.

In addition, the restricted timeframe of this study was identified as a potential limitation. Other authors (Kezar & Eckel, 2002; Trader-Leigh, 2002) engaged in qualitative data collection and analysis over a period of several years. This limitation had the potential to impact the number of focus groups that could be held and therefore limit that data collection for the qualitative phase of the study. While appreciating this potential limit, every attempt was made, including the use of supplemental participant telephone interviews, to gather data in the depth needed for appropriate and meaningful analysis.

**Recommendations**

The findings of this study and the review of literature lead to several recommendations for chiropractic education, for the accrediting agency and for further study.

**Recommendations for Education**

*Recommendations for institutional leadership.* While most people are unaware of the underlying concepts of organizational culture, the importance of institutional leaders developing an understanding of the culture of their organization is significant and
is supported by literature (Austin, 1994; Cameron & Quinn, 2011; Freed, 1997; Proctor & Doukakis, 2003; Schein, 2010; Sporn, 1996; Warrick, 2009). As the institutional leaders in chiropractic education faces the challenge of implementation of new accreditation standards, having a well-defined image of organizational culture can make it easier to implement change that is reasonable and aligned with the culture (Cameron & Quinn, 2011).

Kouzes and Posner (2007) noted that “all change requires that leaders actively seek ways to make things better” (p. 164). Institutional leaders who are driving change must be visionary and encourage those around them to work toward the change. However, individuals cannot perform tasks that they do not understand or know how to do. Finding of this study indicated that participants perceived being forced to change by internal institutional leadership decisions and were confused about the expectations of the changes. The perception of forced change creates increased resistance to change that can delay or halt the planned initiatives. Institutional leaders can decrease the resistance to change by providing opportunities for regular, transparent communication as well as clear and timely explanations of their expectations.

Some participants in this study expressed concern about the increase in workload that would result from the implementation of change. Institutional leadership must be sensitive to concerns of the individuals who will be implementing the change initiatives. Some participants conveyed apprehension over having the ability to perform their current work at a high level while being asked to learn new skills and implement changes. Institutional leaders must be willing to allocate appropriate resources to support their
change implementation process and to develop a framework that is consistent with the new way of working.

Leading by example and serving as role models, leaders can promote clear communication and encourage engagement at all organizational levels and facilitate further participation in change initiatives (By, Diefenbach & Klarner, 2008). This was revealed to be most reflective of the clan culture. Increased levels of engagement within the change process supports the building of positive relationships, supports the institutional culture and results in a stronger commitment to the overall process (Phillips et al., 2010). Findings in this study supported the literature and reflected a need for regular communication and engagement.

Kouzes and Posner (2007) also recognized the importance of developing training for members of an organization that is undergoing change. Training can provide the encouragement and an opportunity to master skills needed for change. However, members of the organization will often need help to visualize their role in the change process. Providing a peer role model or champion of the change effort allows individuals to see a member of their organization function within the proposed change. This visualization of the change requirements helps to decrease fear of unknown expectations and facilitate the implementation through social interaction (Warrick, 2009). Participants in this study identified that the champions of change had a positive impact on peers and supported institutional change initiatives.

**Recommendations for faculty.** Participants in this study expressed the value of two-way communication and of having the opportunity to provide feedback and input. Individuals with the opportunity to provide input and to be included in the change process
develop greater commitment to the change itself (Phillips et al., 2010). While the need for open communication is more characteristic of a clan culture, individuals must be able to trust that the institutional leadership is willing to listen to concerns that are brought forward and willing to respond if warranted. Increased communication was identified by participants in this study as a factor that supported unfreezing of the organization in preparation for the implementation of the change initiatives. Individuals should be encouraged by leadership to speak up, offer suggestions and to share honest constructive criticism (Kouzes & Posner, 2007). Moreover, faculty, in serving as the front line of change implementation, must take responsibility for voicing their concerns about inclusion in process development and decision making.

So we are the boots on the street who will need to now be educating our director on what it’s (assessment) supposed to look like with the hope that our director will take that and then now mandate ‘hey everybody else, this is what it’s supposed to look like.’ (Transcript #6, p. 10)

In addition, faculty must take on the responsibility of advocating for kind of learning and training resources that they will need to successfully implement change. Faculty are the proprietors of the academic curriculum. They have the most direct knowledge and influence on the day to day workings of the educational program. As faculty develop an understanding of the expectations for their classroom responsibilities, additional training resources can support their evolution from being overwhelmed by the change initiative that was seen in the unfreezing stage to becoming actively involved in the change process as seen in the moving and learning stage.
Recommendations for professional practice. The findings of this study suggest that chiropractic education in the United States is in the stage of unfreezing as it relates to the implementation of updated CCE accreditation standards. Central to the updated standards are new educational components that must be structured and integrated to demonstrate student achievement of required competencies (Council on Chiropractic Education, 2011). Specifically, CCE has identified seven meta-competencies as new accreditation standards. Doctor of chiropractic programs (DCP) are now being asked to demonstrate curriculum alignment to these seven meta-competencies;

1. Assessment and Diagnosis
2. Management Plan
3. Health Promotion and Disease Prevention
4. Communication and Record Keeping
5. Professional Ethics and Jurisprudence
6. Information and Technology Literacy
7. Intellectual and Professional Development

While the study findings identified that the most prevalent culture type in the chiropractic colleges that participated in this study was the hierarchy culture, the clan, market and adhocracy cultures were also shown to exist. As such, it is critical for institutional leaders to recognize the culture type that exists at their particular institution and it is recommended that this study be repeated for each chiropractic college in order to obtain detailed information regarding organizational culture at an institutional level. In this way, institutional leaders can capture the strengths of the culture as they work to align the complexities of instructional and assessment methods of the curriculum.
Northouse (2010) stated that in order for institutional leaders to create change, they must “obtain ‘buy in’ from their followers” (p.208). Regular communication provides a means for creating and implementing culturally sensitive changes within an organization (Freed, 1997). It helps to overcome confusion and uncertainty and provides for greater transparency in the development of the change process. The actions that leadership displays and the messages that are communicated can create an atmosphere of trust that supports change, or of mistrust that undermines the change efforts (Freed, 1997). If individuals within the organization do not trust leadership, they will develop a fear to speak up and increase the potential of resistance to change.

Institutional leaders working within a hierarchy culture must recognize the importance of structured policies and procedures. The formality of the rules and efficient, consistent policies tends to hold the organization together. Because of this, faculty will expect clear, data driven, rational decisions. They expect to be given clear guidance on the role they will play in a change process and how they will be held accountable to specific objectives. Communication in the hierarchy culture should be direct and focused.

Institutional leaders working within a clan culture must appreciate the high value that is placed on institutional traditions group participation. Developing relationships and utilizing collaborative work teams will demonstrate loyalty to the institutional values and support the movement of faculty from unfreezing to the learning stage. Institutional leaders should serve as mentors in providing honest feedback while communicating openly to maintain dialogue and foster a sense of community.

Institutional leaders working within a market culture must recognize that the focus of this culture is getting the job done. The expectation in a market culture is that
institutional leaders will establish aggressive goals and work to foster competitiveness. The focus that holds the organization together is the emphasis on success and winning. The market culture tends to be intense and focused on controlling the external environment. Institutional leaders must be drivers of change and constantly moving the organization toward the goal. Communication in a market culture must be specific and focus on actions related to short term targets and long term goals.

Institutional leaders in an adhocracy culture must be innovative and encourage faculty to take risks. They must help their organization to visualize the successful completion of the change initiative and work with faculty and staff to develop a strategy to achieve the goal. Faculty in an adhocracy must be able to trust that their creativity will be supported as they generate new ideas. The institutional leader must be comfortable in tolerating trial and error learning as well as mistakes. Because the adhocracy culture is dynamic, the institutional leader should maintain less centralized power and readily share authority with teams as they lead phases of the change implementation. Communication in an adhocracy culture must be an open two-way dialogue in order to facilitate the sharing of authority.

**Recommendations for Accrediting Agency**

The findings of this study can provide valuable insights for CCE, the programmatic accreditor of chiropractic education if the United States. CCE leadership must recognize the implications of developing and mandating broad changes to the standards for accreditation. The accrediting agency reflects the competitive, results oriented, externally focused values of the market culture. The findings of this study indicate that the predominant cultures in chiropractic education are the hierarchy and the
clan cultures, both of which are strongly internally focused. Giardino, Giardino, MacLaren and Burg (1994) identified that a common reason for the failure of change implementation is that the change process is inconsistent with the organizational culture. In order for CCE to more effectively implement the mandated changes, it should seek to work within the identified culture at the institutional level. In doing so, CCE can capture an opportunity not only decrease the resistance to change, but to develop a closer partnership within the chiropractic institutions that can work to facilitate the implementation of future changes.

**Recommendations for Further Study**

The findings of this study suggest that chiropractic education in the United States is in the stage of unfreezing as it relates to the implementation of updated accreditation standards. These recommendations for additional study can support chiropractic institutions to move forward to a stage of refreezing. This study identified that the organizational culture types that currently exist within the 17 of the 18 CCE accredited chiropractic institutions in the United States. Based on this study and a review of the literature, recommendations for future study include a quantitative assessment of the organizational cultures that exist at each of the individual CCE accredited chiropractic institutions. Obtaining more specific and detailed data on individual programs would more explicitly support the goals of each doctor of chiropractic program and expand on the findings presented in this study. Data from individual institution studies would be valuable to institutional leadership and provide critical insights for future change initiatives.
Future qualitative studies are also recommended. A repeat the original focus group design with the inclusion of representation from all 18 CCE accredited institutions is warranted to provide greater depth to the findings of this study. In addition, qualitative assessment at the individual institution level is recommended to gain greater insight into the specific characteristics and values within organizational cultures of each institution. The use of this strategy by institutional leaders has the potential to validate faculty perceptions and to communicate the value placed on faculty feedback.

In addition, because this study focused on the early stages of process development and change implementation, it is recommended that follow up studies include repeating the study methods after change implementation has been completed. This could provide insight into success of the strategies used by each on the institutions and determine if a refreezing stage had been reached. Further, repeating the OCAI survey following the full implementation of the new accreditation standards is recommended to determine if any shift in culture occurred following the change.

In their study, Smart and St. John (1996) expanded their work from identifying organizational culture type to also include the identification culture strength and institutional effectiveness. A future study to repeat the work of Smart and St. John (1996) in the context of Chiropractic institutions is recommended. The authors found that “a strong culture is positively associated with organizational excellence” (Smart & St. John, 1996, p. 220). This additional information could serve to be helpful for institutional leaders as they work to implement strategic planning and enhance organizational performance.
Follow up studies to expand the knowledge and understanding of organizational culture in chiropractic education and its influence on change are warranted especially in light of further potential external mandates to either higher education or to health care. The information gained from studies of organizational can serve to strengthen institutional processes and increase the effectiveness of institutional responses. In addition, the sharing of new knowledge on organizational culture in chiropractic education can help to support the chiropractic profession navigate future changes.

**Conclusion**

New programmatic accreditation standards are being implemented by the Council on Chiropractic Education for the 18 chiropractic institutions within the United States. All of the participants in this study reflected that this significant change is having an impact on all of chiropractic education in the United States. This change has the potential to disrupt the workings of the educational program and impact the existing organizational culture and values. An understanding of the institutional culture helps leaders to identify potential struggles and manage change more effectively.

The purpose of this study was to identify the current cultures within the 18 CCE accredited doctor of chiropractic educational institutions within the United States and to assess if the organizational cultures support or resist the implementation of change. This study gathered quantitative data through the OCAI survey and qualitative data through the use of focus groups. A sequential explanatory mixed method research design assisted the investigator in answering the three research questions:
1. What are the existing organizational cultures within each the 18 Council on Chiropractic Education accredited chiropractic institutions in the United States?

2. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which support the implementation of change based on revised accreditation standards?

3. Are there characteristics in the organizational cultures of the 18 Council on Chiropractic Education accredited chiropractic institutions which resist the implementation of change based on revised accreditation standards?

The findings of this study identified that the main organizational culture types as perceived by the survey participants are the hierarchy culture, which was defined as being very formalized and structured with a focus on formal rules and policies, and the clan culture, which is characterized as having an internal focus with an emphasis on loyalty, tradition and concern for people. The third most prevalent culture type that was perceived by the participants is the market culture which is characterized by a focus on external constituents, competition and profitability. The participants perceived the adhocracy culture as being the least prevalent. Adhocracy culture is characterized by flexibility, adaptability and entrepreneurial. The results also identified a stronger internal focus with a preference toward stability and control in the organizational cultures of the chiropractic institutions that participated in this study.

The findings of the study also indicate that the characteristics of organizational culture that support change can be identified as being both the external mandate of CCE accreditation change and internal leadership expectations especially within the hierarchy
culture. Additionally, support was revealed in participant peers who served as champions of change efforts in actively facilitating the implementation of the new standards and in the participant expressions of belief in embracing the change initiatives.

The findings of the study suggest that the characteristics of organizational culture that resist change can be identified as the participant perception of being forced to change. This force was identified as emanating from both the perceived loss of control to the programmatic accreditor as well as the lack of connectedness to internal decision making processes. Institutional traditions were identified as being a source of resistance to change and were defined as the customs and rituals of the institutions that become the day to day social habits of the institution. The clash of the CCE market culture values with the values of the predominantly hierarchy culture chiropractic institutions further increased the level of resistance to change.

The merging of the quantitative and the qualitative findings in the mixed method analysis identified that there was qualitative evidence to support the quantitative findings of primary culture types, internal organizational focus and a preference of organizations toward stability and control. The use of the mixed method analysis allowed for a more comprehensive review of the findings than could be achieved by the use of either qualitative or quantitative methods alone. Additionally, data triangulation resulted in greater validity of the study findings and a deeper understanding of the organizational cultures within the participating chiropractic institutions.

All CCE accredited doctor of chiropractic programs within the United States are currently mandated to provide evidence of compliance with new meta-competency standards. In maintaining accountability to these standards, each individual institution
must develop a process to implement the needed changes. It now falls to the leadership of
the doctor of chiropractic programs to offer their institutions practical and effective
strategies in response to the mandates. The use of Lewin’s Field Theory of Change and
Force Field Analysis (1947) provided a framework for the assessment of the status quo as
well as the identification of forces that would either support or resist change. The
findings of this study provide leadership in chiropractic education insight into the existing
organizational cultures at the 17 CCE accredited chiropractic institutions that participated
in the study. Incorporating successful changes into the doctor of chiropractic programs
will depend on how successful institutional leadership is at managing the resistance to
change (Giardino et al., 1994), facilitating support for change and working within the
organizational culture (Craig, 2004). While study participants did acknowledge the
unavoidable obligation for change, it is the institutional leadership that must align the
individual work efforts and create a fit between the organizational culture and the
proposed changes. Unless the elements of the organizational culture are addressed by
leadership, an increase in resistance to change efforts can be expected (Craig, 2004).

In general, recommendations for organizational change tend to be met with
resistance. As such, this study is timely and relevant to the field of chiropractic education.
Chiropractic institutions in the United States must adopt the CCE updated standards or
risk the loss of programmatic accreditation. The institutions must adapt to new methods
of documentation of student learning and competence. It then falls to the institutional
leaders to bridge the gap between the strongly held values and expectations of faculty and
staff in the largely hierarchy and clan cultures and the mandates reflecting a market
culture of the CCE. In working to bridge the gap, this study helps the institutional leader
to anticipate sources of resistance and support that are embedded in the current problem. Institutional leaders must engage the powerful sources of support and nurture them as allies. Institutional leaders must identify those individuals who remain ambivalent about the change process. The ability of ambivalent individuals to see both supporting and resisting perspectives can provide institutional leaders with previously unrecognized perspectives. Institutional leaders must also identify individuals who can serve as change champions. These individuals can provide their peers with a role model who can act to decrease fear of the unknown and allow for those who strongly resist change to see what the change will look like before they implement it themselves.
References


Appendix A

The Organizational Culture Assessment Instrument
Competing Values Culture Assessment

These six questions ask you to identify the way you experience your organization right now, and, separately, the way you think it should be in the future if it is to achieve its highest aspirations. In the survey, “the organization” refers to the organization managed by your boss (or the organization in which you manage).

Please rate each of the statements by dividing 100 points between alternatives A, B, C, and D depending on how similar the description is to your firm. (100 would indicate very similar and 0 would indicate not at all similar). The total points for each question must equal 100. The assessment uses this method to better demonstrate how trade-offs always exist in organizations and resources—including time and attention—are never unconstrained. That is, the response scale demonstrates the inherent tradeoffs required in any approach to culture change.

First, rate how you perceive the organization to be at the present time in the NOW column. Second, rate the organization again in the FUTURE column depending on how you think your organization must be if it is to accomplish its highest objectives and achieve spectacular success in three to five years.

You may divide the 100 points in any way among the four alternatives in each question. Some alternatives may get zero points, for example. Remember that the total must equal 100.

1. DOMINANT CHARACTERISTICS

<table>
<thead>
<tr>
<th>NOW</th>
<th>FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The organization is a very personal place. It is like an extended family. People seem to share a lot of themselves.</td>
<td>A _____</td>
</tr>
<tr>
<td>B. The organization is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.</td>
<td>B _____</td>
</tr>
<tr>
<td>C. The organization is very results oriented. A major concern is with getting the job done. People are very competitive and achievement oriented.</td>
<td>C _____</td>
</tr>
<tr>
<td>D. The organization is a very controlled and structured place. Formal procedures generally govern what people do.</td>
<td>D _____</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
</tr>
</tbody>
</table>
### 2. ORGANIZATIONAL LEADERSHIP

<table>
<thead>
<tr>
<th></th>
<th>NOW</th>
<th>FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The leadership in the organization is generally considered to exemplify mentoring, facilitating, or nurturing.</td>
<td>A ____</td>
<td>A ____</td>
</tr>
<tr>
<td>B. The leadership in the organization is generally considered to exemplify entrepreneurship, innovating, or risk taking.</td>
<td>B ____</td>
<td>B ____</td>
</tr>
<tr>
<td>C. The leadership in the organization is generally considered to exemplify an aggressive, results-oriented, no-nonsense focus.</td>
<td>C ____</td>
<td>C ____</td>
</tr>
<tr>
<td>D. The leadership in the organization is generally considered to exemplify coordinating, organizing, or smooth-running efficiency.</td>
<td>D ____</td>
<td>D ____</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

### 3. MANAGEMENT OF EMPLOYEES

<table>
<thead>
<tr>
<th></th>
<th>NOW</th>
<th>FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The management style in the organization is characterized by teamwork, consensus, and participation.</td>
<td>A ____</td>
<td>A ____</td>
</tr>
<tr>
<td>B. The management style in the organization is characterized by individual risk-taking, innovation, freedom, and uniqueness.</td>
<td>B ____</td>
<td>B ____</td>
</tr>
<tr>
<td>C. The management style in the organization is characterized by hard-driving competitiveness, high demands, and achievement.</td>
<td>C ____</td>
<td>C ____</td>
</tr>
<tr>
<td>D. The management style in the organization is characterized by security of employment, conformity, predictability, and stability in relationships.</td>
<td>D ____</td>
<td>D ____</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
### 4. ORGANIZATIONAL GLUE

<table>
<thead>
<tr>
<th>NOW</th>
<th>FUTURE</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>A</td>
</tr>
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</table>

A. The glue that holds the organization together is loyalty and mutual trust. Commitment to this organization runs high.

B. The glue that holds the organization together is commitment to innovation and development. There is an emphasis on being on the cutting edge.

C. The glue that holds the organization together is the emphasis on achievement and goal accomplishment. Aggressiveness and winning are common themes.

D. The glue that holds the organization together is formal rules and policies. Maintaining a smooth-running organization is important.

Total | 100 | 100 |

### 5. STRATEGIC EMPHASES

<table>
<thead>
<tr>
<th>NOW</th>
<th>FUTURE</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

A. The organization emphasizes human development. High trust, openness, and participation persists.

B. The organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.

C. The organization emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.

D. The organization emphasizes permanence and stability. Efficiency, control and smooth operations are important.
6. CRITERIA OF SUCCESS

A. The organization defines success on the basis of the development of human resources, teamwork, employee commitment, and concern for people.

B. The organization defines success on the basis of having the most unique or the newest products. It is a product leader and innovator.

C. The organization defines success on the basis of winning in the marketplace and outpacing the competition. Competitive market leadership is key.

D. The organization defines success on the basis of efficiency. Dependable delivery, smooth scheduling, and low cost production are critical.
Appendix B

Participant Cover Letter & Consent Agreement for On-Line OCAI Survey

Dear Colleague,

Thank you in advance for your participation in this survey. As part of my doctoral studies at St. John Fisher College, I am working on my dissertation research study titled “Assessment of Organizational Culture in Chiropractic Education and its Influence on the Implementation of Revised Accreditation Standards.” The purpose of this study is to identify the current organizational cultures within the CCE accredited Doctor of Chiropractic educational institutions within the United States and to assess if there are characteristics of the organizational cultures that support or resist the implementation of change.

I am inviting you to participate in this study because you are a faculty member or an administrator in a CCE accredited Doctor of Chiropractic program. Your name and e-mail address were obtained from the directory maintained on your institutional website or through an institutional contact.

By completing the survey you give your consent to participate. The survey is 6 questions long with 4 parts to each question. It will take approximately ten to fifteen minutes to complete the survey. There will be no compensation of any kind available for your participation.

There are no known risks to your by participating in this project. Your participation in this study is completely voluntary and you can opt out of the study at any time by exiting the survey. Your responses are confidential, anonymous and no identifying information will be reported. Only aggregate data will be presented for this study.

St. John Fisher College IRB has granted approval for this study. If you have any questions about this study or your participation, you can feel free to contact me at kab06007@sjfc.edu.

For further questions, please contact Mary S. Collins, PhD, RN, FAAN St. John Fisher College. 585-385-8397. mscollins@sjfc.edu

Sincerely,

Karen Bobak
St. John Fisher College
Ed.D. in Executive Leadership (Candidate)
Appendix C

Focus Group Invitation

Dear Colleague

You are invited to participate in a focus group interview that is part of a doctoral study assessing the organizational culture in chiropractic education and its influence on the implementation of revised accreditation standards. You were selected because you are a faculty member or administrator at a CCE accredited institution in the United States and have completed the Organizational Culture Assessment instrument survey in either an electronic or hard copy format. The purpose of this study is to identify the current organizational cultures within the CCE accredited Doctor of Chiropractic educational institutions within the United States and to assess if there are characteristics of the organizational cultures that support or resist the implementation of change.

Either the principle investigator or a trained moderator will be present to facilitate discussion during the 60-90 minute focused group interview. During the interview, notes will be taken and an audiotape of the interviews will be made for transcription purposes only. After each focus group interview the investigator will review the notes that were taken with the participants to allow for clarification if needed.

The content of the transcribed interviews will be analyzed to identify themes. This data will then be contrasted with the findings of the Organizational Culture Assessment Instrument survey. All responses will be blinded and remain anonymous. All information gathered will be strictly confidential. Only summarized data will be reported as part of this study.

All focus group participants are asked to respect each other’s confidentiality and avoid disclosing identifying or personal information with individuals who did not participate in their focus group.

The potential benefit of this research is a deeper understanding of the characteristics of organizational culture in chiropractic education that might support or resist change implementation.

You are under no obligation to participate in the study and you are free to discontinue participation in the study at any time.

St. John Fisher College IRB has granted approval for this study. If you have any questions about this study or your participation, you can feel free to contact me at kabo6007@sjfc.edu.

Thank you very much
Karen Bobak

I agree to participate in the focus group.

Yes          No
Appendix D

Focus Group Questions

1. Tell me about the organizational culture on your campus.

2. Tell me about the experiences you are having on your campuses regarding the implementation of the new CCE accreditation standards
   - How are decisions made regarding strategies for the implementation of the new CCE standards?
   - How is this information regarding these strategies shared with faculty, staff and students?
   - Does this process reflect the organization’s mission?

3. Please tell me about areas of support for these standards and the accreditation process at your institution.

4. Please tell me about areas of resistance for these standards and the accreditation process at your institution.

5. Please share an example that best describes your experience at your organization with the implementation of the new CCE standards.

6. What has your experience with the implementation of the new CCE standards told you about your organizational culture?
Appendix E

Focus Group Demographic Form

1) What is your primary role at your institution?
   Faculty ___  Administration ___

2) For faculty: What is your primary teaching responsibility?
   Basic Science ___
   Clinical Science ___
   Clinics ___

3) How long have you been a member of your institution?
   Less than 1 year? ___
   1-2 years? ___
   3-4 years? ___
   More than 5 years? ___

4) Do you hold a Doctor of Chiropractic Degree?
   Yes ___
   No ___

5) Do you hold any other advanced degrees? (Please check all that apply)
   MD ___
   RN-BS ___
   RN-MS ___
   RN-doctorate ___
   PhD ___
   EdD ___
   MS ___
   MEd ___
   Other ___  Please list

6) What Chiropractic Institution are you currently affiliated with? ____________
Definition of Organizational Culture used for Focus Group Participants

“The collective, mutually shaping patterns of institutional history, mission, physical settings, norms, traditions, practices, and beliefs that influence the behavior of individuals and groups, and provide a frame of reference within which to interpret the meaning of events and actions on and off the campus. “

Kuh & Whitt, 1988
Appendix G

St. John Fisher College
Institutional Review Board

Informed Consent Form

Title of study: Assessment of Organizational Culture in Chiropractic Education and its Influence on the Implementation of Revised Accreditation Standards

Name(s) of researcher(s): Karen Bobak

Faculty Supervisor: Mary Collins, PhD, RN, FAAN Phone for further information: (585) 385-8397

Purpose of study:
The purpose of this study is to identify the current organizational cultures within the 18 Council on Chiropractic Educations (CCE) accredited Doctor of Chiropractic educational institutions within the United States and to assess if the organizational cultures support or resist the implementation of change.

Study Procedures:
This study seeks to gather quantitative data through a survey delivered to faculty and administrators and qualitative data through the use of focus groups.

Approval of study: This study has been reviewed and approved by the St. John Fisher College Institutional Review Board (IRB).

Place of study: Association of Chiropractic Colleges Length of participation: 60-90 minutes
Research Agenda Conference
(ACC/ RAC) March 14-17, 2013

Risks and benefits: The expected risks and benefits of participation in this study are explained below:

There are no expected risks to participants associated with this study. While the participants will not benefit personally, the potential benefit of this research is a deeper understanding of the characteristics of organizational culture in chiropractic education that might support or resist change implementation.

Method for protecting confidentiality/ privacy:
All responses will be blinded and remain anonymous. All information gathered will be strictly confidential. Confidentiality will be maintained by storing data in secure or password protected locations such that data will be accessible only to the researcher. No personal identifying information will be reported and only aggregate data will be presented for this study.

**Your rights:**
As a research participant, you have the right to:
1. Have the purpose of the study, and the expected risks and benefits fully explained to you before you choose to participate.
2. Withdraw from participation at any time without penalty.
3. Refuse to answer a particular question without penalty.
4. Be informed of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to you.
5. Be informed of the results of the study.

I have read the above, received a copy of this form, and I agree to participate in the above-named study.

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<tr>
<th>Print name (Participant)</th>
<th>Signature</th>
<th>Date</th>
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<tr>
<th>Print name (Investigator)</th>
<th>Signature</th>
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If you have any further questions regarding this study, please contact the researcher listed above. If you or your child experiences emotional or physical discomfort due to participation in this study, contact the Office of Academic Affairs at (585) 385-8034 or the Wellness Center at (585) 385-8280 for appropriate referrals.