LEADING BY DESIGN:
PHYSICIANS IN TRAINING AND LEADERSHIP AWARENESS

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The research study that you will find here was inspired by my work with Laura Esserman, M.D. During the time that we worked together, I experienced first-hand her authentic, transformational, and inclusionary leadership. Her focus on patients first, was transmitted to me on a daily basis and continues to be at the core my work.

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Abstract

Patient-centered care requires robust physician leadership in all aspects of healthcare in order to lead organizations to this ideal. Programs in Graduate Medical Education provide inconsistent and limited exposure to formal leadership development experiences for physicians in their final year of residency training. Literature addressing leadership training for residents focuses on the scarcity of effective programs that deliver adequate training and provide measurable outcomes. The purpose of this study was to explore how chief medical and surgical residents develop leadership awareness and experience training in leadership and engage chief residents, faculty mentors, and program administrators in a collaborative process, developing a leadership training model within an independent (non-academic) residency training program. To understand the residents’ and the institutional experience in this realm, focused interviews were conducted with chief residents from Family Medicine and Surgery, faculty mentors, program administrators, and regional subject matter experts. Professional identity development of the residents was investigated and related to their experiences. Action research was the framework for this study due to the iterative and participative nature of the methods.

Subsequent to the interviews, outgoing and incoming chief residents engaged in collaborative sessions during which peak leadership experiences were discussed. The outcomes of the sessions and analysis of the interviews were discussed with the program directors for future consideration of curriculum change. The findings indicated a change in leadership awareness among chief residents demonstrating that stimulus and subsequent reflection prompted the residents to review their roles as leaders, seeking opportunities to apply leadership awareness to their daily work. In order to teach and role...
model leadership, training has to be implemented that interposes the same rigor as in clinical training. Experiential opportunities for leadership training exist that are not utilized. Conflict exists between the financial contribution of the chief residents and time allocated to training. Relationship and reflection were identified as the common threads through identity, leadership, education, and organizational behavior. A pilot program training surgical chief residents in the relational model of palliative care and leadership is underway as a catalytic effect of this study. One MP4 and three MP3 files accompany the Dissertation PDF, and are accessible as supplemental files. This Dissertation is available in Open Access at AURA: Antioch University Repository and Archive, http://aura.antioch.edu and OhioLink ETD Center, http://www.ohiolink.edu/etd
Author’s Video Introduction

DissClip 1.01 Author Introduction
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List of Supplemental Files

All files are available as stand-alone supplemental files. In addition, each of the MP3 and MP4 files are embedded in the PDF [Dissertation or Dissertation Summary with Clips] and directly accessible to the reader, viewing with Acrobat Reader.

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Chapter I: Introduction

All aspects of health care have been changing at a rapid pace for the past several decades, from medical technology to modes of patient care (Chassin & Galvin, 1998) and the rate of change does not appear to be slowing down. The foundations of how healthcare institutions function to deliver care is shifting and resetting as a result (Berwick, 2003). Physicians are affected by the shifting platform wherever they function as leaders—in hospitals and clinics as well as local, state, and federal health care agencies.

It has become critical that physician leaders know how to adjust to the changing healthcare landscape, are able to bring people together to provide patient centered care, foster effective and efficient teams, provide global and institutional leadership, and contain costs by any means possible (Institute for Healthcare Improvement, 2013). They must be able to demonstrate facility with leadership concepts and skills in order to be able to lead the change that is ongoing at all levels within the organization.

Physicians are expected to be qualified leaders by virtue of their lengthy medical education. Yet, most have not received any practical education related to leadership by the time they complete their medical training. The culture of medicine and the bureaucracy of health care organizations have created the current infrastructure of medical training based on models of care provision deeply rooted in tradition (Green, 2000). The historical model is changing and change is needed particularly in the realm of physician leadership training.

My interest in this topic began with the opportunity to work with a model physician leader, Laura Esserman, M.D., a skilled breast surgeon and radiologist, who
exemplifies leadership that is relational, transformative, adaptive and authentic. I was inspired by her and at the same time, came to expect that all physicians would have the aforementioned capabilities. In the book, *Switch*, (Heath & Heath, 2010) there is a short example of the work I did with her that illustrates her leadership style and how it fosters change. In the interest of putting patients first, resources were offered to other departments in order to develop programs that would minimize the time from an abnormal breast cancer finding to a definitive diagnosis. This is not a common practice in the territorial environment of health care. In my experience with physician leaders, Dr. Esserman is a rare exception.

Fostering change in how physicians perform as leaders in their practice of medicine became my objective. Wanting to investigate a means to have an effect on future physician leaders, I decided to begin by studying residents during the period when their professional identities are in the formative stage. Over the course of preliminary studies, I made a decision to focus on chief residents who are in their final stages of training.

The literature about leadership training and awareness in Graduate Medical Education (GME) for residents is sparse. The existing research calls for improvements in the process and outcomes but does not describe resident awareness of themselves as leaders, nor methods for stimulating their awareness, nor a systematic method for training (Blumenthal, Bernard, Bohnen, & Bohmer, 2012). Medicine is far behind other industries in terms of leadership development (Hu et al., n.d.). The deficit in GME training in leadership is well known. The Accreditation Council for Graduate Medical Education (ACGME) which is responsible for accrediting residency programs in the United States,
has cited the need for leadership specific curriculum but has not provided a template (Jardine et al., 2015). Programs for training have been documented but most were conducted in one medical specialty in a single institution. There is a distinct lack of demonstration of any change in leadership behavior among residents following interventions described in the literature (Webb et al., 2014). The issues that this study will underscore are specific to change in self-reported behavior among chief residents following iterative interventions within two medical specialties.

Chief residents (CRs) are in the final stages of developing their skills and identity as physicians and leaders within organizations of health care. Mechanisms for learning play an important role in identity crafting. Therefore, identity theory, adult learning theory, leadership theories, and theories of organizational behavior form the basis for this study. The complete theoretical underpinnings of this research will be fully discussed in Chapter II.

**Statement of the Problem**

Understanding how CRs view themselves as leaders during this phase of professional identity development (PID) has not been evident in existing literature. This study addresses the gap in what is currently known. Stimulation of leadership awareness is explored to see what effect it had on the CRs views of themselves as leaders. Programs have been described that identify the need for training (Baird, Soldanska, Anderson, & Miller, 2012), utilization of use of developmental tools (Malling, Bonderup, Mortensen, Ringsted, & Scherpibier, 2009), experiential training for residents (Doughty, Williams, Brigham, & Seashore, 2010), assessment tools for discerning leadership skills (Orlander, Wipf, & Lew, 2006), and several types of management training programs (Hemmer et al.,
This study provides a unique look into the self-disclosed leadership awareness of the CRs and how that insight can trigger awareness within daily work, re-examination over time, and speculation on ways to induce a reflective response.

**Purpose of the Study**

Academic training centers have struggled to define the attributes of a physician leader (Osmani, 2013) as well as identify educational structures to ensure that their faculty have the skills and knowledge to teach leadership. Clinical skills are taught in a clearly defined methodical approach with delineated evaluation criteria for success. This same type of rigor has not been applied to leadership training (Fruge, Mahoney, Poplack, & Horowitz, 2010). As medicine has moved to “evidence based” care and treatment, the same attributes could define leadership programs for doctors in training, specifically while they are in residency (Blumenthal et al., 2012).

Although there has been a trend for physicians in training to acquire Master of Business Administration and Health Administration degrees, these programs are primarily business management courses and do not teach the relational skills necessary to lead with a broad view, one that takes into consideration the human as well as the transactional elements (Weil, 2014).

Changing the way the GME curricula is structured and delivered to all residents is challenging. As Kurt Lewin said, “If you want to truly understand something, try to change it” (Wikipedia, 2015, para. 4). Gaining a deeper understanding of the issues that are involved in resident training in leadership is necessary to discern how to bring about changes in the ways CRs are exposed to leadership opportunities and training. As Kieran Walsh (2014), a physician practicing in the United Kingdom, said succinctly in his
editorial, “Medical education only really changes when the culture of medicine itself changes” (p. 175). I would add that change will occur when the culture of medical education has embraced the notion that robust and healthy leaders are their most important product.

This study aims to aid in getting to what Gladwell refers to as “the tipping point” where change is created through “epidemics” among groups (Gladwell, 2006, p. 7). Contributing to the literature through a targeted approach, this study presents a method for understanding the situation of CRs and offers a prototype for guiding it. Steps towards invigorating and stimulating leadership among CRs are explained. The views provided come from the CRs, faculty, program directors, and experts in the field. These are necessary perspectives that are informative and must be included in any consideration of changes in this area.

**Significance to Theory, Research, and Practice**

Covering new ground in terms of literature regarding medical residents within the system of education specific to leadership, this study contributes to the ongoing quest of GME programs to solve the problem of mechanisms to create change, and offers contemporary thought about residents and leadership. Scholars outside of medical education can utilize the methods and findings and apply them to other communities.

“The task of leadership is to create an alignment of strengths in ways that make a system’s weaknesses irrelevant,” said Peter Drucker, an organizational leadership scholar (Whitney & Troseten-Bloom, 2010, p. xii). Competent leadership that can manage ongoing change is needed, in this case, to direct the institutions in effective ways that “align the strengths” that exist. Scant human and monetary resources are the reality in
health care in all developed nations. It has become critical to have physician leaders in place that can bring people together to provide patient centered care, foster effective and efficient teams, provide global and institutional leadership, and contain costs by any means possible (Institute for Healthcare Improvement, 2013).

Physicians in practice have routines of behavior that have developed over time. Chief residents (CRs) are in the final phase of training and are still forming their professional identity (Sklar, 2014). Exposure to leadership most likely has not been a focus of their training but it is a significant part of their work. By this final stage, the CRs are aware of their need for leadership training and skills (or lack of skills) in order to fulfill the responsibilities of their role.

There is a distinct need for chiefs and other residents to enter into practice with leadership awareness, a sense of their identity as a leader, and an understanding of how to manifest leadership dexterity as they develop their professional identity. A definition of professional identity formation for medical education was developed by the University of Texas:

Professional Identity Formation is the transformative journey through which one integrates the knowledge, skills, values, and behaviors of a competent, humanistic physician with one’s own unique identity and core values. This continuous process fosters personal and professional growth through mentorship, reflection, and experiences that affirm the best practices, traditions, and ethics of the medical profession. (University of Texas Professional Identity Task Force, 2013, p. 2)

To reach this ideal of professionalism, development of resources are needed for leadership formation and professional identity support, just as they are for medication prescribing, and should be provided throughout the GME process to be part of every proverbial doctor’s “bag.” This study provides CR leadership reflections and how they fit
within the larger picture of professional identity development, including knowledge of CR leadership comprehension within professional identity development.

**The Research Questions**

Chief residents need a framework within which to consider and analyze their roles as leaders, this became apparent through the two preliminary studies. Chief residents from Family Medicine and Surgery shared their stories of lived experience pertaining to leadership during their year in this leadership role. The next goal was to investigate a design for change in the method that prepares future chief residents to be functional leaders.

The research aims for this study were: (a) to explore how chief medical and surgical residents develop leadership awareness and experience training in leadership in the context of Graduate Medical Education; and (b) to engage chief residents, faculty mentors, and program administrators in a collaborative process of developing a leadership training model.

The sub-questions that laid the foundation for this research and facilitated my understanding and recognition of the answers are:

- How did chief residents view their leadership experiences?
- How did the residents define and understand their leadership as it pertains to their professional identity?
- In what ways do chief residents apply their awareness to their own conduct?
- What methods for changing the Graduate Medical Education curricula would the residents recommend for future chief residents?
- How did all participants measure change?
Positionality of the Researcher

I consider myself to be an “outside insider” in the world of medical education. In my role as a healthcare administrator and program developer, I have had significant working relationships with physicians, residents, and fellows. Through empirical study and personal experience, I am aware of the significant influence that a physician or a physician in training has on the healthcare environment. Physician leadership expertise is needed on multiple levels, with patients and their families, care teams, colleague–to–colleague, institutional, and in national and global forums (Ackerly et al., 2011; Gonnering, 2010). Demand for improved physician leadership is a common theme in GME journals, and regular news media (Fruge et al., 2010; Rosenthal, 2015; Snell, Eagle, Van Aerde, & Lamb, 2014; The Editorial Board New York Times, 2014) and I see this in my every day work.

In 2013, I met a radiologist on a bus to the Air and Space Museum in Washington, D.C., as part of the TedMed event. He mentioned that he was a faculty mentor for radiology residents at the University of Michigan’s Medical School. I explained the focus of my doctoral program and interest in physician leadership. By the time the bus arrived at its destination, we had discussed and agreed upon the need for developing competent physician leaders. He asked that I send him a reading list for the residents; and so began my investigation of leadership awareness among medical residents.

I began to plan how I would work with residents after my discussion with the radiologist. My initial plan involved working with practicing physicians but I realized working with residents would be a better starting place for my research. There is greater potential to have impact during the period when professional identities are in a significant
learning state (Cruess, Cruess, Boudreau, Snell, & Steinert, 2014). Practicing physicians’
identities and leadership styles would be well established. Residents are still in the
learning phase of their careers. I primarily see the residents when they are working with
the attending physicians who are teaching them clinical skills. These faculty members are
surgeons or internal medicine physicians. Some residents who have worked with me as
interns on projects, have stayed in touch while they are in their residency program and
have relayed their experiences, both positive and negative. In working with new
physicians who have only recently completed their residency, my observation is that as
residents they are often put in situations where they could be leaders. Without that
awareness, they allow others to take over, resulting in perpetuation of a lack of leadership
experience. They reported having to find their own mentors to model themselves after
when assigned mentors are not a good match.

On the plane ride back to Seattle from Washington, D.C., I started thinking about
the reading list that I promised my radiologist collaborator. Handing a group of busy
medical residents a list of books to read in their “spare time” was not going to be
effective. His request seemed like an entrée into the world of residents at the University
of Michigan and I wanted to open that door wider. I developed a proposal for conducting
a pilot study with the radiology residents at the University of Michigan. The radiology
professor supported the proposal and the first study was initiated.

Preliminary Studies

Two pilot studies were completed before the final study took place. The point of
the first study was to increase the residents’ awareness of themselves as leaders,
introduce some new concepts to them, and expose the reality of their situation within the
context of leadership theory and practice. I gained significant knowledge and experience through conducting this first two-day study in Ann Arbor, Michigan. The residents from all four years of the program participated, including the chief residents (CRs), who became more aware of themselves as leaders and gained knowledge as outcomes of the study.

The second study focused on CRs specifically. As a result of the first study, I understood that chief residents have the greatest need for leadership awareness and training. Launching a second preliminary study using an Action Research (AR) framework with CRs from two different medical specialties, I obtained a better sense of how to work with chief residents to assess leadership awareness and skill. Selecting AR as the methodology was compatible with the dynamic and iterative nature of the study and allowed me to involve the CRs as participants controlling the direction of the work. AR is a method that directs the researcher through an iterative process in the trajectory of the study. After conducting two one-on-one interviews with each of three chief medical residents and one joint session with all three residents, concepts were formed for creating and implementing leadership training.

Building upon the two pilot studies and a survey of the literature, the niche for this dissertation study exploring leadership development and training among chief residents in greater depth was identified and developed. The two earlier studies reinforced the importance of leadership development experiences for chief medical residents in particular. Therefore, the planned research study for this dissertation focused on chief residents for the reasons mentioned. The chief residents feel that it is very
important that they are able to “do the things they (I) care about”, (Mendelsohn, 2015). Additional details about the preliminary studies are discussed in Chapter III.

**Research Design**

Two groups of CRs from a residency program in the Pacific Northwest Region of the United States agreed to participate in this study. The groups were from Family Medicine and Surgery programs so that a comparison of the findings by specialty would be possible. Additionally, faculty members, and program directors from within the institution were study participants. Subject matter experts from the larger region were included to give a broader perspective on the field. Interviews were conducted with all participants from November, 2014, through February, 2015.

There were two groups of CRs, outgoing chiefs (OCRs) and the incoming chiefs (ICRs). The OCRs were at the end of their year as chiefs and the ICRs were in the brief six weeks of overlap. Interactions with both groups occurred in the overlap period during May and early June. Following interviews with all of the CRs, meetings took place where the OCRs discussed their experiences as leaders with the ICRs. The ICRs then completed the Authentic Leadership Questionnaire twice. They were asked to reflect on themselves prior to the interviews for the first questionnaire, and then to think about their leadership following the sessions with the OCRs. Finally, a report was prepared and delivered to the program directors. All interviews and sessions were transcribed and analyzed using qualitative analytical software and manual methods.

The process yielded results that provided responses that were efficacious in answering the research questions. Details of the research process and study design are fully described in Chapter III.
Study Limitations

The chief medical residents, faculty, and program administrators who participated in this study were from a single institution. Even though they were from different medical specialties, the application of findings may not be generalizable to other types of residency programs or other medical specialties. By selecting participants who are chief residents, the findings may be very different than if residents from the general population were selected. The trickle-down effect of the traits of effective leadership from the chiefs to the general resident population may occur but that is not part of this study. The setting for this study was at an independent community hospital residency program. Findings may differ within an academic based residency due to the differing environment.

Key Terms

*Graduate Medical Education*

In order to become a licensed physician, a post-baccalaureate degree must be completed following graduation from an undergraduate program, usually referred to as medical school. The next phase of medical education is referred to as Graduate Medical Education or GME. To participate in a residency program, a medical student applies to programs and medical schools that offer their area of medical specialty. The residency program is the hands-on part of physician training. The student is exposed to everyday practice with patients in the hospital setting, gaining a full understanding of the realities, complexities, and tempo of medical practice. The period of time that a student is a resident depends on the program and medical specialty, but generally ranges from three to five years.
**Chief Resident**

The student who has completed medical school and enrolled in a Graduate Medical Education program in a particular medical specialty is considered a resident. They may be a medical or a surgical resident. The Chief Resident (CR) is in the final year of residency. CRs may be selected by their peers and/or faculty based on their leadership skills. In some programs such as Surgery, all final year students are Chief Residents.

**Faculty**

Practicing physicians who are known as “attending physicians” or “attendings” train residents in clinical practice in real time as well as delivering lectures and didactic courses and are considered faculty members.

**Residency Program Director**

A physician who oversees the residency program in a particular medical specialty is a Program Director. A person in this role is a practicing doctor with clinical responsibilities.

**Institutional Program Director**

The administrative person who is responsible for the overall residency program for all medical specialties and is not necessarily a physician. The institutional program director ensures that requirements set by the Accreditation Council for Graduate Medical Education (ACGME) are met by the residency programs.
Chapter II: Literature Review

Chapter II will discuss, in depth, central areas of theory and empirical literature relevant to the study. Theoretical perspectives of significance include identity theory, adult learning theory, leadership theories, and theories of organizational behavior. Following the theoretical discussion, constructs of graduate medical education specific to the residency period and leadership roles of the chief residents are related to the theories presented. A synthesis and critique of the literature provide a final summary for this section.

Theoretical Orientation

Chief residents (CRs) are in the final stages of launching their careers as physicians. The outgoing chief residents (OCRs) were in the final days of completing their last year of training when the interviews for this study occurred. They had been leaders among their peers during this period and used this time to experiment with many faceted identities. The incoming chief residents (ICRs) were in the very beginning stages of their leadership tenure as chiefs. They had observed and heard from the OCRs about their experiences and were reflecting on this as they began to formulate their own strategies for creating unique leadership/professional identities. The faculty and program directors exert some influence in the identity development of CRs but there is more to consider than the Graduate Medical Education (GME) curriculum. Organizational culture also contributes to how identity development occurs and learning takes place during this CR year.

The theoretical elements presented here form the backbone of the study design. Understanding the perspectives of individuals and marrying them with the theoretical
aspects of learning mechanics, leadership modalities, and organizational contributions were instrumental in setting the path for conducting the study.

**Social Identity Formation**

Identity is a social construct, according to theoretical assumptions (Roberts & Creary, 2012). The individual selects the various areas that resonate with them (i.e., race, gender, age, memberships in groups) forming a concept of their true self. The way identity construction occurs remains somewhat of a mystery (Ibarra, 1999). There are, however, elements of theory about identity formation that illuminate the issues that the CRs are facing in this study. Schein added the term “professional” to identity formation to describe a person who is developing an identity that is underscoring their place within their profession (Schein, 1978). Identity construction in this context includes professional, ideal, and positive identity theory. They are both pertinent to the role that the CRs play. These concepts about identity development describe how the CRs are developing coherence about themselves as leaders within the organizations of health care and GME, consistent with identity development process according to Roberts and Creary.

Development of an adapted self during identity construction can result in the creation of different versions of oneself. An experimental “provisional self” (Ibarra, 1999, p. 765) occurs and changes during the period of early career development. As the role becomes clearer, people identify important aspects of the identity they are striving towards and incorporate them, altering themselves over time. Experiential learning can act as a catalyst to begin adoption of certain characteristics of identity (Kolb & Kolb, 2009). Other behaviors that can spark identity shift include role model observation, imitation of others, and experimentation with an adapted self. Once these selves have
been tried on, the individual determines what aspects of identity will be retained and which will not. The adapted identity is just that and the individual continues to develop their preferred self. In Ibarra’s article, “Provisional Selves: Experimenting with Image and Identity in Professional Adaptation” (Ibarra, 1999), the author provides an example from a study involving medical students and describes their process of adaptation of identity once they began seeing patients. The same type of transition was occurring for the residents during this study.

**Ideal self theory.** An “ideal self” is considered a reflection of positive emotion (Boyatzis, Boyatzis, & Akrivou, 2006) and stems from the individual’s core identity. As people think about crafting their identity, they develop a personal vision about themselves which they will strive for. A person’s opportunity to realize their ideal self involves determination of the importance of it to them, their ability to determine steps to take, and how they view their ideal self as contributing to their future. Creation of an ideal self is an intentional act that drives an individual to strive towards their ambitions (Boyatzis et al., 2006). The iterative desired future, hopes for the future, and elements of the individual’s internal traits (core identity) are components of the ideal self. Setting intentions to realize an ideal self results in creation of a positive personal vision and iterative change. The value the individual places on their sense of a “calling” to their profession and career stage may affect the drive to change behavior and do the work necessary to realize an ideal self. The CRs are motivated by their views of themselves as physicians. They are at the point where they are absorbing information and observing modeled behavior, and crafting their ideal self-identities.
**Best self theory.** A “reflected best self” (Roberts, Dutton, Spreitzer, Heaphy, & Quinn, 2005) is one that involves consideration of how one views oneself when at one’s best and requires intentional action. The authors posit that realization of an extraordinary self is possible through constructing what that self would look like when considering personal qualities and characteristics. Gathering reflections of others regarding these traits is vital to this process. The next step is acting to revise one’s identity to realize this potential self through an iterative process. Through “jolts” (trigger events) (Roberts et al., 2005, p. 715) a revision of the best self is stimulated. The relational nature of how moving towards a best self occurs fits with methods CRs are considering when shaping their identities. By developing a positive sense of themselves within their socially constructed identities, revision to a “best self” model will be supported (Roberts & Creary, 2012). The residency period can be a difficult time to navigate as residents are at the bottom rung of the physician hierarchy. Incivility and disrespect towards residents from physicians atop the hierarchy and others is not uncommon (Crutcher, Szafran, Woloschuk, Chatur, & Hansen, 2011; Leape et al., 2012). Feelings of negativity can be induced, but can be mediated by positive identity constructs.

**Sociology of Professions**

As society has developed into an industrialized model of work, a hierarchy of types of work and the knowledge required for that work has emerged. Occupations became professions when jobs began to require training, testing, and licensing (Macdonald, 1995). Sociologists Max Weber and Karl Marx wrote about the theoretical development of the professions as related to the effects on society at large. Macdonald (1995) describes the motivation for formation of professional groups as interest groups
with an economic and knowledge basis. Through identification of professional groups, class system, social order, status, respectability, and culture are preserved (p. 32). Both Weber and Marx discuss the facets of knowledge leading to power within society.

The profession of medicine has the attributes described above. Advanced, complex, esoteric, arcane knowledge, and clinical skills are required to practice as a physician. Additionally, medical practice includes elements of altruism, service, and high ethical standards. A certain mythology exists around doctors and their healing powers and they have been able to command high wages to provide services, establishing physicians as a professional vocation.

**Professionalism Versus Professional Identity Development**

A working definition of professional identity “refers to the conscious awareness of one self as a worker” (Skorikov & Vondracek, 2011, p. 694). Wilson, Colwin, Johnson, and Young (2013, p. 370) define professional identity as:

- A complex structure that the individual uses to link their motivations and competencies to their career role
- The development of professional values, actions, aspirations
- An ongoing process of self-reflection on the identity of the individual

Medical professionalism is not the same as professional identity development theory (PIDT). Although the attributes of a medical professional are developed through the ongoing process of PIDT, the concept of professionalism is a belief system (Wynia, Papadakis, Sullivan, & Hafferty, 2014) that has been defined by the group of professionals. Noted physician Rachel Remen (Remen, 1999) describes professionalism as attitudes, self-expectations, and training. Calling for students to look for and
experience a sense of meaning as an approach to sustaining what it means to be a doctor and a professional, Remen is talking about PIDT.

The ACGME has strict guidelines for professional conduct of residents (Accreditation Council for Graduate Medical Education, 2015b). Unfortunately, they do not prescribe the ways in which knowledge about professional identity development is supported or modeled. As Stern and Papadakis keenly point out, faculty and physician leaders of health care training programs must exhibit the greatest degrees of professionalism borne out of their own identity formation journey (Cox, Irby, Stern, & Papadakis, 2006). Not all faculty members may be capable of creating the atmosphere for PID (Hafferty & Franks, 1994) and that should be discussed and addressed by program directors.

An integral part of PID is the capacity for reflection on one’s experiences (Ibarra, 2003). Reflection is considered critical to transformational learning (Mezirow & Taylor, 2009) in order to realize a changed perspective, which becomes the goal of learning. Schon calls for reflection among professionals as an adjunct to technical expertise and as a critical part of good teaching practice (Schon, 1983; Smith, 2011).

“Slow medicine” is a concept suggested by Wear, Zarconi, Kumagai, & Cole-Kelly (2015), specifically targeting reflection as necessary for physician identity formation. The authors discuss the significance of relationship in the practice of medicine and the loss of integrity of care when expediency is the mantra in a health care institution and does not allow time for reflection. The ACGME specifies a competency “engaging in constant self-evaluation” which includes “capacity for self-reflection (Blumenthal et al., 2012, p. 518). The ability to reflect is not specified as a competency in GME curricula.
The Relationship Centered Care course developed for physicians by Dr. Remen (R. N. Remen & Rabow, 2005) includes “connecting to humanness in yourself and in others” (p. 1167). The course is offered as a continuing medical education course (for practicing physicians) but not incorporated into GME. Patterson (2015) describes reflection as a way of seeing things as new and in that action, creating something new based on that act. This is an important concept to incorporate into professional identity development.

**Professional Identity Development Theory**

Professional identity is described as how those in a distinct profession think of themselves, in this case as doctors (Wilson et al., 2013). Ibarra (1999) adds that professional identity development (PID) is an adaptive process that continues to evolve as one considers information gleaned from interactions with others in their professional world. Relationship and reflection along with resilience are the main elements of PIDT.

Researchers within the realm of physician training have considered PIDT in relation to residents, to include the qualities of leadership within the medical profession (Cruess et al., 2014; M. D. Holden et al., 2015; Pratt, Rockmann, & Kaufmann, 2006; Wald, 2015; Wilson et al., 2013). Wilson et al. suggest that residents’ professional identity starts when they begin to interact with patients.

Identification of professional identity development as a critical element of physician training is a fairly recent development, although this area of pedagogy has been recommended as essential for the last two decades (Cruess et al., 2014). Cruess et al (2014) call for a reformation of medical education in order to include “personal experiences, reflection on these experiences, and social interactions that take place in a learning environment” (p. 1448), basic elements of PIDT. The authors insist that in order
to become a physician, not only are knowledge and skills required but an awareness of oneself as a doctor. In another discussion of the importance of incorporating identity formation as a distinct component of medical education (Jarvis-Selinger, Pratt, & Regehr, 2012), the idea of including professional identity as a competency, not unlike clinical training, is endorsed. The authors describe the process of self-identification as a mechanism for creating social behavior (p. 1189) that is essential to physician practice, both for the individual and for the groups that they are part of. The practice of medicine occurs in a social setting, working with people who are seeking medical services and teams involved in care provision, and at the same time, within an institution with social rules (Monrouxe, 2010). Support of CRs while they gather fundamental building blocks of PIDT, reflecting and reinterpreting themselves as doctors is a key driver of PIDT according to Wald (2015). Pratt and colleagues (2006) completed a study with medical residents and investigated the elements of identity construction among this group. The authors reported that identity formation reflected the participants’ self-perception. They asserted that the residents were reinventing identities that they already had, including them as part of their newer identity as physicians.

There are organizational challenges to PIDT that stem from medical center politics and affect the maintenance of professional integrity (Wald, 2015). Balancing these aspects of practice can be difficult for doctors in training. Medical educators need to be reminded that, like health care in general, professional identity for doctors is in a state of perpetual change and evolution (Monrouxe, 2010; Wilson et al., 2013). Attention to creating the atmosphere for ongoing integration of core values and self by faculty and program directors is essential (Holden et al., 2012). Stern and Papdakis spell out the
obligation of medical educators as “setting expectations, providing experiences, and evaluating outcomes” in this area (as cited in Cox et al., 2006, p.1794). “Crucial” tools to deliver to residents in training by faculty should help them cope with the stress of integrating the role of doctor within their identity (Monrouxe, 2010).

A significant amount of education in the realm of professionalism for CRs occurs in what is referred to as the “hidden curriculum,” the teaching that is done through role modeling and storytelling by faculty and other residents, affecting PID (Cox et al., 2006, p. 1796). This phenomenon has been described as the “culture of medical school” (Haidet & Stein, 2006). The unofficial rules, the way “things are done here,” and hallway conversations, are routes for information to get passed along outside of the formal curriculum in GME. Often there is a direct contradiction between what is conveyed in the formal curriculum through the hidden curriculum mechanisms. Messages that may be harmful to PID are often part of the hidden curriculum (Williams, 2016). The hidden curriculum is based on relational exchanges, not dissimilar to the mainstream curriculum (Haidet & Stein, 2006). Hafferty and Franks (1994) point out that the “who” physicians are (professional identity) gets downplayed to the “what” physicians are (clinical competence) and that this is often conveyed through the hidden curriculum. They go on to recommend that the hidden curriculum be acknowledged so that controversial information can be discussed openly in other forums.

Resilience is an integral part of PIDT. The ability to recover from stress and use those experiences to help one grow is especially important for physicians in training (Pratt et al., 2006). Opportunities to be resilient are part of their everyday experience.
Challenges to identifying and measuring outcomes in the realm of formative assessment contribute to the theoretical nature of PIDT, alluding to the idea of a best practice paradigm (Wald, 2015). Description of the components of measurement for medical professionalism are available (Arnold & Stern, 2006), but obtaining the information to ascertain one’s professional attributes are difficult at best due to inconsistent interpretations of the qualities to be measured.

Development theories describe iterative processes and certainly apply to the CRs during their year as chief resident. Feedback from others is critical to validation of provisional identities as described in the self-development theories explored here and required for a holistic view of one’s current identity state. The CRs are in the midst of determining who they want to be as professionals and leaders.

**Leadership Theory**

Leadership identity construction is considered a participative process that grants leadership and establishes followership. The relationship is not consistently stable and can change over time (DeRue & Ashford, 2010), and is a process arising from social construction (Marchiondo, Myers, & Kopelman, 2015). Social construction is grounded in knowledge and interaction with an “other,” a direct link to relational leadership theory. Ibarra (2015) asserts that people become leaders by doing leadership work, thus internalizing leadership within their professional identity, which is a necessary goal for the CRs in this study. Having a view of oneself as a leader and looking for opportunities to take a leadership role is a critical element of leadership identity construction (DeRue & Ashford, 2010). Individual internalization, relational recognition, and collective endorsement are elements also necessary (p. 629) for a person to internalize when
building leadership identity. This study has focused on developing physician leadership capacity, which is a correlate to professional identity development theory (PIDT). Leadership identity and professional identity theories are intertwined both of which apply to CRs, as they are developing their leadership and professional identities simultaneously.

In a study conducted with surgical residents (Itani, Liscum, & Brunicardi, 2004), Itani and colleagues found that the residents did not feel “competence or confidence” (p. 328) in their abilities to lead. Fruge et al. (2010) confirm that physician leadership is an area of interest for many, but little movement is made toward preparing trainees for leadership roles. The authors discuss a leadership seminar that they developed and demonstrate its’ efficacy, unfortunately, this seminar is offered only to fellows in their hematology/oncology pediatric program at their institution, a single digit number of physicians trained annually.

**Relational Leadership Theory**

Uhl-Bien and Ospina (2012) bring the constructionist view forward to describe meaning making as being a relational act. As work has changed to become “knowledge work,” relationality has increased within organizations as members come to rely on each other more for information exchange (Fletcher, 2012, p. 85). Health care in its current incarnation focuses on cutting edge technology, with daily news about the latest developments in drugs and diagnostic equipment. Although it is important to advance the field of treatment and diagnostic capabilities, the necessity for relationships among all participants in the interdisciplinary care of patients remains at the center of any process flow. Leadership in the realm of relational activities provides the context for how
organizations work towards objectives. Fletcher (2012) delineates relational practice versus malpractice as attributes for true relational leadership within organizations (p. 97).

Relational leadership theory was first articulated by Uhl-Bien in 2006 (Uhl-Bien & Ospina, 2012). One must recognize oneself as a leader and understand that becoming a leader occurs through relationship. Leadership is a relational role and is not possible without followers (Kouzes & Posner, 2006). The ways in which an individual constructs social reality and develops their identity is through interactions with others. Miller (1986) relates personal development to how “s/he is more fully related to others” (p. 2). A physician who has developed a robust identity as a doctor contributes to how others perceive them as a leader (Monrouxe, 2010). The work of CRs is overwhelmingly relational and especially in their role as leaders with interpersonal connections creating powerful potential for developing a leadership role.

Dickson, Owen, and MacCarrick (2014) describe how the Royal Australasian College of Medical Administrators incorporated the principles of relational practice into their leadership training. The authors describe leadership as “a collaborative social process” (p. 6) and endorse the concept of relational leadership as a necessary quotient in health care.

**Authentic Leadership Theory**

Seligman and Csikszentmihalyi (as cited in Seligman, Steen, Park, & Peterson, 2005) and Maslow (1962) underscored the importance of the concept of positive psychology. Luthans (2002) specifically applied the positive theory premise to organizational behavior in 2002. There has been much discussion among researchers since that time regarding the application and measurability of positive organizational
behavior (POB) versus its contribution as a mechanism to establish a foundation for future work in this area (Roberts, 2006). Luthans (2002) was adamant that organizations must move away from the “downward spiral of negativity” in organizations and towards a “proactive, positive approach emphasizing strengths” (p. 695). Avolio and Gardner (2005) went on to describe authentic leadership as genuine leadership intentionally focused on the derivation from a positive base. An authentic leader exhibits “self-awareness, unbiased processing, relational authenticity, and authentic behavior/action” (p. 317). An important correlate to this type of leadership is inspiring followership (Avolio, Gardner, Walumbwa, Luthans, & May, 2004) that supports the values of authenticity: openness, transparency in relationship, ethical action. Authentic leadership is an ideal that purports to establish honesty and good intention as the basis for leading others. Followers can see the leader’s approach as honest and one of integrity, and appreciate the consideration of the common good, increasing their likelihood of supporting the leader. Relationship has been identified as a hallmark of a competent leader within the authentic leadership model (George, 2003). Application of an authentic leadership model to health care is appropriate for the type of work that is conducted within its’ organizations. The nature of providing health care has a compassionate and caring basis. Honesty and integrity are attributes that underscore patient centered care. Interestingly, authentic leadership development has been taught in the MBA program at the Harvard Business School (Blumenthal et al., 2012), but has not been included in the GME curriculum.
Transformational Leadership Theory

Leadership in health care requires transactional and transformational skills as team based patient care has taken hold (Hu et al., n.d.). Elements of transformational leadership apply to the situation of the CRs. Inspiration and instruction are both required of leaders in this sector whether the situation is related to patient care or other strategic planning. Transformational leadership theory has the same basic elements as authentic leadership: relationship-based, transparent interaction, and follower development. Yet the focus shifts to encompass the transactional aspects of leadership in addition to the inspirational and motivational stimulation of followers (Bass & Riggio, 2006).

A moral foundation is a requisite for authentic leadership. Application of this principle to transformational leadership results in an ethical foundation from which to lead an organization (Bass & Steidlmeier, 1999) through transactional and transformational accomplishments in an organization. “Authentic transformational leadership” requires authenticity (Bass & Steidlmeier, 1999, p. 191). Bass and Steidlmeier (1999) underline this and exhort caution for “pseudo-authenticity” that is not ethical and democratic, exemplified by leaders who do not put aside personal gain for the sake of the common good (p. 181).

Development of followers into prospective leaders is another element of transformational leadership theory. The CRs are not only functioning as leaders but training the next cohort simultaneously. Based on those tasks, transformational leadership theory can be applied to them. The components of ethical and transparent leadership are left up to the individual CR.
To develop authentic leaders, role modeling that exhibits positive traits are necessary (Avolio & Gardner, 2005). Demonstration of relational transparency, taking action directly stemming from core values, and behaving true to themselves have to be apparent as a positive organizational context. This is a task that GME faculty and program directors share as well as constituents of the larger institution. It must be taken on if CRs are to be authentic in their leadership.

Absence of leadership training in GME has resulted in few physicians emerging as clinical leaders (Blumenthal et al., 2012). Several models for leadership training are described by Blumenthal et al., (2012), but it is up to the individual institution to initiate a program since it is not part of the ACGME requirements. Delineation of competency in the area of leadership training needs to be specified, according to Webb et al. (2014), to ensure that the curriculum is effective and results in development of competent leaders. The authors reviewed twenty articles detailing leadership training curricula and found little in the way of measurement of change or results. They suggest use of the United Kingdom’s National Health Service tool, the Medical Leadership Competency Framework. This research was published only in late 2014 so it is entirely likely that the lack of evaluation of leadership training in GME persists.

**Adult Learning Theory Within Organizations**

The ways an organization fosters learning that results in knowledge, depends on the experiences of the individuals and the context, both internally and externally (Argote, 2012). Argote (2012) points out several issues that can affect the learning of individuals and teams within an organization; feelings of psychological safety, quality of the relationships between the team members, stability of the team, “dexterity” of the
organization meaning its ability to foster both new task learning and the learning that occurs from task repetition and how the organization condones the learning from successes and failures. The effects of these premises for optimal learning are critically important in the case of GME.

**Learning as Opportunity**

Several educational theorists discuss the need for education deriving from the advent of industrialization (Bryant, Johnston, & Usher, 1997; Finger & Asun, 2001; Vaill, 1996). The search for humanization during the industrial period was a catalyst for postmodern education. Friere (1970) viewed education as potentially adversarial and possibly a tool of oppression. He posited that education is a form of empowerment for the individual and strongly believed in democratic ideals in the classroom. Vaill (1996) looks at the topic through the lens of the learner which he terms “learning as a way of being,” encouraging the learner to take charge (p. 21).

Single and double loop learning as described by Argyris and Schon (1974) is also pertinent to the historical methods used to teach residents in GME, particularly what they term “single loop learning” (p. 76). Learning based on error correction is considered single loop learning. Double loop learning is when a challenge to the existing process occurs and learning occurs due to that event. Smith (2011) reports that Schon viewed double loop learning as a way to expedite the process of change. Reflection in action and reflection on action were concepts that Schon referred to as attributes of the “reflective practitioner” (as cited in Smith, 2011, p. 17). He described this activity as a way to test prior knowledge that is combined with curiosity leading to growth (learning).
Social Construct of Learning

The social nature of learning is a theoretical concept introduced by Lave and Wenger (1991). As a learner joins a new group, response to sociocultural processes of the existing members creates a learning environment. This is congruent with the experience of residency where the CRs are repeatedly exposed to new and different groups and each provides a different circumstance.

Transformative Learning

Transformative learning is described as communicative learning (Mezirow & Taylor, 2009). It is a learner-centered approach that underscores values, feelings, examination of underlying assumptions, rational discourse, and consensus building. The process of reflection is a core element of transformative learning with authenticity in relationships supporting learners’ confidence to support personal growth and result in authentic action. As a participative technique, this theoretical construct features a learner-centered model.

Fostering growth of students is the goal of teaching and is demonstrated by intellectual, emotional, and ethical growth (Daloz, 2012). Taylor (as cited in Mezirow & Taylor, 2009) cautions that it must be a holistic approach within the educational institution. Transformational learning would provide a boost to GME, offering an alternative to traditional teaching methods.

Experiential learning plays a big part in GME. The ubiquitous adage about medical training goes, “See one, do one, teach one.” This model works well for technical training but is not typically applied to leadership training for physicians for obvious reasons. Being in the right place during the time that an exemplary leadership moment
occurs would be impossible given the CRs hectic schedule. In the Healer’s Art course developed by Dr. Rachel Remen (R. N. Remen & Rabow, 2005), experiential learning is applied to developing meaning and compassion for doctors, using a story telling methodology. Professionalism, fear, expertise, confidence, invulnerability, isolation, reflection, and self-healing are explored as experiential learning opportunities.

**Graduate Medical Education Application of Learning Theory**

Sklar (2014) suggests that GME in the United States is fragmented in terms of creating curricula as a holistic model. He points out the significant variation in modes of teaching and evaluation. Criticisms of teaching methods in GME are echoed by The Lancet Commission in a report regarding international education reform (Frenk et al., 2010). This group of professional and academic leaders suggests that transformative learning and a cohesive interdependent model be adopted to move medical education into the next century, beyond historical traditions in the field. They propose using transformative teaching methods to train students as change agents and leaders. Use of transformational teaching methods would replace memorization with critical thinking skills, the authors submit.

Role modeling has long been a method of education that is central to GME. Although this is considered a tried and true teaching method, evaluation of an educator’s abilities are relatively non-existent (Kenny, Mann, & MacLeod, 2003). Kenny et al. (2003) call for distinct definitions of the roles that are essential to provide high quality training in both individual and institutional role modeling. Similarly, Osmani (2013) suggests that the same conventions be applied to leadership education in medical
education; specific definitions of roles, responsibilities, and explicit methods for teaching students. (p.15).

**Organizational Behavior Theory**

Healthcare meets the definition of an organization as described by Clegg and Cooper (2008) “humans working together towards a common goal” (p.15). Though the combination of humanitarian effort and business in this case results in a many-headed hydra organizational model. An additional complicating factor is the mini organizations within the larger structure. Each medical specialty, each type of professional, as well as the divisions that provide the supporting infrastructure, all function somewhat separately. The culture of the organization reflects the individual institution and how it interprets the larger world of medicine. The organizational effect on GME reflects the overall intention of the institution and how the leadership strives to fulfill its strategic initiatives.

**Systems Theory**

Senge (2006) describes the learning organization as one in which the conditions are supportive of members’ learning. The overarching premise he depicts is organizational systems thinking, consideration of the entire organization as a system. A learning organization has adopted the systems approach and ensures that there is a shared vision permeating the culture with support for continuous learning. For residents, the mechanics of GME are determined by the institution even though the curriculum is based on the ACGME requirements. Hoff et al. (2004) suggest that Senge’s theoretical concepts are applicable in GME. Suggested changes in the curriculum delivery are delineated and take into account work life balance and adjustment of the amount of face-to-face time faculty spend with residents.
An example of the application of systems thinking to medical education has been the Teaching Scholars Program (TSP) at the University of Washington. Originally developed by David Irby, the program is not part of GME but is directed at teaching faculty in the health sciences. Launched in 1995, the program has been preparing faculty for leadership positions in an integrative manner (Robins, Ambrozy, & Pinsky, 2006). Irby has gone on to develop the program at the University of California, San Francisco (Muller & Irby, 2006). Focusing on leadership and organizational change, The TSP is cross-disciplinary in terms of medical specialties. It is proof of concept of the efficacy of an institution committing to a systems approach in teaching leadership. Participants have reported that their personal professional development has benefited from their participation in TSP. There are also benefits to the institution such as having educational leaders who role model high level leadership and who have developed innovative approaches to teaching. The TSP acts as an attractant to prospective medical educators who wish to expand their educational leadership acumen.

**Review of Research**

The theoretical works included in this study support the ways that CRs are initiated and instructed in their profession. Theories of identity development, adult learning, leadership, and organizational behavior provide an understanding of how individuals derive meaning regarding these elements and apply them during this final phase of physician training. This review suggests that theoretical works are only effective if they are put into practice and tested in a real environment. Awareness, by faculty and program directors, of the theoretical premises outlined here is crucial to planning curricula for the CRs that allow for the optimal development of professional identity and
progression towards robust leadership identity and practice. At the same time, CRs' awareness of the central core of relationship in all aspects of their work would provide a unified focus for their actions. A need for educators to spark awareness and reflection is required within the process of CR education.

The topics presented in this chapter have many elements in common, even though they are from different theoretical disciplines. The most significant common thread is the concept of relationality, permeating every element discussed.

**Synthesis of Findings**

The institution plays a large part in the construction of the ideal identity among residents (Pratt et al., 2006). The “raw materials” must be provided as well as the means to validate the construction while fulfilling the needs. Raw materials include all the theoretical frameworks made practical by example that can be provided by the faculty and program directors. Major shifts in presentation of curricula would have to occur to change the current models. The support from physicians and others to drive the change has been suggested in many of the articles cited here.

As suggested by The Lancet Commission (as cited in Frenk & Chen, 2010), the decision to change the current models of GME that best influence student learning is in the hands of the educators. Teaching hospitals are both institutions of learning and a workplace for those who are students, faculty, or program directors. Residents are in an unusual situation within the healthcare organizations where they are students and doctors.

Programs that are developed to cultivate leadership among residents continue to focus on management and leave leadership unexplored. An example is the Management and Leadership Pathway for Residents program at Duke University.
program touts the MD/MBA as the most necessary ingredient for development of
physician leaders (Ackerly et al., 2011). Leadership in theory or practice is not mentioned
as a required course of study.

The overarching path for training physicians is described in the Institute of
Medicine’s recent review of GME (Institute of Medicine, 2014):

The Pathway builds on five core principles: (1) team-based, patient-centered care;
(2) competency-based curriculum; (3) continuous, longitudinal education; (4) clinical experiences in a variety of settings; and (5) a focus on health care delivery science. (p. 47)

The Pathway regarding education is generally sound, although details of how
professional identity theory, adult learning theory, organizational behavior theory, and
leadership theory might be incorporated and applied to this pathway for GME are not
mentioned. Illustration of the disconnection between the theoretical and the practical can
be detected through review of the research.

The following figure illustrates influence that the theoretical research had on the
questions for this research study (2.1).
Within the study that follows, evidence supporting theoretical assumptions has been provided. The practice of identity development, learning methods, leadership types, and organizational behavior constructs are described in the following chapters. The next chapter depicts the research study and delineates how these theoretical premises were critical in the design of the study.

*Figure 2.1. Intersection of theoretical perspectives and resulting questions.*
Chapter III: Methodology/Guiding Questions and Research Procedures

Introduction

This chapter outlines methodologies used to conduct the dissertation study as well as two pilot studies. First, I provide an overview of two pilot studies that examined resident training in leadership and their awareness of themselves as leaders. Second, I describe the methodology used for the final study. Documents that were used in the studies can be found in the appendices.

Background and Aims

The focus of this research study was to investigate physician leadership and professional identity formation among chief medical residents (CRs), in order to learn how to influence and change/augment Graduate Medical Education curriculum. If the CRs have a mechanism to recognize their “best self” (Roberts et al., 2005, p. 712) as a leader and incorporate this into their overall professional leadership identity, this would result in an increased awareness of themselves as leaders enabling them to call on this “best self” throughout their work. Several recent studies have examined professional identity development among medical students and residents (Cox et al., 2006; Pratt et al., 2006; Wald, 2015; Wilson et al., 2013). The current study builds upon this research by exploring how chief residents develop a greater awareness of their leadership identities. Through a combination of interviews and observations, this dissertation generates insight into how training experiences during residency can help prepare chief residents for physician leadership throughout their careers.
Action Research Selection

The overarching methodology used for the first pilot and final study was Action Research (AR). This framework was selected because it is a dynamic, iterative process for creating change. The steps used to determine a plan for an AR study include:

1. Developing a plan of action to improve what is already happening
2. Implementing the plan
3. Observing the effects of the action in the context in which it occurs
4. Reflecting on these effects as a basis for further planning, subsequent action and on, through a succession of cycles. (Herr & Anderson, 2015, p. 5)

AR is a democratic process that supports organizational change. Horton and Friere (1990, p.97) discuss fostering a spirit of change whereby participants can arrive at the ideas and solutions that will work for them in their efforts at social transformation. As the goal for this research was to effect real change, the AR method was a logical choice.

Several factors were taken into consideration, given my connection as an employee of the medical institution in which the research took place. One caution of using AR is the possibility of the institution’s unwillingness to change and unlearn (Coghlan & Brannick, 2014). Through inclusion of the program directors and faculty prior to the study initiation, agreement regarding the need for leadership training was a consensus among this group. Additionally, the researcher’s dedication to the organization and desire for change as a result of the study drives the researcher’s commitment to the research plan. Given institutional demands, my research plan had to remain flexible, yet adherent to my primary premise. Another consideration is that the iterative process might not proceed in the manner expected and the consequences that might have on the study. While these considerations were a likely source of bias, they could have the effect of
enhancing the carrying out of the study by increasing the researcher’s and institution’s commitment to the success of the study.

The predominant methodology remains AR, which can include quantitative, qualitative, and mixed methods as elements of study processes. Creswell and Clark (2007) describe the types of mixed method designs for research and the rationale behind each type (p.151). The explanatory, exploratory, and transformative designs fit within the goals of this study. Explanatory aspects of the study provide the opportunity for detailed results in terms of the participants and their life world. Relationship quality was an important aspect of the Action Research method. Intentional fostering of relationships with all study participants was necessary to result in meaningful data collection. The results of the study have been utilized to underscore the participants’ views and visions for the future. An exploratory mechanism allowed some generalization to other situations. The transformative aspect of the design enabled the participants to make discoveries within the study period during opportunities for self-reflection. They were then able to apply the experience to their own paths to promote change in terms of identity, awareness, and training going forward.

**Mixed Methods Components**

Techniques and tools of qualitative methodology were included in the studies such as Appreciative Inquiry (AI). This method was selected because of the positive frame and social justice perspective. The founders of the AI framework, David Cooperider and Suresh Srivastvra, identified a cycle of inquiry: Discovery, dream, design, and destiny (as cited in Whitney & Troseten-Bloom, 2010). Beginning with discovery, a change topic is identified and explored. Next, the group “dreams” of the
future with no holds barred. A design for change is developed and an action plan created. The use of AI is a way of eliciting true concerns as it “builds cooperative capacity, gives direction, and signals possibility” (Barrett & Fry, 2008, p. vii). I applied this method to the development of the interview guides.

Although AR guided the structure of the interventions, in order to describe the context of the residency program and aspects of its culture, an ethnographic methodology using field study and participant observation techniques was included. Qualitative, semi-structured interview guides were used with residents, incoming and outgoing chief residents, faculty, and administrators based on AI methods.

Additionally, specific quantitative data was gathered through the use of survey instruments in the first and final studies, which ultimately defined the methodology as mixed methods (Creswell, 2003).

**Preliminary Studies**

Two preliminary studies informed the design of the dissertation. In the following section, I describe the methods and findings of each pilot (preliminary) study.

**Study 1**

The first preliminary study was conducted at the University of Michigan in 2014. Radiology residents from all four years of the residency training program (twenty out of forty-four residents), the program director, and a faculty member were participants. Residents were identified by gender and program year. Resident participation was solicited by the program director during their regularly scheduled instructional period.

The pilot study began with two focus groups; the first with the program director and faculty member; the second with seven residents (including two CRs) and the program
director. Focus groups generated the data needed to formulate a syllabus for two sessions with the residents. Following the focus groups, I worked with the faculty member to modify an initial outline to make it more pertinent to the group. The sessions were one hour in length over two consecutive days and titled, “The Social Science of Medicine”. The original plan to use Kouzes and Posner’s Leadership Practices Inventory (Kouzes & Posner, 2003) tool with the residents was reconsidered. The faculty member felt the residents were “over-surveyed” and the data would be skewed if the tool were used, so it was discarded. I developed a set of open-ended questions that would give the residents an opportunity to reflect on their learning over the course of the sessions. The curriculum included aspects of complexity theory, organizational change, leadership theory, physician leadership specific content, dignity, respect, and adult learning theory. I facilitated both sessions. The following set of questions was posed to the residents at the end of each session and they submitted their responses in writing:

1. What has resonated with you today as we have discussed leadership?
2. Anything surprising?
3. How has today been different than you expected it to be?
4. What did you learn about yourself?

Four common themes emerged from the responses: self-awareness, ability, identity, and learning about leadership. After the first session, I met again with the faculty member and revised the plan for session 2 based on the experience and data collected from session 1. The same open-ended questions were posed following session 2. There was a shift in the responses but most notably a significant increase in self-assessed leadership
awareness and knowledge from the first session to the second, showing an increase by the end of day two (Figure 3.1).

During analysis of the study outcomes, elements of time and methods were examined. This study was conducted over a very short time period (two ninety minute sessions). A greater amount of time with the CRs might have yielded greater specificity in data collection. Also, choosing a more participatory research method such as AR might have led to identification of the gaps in training and result in a needs assessment regarding this area of the GME experience.

Figure 3.1. Change in leadership knowledge.

The higher scores on the post session assessment in the “awareness of leadership knowledge” section might indicate a lack of awareness or overestimation of leadership knowledge. These scores may also reflect a pre-test effect, indicating that the residents had foreknowledge that this would be an expectation of them. The residents were engaged and interactive in the sessions and clearly indicated their interest. The quality of
mentorship was identified as an area needing improvement. Residents expressed a desire for more opportunities to talk about their roles as leaders, and how they are taught and mentored in areas related to physician leadership. The importance of working with chief residents, specifically, became apparent during this study due to their leadership role within their program and their desires to have the appropriate training and skills to perform as a leader.

Study 2

The second preliminary study was conducted at a Medical Center in the Northwest region of the United States in December, 2014. This is an independent graduate medical education program, meaning that it is not part of a medical school. In the case of an independent residency program, the medical students who apply have attended medical school at accredited schools and universities throughout the world. The independent program is hospital based and considered a primary clinical site for training. The length of residency programs differs depending on the medical specialty selected by the student.

The participants for this study were two chief residents (CRs) from the Family Medicine program and one from Surgery. From a list of residents provided by the assistant residency director, I targeted these CRs specifically. The CRs had been in their program at the same location for two years in the Family Medicine program and four years for the Surgery CR program prior to becoming chiefs, with knowledge of the institution was fairly complete.

The objective was to compare the experience of CRs from different medical specialties. These two programs (Family Medicine and Surgery) are the largest at this
institution. Based on lessons learned through preliminary study 1, the second pilot study employed a different methodology. Following a review of positive organizational behavior research, and a desire to create opportunities for the residents to flourish (Dutton, Roberts, & Bednar, 2010; Luthans, 2002; Seligman et al., 2005) and find their “reflected best self” (Roberts et al., 2005), open-ended, and positive facing questions were developed based on the Appreciative Inquiry model. The aim of this study was to engage the CRs in a discussion of their experience of leadership during their mid-year mark as chiefs.

Two interview sessions were conducted over a one-month period with all three CRs. The first interview consisted of questions about their roles as chief resident and leader. In the second interview, I asked them to reflect on their thoughts and actions since our first meeting, to probe further into their reflections and gather recommendations for changes in their program’s system of education regarding leadership. In the Family Medicine program, there are two co-chiefs. The first interviews with the Family Medicine co-chiefs were conducted with them individually, and the remaining two interviews were conducted jointly. The single Surgery CR interview was conducted individually. The interviews occurred in several different areas that are inhabited solely by residents. The rooms had the ambience of a place that is well used by people who are too busy to do much more than eat a quick snack while checking on patients’ lab values and imaging study reports.

The most significant finding of this study was that simply by engaging the CRs in conversation about their leadership experience, an intervention occurred. After the first
interview, they became more aware of their leadership activities, and began to make changes that they felt were positive and that led to greater confidence in their roles.

Their commitment to the program, role as chief, and becoming a doctor was evident. At the same time, they struggled with the mechanics and lack of training for the job of chief resident. “No one teaches you how to do it,” one participant remarked. In the second interview, one of the CRs from Family Medicine said:

I hadn’t really stopped at all to think about how being a chief was going or how I was being successful. I went back to a to-do list from the beginning of the year to see what we wanted to change and got reinvigorated about some stuff that we are now making plans to move forward on.

Another CR reported at the second interview that “I am paying more attention to how people say things, communicate among each other, and the way that they listen.”

Through the stimulus of the interviews, this CR had returned to the big picture of her role that she started the year with. The quotes from this pilot study suggest that it facilitated meaning-making of leadership experiences for Chief Residents. The literature on medical training indicates that meaning-making is an important component of establishing a professional identity as a physician (Jarvis-Selinger et al., 2012; Monrouxe, 2010; Sklar, 2014).

These CR’s identified significant gaps in their dedicated leadership. They described on the job training and little overlap with the outgoing chiefs. All three of them mentioned the word “navigation” when discussing ways to improve their experiences preparing for and during their first days in the leadership role. This indicated they wanted a better sense of understanding the specifics of the role and some type of guidance. Better tools that could help them navigate their relationships with other residents and faculty would have been helpful (i.e., conflict resolution training). The desire for better
navigational tools referred to their relationships with others, both other residents and faculty. Some facets of this may be specific to their generation. Millennials, in general, want to establish relationships and then create community as soon as possible when entering into a new group (Conklin, 2012). The CRs discussed the need for feedback and how that would lead to critical reflection of their roles. As medical practitioners they all described feeling confident in taking the lead on complex cases with other team members as well as with patients and family members. They did not express this same level of comfort when discussing interactions with those they were teaching or in their relationships with their supervisors (attending physicians). Authentic relational leadership understanding, and skills that are transformational and transactional, were mentioned as types of leadership skills the CRs wanted to develop to enhance their roles as chiefs and as they move towards becoming practicing physicians. In both roles, they need to be able to get the work done (transactional) and inspire others to work towards bigger picture goals (transformational). Wald (2015) talks about the “connectivist” approach missing in medical education, describing the importance of relationship in all aspects of the practice of medicine (p.704). Success in this realm will also lead to authentic followership (Avolio & Gardner, 2005). There is a two-fold overarching role for the CRs: instruct and inspire. To be a leader who can accomplish both of these objectives the CRs need an educational foundation to support them. A move towards Authentic Leadership practices coupled with self-awareness would contribute to their success as chiefs and bring benefit to followers (more junior residents). As one of the residents commented during the study, “You are preparing yourself to be a force.” In order to accomplish this, the CRs were
asking for preparation and guidance. Results from these two preceding pilot studies guided methodology for the dissertation study.

**The Dissertation Study**

Exploration of how chief residents (CR) develop physician leadership identity and awareness, and experience training as leaders, was the specific subject of this research study. This study extends beyond the preliminary studies through developing a model that was co-created by the outgoing CRs to deliver leadership training to the incoming group.

This study involved the Surgery and Family Medicine residency programs at the same independent, accredited residency training program as Preliminary Study 2. Three of the CRs participated in both Preliminary Study 2 and the dissertation study. The Family Medicine Program operates at two distinct campuses, referred to as Campus I and Campus II, while the Surgery Program has only one program at Campus I. All of the campus programs are part of the larger institutional residency program and overseen by a single administration.

All of the Surgery residents are chiefs during their fifth and final year. The Family Medicine residents are selected as chiefs by their peers towards the end of their second year and will be CRs during their third and final year. CRs were selected as focal points in this study because they have been appointed as leaders for the residents at large in their specialty program. They have the most to gain from leadership awareness and training due to their assigned roles as leaders. This is not to say that other residents would not benefit from leadership education, but the CRs can put the awareness and skills to work
right away and achieve results more expeditiously, in their roles, to instruct and inspire the other residents.

Specific individuals included in the study were outgoing chief residents, incoming chief residents, non-chief residents, faculty members, and department specific administrators. The Chief Medical Officer and Director of Care Transformation were also included to provide an overview of the institution’s commitment to leadership education (Table 4.1).

Additionally, subject matter experts from other academic and independent medical education programs were interviewed in order to provide the “big picture” of the current state of leadership training for medical residents in the United States, particularly in this region.

A total of thirty-four interviews were conducted overall: Twenty-seven among institutional study participants, and the remaining seven among subject matter experts from other independent and academic graduate medical education programs.

**Methodology Selection**

I selected the methods for this study to enable my understanding of the ways that the CRs are making sense of their world as physicians and leaders and the context within which they are functioning. The experiences of the pilot studies informed these choices. By combining and examining all of the interviews, a well-rounded view of program elements, perceptions of all CRs, faculty, and program directors, data were collected to answer the research questions. Neglecting either qualitative or quantitative methods in this instance would result in less robust findings in terms of understanding the current
state and potential opportunities for a future state. Using a participatory worldview, this study design was collaborative and provided the opportunity to change the status quo.

Action Research was the overarching framework for the study design. I also considered the essential tenets of Collaborative Inquiry, a method of transformative learning described by Mezirow (Mezirow & Taylor, 2009), while crafting this research study. Mezirow describes ten phases of learning outlined in this method:

A disorienting dilemma, self-examination, a critical assessment of assumptions, recognition of a connection between one’s discontent and the process of transformation, exploration of options for new roles, relationships and action, planning a course of action, acquiring knowledge and skills for implementing one’s plan, provisional trying on of new roles, building competence and self-confidence in new roles and relationships and reintegration into one’s life on the basis of conditions dictated by one’s new perspective. (p. 19)

Appreciative Inquiry premises were used in the formulation of the interview questions that followed a pattern through the use of positive focus of inquiry, story-telling that revealed strengths for the individuals, identifying themes and exploring them further through questioning, and developing the participants visions for and ways to create their preferred future.

The Authentic Leadership Questionnaire (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008) was selected as a means to review the incoming CRs assimilation of the information imparted onto them by the outgoing CRs. The questionnaire allowed me to see how it changed or did not change their view of themselves as leaders. Authentic leaders have an awareness of their behavior, how their values and strengths apply within the context of their world and, at the same time, are cognizant of how others operate within the same framework. They exhibit characteristics of confidence, hope, optimism, resiliency and high moral character (Cameron, Dutton, &
Quinn, 2003). Authentic leaders are relational leaders and develop authentic followers. These characteristics are those that physician leaders need to be effective in the complex system that delivers health care. Luthans and Avolio (2005) conducted psychometric validation of The Authentic Leadership Questionnaire (ALQ) and described their methodology in intricate detail in *Authentic Leadership: Development and Validation of a Theory-Based Measure*. Walumbwa et al. (2008) conducted three separate tests of the instrument, using confirmatory factor analysis to demonstrate the predictive validity of the instrument. The authors compared the fit using three different factor structures employing chi-square, comparative fit index, and root mean square error of approximation. The tests of the instruments met the established standards for validity.

The demographic attributes of the participants in these tests differed from those in this study in terms of the demographics. The studies that Walumbwa et al. conducted intentionally included ethnic diversity while this dissertation research study did not include significant diversity in terms of ethnicity in the participant pool. An average age of thirty was among participants in the studies by Walumbwa et al., similar to this study’s participants in this research study. In the sample participants that Walumbwa et al included, only 50% of participants were college educated, whereas all participants in this study completed college and were currently enrolled in post-graduate education. The applicability of the use of the ALQ in this study is applicable based on the conclusions reached by Luthans and Avolio (as cited in Cameron, Dutton, & Quinn, 2003) in the summary of their research. Walumbwa et al. concluded that through testing of the instrument with a large sample of followers and leaders within a broad range of organizations, the use of the ALQ would be applicable to other settings (2008, p.120).
Similar to this study, Walumbwa et al. utilized a pre- and post-testing model to administer different aspects of the ALQ for validation. Walumbwa et al. (2008) noted concern about collecting data from different points in time from participants in terms of self-report biases (p.119), a consideration for this study. In order to prevent pre-test bias, I chose to administer the pre and post ALQ to the ICRs at the same time. Following the sessions with the OCRs, the ICRs were given two copies of the questionnaire with one marked “pre-session” and one marked “post-session.” The instruction to the ICRs was to complete the pre-session version as they reflected on their own leadership prior to the interview with me and the session with the OCR. They were then asked to complete the post-session questionnaire as they saw themselves after the interview and session had occurred. The questionnaires were completed individually, without communication with other ICRs.

Processes

The design of this study was based on the two pilot studies with refinements identified during the planning period. Table 4.1 contains the schedule of the study process and can be found in the Results section (p. 66). After obtaining Institutional Review Board approval, I convened meetings with the Residency Program Administrators, both the institutional group and the medical specialty leaders, to explain the basis for the study and gain agreement to proceed. They were also consulted regarding the selection of participants. I then scheduled individual interviews with each of the chief residents, several other residents, program directors and faculty.
Beginning the Data Collection

Initial meetings with the Program Directors of the Surgery and Family Medicine departments yielded the agreement for resident participation in the study and discussions contributing to understanding the background of the programs. Study consents approved by the Internal Review Board were reviewed during these meetings. The Program Directors were in enthusiastic support of the study and agreed to lend their names to an email invitation for participation that I sent to all of the current CRs and future CRs requesting their participation in the study and copied to their program director. A list of all incoming and outgoing chief residents was provided by the Assistant Program Director in order to identify them and their program affiliation. There were a total of eight Family Medicine chiefs (four outgoing and four incoming) and six from Surgery (three outgoing and three incoming).

Recruitment

Between May and mid-June, 2015, outgoing and incoming chief resident interviews took place. Each received an email from me outlining the study and requesting their participation. Many emails, texts, and phone calls were exchanged before the time could be set. Very often, the time was set within minutes of the interview with the participant. It was helpful to have the support of the CRs who had participated in Pilot Study 2 to encourage the others and assure them that the experience that they had was interesting and to their benefit. The length of time allowed for the interview was completely dependent on the participants’ availability at that time, which was uncertain when the scheduling was done. The outgoing CRs ended their roles as chiefs as of June 30th so those interviews as well as the final sessions had to occur before that date.
**Interviews With Chief Residents**

The meetings lasted between ten and forty minutes, driven by individual participants and their time constraints. The questions were unknown to participants prior to the interviews, although they were aware that the interviews were about leadership. Each interview was slightly different in terms of place, time of day, and time allotted for the interview due to the nature of all of the participants’ extremely hectic schedules.

Interviews were initiated with a reiteration about the purposes and goals of the research study. All participants agreed to the approved IRB consent provided. Anonymity and confidentiality of the interview content and documentation was restated. The participants were informed that they would receive the transcription of their interview for approval to be used for the second part of the study. Once initial interviews were complete, sessions with outgoing and incoming chiefs together were scheduled. The time between interviews and sessions was between one and three weeks, depending on the participants’ availability.

**Change to Plan**

The planned study trajectory was to convene meetings with outgoing chiefs to review their interview transcripts and determine how they would conduct the meeting with incoming chiefs. Meetings would be planned during which the outgoing and incoming chiefs would discuss peak leadership experiences of the outgoing chiefs. The plan included the incoming chiefs’ review of their own interview transcripts and discussion of their understanding and application of what had been imparted by the outgoing chiefs. I then planned to have a meeting with the Program Directors so that the outgoing CRs would present their ideas for transmitting leadership training to the
incoming CRs. Then, the outgoing CRs would conduct their planned session with the incoming CRs. Following this, the incoming CRs would complete the Authentic Leadership Questionnaire.

This plan had to be changed when it became apparent that the time available for anything besides the work of being chief resident was extremely limited at this time of year, during this brief time of overlap between the incoming and outgoing CRs. The iterative session design could not be accomplished, resulting in restructuring of the session for both groups to meet on the same day. The process that took place was designed as follows:

- Fifteen minute meetings with outgoing CRS during which they reviewed the transcript of their interview, and discussed the salient points about their experience as leaders that they wanted to relay to the incoming group
- Thirty minute meetings with both incoming and outgoing CRS during which the outgoing chiefs discussed their leadership experiences and learning with the incoming chiefs
- Fifteen minute meetings with the incoming CRs to discuss their reactions to the previous meeting and completion of the Authentic Leadership Questionnaire,
  (a) reflecting on their leadership before their individual initial interview and
  (b) after the meeting with the outgoing chiefs

An additional change in the plan developed when it became clear that there was not time to include the program directors in the session planning process. Meetings with them following the completion of the sessions were then scheduled to review the study
outcomes and investigate how they would incorporate the findings into the planning for leadership education and professional development for the residents going forward.

The goals of the study were slightly modified due to this change in the study plan, in terms of identification of a model for CR training in leadership. The effect of the OCRs meeting with the ICRs was still tantamount to the study but changed direction. The iterative piece that is native to AR occurred when the OCRs reflected on their responses during the interviews and determination of what they would impart to the ICRs. This meant that the program directors would be hearing about the sessions and the outcomes, not participating in the design of the intervention. The study integrity appeared not to be changed by this turn of events. It was a natural progression within an AR study. The work of the study would remain a catalyst for change (Herr & Anderson, 2015)

**Faculty and Program Directors Interview Process**

The faculty and program directors are just as busy as the CRs. In addition to their roles as program directors and teachers, they are also practicing physicians. The interviews with the program directors occurred when faculty were available throughout the study period, again fairly ad hoc. These interviews lasted between ten and forty minutes, driven by the participant and took place between May and August, 2015. Similar to the CRS, the questions were not known to the participants prior to the interviews, although they were aware that the interviews were about leadership.

**Interviews With Other Residents**

Single interviews were conducted with non-chief residents to elicit their perceptions of the CRs. These interviews occurred after the final sessions with the CRs had been completed in June. A separate interview guide was created for this group.
Table 3.2.

*Study Detail Following Change in Plan*

<table>
<thead>
<tr>
<th>Incoming CR</th>
<th>Outgoing CR</th>
<th>Faculty, Program Administration</th>
<th>Other Residents</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1 Interview</td>
<td>Attend session with Outgoing CR</td>
<td>Attend session with Researcher, review transcript and plan for session with Incoming CRs (with Outgoing CR co-chief if applicable)</td>
<td>Facilitate, record, create memos, and analyze all meetings</td>
<td>Conduct interviews with subject matter experts</td>
</tr>
<tr>
<td>Attend session with Researcher, review of transcript of interview and session</td>
<td>Complete Authentic Leadership Surveys</td>
<td>Direct session with Incoming CRs</td>
<td>1:1 Interview with Researcher to review findings and plan for next steps</td>
<td>1:1 Interview</td>
</tr>
</tbody>
</table>

*Interviews With the Chief Medical Officer and Director of Care Transformation*

Both of these individuals are of utmost importance in the realm of education for residents in terms of leadership training, serving as the primary institutional leaders. The program directors all report to the Chief Medical Officer. The Director of Care Transformation’s role encompasses oversight of the Hospitalists (doctors whose practice focus is complex cases of hospitalized patients) and the overall strategies that will meet the institutional goals of physician practice.

Interviews with these two executives involved individual meetings. They both were intrigued by my research study, making themselves available in a timely manner.
Reporting Results to Program Directors

Once all of the chief resident, faculty, and program director interviews were complete and final sessions conducted, I arranged meetings with the program directors to present the research findings in August, 2015. Due to time constraints, it was not possible to have them all together in one meeting so several meetings were scheduled over a two weeks period. Topics were discussed as outlined in a five-page handout (See Appendix D to review the complete report). The “Competing Values Framework” (Quinn, 2015) was included since many of the conclusions of the study referred to values balancing and leadership among the chief residents. The prioritization of the daily functions of the CRs and how they fit into their values framework is ever present. This was a mechanism to extend the Action Research framework to define next steps in the iterative process.

One of the most important considerations in reaching the goals of this research was ensuring that the results are considered by those who would and could use the information for reflection and change (Patton, 2008). The value for participants and stakeholders must be evident and useful. Patton (2008) uses three questions to get to the essence of evaluation: “What? So what? Now what?” (p. 5). A significant premise of AR that Lewin (1946) espoused is to consider the act of participatory research as a responsibility to the general public, not merely an academic exercise. The concept of involving people in developing the mechanisms and goals of change that directly relate to their welfare is based on democratic principles of participation and involvement. The same tenets apply to the findings and future recommendations that emerge from an AR study such as this one.
Subject Matter Expert Interviews

Setting the context within the larger schema of Graduate Medical Education, the background for the study was investigated through interviews with subject matter experts. For the subject matter expert interviews, a set of questions were developed and tested by conducting some pre-study interviews of the identified participants. All of these interviews used open-ended questions. The following individuals were selected because of their proficiency in their field and proximity to the Pacific Northwest:

- Residency program directors at the University of California, San Francisco and Davis
- Directors and faculty of medical teaching programs that include leadership from the University of California, San Francisco, and University of Washington
- Thought leaders regarding leadership and professional identity scholarship and practice in medical education (Bruce Avolio-Leadership scholar and practitioner, Michael Rabow, M.D.- works with residents in Dr. Rachel Remen’s Institute for the Study of Health and Wellness at Commonweal and has co-authored several papers with her on the topic)
- Director of education for the Accreditation Council for Graduate Medical Education

Mechanics of Interview Analysis Process

1. An interview guide (Appendices A and B) was used for each interview. Variations on the scripted questions were posed as the interviews proceeded, using a semi-structured technique of qualitative inquiry.

2. Each of the interviews was audio taped following consent of the participant.
3. Using Evernote software, interviews were transcribed.

4. Once transcription was complete, the interviews were coded.

1) PDF files were uploaded to the NVivo 10 software platform for coding and manual coding was also completed according to meaning, content, and interpretation (Kvale, 2008).

**Empirical Evidence**

In addition to the interviews with the participants, observation of the CRs while they were working in their role was planned. After discussing this with the CRs and the Program Directors, it was suggested that instead of shadowing them that I attend faculty/CR meetings. This was arranged and I was able to sit in on the Family Medicine weekly meeting and the Surgery Morbidity and Mortality conference. Both of these meetings are central to the CR role and gave a glimpse into the types and qualities of the relationships that are at play between faculty, program directors, and CRs. The agendas involve the CRs as presenters of health issues of patients and their leadership role with the other residents. Both negatives and positives regarding the patients’ situations were examined in detail. All parties present contributed to the reviews. The discussions at both of these meetings were strictly confidential so details about the content may not be revealed. I was asked to sign a confidentiality agreement because patient specific information was presented and discussed. For purposes of the study, it was a rare opportunity to see how the interactions manifest themselves within the work of the CRs on a first hand basis.
Positionality of the Researcher and Ethical Implications

“Knowledge production is never neutral, but rather is always pursued with some interest in mind” is a truism that is attributed to Habermas (as cited in Herr & Anderson, 2015, p. 34). As I pursued this course of research and study, my obligation was not to insert myself into the situation but to facilitate the change that is designed by the participants. Remaining true to the effort of unbiased data collection and reporting is critical to valuable, meaningful research. My role throughout this study was to maintain the integrity of the data collected and act as a facilitator, not a problem solver. The culture of medicine has been established in the US over more than a century. For example, the acceptance of women as physicians is somewhat recent in an historical context and is a good example of the slowness of change within the medical profession. It would be naïve to think that the drive to maintain power that has not always been used for positive outcomes would wane because of well-intentioned suggestions about ways to improve the lot of chief medical residents.

Self-reflection plays a key part in AR and was a cornerstone of the research process for study participants as well as my role as researcher. Self-reflection and acknowledgement of myself as a researcher was repeatedly considered and incorporated into my methodology (Bentz & Shapiro, 1998). I wanted to ensure that the CRs discussed their experiences without my inflicting bias towards specific responses. Reflection on the process and analysis of my biases on a daily basis was of primary concern. Since I am a part of the organization, albeit peripheral to this area, I had to pay attention to politics that may cause conflict within the institution (Coghlan & Brannick, 2014). My impartiality was of foremost concern. However, I was somewhat influenced by my personal values
and ethical standards, without a doubt. As Berger and Luckmann (1966) emphasize, “Knowledge must always be knowledge from a certain position” (p.10). As much as possible, I strove to keep this in mind throughout the study.

As a researcher I intended to maintain self-awareness during the interview process and make interpretations as unbiased as I was able, noting my own context and potential areas for misunderstanding. By choosing to transcribe the interviews myself, I found that repeated exposure to the comments provide a rich backdrop for my thinking about the study. All interviews were conducted with dignity and respect towards the participants.

Any possible harm that might have occurred to the CRs could have been identified as psychological stress due to probing their actions and thoughts regarding their work. Services were available at the institution for counseling and were explicitly made known through the consent process to ensure their safety.

Conclusion

As this study progressed, it was necessary to be flexible about the process of conducting a situational study encompassing the unique circumstances of this particular setting (Stake, 1995), while gathering the data from a relatively large number of individuals. To accurately understand the context and retain the premises of Action Research was challenging at times. An over-estimation by program directors, faculty, and chief residents, of their capacity to carry out the original study design was a challenge. AR is a look at living human action (Coghlan & Brannick, 2014) and that dynamic situation will change in an ongoing way, regardless of planning. The change agent, in this case myself as the researcher, has to change in order to achieve the purpose of the study. The research itself involved participants who were interactive and solitary at the same
time. This was a look at the institution as much as it was about the individuals who participated. It was about the whole of healthcare as well as the individual institution. Although part of the raison d’etre for the study is to provide insights to others for further study, this research includes my own interpretations and insights and may not be entirely replicable. I have been true to the tenets of AR and it has changed me.
Chapter IV: Results

Chapter IV contains a description of the final study detail, processes of data collection, and analysis. My personal reflections on the conversations and observations that I made during the study period are documented. I acted as the primary data collection instrument. In addition to interviews and meetings with the CRs, inclusion of interviews with program directors and faculty contributed to the representation of the current state by those who are designing and conducting the GME curriculum. Experts in GME outside of the institution where the study took place provided insights into the larger picture of leadership education and GME philosophy specifically for residents. The research was conducted using interviews, observations, meetings, and use of the Authentic Leadership Questionnaire within a framework of Action Research.

The study was not carried out over a long period of time due to the brief overlap between the outgoing and incoming CRs. The aims of the study would not have been met if the time period varied because it was essential to understanding the CRs during the duration of changeover.

The insights that were derived from this study are unique in terms of the candor and sharing of details of the inner views from the participants. Other studies in physician leadership and professional identity formation focus on program design, primarily by those who are not the learners. This study resulted in the intimate and honest reflections of the CRs themselves and the focused attention of the faculty and program directors.

Because of my role in healthcare administration, I made many assumptions about the current state of leadership training and the role of the CRs. I had based my formative ideas on a few observations, my own pilot studies, reading research studies done by
others, articles on the topic, and things I had heard from physicians and other residents. I learned so much about the actual lived experience of CRs from this study. Before I began this study, I had predicted outcomes. The outcomes that were realized answer the research questions in a more enlightened and different way than I imagined at that time. As an Action Research (AR) study, the process was iterative which had this effect by design.

AR was selected because of the dynamic and iterative nature of the methodological framework. One of my goals from the very beginning was to have the participants guide and direct the research, in ways that made it their own, allowing them to craft change within their social environment resulting in practical benefit. Relationship plays a vital role in AR, as it became a focus in the leadership discussions and findings in this study. Relationships and awareness of leadership constructs between all institutional participants evolved over the course of the study. As the study progressed, my conception of the research was filtered by the reality of the work of the participants. My role in the study became one of inspiring learning as the study progressed. Although the topic of leadership was not chosen by the participants, but they were able to use their experience, understanding, and judgment to begin solving the problem of lack of leadership training and awareness while generating new knowledge about the issue (Coghlan & Brannick, 2014). This course of action is consistent with AR methods and would not have emerged using traditional research methods. Barriers to AR that are typically found in health care research (i.e., lack of time, reluctance to change, and commitment) were present in this study (Hughes, 2008, p. 391). Regarding the cyclical nature of AR, the resulting structure of this study included one cycle of inquiry and change. Future research work in this
institution will result in further cycles of evolution and are planned for the future (see Afterword).

**Overview of Findings**

Over the course of the interviews and meetings involved in this study, a story about the bigger picture of GME began to form. Leadership awareness was inextricably linked to the larger frame of role and professional identity for all of the participants. One of the most important aspects of this unique study was the exploration of the chief residents’ experience in their own words as they learned about themselves as well as their role as CR. They described their day-to-day work and most of them were reflecting on how they do that work, for the first time. The CRs began to examine the actions of problem solving, enabling others, teaching, advocacy for other residents and patients, and ways that they hoped to or have achieved change in the leadership role of a chief resident as well as in the arena of patient care. Several of the CRs and faculty mentioned their role in terms of “privilege” and their dedication to social justice.

Differences and similarities in the medical specialties of surgery and family medicine emerged in the ways in which the work of medicine is done, although techniques used by one group might be adapted to serve the other group.

Elements of change in their self-concepts and self-awareness of themselves as leaders occurred for the majority of the CRs over the course of the study. The exceptions were CRs who felt their experience of being chief has been or will be negative and simply something to get through. These results were reported in each of the final sessions with the CRs. In the final sessions with the program directors, corroboration of the findings was achieved. Change to the leadership training for the CRs was discussed and
promised in the future. The need for self-awareness of the CRs as leaders was acknowledged but it was not addressed as something the institution currently knows how to provide.

**Study Interactions**

In total, thirty-four interviews were conducted in this study with different participants between May and August, 2015 (Table 4.1).

Table 4.1.

*Interview Summary*

<table>
<thead>
<tr>
<th>Participant Role</th>
<th>Family Medicine</th>
<th>Surgery</th>
<th>Other Affiliation</th>
<th>Total (n=34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outgoing Chief Residents</td>
<td>4</td>
<td>3</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Incoming Chief Residents</td>
<td>4</td>
<td>3</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Other Residents</td>
<td>2</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Faculty Members</td>
<td>2</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Program Directors</td>
<td>2</td>
<td>1</td>
<td>1(Institution)</td>
<td>4</td>
</tr>
<tr>
<td>Assistant Program Director</td>
<td>0</td>
<td>0</td>
<td>1(Institution)</td>
<td>1</td>
</tr>
<tr>
<td>Chief Medical Officer</td>
<td>0</td>
<td>0</td>
<td>1(Institution)</td>
<td>1</td>
</tr>
<tr>
<td>Director of Care</td>
<td>0</td>
<td>0</td>
<td>1(Institution)</td>
<td>1</td>
</tr>
<tr>
<td>Transformation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject Matter Experts</td>
<td>0</td>
<td>0</td>
<td>7 (Various Institutions)</td>
<td>7</td>
</tr>
</tbody>
</table>

*Note.* The subject matter experts were from the University of California at San Francisco, University of Washington, University of California at Davis, and the Providence Health System in California.

Other instances of data collection included both group and individual meetings (Table 4.2):
Table 4.2

Data Collection in Group and Individual Meetings

<table>
<thead>
<tr>
<th>Type of Interaction</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine Final Session</td>
<td>Outgoing and incoming chief residents</td>
</tr>
<tr>
<td>Surgery Final Session</td>
<td>Outgoing and incoming chief residents</td>
</tr>
<tr>
<td>Family Medicine Faculty Meeting</td>
<td>Outgoing chief residents, program director, faculty</td>
</tr>
<tr>
<td>Surgery Morbidity and Mortality Conference</td>
<td>Outgoing and incoming chief residents, program director, faculty</td>
</tr>
<tr>
<td>Family Medicine Program Director Final Presentation</td>
<td>Program director (One meeting at Campus I, one meeting at Campus II)</td>
</tr>
<tr>
<td>Surgery Program Director Final Presentation</td>
<td>Program director</td>
</tr>
<tr>
<td>Institutional Program Director Final Presentation</td>
<td>Program director, assistant director</td>
</tr>
<tr>
<td>Administration of the Authentic Leadership Questionnaire</td>
<td>Incoming chief residents</td>
</tr>
</tbody>
</table>

**Research Process**

**Process timing.** Understanding the time frame and occurrence for the interviews and meetings is important when considering the study as a whole (Figure 4.3).

*Figure 4.3. Timeline of Study Elements
Note: Titles of participants are abbreviated. CR=Chief Resident, CMO=Chief Medical Officer, DCT=Director of Care Transformation*
**Entry Process**, Prior to embarking on this study, I attended a conference at the institution where I was going to be conducting this research. One of the speakers was a surgeon who had a unique approach to describing his role as teacher and mentor. As he talked about his role with residents, I made a note to contact him. When I emailed this physician and told him about the study, he sent an introductory email to the program directors for GME. This endorsement and method of being introduced to the program directors established my credibility with them from the start. Also, I am an employee of a partner institution further explaining my connection to the institution and validating my research related requests. In meetings with the program directors, I established connections with each of them through common acquaintances and interests in medicine.

My first contact with the CRs was through email. Messages had been copied to their program director so they would know there was legitimacy to my requests for their participation. My willingness to be flexible about demands on their time assisted in gaining their participation. The CRs had not been approached to talk about their personal experiences as residents or their roles as leaders prior to my request. They found the uniqueness of the request and the focus on them as individuals intriguing. At our initial meetings, I discussed my objective to effect change that would result in different ways that they would be exposed to leadership education and skills. Several of them had heard about my research from those who had participated in Preliminary Study 2. I described the prior study with those unfamiliar.

Establishing trust with the participants was vitally important to the study. The benefits and possible detriments of participation had to be presented honestly and were done during the consent process. This was an Action Research study and trust is a
fundamental element of AR (Herr & Anderson, 2015) since it involves collaboration of all participants. In qualitative research, the researcher is considered to be the main instrument for collecting data (Eisner, 1991) and to be effective in that role, trust must exist among the participants and researcher. Active listening, flexibility in the interview plan, adherence to the research study focus, and impartial recording of participant responses (Yin, 2009) were focuses of my interview technique. It was sometimes difficult to stay on track when topics of interest that were not germane to the work at hand were mentioned. For example, one of the faculty members discussed a teaching technique that he was learning from another physician involving theatrical improvisation as a method. I began to ask him clarifying questions about the process, thinking it might be a good teaching tool for leadership. It was somewhat off topic since it might be a potential solution to the problem (leadership education) and was not within my scope to problem solve.

**Preview of Data Collected**

This section contains a snapshot of the data collected in this study and demonstrates how all of the data will be considered in Chapter V. The interviews, sessions, questionnaire and meetings are described through examples in areas that became significant during the analysis.

**Superordinate Themes**

During individual interviews with the CRs, faculty, and program directors, reflections of their individual roles and their overall place within the residency became apparent. Transcripts of the final sessions with the different CR groups presented a reflection of their specialty (Family Medicine or Surgery) and the group within it.
Similarities and differences between the groups (Family Medicine versus Surgery) (Family Medicine Campus I versus Family Medicine Campus 2) had to be compared and contrasted. The salient points of the faculty and program directors were compared alongside the expressions of the CRs. In order to conduct the analysis, the transcribed interviews were reviewed in hard copy several times and then using the NVivo software program, allowing the identification of frequently used words and terms. Following this step, trends, themes, and patterns were discerned and organized into superordinate categories called nodes. These became the themes of the study and connections between themes were then used to describe what the participant’s felt were significant contributions to the study. During this period of analysis, the theoretical premises of the study were in the back of my mind.

The faculty and program director interviews provided a counterpoint; these participants described their planned education for the CRs while depicting some of the realities of shortcomings and opportunities for the future. The CMO and DCT presented their perspective on the institution as a whole and leadership sustainability. The themes and sub-themes that emerged for all participants are displayed in the following table:
Table 4.4

*Interview Themes and Sub-Themes*

<table>
<thead>
<tr>
<th>Super-Ordinate Themes</th>
<th>Sub-Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning leadership and all the ways that it occurs in GME</td>
<td>Formal and informal mentoring</td>
</tr>
<tr>
<td></td>
<td>Experiences of performing in leadership role</td>
</tr>
<tr>
<td></td>
<td>Self-recognition as leader</td>
</tr>
<tr>
<td></td>
<td>Stepping into the role of faculty peer</td>
</tr>
<tr>
<td>Role and identity of chief residents</td>
<td>Viewed as leaders, teachers</td>
</tr>
<tr>
<td></td>
<td>Role model for residents</td>
</tr>
<tr>
<td>Advocates</td>
<td>Responsible for actions of residents and advocates for them</td>
</tr>
<tr>
<td>Connectors between residents, faculty, program directors</td>
<td>Responsible for patient advocacy</td>
</tr>
<tr>
<td></td>
<td>Subject matter experts</td>
</tr>
<tr>
<td></td>
<td>Caretakers of residency program</td>
</tr>
<tr>
<td></td>
<td>Integral to curriculum planning, implementation</td>
</tr>
<tr>
<td>Achievement leading to leadership role(s)</td>
<td>Prior leadership experience</td>
</tr>
<tr>
<td></td>
<td>Personal goals set and realized</td>
</tr>
<tr>
<td></td>
<td>Challenging the status quo</td>
</tr>
<tr>
<td></td>
<td>Election or assumption of leadership positions in other organizations</td>
</tr>
<tr>
<td>Context of residency/leadership in bigger picture of health care</td>
<td>Lack of time for reflection</td>
</tr>
<tr>
<td></td>
<td>Relationship development</td>
</tr>
<tr>
<td></td>
<td>Wellness/work life balance</td>
</tr>
<tr>
<td></td>
<td>Shepherds of common goals</td>
</tr>
<tr>
<td>Relationships to others affecting leadership and collaboration</td>
<td>Being a peer while being a leader</td>
</tr>
<tr>
<td></td>
<td>Caught in the middle, not faculty, not resident</td>
</tr>
</tbody>
</table>

**The Interviews**

My interpretation of the resulting body of interview data has been through my lens of researcher, healthcare administrator, and well-intentioned advocate for social justice and access to equitable healthcare for all.

Initial interviews with the chief residents (CRs) happened in various places although all of them were in the CRs’ “natural setting” (Denzin, Lincoln, & Smith, 2008)
where they have lived their lives as residents. Time was a major limitation. I made myself available to them whenever and wherever necessary in order to capture their story. We exchanged emails and texts, searching for that elusive free time.

A meeting time was set with one of the Family Medicine (FM) CRs. She responded to my request instantly. I promptly appeared and waited at our meeting spot for almost thirty minutes. She did not arrive. I sent her an email inquiry about rescheduling. Disheartened, I guessed that she was not interested in participating. I was very surprised to get an email back from her on Saturday. She was very apologetic and suggested that we meet the following Monday and so we did. These snippets are illustrative of the value of time for the CRs. Their elusiveness was not a reflection of their commitment or interest in a topic but it represents the reality of their days.

I requested twenty to thirty minutes from the CRs, knowing that we would certainly exceed that timeframe once underway, figuring once they began talking they would forget about the time. This turned out to be a good strategy.

Interviews with the Surgery CRs were conducted in their office area, designated for their sole use. Patients are not seen there, other residents do not come there. They have shared offices between two or three of them. There is some open space for meetings and impromptu teaching. The FM CR meetings were in various locations. Some interviews took place in their dedicated resident area, a few occurred outdoors with the sounds of the city in the background. I met with each participant individually where there was complete privacy.
Outgoing Chief Resident Interviews

I decided to begin by interviewing the outgoing chief residents, thinking that would give me background and information to set the stage for interviews with the incoming chiefs. The first participant was a Surgery CR. After a few brief email exchanges and text messages, we met in the surgical residents’ area of the hospital. Mismatched chairs with used blankets and empty soda cans indicated an area that was reminiscent of a teenager’s bedroom. Ten minutes after our agreed upon meeting time the CR arrived, she apologized for the mess and we sat facing each other in chairs. I explained my research topic and goals to her. She looked at me with tears in her eyes and said, “What made you want to do this research? We need it so badly. As Chief Resident, no one teaches you how to do it.” That was the moment I knew I had chosen a topic that mattered and I vowed to myself to do what I could to make ensure that some change takes place as a result of this study.

Getting to know the outgoing chief residents (OCRs) was easy once I began with the interview guide of open-ended questions. They talked about what drove them to become a doctor, their ideals, and accomplishments. My research outcome involved the OCRs designing a training session in leadership for the incoming chief residents (ICRs). I wanted to understand how the OCRs learned skills that contributed to how they see themselves as leaders. In terms of achievement, talking about past leadership positive and negative opportunities and experiences, this OCR expressed gratitude in hindsight for honesty on the part of his mentors:

OCR 2(FM): I have been in a number of leadership positions in the past through different clubs and activities and organizations. I have done quite a bit. I think you learn throughout the process. I have even been in the position where people have said, “No, I don’t think that you are ready for this opportunity because you feel
like you are not ready.” I learned from that and I learned where I need to be stronger and where I need to go from there.

Several of the OCRs mentioned that the screening process for the residency program ensured that the future CRs would have leadership skills by sifting out those applicants that do not have previous leadership experience. They expressed that they had come to the program with the “raw materials,” their prior leadership experiences. A few of the previous CRs have stayed in touch with the current outgoing chiefs. One of the current faculty members was a CR in FM last year. A strong connection and dependency on their peer mentors continues after the OCRs leave the institution:

OCR 6 (FM): We are really close to the chiefs from last year and sometimes we text them, “What do you think about this?” Usually, that was more administrative, technology kind of stuff, but that was nice just to feel like I had the open communication with people that have had the experience.

This type of role modeling might be considered part of the “hidden curriculum,” a term that usually describes things that are unspoken in a class room setting but necessary leadership aspects to know in order to navigate the social side of an educational institution (Cox et al., 2006) A more common way to describe the adaptation to the institutional norms is through the process that is known as professional socialization. A form of social learning occurs throughout one’s membership in an organization (Messersmith, 2008). The term “organizational socialization” can also be applied here to the individual’s relationship to the organization and the resulting adaptation. The ongoing creation of identity and reality in an organizational setting also describes this process (Van Maanen, 1972). Socialization to culture of medicine by those in training is well documented (Pitkala & Mantyranta, 2003). As intimated by the term “hidden curriculum”, there are explicit and implicit ways that formal socialization occurs within
professions (S. Miller, 2011). The desired organizational goals for professionalism may be in direct opposition to what is passed on through the unintentional teaching methods (Vaidyanathan, 2015) and this type of socialization can have negative effects on the participants (Weinholtz, 1991).

The experiences that comprise the chief role occur in the significantly complex environment of health care within the structures of the medical center, GME, and the numerous parts that make up these entities. This knowledge is passed from one CR to another and is not part of the ACGME milestone path that must be completed in order to graduate from the program but necessary in order to function, in this case as a leader. It seems that this covert educational method is vital to the leadership learning of the ICRs. Peer to peer learning is not a sanctioned part of the GME curriculum but necessary. There is a sense of do-it-yourself education described in these conversations in the area of leadership and preparation of the chiefs. A sort of vigilante leadership emerges, as described by the OCRs. Vigilante is defined as “One of an organized group of citizens who take upon themselves the protection of their district, properties, etc.” (Vigilante, 2016). An individual resident’s reality was shared by one of the Surgery OCRs:

OCR 11 (S): I think we need classes. We need classes and guidance. The only way that I have learned to be a chief resident is by just glancing at the years ahead whenever I was a lower resident. It has been pretty hard to piece together because you are looking at it from a perspective of you as the lower resident looking at the chief resident to learn how to be a good chief resident. It is not right. It should be people that are good at teaching, teaching you how to be a better, how to equip rising residents for their roles. It has been really frustrating because I never know, is this what the chief resident actually felt at that time or versus what they were telling me because I was their junior.

They do this through creation of their own context, making sense to themselves as they are practicing medicine and in their role as leaders of the day-to-day activities in the
controlled chaos in which they function. This can be described as contextual intelligence, the knowledge of what works with each person in which type of situation and how to get things done within the social context (Brown, Gould, & Foster, 2005). In addition to the quest for clinical expertise leadership competencies are sought after to facilitate the work the CRs are doing on all levels and contexts. One CR described how she sought to make sense of the global organization for the other residents:

OCR 1 (FM): The organization wasn’t really clear so one of the things that I really tried to do was just really be a consistent presence.

Describing a different setting, this CR talked about navigating different contexts:

OCR 2 (FM): The adventure and the ability to be independent and to get through any situation that I needed to get through without too much difficulty. I mean, there are always challenges along the way but learning how to navigate those challenges in different languages and different settings and different cultural norms was really fun.

This sounds very relevant to the health care situation. Clinical practice has its own set of challenges and the CRs are included in many other realms. Within the situation of faculty and CR meetings, the context shifted to yet a different space. Here, the CRs are serving as advisors to the faculty and program directors and “being the voice for the residents” (OCR 6 FM).

Within their multi-layer role, an adaptive method of leadership would allow the CRs to balance the observational and active components of their role (Heifetz, 1998). Heifetz points to this leadership style as reflective and challenging followers to face problems and change in ways that create ongoing accommodation to current situations. The CRs have been given the responsibility of leadership for the groups mentioned above and the position is quite dynamic. Quinn (2004) depicts the role of leader as transitory
and shifting within organizations due to the ongoing change. This is a truism when considering the CRs complex environment.

Another Surgery OCR was very specific and clear about how he learned to lead. He describes it primarily as on the job training, taking the clinical training role and recognizing it as leadership and putting it into practice:

OCR 9 (S): As a chief, I think the chief clinic is its own leadership experience because it is a chief resident run clinic with very distant oversight from an attending. So, in that case you are responsible for scheduling your cases, follow-up, making sure patients are seen in a timely fashion and there is often times a language barrier which makes it a little bit more challenging so it is important to stay on top of those patients because they tend to fall through the crack. The acute care surgery service is one of our services that is more resident run with an attending that changes each week. We take that service for 4 months at a time, historically. It is really a nice longitudinal time where you get to run your own service, help with decision-making, and play a more active role. We each do 4 months of teaching morning conference and that in itself is kind of a leadership role. We are in charge of the educational modules for that month block so we have time every morning to for a half hour to check in with the residents to make sure there are no issues and then do the teaching part.

Clinical expertise establishes the CR as a credible leader but does not automatically impart leadership skills.

One of the surgery OCRs expressed significant dissatisfaction with the role of CR. He was the only OCR who did not relay any appreciation for his term in the role. He characterized his learning as follows:

OCR 10 (S): For better or worse, the thing you reach back to is the chiefs that you had when you were an intern. Even with things that come up this year, well they didn't do it that way. The chiefs that you had when you were an intern, at least in my experience, have the greatest impact on how you behave as a chief. Just learning from one another, your juniors, asking them for feedback. You ask your co-chiefs and you ask the other more senior residents like the third or fourth years.

OCR 6 (FM): Just like dealing with a challenging patient interaction, it’s that experience that you gain. You feel more comfortable going into the next one.
As the OCRs prepared to impart their leadership wisdom to the ICRs, they felt strongly about the elements of the role that they had figured out for themselves and those imparted to them by their predecessors. I did not hear any of the OCRs discuss being available to the ICRs, as their former chiefs were for them.

**Incoming Chief Resident Interviews**

The mechanisms for learning leadership skills were viewed differently by the ICRs than the OCRs. This group is about to launch into the leader role and they wanted to believe that they were adequately prepared. At the time of the interviews, they were just appointed to their role as chief. Even though the OCRs were beginning to give the ICRs the reins of chiefdom, the ICRs were not in the role yet where they would experience competing issues of leadership and their own work. The place where they overlap is concern about how they will take on the mantle and perform. Something that stood out was that no one mentioned what they might have learned or would learn in the future from the OCRs. There was no sense that the ICRs were seeking an ongoing relationship with the OCRs following their departure to gain further insights about leading.

One of them was concerned about the lack of specific support and having a “go to” person or persons:

ICR 7 (FM): In general, having had more preparation for the role. I don’t mean specific preparation like how to communicate or how to do basic skills but for my actual job, skills for the roles that we are doing right now, I think having a more centralized resource for us.

Realizing the role identity of a leader, this ICR was going to use a strategy that she had perfected in other aspects of the residency program. In the past, when she faced uncertainty within her role, she had been able to draw on her own common sense of how
to do things. Reflecting on past experiences she had come up with a mechanism to inform her behavior as a leader:

ICR 13 (S): I think when I am struggling in a time i.e., you’re on a service that you are not comfortable with, you are in an environment that you are not comfortable with, ultimately taking a step back and saying, “You may not know everything, but what you need to focus on now is what is going to make you a safe, smart, general surgeon.”

ICR 3 (FM) is very honest about the task before her/him. S/he believes that the chief resident role is, “Still something that I feel like it’s a lot to learn and figure out how to do and leadership, in this particular setting, is something that I haven’t had a lot of experience with.” In fact, s/he was not alone in the feeling of doubt. “When needed, I am able to take charge of the situation and do what needs to be done,” said ICR 14 S. “That is not a position that I feel particularly comfortable in,” s/he added.

It sounds like the ICR group will emulate their personal experience with the OCRs. They will think back to what their predecessors did when they are unsure. No one from either group mentioned faculty or program director support in terms of learning leadership except when talking about the lack of training. Consulting the program director was mentioned when they discussed issues around “residents in distress” that were confidential and needed higher level decision-making authority.

**Learning Exchange Sessions With OCRs and ICRs**

The sessions with both OCRs and ICRs were scheduled when the interviews with these groups were complete. Members of each group (OCRs and ICRs, Family Medicine and Surgery) attended one of the following sessions, with the exception of two Surgery CRs who were unable to attend a meeting at all:

Surgery Session 1: OCR 11 and ICR 14
Surgery Session 2: OCR 10 and ICR 12

Family Medicine Session 1 (Campus I): OCRs 5 & 6 and ICRs 7 & 8

Family Medicine Session 2 (Campus II): OCRs 1 & 2 and ICRs 3 & 4

The original study design involved the OCRs meeting separately to design leadership training for the ICRs followed by a meeting with the program directors to discuss the design. A second meeting would have then taken place where the OCRs conducted the training session with the ICRs. As mentioned in many areas of this study, there was a significant time deficit. The next iteration of the sessions is captured above. The meetings were reduced to a one-time session. Even with that time reduction, the Surgery CRs were not able to meet together so they met in two separate groups.

The CRs had all been sent the transcript of their interview in order to prepare for the session as well as to obtain participant verification of accurate transcription. I also printed copies and brought them to each session for each of the CRs so that they could be referenced.

The sequence of events at the sessions was as follows:

1. Meeting with the OCR and me for 10 to 15 minutes to review their transcript and determine what they wanted to impart to the ICR

2. Meeting with OCR and ICR for 10 to 15 minutes to discuss the OCR’s experience and allow the ICR to ask questions

3. Meeting with ICR and me for 10 to 15 minutes to review the time with the OCR

4. ICR completes pre and post Authentic Leadership Questionnaire
I was present for all stages of every meeting and audio recorded the sessions. The OCRs reviewed the transcription of their interview and by their faces, I could tell that none of them had reviewed it before then. They were pleased seeing what they had recounted, remarking on how sophisticated they sounded. “Wow, I really said that? That sounds great,” one of them remarked. I asked them to take their time and reflect on their remarks for a few minutes. Once the ICRs arrived, they began to get ready for the session. The FM OCR co-chiefs took a few minutes to discuss their plan for the session. The Surgery OCRs did not. Recommendations from the OCRs to the ICRs ran from specifics of how to choose a leadership style to, “I think we just took it and went with it.” Methods of dealing with specific issues were discussed. The FM OCRs (both campuses) enjoyed the role of teacher to their true peers. The ICRs seemed rapt with attention, hoping they didn’t miss one morsel of wisdom. The FM OCRs had figured it out for themselves and wanted to be honored for that. They were really glowing with pride at having finished the year and appeared boastful while controlling themselves. There was dialogue between the OCRs and ICRs mostly speculation about how things would play out in the coming year. The ICRs wanted to share the plans they had for changing and improving things with the OCRs to get some feedback. The OCRs said things like, “It depends on how you process things and how you like things to be, information, to be transmitted to you.” This type of statement acknowledged the fact that the ICRs may choose to do things differently based on their personal preferences. On the other hand, the Surgery OCRs were both in a big hurry to complete this task. They did not want to discuss their plan for talking with the ICRs for very long. They knew what they wanted to say. When meeting
with the ICRs, the OCRs talked rapidly, pausing to see if the ICR was following along. There was little dialogue between them.

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They did speak about things that were really important to them and that they felt would be helpful to the ICRs but they never checked for real understanding or asked questions. Some cautionary tales were told. “Nobody ever says, ‘I want you to lead me’,” one of them warned the ICR. It felt like they were passing along a secret handshake but without any further elucidation of what it meant and when to use it.

The ICRs were each given two copies of the Authentic Leadership Questionnaire (See Appendix C for sample questions form the instrument). One was marked “pre-interview” and one was marked “post-session.” I did not want the ICRs to answer them when they knew what the questions would be therefore, they received both copies at the same time. They were instructed to complete the “pre—interview” version as though they had not participated in the interview with me yet. They were asked to complete the “post—session” questionnaire as they saw themselves at that current moment. The scores were tallied for each topic area (see Appendix G for the detailed analysis). Each of the ICRs showed a change in all scores in each area, rating themselves higher in the post—session instance. The scores went up at least two points and as much as nine points from the pre—interview to the post—session questionnaire. It is difficult to determine without a subsequent interview what caused the change. They did experience two direct interventions, the interview with me and the meeting with the OCRs. Whether it was one or both of these activities, the change was evident.
Observational Episodes

It was not possible for me to observe the CRs taking care of patients due to privacy issues. When I talked with the CRs about how I might be able to observe them as leaders, one of them suggested that I attend their faculty meeting and the program directors concurred.

The Family Medicine faculty meeting takes place weekly for 60 to 90 minutes, depending on the agenda. The group that convened on the day of my visit consisted of six faculty members, one of the co-chief residents, and the program director. Two faculty members called into the meeting from other sites. The program director ran the meeting according to a pre-distributed agenda. She introduced me and talked about my research. The other faculty members seemed familiar with my research topic so she must have shared some information about it with them earlier. Her endorsement of the study was evident. The atmosphere was professional casual. People were dressed in professional clothes but did not have any white coats. Many of them were eating lunch during the meeting. The program director was friendly with everyone and asked clarifying questions of the speakers. The co-chief was clearly an equal and respected part of the group. This was about two weeks after the OCRs had left the residency. The other co-chief had a late clinic patient and arrived about 45 minutes into the meeting. There were discussions about patients, issues with interns and residents, and upcoming trainings and meetings. It was very collegial and authentic, based on my experience with this group up to that point. The co-chiefs had equal opportunity to participate in all discussions. I had no reason to believe that any parts of the meeting were for my benefit. I did not hear the co-chiefs ask
for anything from the program director. They made no requests for any resident based needs.

The Surgery Morbidity and Mortality Conference takes place monthly and is 90 minutes in length. It took place in a large auditorium with numerous attendees including all of the residents, attending physicians, visiting medical students, the program director and invited guests. It is a forum to discuss difficult and interesting surgical cases. One of the CRs is in charge of the meeting. Only those who are invited may attend. The residents sit together on one side of the auditorium. I was asked to sign a confidentiality agreement and was introduced by the CR. The presenters are on the stage with everyone else in the audience. They use visual aides to show key photos of the surgical case or journal articles supporting or not supporting the guidelines used in this particular instance. It is a very formal presentation by the residents. They were wearing professional clothes with white coats. The attending and other physicians were dressed in surgical scrubs or street clothes. Only the program director wore a white coat over his scrubs. Residents present their case one at a time revealing details about the case and their part in it. The residents do not use any notes. Four cases were presented over the ninety minutes span of the meeting. As the residents are making their presentations, the physicians are shouting out clarifying questions. The physicians make suggestions, asking questions probing for alternative methods of handling the case, quizzing the residents about their clinical knowledge. “What would you have done differently?” was asked during each case presentation by a CR. Recommendations were made by physicians about patient management techniques and teaching approaches regarding new residents and interns. The program director tried to problem solve issues and identify things that were
institutional in nature. The residents received compliments from the physicians following the presentations. The residents in the audience were mostly attentive. Some were checking their phones intermittently or addressing pagers that went off from time to time. There was no time allowed for the residents to ask questions of the presenter. This was truly a learning session for the residents. They had to be acutely prepared and very sure of their stance on the case. There was clearly no tolerance for ambiguity, hesitancy, or lack of knowledge.

**Faculty and Program Director Interviews**

The interviews with the faculty and program directors were also impacted by lack of time. Many scheduled meetings were rescheduled. Meetings took place in their private offices, where the office size and grandeur varied by the length of their tenure. One of these interviews occurred in a space that was not in an office due to timing and multiple locations of practice for faculty members. An interview guide was developed and used for all of these interviews (see Appendix B for the specific questions). All meetings were with a single faculty member or program director. The interviews took place throughout the period during which the CR interviews occurred. The desired outcome was an understanding of the program specific leadership training and fostering.

A Family Medicine physician agreed to meet in the lobby of one of the hospitals. Of course, this was not an ideal setting but I knew of an area nearby that is used for large conferences. We sat in the comfortable furniture outside of the auditorium and began the interview. She was very engaged and I was listening intently. We both noticed that people were coming into the area and proceeding to the conference center but we kept on with the interview. More and more people were arriving but we persevered and finished
the interview. We then asked someone nearby and it turned out that there had been a complete power outage of the entire hospital during this time and the disaster team had been assembled to deal with the crisis. Engrossed in the topic of discussion, neither of us wanted to stop even though we peripherally noticed that something was going on. Later, listening to the audio recording, I could hear the increase in the background noise level as the interview progressed.

The FM program director at Campus I was very interested in the topic of leadership and didn’t seem to have a hard stop to end the meeting while the program director at Campus II was matter of fact. He gave short answers to the questions and brief explanations when asked for more information. When meeting with the Surgery program director, he wanted to impart extensive information about the history of the program while genuinely curious about what I would do once I had completed the study. The director for GME had limited time for our meeting. She was welcoming and interested in the study while making it clear that there could be no risk for the institution. During all of the meetings the participants were engaged and attentive.

The faculty and program directors are responsible for making sure the residents meet all educational requirements of the ACGME. In conjunction with the institutional GME program director, all boxes are checked. Within the departmental programs, curriculum is mostly designed by the faculty members and program director with input from the residents. They conduct annual curriculum retreats where changes to the curriculum are made.
Their understanding of the chief resident role is through experience for most of them. Faculty members described the chief role while acknowledging the lack of support for them as leaders:

Faculty 3: Most medical students arrive at residency with open hearts and generous spirits and then residency makes them into the doctor that makes our system. We ask residents to do a lot and the intensity of those hours is extremely high. The very things that make most of us uncomfortable, they are doing constantly. They are in new places. They are the least educated and the least knowledgeable and are called upon to make decisions. They have agency without the knowledge to execute. We are going to have to figure out ways to teach them how to swim, and, honestly, I don’t know what that is yet. In some ways, being asked to do more than they want. Perhaps, more than they think they are capable of doing. Certainly more than they want to do.

Faculty 5: It’s like we have a lot of tasks for you to accomplish, giving you a title to try and make that okay and that’s not really, that’s not what it should be. Most other industries really commit to training their leaders and growing their leaders in a way that health care has not. It is just a complex machine.

Faculty 10: The chiefs have a tough role. They are given access to some pretty difficult information that isn’t ready for prime time. And then you go out and have a beer with someone, and not like we don’t have that same tough job but they are younger.

The faculty and program directors are a primary part of the group of people that are teachers for the residents, in terms of didactic learning as well as role models. This is true for teaching leadership as well. This statement by a faculty member was quite telling and honest:

Faculty 3: The truth is I don’t really know how to be a leader myself. I am just learning myself.

This is a bold thing to admit and forces the question, “How do the faculty and program directors learn to teach leadership?” I want to underscore the description of the conflict with teaching the leadership role and the awareness of that fact. The difficulty of reconciling that the faculty has not been trained to teach leadership has to be considered a
problem. The faculty are practicing physicians and most have been out of residency at least five to ten years. In their residency programs leadership was not remotely considered as a necessary aspect of training. They were to emulate what they were taught by the attending physicians, for better or worse. Most likely, they adopted an abbreviated adaptive leadership stance as a means of self-defense, eliminating the reflection and focusing on gathering the forces as they could to problem solve. Within the complex and ever churning environment of health care, the state of “permanent white water” (Vaill, 1996, p. 4) demands leadership within the realm of uncertainty. Without a structure to develop and then reinforce leadership skills and awareness as part of their own training, it is no wonder that the faculty feel unprepared to impart any wisdom to the CRs in this sphere.

As mentioned, the faculty and program directors were very eager to discuss the topic of this research. They are aware of the missing piece of leadership training for the chiefs but unsure how to accomplish it. The transmission of leadership skills through modeling is assumed to be enough exposure to the role of leader that the absorption would carry the CRs through their professional career.

Faculty 7: In the operating room, it is the performance of the operation. Outside of the operating room, basically, it is management of the residents and documents. A lot of the education that you see from us is more passive. The idea that when I am dealing with a really difficult patient, whether it is a clinical difficulty or social difficulty, you are teaching them skills to evaluate and to deal with difficulties. They have to learn to feel more comfortable and that is a leadership role. If we had more time, I honestly think that the residents will want to do it. They want to be a good leader. They know that it is part of their role. So you have the ones who have the least experience trying to learn about making judgment, judgment calls, and you have someone who is the most experienced. So there is this heritage of passing down information in that manner.

Faculty 4: Most of that (making sure the CRs are going to be good surgeons) up to this point has been by example.
Faculty 5: Like physician training, and it hasn’t really said, “This is the space where we are going to talk about leadership.” And we are sort of, “You are learning by being, doing, and leading”, and that sort of see one, do one, teach one, sort of way that doctors like to learn things by.

This was true for both Surgery and Family Medicine. The teaching of leadership has been assumed and not designed.

Even though the outward stance is to include the residents in designing their learning, there is some hesitancy due to the drive to change things that is inherent in the chief role.

Faculty 5: It’s easy as a third year resident to feel pretty confident that you know more about the residency than anybody else. Certainly than the other residents but just like the faculty can’t possibly understand the depth of understanding that you have for the experience so you feel really quite strident in your desires to communicate how to make things change and so as I have gotten older, I wish that I could help, that I could’ve helped my younger self to try to figure out how to balance wanting to be an advocate for change with how do you ask the right questions to understand the bigger picture.

Director of Care Transformation and Chief Medical Officer Interviews

The Director of Care Transformation is very interested in physician leadership and identity. As we began the interview, he was keenly interested in how I came to do the study and the curriculum for my doctoral work. Describing his trajectory to a leadership role, he cites his reputation as a “respected clinician.” Adding, “It is hard to lead docs if they look down on your clinical skills.” He is up to date on the scholarly literature and feels somewhat responsible for the gap in the residency training, although it is not solely his decision as to what the remediation might be. An institutional effort is under consideration and he has been tasked with evaluating the curriculum. My path to the Director came about when one of the CRs told me about a session that the Director had presented to the Surgery residents. The CR expressed how valuable he found the session
but regretted that he did not have time to read the books on leadership that the Director recommended. The Director explained more about his teaching with the CRs:

Director of Care Transformation: I told the Surgery residents that, “You are a de facto leader in the OR.” They all kind of snickered. Everybody looks at the surgeon. They are the one that is driving the show and so, whether you like it or not, you are in a leadership position. You may not like being a leader but you are. I got good feedback from that. They were interested in it.

Not surprising, the Director is in favor of “having an internal, really dynamic (leadership training) program that gets people really thinking and stimulate them. It has to be both engaging and thought provoking and also very practical.”

Ever since he was a child, the Chief Medical Officer has sought leadership roles. He recounted his involvement in the scouts where he became patrol leader. The rise to his current position occurred over time. He cites his proclivity to leadership positions as evolutionary. As a physician in a very prominent leadership role, his passing of the baton of leadership is on his mind. He believes that there is time to do this important teaching within the existing curriculum.

Chief Medical Officer: I find that CEOs and Chief Operating Officers that are clinicians tend to make more patient centric decisions so I would like to see more clinicians in leadership roles. As physicians, we are trained to be individuals that who individually take on the care of patients and we are not trained in organizational dynamics or organizational functions of a team. So, that is why I got involved in this and what I am trying to do is impart those skills that physicians need to work within organizations and, specifically, to work at this institution.

He developed a leadership training program for physicians a few years ago. He has recently opened it up to other types of clinicians such as nurses and pharmacists. This program is offered twice a year and consists of two, three-day weekends, one month apart. Attendees are selected through a nomination process and 20 to 30 clinicians attend each offering. “One of the strengths of the program is that it is one of the few forums
where physicians from a number of different specialties get to interact. It has resulted in some really interesting dynamics and some interesting outcomes,” he said.

An outside instructor is brought in to facilitate sessions in leading change and one of the nursing executives focusing on managing change within the organization. A staff physician offers his expertise in physician led change. “Coaching and influencing” is on the agenda, as well as other more business-focused offerings. Following the weekends of course work, the attendees are tasked with developing a project. They also have a recurring dinner meeting throughout the year where they discuss their projects. All attendees of any of the cohorts may participate in these meetings.

Creating these ambassadors of leadership awareness is the most important outcome of these trainings. Clearly stating “modeling leadership” as an outcome with the participants and a follow up with attendees where they report on how they are enacting this role would ensure the perpetuation of the objectives of the conference. This is currently not an explicit expectation of the program. It is essential that resources such as this are available to the chiefs.

The inclusion of CRs and other residents in the training institute is planned to begin this year. The transient nature of the chief residents brings the investment of leadership training into question. The Chief Medical Officer specifically mentioned his hesitancy to include the CRs because they are in their final year. There are CRs every year that are hired on as faculty at the end of their training.

**Institutional Residency Director and Assistant Director Interviews**

The Residency Director is focused on meeting the ACGME milestones. That and making sure the program is adequately funded are the most important elements of her
job, a very serious undertaking. She is aware that there should be a “formal leadership curriculum.” Acknowledging that the attending physicians are not trained to teach leadership, she sees their role as “leadership coaches” and leaves that up their “personal interest.” This was the first place where I heard anyone connect leadership to safety within the institution. Safety is the number one focus of hospitals for many reasons that are obvious. It is important to have physician leaders who can remind everyone about safety issues. In this institution they refer to this as the “Culture of Safety,” meaning that it should be part of the everyday culture to pay attention to safety issues. The concept of linking leadership training with safety and quality was mentioned again by the Residency Program Director, this time using existing faculty to do the training:

ACGME has been doing a chief residents training course. I was thinking about how often it pops up in my conversations with physicians, “I was a chief resident, I loved working with the residents, I will do anything I can to help you with your program.” We are working on some quality initiatives that one of the doctors has been getting going. To bring forth the best quality initiatives and get some funding to support it and he was like, “Oh, I love this.”

The Associate Director added:

I think the place that leadership is needed is in the gaps like research and the big focus is now quality and safety. Our goal is to develop within each program a quality and safety leader.

Quality and safety are measurable and measured in health care. The things that are considered metrics are patient satisfaction, number of needle sticks among staff, number of patient falls, etc. Quality and safety are terms that do not have specific definitions but are relative to a situation. The important thing that is being considered by the Program Directors is how the institution is compared to other institutions and that is the reason leadership is desired, in order to make sure that everyone is paying attention to the metrics to ensure the scores are in the right direction. There was a point in the
conversation when she talked about the CRs using “personal filters” when trying to drive change and that they need to understand this as a safety issue.

Growth of the residency program was the focus of the interview with the Assistant Program Director. He is aware that there it is a challenge to “have protected time for people to really engage in teaching, research, and academic activities” and this extends to CRs, as well. He was interested in the ways that CRs need leadership skills versus those of a system leader. Overseeing the faculty development series is within his purview and he believes that teaching leadership and mentorship are core to the development of competent physician leaders. Working closely with the Chief Medical Officer, he has been part of the conversation about opening up the physician leadership program to the CRs. One important thing that he mentioned was the fact that neither he nor the Residency Program Director are physicians and therefore, they can’t directly mentor physicians. He did not consider their potential role in the institutional learning culture, although, they were capable of teaching management skills such as those the CRs were requesting (i.e., team building, conflict resolution, and communication). He was central to the process of developing curriculum that would lead to a certificate in leadership but, unfortunately, he left the institution right after the interview.

Study Review With the Program Directors

The expression of the heartfelt emotions of the CRs and the drive that comes from them seemed important to note for the Program Directors. The daily interactions occur during a very limited amount of time that not much information is exchanged that is not directly related to the tasks of the CRs. A portion of the report that I prepared for the Directors included some quotes along these lines. The vulnerability and sincerity of the
CRs are important aspects of their identity and can serve as reminders for the Program Directors how they are “birthing” these doctors. Just as with a newborn, extreme care must be taken when performing such an important task as helping a CR become a professional, one who is confident because they have learned to reflect on their doctor self.

Following completion of the interviews and the joint sessions with outgoing and incoming chiefs, meetings were scheduled with each of the Program Directors. The individuals who participated in this final phase of the study included the Directors for Family Medicine (both campuses), Surgery, and the Residency Program Director and Associate Director. Due to scheduling limitations, four separate meetings were conducted. Each of the specialty Program Directors met with me individually. The Residency Program Director and the Associate Director were together for the meeting.

A five-page handout was prepared with preliminary findings (see Appendix E for the full report). The format followed that of a scientific abstract including the following sections: Purpose, Problem, Methods, Findings, Conclusions, and References. This particular style was selected because it is a familiar template for research that physicians can relate to.

Even though three of the Program Directors are responsible for their individual specialty residency, there was a feeling that change should happen throughout the entire Residency program. The first 15 to 20 minutes was a recounting of the study process and findings. Some questions came up for clarification during this portion of the presentation. The overall reception to the study findings was quite favorable. All of the Program Directors agreed that, “This is quite an accurate portrait actually,” as one of them
commented. The value to the institution was remarked upon as, “Giving us a framework and starting point.” The theme of the responses centered on the known deficit in the area of leadership training and professional development and how the study findings underscored that reality. Comments about culture change and funding came up.

I ideas about how changes to the curriculum could occur based on the study findings were discussed. Several of them commented once the presentation was completed that this was important work and would result in changes to their individual thinking as well as the program. The operational issues of longitudinal studies were discussed. Staying in touch with alumni had been something that waxed and waned. A successful study with CRs during their year as chief and then into their first years of practice, contact with them would have to be maintained and that might be difficult. Their thoughts about future studies corroborated my conclusions.

The topic of the need for training and evaluation of the faculty in the areas of leadership training and professional identity building were acknowledged as an area for program building. Every Director confirmed that there was not any existing faculty training in any of these areas and, certainly, not a part of the faculty evaluation process.

Both of the Family Medicine Directors made the point that the CRs may not consider leadership training to be a plus in the bigger picture of their residency. If the trainings were offered during what would normally be clinical time, they would have to make up the hours out of their time off. Although I can see the point that was made, it raises the issue of carving out time from another area of training to accommodate this very important aspect of professional development.
When the presentations were finished, various ideas were discussed that might have some hope of success because they could be more ad hoc. For example, a coaching model was proposed that would involve one on one time with the CRs as well as on-call availability for coaching when needed. Interestingly, this Director commented, “Physicians don’t like to hear that they need to be coached.” This person went on to paraphrase “50 to 60 something year olds” as saying, “Yeah, I don’t need somebody to tell me.” On the other hand, she did say that she didn’t think the “residents would be opposed.”

**Summary Statement**

When formulating the proposal for this study, the difficulties of recruitment loomed ahead of me. All of the participants quite willingly shared their stories, opinions, and experiences without hesitation. Faculty, program directors, and chief residents seemed desperate for a way to discover how to form a sound professional identity as well as leadership pathways for the CRs. They were more than willing to contribute to the cause in the hopes that some signposts could be found. Since relationships play such a key role in the educational process, the insights from faculty, program directors and other residents were critical to this effort. The contributions from the experts in the field provided a bigger picture of the efforts to produce competent physician leader and the successes and failures in larger institutions.
Chapter V: Discussion

The underlying reason for pursuing this line of study stems from my research and personal observation that health care in the United States is not patient centered. When I say “patient centered care” I mean health care in which the patient and care provider(s) experience participative, meaningful, and understandable encounters that result in the best outcomes for patients. “Patient centered care” is commonly used by institution(s) to indicate that they focus on caring for the patient as a person first versus a focus on their diagnosis (Pratt-Chapman, Willis, & Bires, 2014). Physician education must emphasize skills that enable them to interpret the patient’s “sociocultural context” to truly consider the whole patient (Satterfield et al., 2014). Delivering care to patients is the product of health care. Considering and organizing the care in a manner that best serves patients is the job of physician leaders.

Through working with CRs regarding their leadership and professional identity formation, I hoped to remind physicians in training who are dedicated to healing people of the idealistic reasons that they chose their profession. Physicians to-be come to the training environment with those ideals in the forefront and want to sustain that specific focus but the educational components are training the ideals out of them.

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The viewpoint of one of the ICMRs indicated that she feels obligated to transmit the reality rather than the ideals to patients that she cares for:

ICMR 4 (FM): What I do, all day every day in the clinician role, is listen to peoples’ stories to be able to synthesize those themes and share them with the unfortunate and real relative social privilege that physicians have.
The things that are stressed in the residency training are how to meet certification objectives. Most of these requirements have very little to do with the relationships that care providers have with patients or other providers or professional identity (M. D. Holden et al., 2015), and as described by this ICMR as the actual work. The relationship making part of the job is critical in the health care setting because it is a human based organization consisting of providers of services and customers seeking those services. Without a focus on the whys and hows of the relationships, the “services” become fraught with misunderstanding and ineptitude. The appropriate execution of building the relationships is one of the most significant parts of the physician provider’s role. During the final sessions with the Surgery OCRs and ICRs, one of them described the chief role:

Those are your opportunities to lead, to identify things that you can do to make the hospital run smoother and then use leadership techniques to get people to learn more or learn more effectively because, ultimately, your job as a chief is to facilitate their taking the next step in their maturation process and becoming an independent doctor.

In this case, the importance of the relationship as a leader of residents is described. It serves as an example of the necessity for relationship building in the role as chief.

The interactions of physicians with patients, other providers, and staff are interdependent, something that has changed over the past three to four decades. The model where the doctor was on their own, their word was law, and everyone did what they said without question (including the patient) is no longer at play. Health care delivery is a group effort and the patient is part of that group.

Holistically, the care begins when the patient enters the clinic or hospital. The relationships and interactions with check in staff through the checkout process are all part of the process. The actual medical treatment is initiated by the physician and based on
that provider’s training and knowledge. S/he may seek advice or counsel from other practitioners but the recommendations regarding treatment are distinctly theirs. S/he is delivering the information to the patient as well as the care team. The interpretation and delivery of that information is based on the relationship the physician has with the others involved. The system is no longer a single actor delivering lines but an entire cast effort and, most importantly, includes the patient. The expectation is that physicians have the training and expertise needed to practice in a multi-disciplinary environment. Since relational and leadership skills are not being offered within the sphere of training, the burden is put onto the physicians to pay for post-training courses that purportedly offer the understanding and skills they seek (Wald, 2015). It is not clear who is reviewing physician leadership courses that are available for sound theoretical and practical bases and interpretation or effective instructional techniques. Unfortunately, the GME system is only beginning to reflect the changes. The training of residents by traditionally trained physicians who have been in practice for years does not resemble the new model. The Associate Program Director thought that the Family Medicine program was better at faculty development. He admitted that it was just an impression, not something he had factual evidence about. As recounted earlier in this research, one of the faculty members described it;

Faculty 5: Like physician training, hasn’t really said, “This is the space where we are going to talk about leadership”. And we are sort of, “You are learning by being, doing, and leading”, and that sort of see one, do one, teach one, sort of way that doctors like to learn things by.
Redefining the role of physicians as leaders and making that understood to future CRs would be an incredibly significant change that would enable the chiefs to have the appropriately realistic expectations. Ideally, this should start in undergraduate medical education. An OCR described dissatisfaction with what should have been part of the preparation to set expectations for the current role as chief and future role as a leader:

**OCMR 10:** We need leadership tools or just life skills that you would like to pass on. You are mainly just fighting fires. I have not been a happy chief.

The new model of practice requires different competencies than the outdated model. Physician’s skills of the past displayed a model of the practice of medicine in a world where almost all doctors were men. Communication was relegated to transmitting knowledge of prognosis and not to inform the patient and their family so that they could share in the decision-making regarding treatment. Health care cost and insurance
coverage in the United States has always been a mystery to the consumer and the largest number of bankruptcies have been due to debts incurred during illness (Gross & Notowidigdo, 2011). Patients are becoming more aware of cost for this reason and contemporary physicians have to be able to understand this aspect of care and be able to respond to questions about cost. The competencies for physicians have transitioned from a single focus on clinical expertise to a multi-focal approach that stems from a leadership perspective. For example, the ACGME training program for chief residents includes dynamics of group function, discovering your strengths and weaknesses, dealing with conflict, giving and receiving feedback, and dealing with personal stress (Accreditation Council for Graduate Medical Education, 2015a).

Much of the changes in leadership acumen applies to the larger world of leadership, not only in medical training. Wheatley (2010) describes the shift in leadership in contemporary life, “It is a world of increased fragmentation where people retreat into positions and identities” (p. xi). She goes on to talk about the difficulty of the process of shifting our world-view and the uncertainty and anxiety change creates. Using physics as an example, Wheatley(2010) concludes that as science has progressed, therefore, the nature of interacting has to follow suit. Citing the workings of relationships that exist within the principles of the physical sciences, she extrapolates that creating connections is the key facility of a leader.

In an online lecture by physician and writer Atul Gawande (2015), he asserted that one of the leadership roles of physicians is to have honest conversations with patients and take the opportunity to not treat a patient with further drugs or surgeries when it is not going to have curative effect or when the sequelae of treatment will compromise the
quality of the patient’s life. Following the interactions that occurred during this study, this type of flip in terms of the traditional role of physician as decision maker, is an example of how the physician leadership role is being redefined.

As a researcher attempting to discern the nature and structure of identity formation and leadership training for nascent doctors, my hope was to contribute to the ways in which their education in these realms is delivered. Throughout the interview analysis, one of the topics that emerged consistently was “learning leadership and all of the ways that it occurs.” Adults learn best when the subject matter is relevant and the teaching of the topic is perceived by the learner as accessible and useful (D. Kolb, 1984). Relevancy and the opportunities to learn are being questioned in residency training at the institution where this study took place. One of the traditional methods for training residents has been the Morbidity and Mortality conference. A fellow or resident present a case where a patient has died, and give their opinion using the “retrospectoscope” (a term used by one of the physicians in a recent meeting) suggesting how the patient’s care might have been managed differently to improve the outcome. The physicians in the audience give their input and informative discussions occur, a worthwhile training for CRs. Unfortunately, these sessions are poorly attended by the chiefs due to time constraints. These sessions are not recorded or transmitted in any other format to those who are unable to attend. The conundrum regarding the allocation of time for the CRs rears its head again and, in this case, applies to clinical expertise.

The original research plan in this study was to have the experienced group (the outgoing CRs) develop a curriculum for the newly appointed group (the incoming CRs). Due to the time constraints of the CRs, that was simply not possible. The coin of the
realm is time, and residents, particularly those that are chiefs, have little of it that is not spoken for. Lack of time was mentioned repeatedly by all participants and considered in the study analysis within the “context of residency/leadership in the bigger context of health care” theme. As one of the faculty participants stated:

Faculty 3: We talk about limits like 80 hours and so forth. Those are limits that are well beyond what any reasonable person would want for work and yet, that’s the limit. And so we ask residents to do a lot and the intensity of those hours is extremely high.

With an 80-hour workweek, there is hardly time for any additional activities. Some personal time is necessary for the activities of daily living and some type of socialization outside of medicine. As a marker for the lot of being a resident, the time issue has to be considered in the setting of this study as evidence of the stature of the role. An 80-hour work week would not seem reasonable to most people and outside the norm for trainees in any industry. It has only been since 2003 (Accreditation Council for Graduate Medical Education, 2014), that the residents are limited to 80 hours. Prior to that, they were expected to work an unlimited amount of time in order to be a “good” resident. What does this say about the value that a resident has in the health care system and how they view themselves within the complexity of that world? During one of the faculty interviews, residency was described in this way:

Faculty 3: I think that residency is so difficult and so painful and so soul crushing in a lot of contexts, that you create a doctor who is crushed in the soul and technically smart and good.
Considering the milieu of the residency program from this vantage point will contribute to understanding of the setting for this study. The time that was granted for the study was in some ways stolen from other work the residents were expected to perform.

The expectation of devotion when it comes to time is also true for faculty and program directors, as they are practitioners in addition to their roles in the residency program. It was very telling that the interest of all of the parties including the CRs was such that they did not hesitate when asked to be part of this research. It was clear that the topic of leadership is extremely important to all of the members of the residency education cohort in this study.

**Identity Formation**

As mentioned previously, the working definition of professional identity “refers to the conscious awareness of one self as a worker” (Skorikov & Vondracek, 2011) and Wilson et al. (2013) add that the individual uses to link their motivations and competencies to their career role, developing professional values, actions, aspirations and includes an ongoing process of self-reflection on the identity of the individual (p. 370).

The University of Texas has devised a more recent definition of professional identity formation that is more expansive and specific for medical education:

> Professional Identity Formation is the transformative journey through which one integrates the knowledge, skills, values, and behaviors of a competent, humanistic physician with one’s own unique identity and core values. This continuous process fosters personal and professional growth through mentorship, reflection, and experiences that affirm the best practices, traditions, and ethics of the medical profession. (University of Texas Professional Identity Task Force, 2013, p. 2)

As postulated by others (Cooke, Irby, & O'Brien, 2010), it is the obligation of residency programs to participate proactively in identity formation, as the period of residency education is the culmination of their education. There is a time (or maybe more than one)
within residency when the participant has to come to terms with the realities of being a doctor versus their optimistic expectations. One of the CRs shared his thinking along these lines:

   CR 5 (FM): I would say this past year, you kind of peek behind the curtain in a big way and the fact that I was able to do that and kind of see all the dirt behind the scenes and still really want to do it and be excited about it has just strengthened that for me.

This chief has made that leap. He has experienced the moment when he had the realization, saw the “dirt” and was able to accept it and embrace it. Faculty, program directors, and residents mentioned this during the interviews and sessions. The analysis of the transcripts pointed to the theme of “role and identity of chief residents” as critically important. It is also the obligation of Graduate Medical Education to meet the criteria set by the ACGME. It seems to be an all or nothing approach, though, in terms of intentionality towards professional identity development. The function of “being a physician” is given short shrift while “doing the work of a physician” is the full time focus (Jarvis-Selinger et al., 2012, p. 1185). Leadership identity has meaning for the CRs, as evidenced by this statement:

   OCR 9 (S): We each do four months of teaching morning conference and that is kind of a leadership role. We are in charge of the educational modules for that month block so the time, every morning for a half an hour, to check in with the residents to make sure there are no issues and then do the teaching part. I think that is in and of itself is an example of leadership.

Underscoring the power of reflection to identity and leadership development, this OCR was able to identify the leadership aspect of the role of chief. Another OCR was able to see the change in perception about her/his leadership abilities. The question asked was, “How would you rate yourself as a leader today on a scale of one to ten, ten being
highest?” This response also was a product of the reflection that was made possible because of the interview:

OCR 11 (S): I would have to say that for the first four years, I was probably at, like a two. I think that more recently I have become like a seven. Just because of this service that lets me figure out what to takeover and what not to.

The time has come for a shift in this modus operandi if physicians will be able to function as competent leaders. The importance of CRs developing themselves as individuals psychologically as well as evolving as social beings, enables them to participate fully in the work of the institution and larger community (Jarvis-Selinger et al., 2012). The role of CR has innate conflict between the role of leader of the residents and recent role as colleague, impacting their leadership identity. This becomes evident in the theme that emerged from the transcripts, “relationships to others affecting leadership and collaboration.” They are caught in the tangle of being peers and leaders of the same group.

**DissClip 5.02 Outgoing Chief Resident 5**

The route that the education of physicians takes creates an evolution of identity over the course of that time period. During residency and particularly as a chief resident, the care of patients takes over as the focus and the role of learner fades into the background a bit. Integration of curriculum that supports professional development and ways to continuously invigorate the learning that occurs should be requirements of GME programs.

For residents, professional identity formation is occurring in the midst of performing the role of a doctor. Many recent articles on the topic of professional identity for physicians in training agree that the focus on competencies for clinical work has
overshadowed any training around values and their application to practice (Cruess et al., 2014; M. D. Holden et al., 2015; Wald, 2015; Wilson et al., 2013). There have been attempts at curriculum development that addresses this gap in training, but the outcome measures have been vague (Cox et al., 2006). McGill has developed a University course entitled “Physician Apprenticeship” for medical students (Boudreau, Macdonald, & Steinert, 2014). This course is intended to bolster the formation of the students’ professional identity development. They have conducted the course and studied outcomes since 2008. Their findings demonstrate a possible design for imparting this type of instruction but lack definitive findings. At the University of Texas, the TIME (Transformation in Medical Education) program for medical students was implemented in 2012, meaning that the first graduating class having had this experience will matriculate in 2019. They have spent considerable time and effort to construct a model of professional identity domains. Their intentions around this topic are clear and something to follow as they complete implementation of the program and report their findings.

During the individual interviews within this study, the CRs recounted their accomplishments in terms that were descriptive of their identity formation as leaders and physicians, connections that were and are significant, and achievement of their goals within the theme of “achievements leading to leadership role(s).” They related their accomplishments to their roles as chiefs but also to their personal sense of who they are. All of them discussed the self-determination needed to accomplish goals that they set out for themselves and their mission of enabling others to develop the sensibilities and skills necessary to spark their own life and work planning. The process of achieving those goals through self-reflection was described by one of the CRs:
ICR 8 (FM): I did “fail” multiple times along the way. In all of that, you know, you struggle. Even though it is hard, having a period of time when you fail and then you come back to it and re-identify that you want to complete it. It kind of makes it really valuable.

This type of self-awareness and reflection permeated the interviews with the CRs. Descriptions of the ways that they adapted to the role that occurred along the way as they have assimilated new facets of their identity as leaders and professionals emerged. The importance of the reflection from others to their sense of meaning and pride was acknowledged by several of the CRs. This comment added to other self-described competencies of a chief resident; goal setting, empowering others, acting as an effective liaison for the faculty and residents, providing a safety net for struggling residents, advocacy for residents, leading with humor and a positive frame, being an active listener, participating proactively, leading by example, welcoming input from others. Other residents confirmed that these qualities were essential and added inclusionary behavior and unbiased approach.

The most fascinating role model that was mentioned by one of the Surgery chiefs was Sherlock Holmes (Doyle, 1930):

OCR 11 (S): He has just been a huge kind of role model/mentor for me. The focus on intellectualism, not wanting to run with the crowd but to want to see his own perspective on things and use it to make the world a better place.

This is evidence of self-awareness on the part of this CR and how she identifies with the analytical and deductive mind of the detective, as well as the nature of the “calling” that she feels for the profession of medicine. She has adapted the crime fighting strategy of Holmes to the context of practicing medicine. Other CRs most often cited family members as lifelong role models. Friends, program staff, prior CRs, political figures, and teachers were also noted as those that had a role in their identity formation.
Exploring the physical and psychological environment that is the health care setting for these CRs gave me insight into their perspectives of that world. They are creating the context for themselves while considering their place in the scheme of their professional and leadership identities. The social context is how they are forming congruence with their own thought processes (Berger & Luckman, 1966). On reflection, the CR is continually adjusting her/his place within the social and physical context. The CRs are trying to make sense of the culture of health care, of the institution and identify the boundaries through the analysis of factors that describe the context for them (Vaill, 1996).

On a higher level, the precepts for authentic leadership certainly pertain to the CRs. There are unwritten expectations for them to be the connective tissue throughout their universe of work, such as “being able to rapidly bounce back from catastrophic events and display resiliency; helping people in their search for meaning and connection by fostering a new self-awareness; and genuinely relating to all stakeholders” (Avolio & Gardner, 2005, p. 316).

Physician and leader identities share many common capabilities and traits, whether they are learned or innate. Things like empathy, compassion, and altruism have to be part of the make-up of the individual who is becoming a doctor and being aware of those elements of one’s self is essential. Another way to heighten one’s self-awareness is through reflection or feedback from others. Although in clinical practice, feedback or corrective action are mainstays of that type of learning, the same is not true about leadership training or development.

OCR 2 (FM): In residency, it’s interesting because I think they expect you to become teachers and leaders but where does that training ever happen?
As driving change and supporting innovation have become everyday tasks for physician leaders, Graduate Medical Education has not kept up (Ackerly et al., 2011; Mahon, Henderson, & Kirch, 2013). Educational leadership must step up to devise curriculum that can bring these qualities forward and maybe they need to think differently about what “curriculum” means. What is often considered “touchy feely” in this environment are the types of managerial dexterity that are missing.

Some reflection on the part of the curriculum developers must focus on the context and environment within which the CRs are expected to lead. As “quality and safety” are considered to be the rubric for continuous improvement, that same lens should be applied to leadership development with a similar review on an ongoing basis.

**Relationship**

One of the most profound relationships that became exposed through this study was the connection that was achieved through the “co-chief” model that was present in Family Medicine.

OCR 6 (FM): We complement each other pretty well and with our strengths and weaknesses, it has been really just a fantastic year.

The CRs have opportunities for many relationships during their tenure as chiefs and they will continue to work in that way going forward into practice. The practice of medicine has been described as “relationship centered care” (Tresolini & Force, 1994, p. 5) the relationships are not only between doctors and patients but with all of the other types of staff that comprise the health care environment. Experiencing significant and meaningful relationships while in residency not only contributes to formation of the CRs’ identity but establishes patterns that will support them going forward into professional life. One of the
significant roles of the CRs that came through as a theme within the interview transcripts was “connectors between residents, faculty, and program directors.”

The difference between the strength of the CRs’ connections in the Surgery and Family Medicine programs was very evident. The camaraderie among the Family Medicine CRs was obvious and established a light heartedness within the meetings. Even though the co-chiefs were interviewed separately, they arrived at the designated location together. We all had time to chat and get to know each other for a few minutes before beginning the interview process. On the contrary, the Surgery CRs were clearly more individualistic in their roles and their work. As the Surgery Program Director mentioned during the presentation of the study, surgery is practiced alone even though there is a team assisting. The surgeon has the spotlight in the operating room and is the definitive leader there. According to a Surgery faculty member, “Leading the operation is a multi—faceted type of thing. That is where you get your leadership role. So in the operating room it is the performance of the operation”.

A study done in Switzerland (Buddeberg-Fischer, Klaghofer, Abel, & Buddeberg, 2006) found that characteristics of those who go into surgery were primarily career motivation and goals. Personality traits come into play as well. The authors describe surgeons as “characterized by high values for instrumentality, intrinsic and extrinsic career motivation, power and achievement as life goals” (p. 6). These individualistic traits are not only exhibited in the operating theater but exemplify their identity as surgeons. Outside of the operating room, the CRs who participated in this study remain conscious of their individual selves and did not exhibit the close emotional ties that were seen in the Family Medicine group. Their relational leadership skills are contained within
their immediate needs in the operating room and not very evident in the other aspects of their roles as leaders. During the interviews, the Surgery CRs did not refer to their fellow chiefs. One of the Surgery CRs described himself in this way:

OCR 10 (S): I am a guy who at home will take apart cars and motorcycles and fix it. So, for me it’s in my personality to be a surgeon. The other thing I like about surgery is that it’s a quick decision area where you don’t get a lot of time, you don’t get the luxury of time to debate and research and you’ve got to make a pretty strong decision so I like that challenge and the responsibility that comes along with that.

At the faculty meeting for Family Medicine, the discussion topic was about maternity leave for residents and how that is managed, for the resident as well as the program. The Program Director acknowledged that the co-chiefs were the first to know because the resident has the type of close relationship with them that makes it easy to confide in the chiefs about the pregnancy. The discussion went on to problem solve the confidentiality issue versus the needs of the program but it was a very clear example of the depth of the relationship between the chiefs and the residents as well as the level of trust that exists.

As a group, all of the CRs involved in this study exhibited passion and drive for their current role as well as their future professional personas. They are seeing things differently from their older teachers and role models, wanting to change health care and the educational curriculum.

ICR 7 (FM): I feel so passionate about teaching and doctoring but I want to be a power of change, inspiring students and residents and other doctors to get more involved in these efforts.

ICR 13 (S): I have a natural drive to want to be involved. And to, ultimately, do good. I’ve always wanted a life of service and so medicine is a way for me to do that.
OCR 1 (FM): When I hear the stories of the patients I work with and resilience that they’ve had in the face of all kinds of end stage social determinants of health, it is just really motivating because I haven’t had to deal with any of those things and I’ve been granted such privilege in my life, it’s hard not to want to do your part.

Throughout the interview process, my appreciation for the candor that was shared was profound. For the CRs, the discussions were deeply personal. I became aware that I was serving as a catalyst for their self-reflections. This became an integral part of the Action Research framework of the study. As the researcher, I had joined the study as a change agent. The role evolved as the interviews and meetings took place. Additionally, the act of generating data during the study period was an intervention (Coghlan & Brannick, 2014).

It was rare that the topic of leadership education or practice would come up among the CRs without the prompt of this study. There was not an established venue for leadership discussion except when there was a crisis that demanded that focus. Then, the CRs might approach the Program Director or another faculty member. An “inner view” of their professional identities that underscored the need for change in how GME is conducted and content that fosters their identity development was apparent.

Expert Interviews

To provide background and context for the interviews conducted in this study, the following passages describe how these experts in GME see the leadership role for CRs. They each provide a unique perspective and information that bolsters the case for leadership awareness, the importance of relationship, the need for intentional reflection, and stimulation of leadership awareness.
Bruce Avolio, University of Washington

Bruce Avolio, Chair of Business Strategic Leadership at the University of Washington’s Foster School of Business and noted scholar of transformational and authentic leadership, talked about the partnership at his institution between the medical school and the business school. They have received a grant that will support the development of a physician leadership institute that will include nursing. This will involve re-crafting the curriculum in a way that makes leadership a focal point. He currently works with specific departments of the medical school and department of medicine. Avolio firmly believes that leadership involves states and not traits. He recounted a recent encounter at a meeting with physicians following his session with them:

One of the attendees said, ‘I am 45 years old and finally realizing, all of these things that were never on my radar screen. I never entered meetings thinking about that first moment, that I am creating meaning. And that I could be focusing just on that.’ The hardest thing to change is the fact that people believe that it can’t, so it is a self-fulfilling prophecy.

Avolio believes that healthcare is rich in resources but a different frame is badly needed. Healthcare is so complex and it is “almost destined to fail” due to poor leadership, he asserts. He suggests that a measure of leadership in healthcare could be, “When is the last time anybody’s challenged what is done in 24 hours over three days?” In terms of teaching leadership, he suggests that the measure would be to ensure that as many styles of leadership that are in evidence are presented to students. The contribution to the leadership identity of clinicians that Avolio has the potential to make with the partnership between the business and medical schools is great. I am hopeful that this enterprise
realizes educational possibilities that can be transferred to independent GME programs
and are not only applicable in a university setting.

There are transactional and transformative activities that are part of a leader’s
identity (Avolio, 2010). Avolio talks about how the lack of the transformational piece has
the deleterious effect of discouraging followers. The close tie to relational leadership
theory is apparent here. It is the “participating in relationship” (as cited in Uhl-Bien &
Ospina, 2012, p. xxi) that forms the bond that encourages followers to follow a leader.
This is truly the real world of how the transactional and transformational leadership cues
come together. CRs are expected to instruct and inspire and a firm foundation in both of
these aspects of leadership would serve them well.

**Harry Hollander, University of California, San Francisco**

Harry Hollander, MD, Residency Program Director at the University of
California, San Francisco, discussed in an interview the significant shift in GME away
from “physician centered mentality moving to a patient centered mentality.” The changes
that the ACGME requirements have created, according to Hollander, are evidenced by
“more common ground” between the medical specialties. UCSF has a one-day leadership
retreat for interns. They also offer what they call “Pathways” for development,
mentoring, and training. *The Health Professions Education Pathway* trains those who are
interested in careers as future health professional educators as faculty, education leaders,
and scholars. This pathway is for second and third year residents and through this
mechanism they receive “a lot more curriculum and experience with leadership.”
Ann Riley, Accreditation Council for Graduate Medical Education

The ACGME began to offer a course called Multi-Specialty and Pediatric Leadership Skills Training Programs for Chief Residents in 2010. This was a program developed by Robert Doughty, a pediatrician and the Senior Scholar for Experiential Learning and Leadership Development for the ACGME. Doughty created the program and began delivering it in 1986 (Doughty, Williams, & Seashore, 1991) as he saw the need to train future medical leaders. Ann Riley, ACGME Training Program Administrator, described the program to me in an interview. Doughty was asked about how CRs are trained in leadership by his father. He replied that, at that time, there was no training. His father was shocked and replied that in the business world, this would be preposterous. That sparked the idea for Doughty to develop a specific training for chief residents. He began with 20 CRs from pediatrics. The course is now conducted in the same three geographical locations in the United States each year and is open to any CR. Fifty CRs are accepted for each site, so 135 chiefs can attend per year. The cost is $1,015.00 for three and a half days of training. The participant’s program must contribute the funding for airfare and accommodations. The coursework is all experientially based and includes topics such as discovering your personal leadership strengths and weaknesses, giving and receiving effective feedback, and dealing more effectively with personal stress. Topics such as these came up in the interviews with CRs in this study and they asked for this type of training. According to Riley, the same schools seem to enroll their CRs every year. The application process does not include any type of screening and is only limited by space availability. The other significant hindrance to attendance is the financial support from the CRs institution for the travel expenses. At the institution where
this study was conducted, none of the CRs had attended this particular course. Most GME programs have very small budgets that barely cover the expense of running the program.

**Eileen Klein, Seattle Children’s Hospital**

A pediatrician, Eileen Klein, MD, whom I interviewed at Seattle Children’s, a hospital run by the University of Washington, indicated that the CRs there do attend this multi-day training. This type of program would definitely expand the horizons of the CRs at the institution where the study was conducted and give them some of the underpinnings of leadership that they are seeking. The experiential nature of the training would give them the practice in the subject matter that would enable their abilities as chief residents. As the Director of Care Transformation at the institution involved in this study remarked, “Having an internal, really dynamic program that gets people really thinking and stimulates them. It has to be both enthusiastic, engaging, and thought provoking and also, very practical.” A confluence of interests in training the CRs could be realized if the ACGME program could be made available to all CRs.

**James Nuovo, University of California, Davis**

The time that is needed for the teaching of reflection, the transactional skills, and the tools of transformational leadership is available in the current curriculum from my observation and conversations during this study but the priorities have to shift. Meeting the ACGME requirements is, of course, mandatory. According to James Nuovo, MD, Associate Dean of Graduate Medical Education at the University of California, Davis, the milestone requirements that are currently in the Next Accreditation program of the ACGME are less than robust:
There are totally pointless exercises that have no value whatsoever. There are 10% of residents who need time and energy and focus on identifying what their performance problems are and helping them improve.

Nuovo feels that this time could be better used for leadership training.

More exploration is needed in the area of mechanisms for evaluation of faculty concerning their abilities to teach leadership skills. Additionally, identification of the steps that are taken when areas of improvement for faculty are called for is the logical next piece begging for investigation. An online, confidential annual evaluation of faculty by residents occurs as part of the ACGME requirements. Nuovo acknowledged that the residents are also asked to complete an evaluation of the attending physician that they have worked with during the prior month. He verified that both of these evaluation instruments include questions about the “engagement of the faculty and the quality of the learning environment.” He discussed a “mid-career faculty development” program that takes place at Davis that offers some aspects of professional leadership education. Residents and fellows do not attend this program in his recollection, due to the time commitment required. Something similar for CRs could be very useful.

**David Irby, University of California, San Francisco**

David Irby, MD, Vice Dean of Education at UCSF, and Lynne Robins, Director of the Teaching Scholars Program at the University of Washington (UW), described the concept and practice of the Teaching Scholars Programs at both institutions during individual interviews. Irby and Robins developed the program initially at UW’s School of Medicine prompting an invitation to Irby to create the same program at UCSF in 1997. Robins stayed with the UW program. Both sites have roles for clinical educators whose focus is educational scholarship. At UCSF, the participants come mainly from general
internal medicine, with smaller representation from geriatrics, pediatrics, and psychiatry departments. There have been few participants from surgery. Irby attributes this to the fact that “their schedules are so demanding and unpredictable.” In the UW cohort, the largest number of graduates from the program were from pulmonary, critical care, emergency department, and anesthesiology specialties. Both of the programs invite members of other disciplines to attend such as nursing, dentistry, public health, and social work.

The importance of this program in relation to this study is that these are exemplars of ways that faculty can be trained to teach leadership curriculum. The strength of the teaching of leadership and professionalism will create physicians who have had the opportunity to be exposed to and trained in these important areas. Residents are able to participate in these programs in which the coursework takes place over one year and three to four sessions are focused on leadership and organizational change. The learning in this part of the curriculum is somewhat experiential. The participants teach each other about an assigned topic of leadership theory. Then, they switch partners and teach what they have just learned. Discussion of application of the subject matter follows. The participants also get a chance to meet senior leaders and ask questions of them such as how they can get to a leadership position themselves. At UCSF, Irby described efforts to gather outcomes data. The results so far indicate that “participants dramatically increased their networks.” Furthermore, he attributes “the quality of leadership and the culture of engagement and excellence at UCSF to the longitudinal programs”, such as the Teaching Scholars program. This program exemplifies the relational nature of this type of learning.
Rachel Remen and Michael Rabow, University of California, San Francisco

So much that has been identified within this study as germane to professional and leadership identity of CRs, and subsequently physicians, is grounded in the values of the Hippocratic Oath that all physicians have signed onto. A physician who has taken those values and developed curriculum for physicians-to-be, as well as those in practice is Rachel Remen, MD, Clinical Professor of Family and Community Medicine at University of California at San Francisco (UCSF) School of Medicine, Founder and Director of the Institute for the Study of Health and Illness at Commonweal, and noted author. She is well known for developing the unique course for clinicians known as the “Healer’s Art Course,” which has been described as “a profoundly innovative curriculum on reintegrating the heart and soul into contemporary medicine and restoring medicine to its integrity as a calling and a work of healing” (as cited in U.S. News and World Report, 2015). The course has been offered since 1991 and is now offered at more than 80 medical schools nationwide. The focus is on “values clarification and professionalism” (Institute for the Study of Health and Illness at Commonweal, 2015). In conversation with Remen, she said that they have not had specific courses for residents with the exception of a single program with the general medicine residents. She referred me to her teaching partner, Michael Rabow, MD, Professor of Clinical Medicine, Department of Medicine, at UCSF. She mentioned that she is awaiting a decision for a grant that she recently submitted for training residents specifically, so that may be possible in the near future.

During an interview with Rabow, he described a one-time customized course that he and Remen developed for the primary care and general medicine residents. The
The curriculum consisted of two small group sessions. The makeup of the participants and the process of the course was described by Rabow as follows:

One was an exercise about service and the other about rewriting the Hippocratic Oath. We had two required sessions and then monthly sessions that were voluntary or elective. Rachel and I do this mini retreat for third and fourth years. And so the comparison is really between the third and fourth year medical students and the second and third year residents.

His comments about the differences in the effect of the two groups was telling:

I would say that the medical students are sort of more open to the process. The comparison is a little unfair just because the retreat is at night. It is considered sort of a time away from other activities. Whereas the resident curriculum was in the middle of the day in a conference room in the middle of a series of academic conferences so I think it was sort of set up for them to have a harder time of getting into it. But, as a general rule, I think that the third and fourth year students were kind of more excited about learning because they were getting excited about going out into practice in the field of medicine as residents. I think the residents, this could be my projection, but I think that in general I think that third year residents are just a little bit more burnt out. It is a little bit more difficult for them maybe to access the content as much as the medical students. I do think that the stories that they told and the odes that they wrote were very similar to those of the students. But they definitely did seem a little bit more, less energetic and less creative, almost. Sort of less willing to let their minds and imaginations go.

The takeaway message from this example and others that were discussed earlier, are ways that different GME programs are trying to reinvigorate the positive frame of the values that the trainees and practitioners came into the profession with. As institutions of GME look to find ways to create solid professionals and leaders, this type of curriculum should be considered versus a very transactional coursework.

Ira Byock, Providence Health Services

During an interview with Ira Byock, MD, Chief Medical Officer of the Institute for Human Caring at Providence Health Services, he described the mission of the Institute that he is in the process of developing:
The Institute is bringing sophisticated educational system design and quality improvement strategies to fulfill Providence’s commitment to bring state of the art medical treatments while always attending to peoples’ physical, emotional, personal, and spiritual well-being.

Byock discussed a focus on “advanced communication techniques” and developing resources for residents and fellows to enhance the skills they have developed so far in their training. He feels strongly that residents should have “significant basic training and skills in communication.” This training is part of the “multi-pronged efforts” that the Institute planning group has identified as essential to their mission.

The objectives and themes of Byock’s Institute are at the center of the desired outcomes for professional identity formation and leadership awareness, connection, and relationship. He talked about a simulation center that he has put in place where there are standardized cases that are available and actors portray patients. In this way, participants can practice having the difficult conversations with patients that come up within the everyday work of a practicing physician. We discussed outcome measures and he described the difference between process and outcome success.

Let’s say how many residents we put through the training and their responses to that training, you know, subjective answers. Was this valuable? Will this change your practice? Does this make you more comfortable? We thought about doing pre and posttests about levels of comfort in having seminal conversations. We look at health systems. I tend to look at quality outcomes that are consistent with the Triple Aim.

He went on to describe measures that involve goals of care, family members and their distress over time, job satisfaction of nurses, as well as other possibilities. The objectives of the training was described as follows:

We promote messages and strategies aimed at a grassroots shift away from our cultural aversion to discussing serious illness and dying. Shared decision-making is essential to quality care, and clinical professionals play a crucial role in
fostering meaningful conversations about a person’s values, preferences and priorities. (Providence Institute for Human Caring, 2016)

Summary

Leadership is crafted through identity development, the structure of the learning environment, the role of organizational influence, and the threads of reflection and relationship that weave these threads together. Figure 5.2 is a revised version of Figure 2.1 in Chapter II and serves to illustrate the findings more clearly.

*Figure 5.2. Theoretical premises applied to findings.*
Professional identity development has not been a focus of training or discussion among the CRs that participated in this study. It is the topic of discussion among scholars of medical education but seems to remain something out of bounds to convey to residents. The paucity of leadership training and development of awareness of the importance to the everyday work of CRs is evident in this study. Once education in this arena is developed, a leadership/identity stimulus must be invoked regularly. I provided “jolts” to the CRs during the study and they took actions as a result. Their actions are evidence of the effectiveness of this approach. In addition to regarding the residents as extensions of the physicians, increasing the overall volume of patient visits, consideration has to be given to the quality of the care and the life/work balance of the CRs. Time is the shrinking resource that is fought over and time is what is needed in order to train and develop these future doctors. The faculty do not see themselves as great leaders on the whole, or in possession of the steps required to model and teach leadership. Again, the assumption that because someone has completed medical training they are automatically capable of sound leadership is a recurring theme. To train and develop CRs that have the awareness and skills that will serve the new model of patient care in the optimal way, faculty are sorely in need of learning. This has to be addressed by the institution and sooner than later.

Underlying all of these realms are the pervasive relevance of relationship and reflection, both elements support the interplay of identity, learning, leadership, and organizational influence. Without the backdrop of reflection and relationship there is no substance to support the CRs as more than clinical experts.
Relationships are inherent to the roles of leaders and followers (Fletcher, 2012). Together, these roles help to create the foundation of the organization. As a result of the relationships established by leaders and followers, organizational goals are achieved through social exchange. In health care, a significant portion of the work of physicians is accomplished in a cooperative environment in order to meet the goals of patient care. This occurs in the arena of care delivery and also in the more strategic elements of leadership on an institutional and national health care system level. The individual relationships between leaders and followers create the entity and its functionality. The ability of the leader to provide direction through modeling of transformational and transactional authentic behavior and cultivation of relationships provides the basis for organizational success of the entity and the individuals. In health care, the participants in the work are humans—patients, families, providers, program directors, administrators. Without an intentional focus on relationships, organizational function is undermined and, therefore, patient care is compromised.

The candor and pure honesty of the dialogue that emerged from this study was unexpected. I hadn’t expected the thoughtful and reflective responses from all of the participants because of the significant time limitations for the interviews and other interactions. This alone made it clear that the topic of leadership and all of the subject areas of this study are relevant and meaningful to CRs and those involved in their training. The goals of the residency program were summed up by one of the chiefs:

OCR 1 (FM): I want the residents to get fulfillment out of their experience as trainees. I really want them to have an experience that is both academically rigorous but also really meaningful.
The findings of this study indicate the need for leadership training and awareness to become a foundation for assuring rigor and meaning.

All of the experts, who participated in the interviews for this study, lent their wisdom regarding an area of GME that they believe to be of utmost importance. Their responses were congruent with the requests, wishes, and plans of the CRs, faculty, and program directors in this study. The importance of creating meaning through leadership, communication that is clear, appropriate, and patient-centered, developing professional identity that is humanistic and considers the self as well as the greater health care community emphasize the findings of other data gathered. The critical element of time that can be diverted from other areas of concentration to all of these pursuits permeated the dialogue throughout this study. Examples of mechanisms that could be expanded to GME give a sense of optimism about the future.

My work with the CRs, faculty, and experts illuminates the awareness, request, and need for leadership training and skills among CRs, as well as revealing why this process has been so difficult to initiate. The CRs, themselves, are adding their voices to this need, as seen for the first time in the results of this study.

Limitations of Study

The most obvious limitation of this study was the small sample size and inclusion of only two medical specialties. Including more CRs as well as those from other departments would have required more time than would have been possible during the handoff period for a single researcher to investigate. Additionally, because the overlap of the outgoing and incoming CRs was a critical aspect of the study design, time became extremely limited. During this part of their chief year, the outgoing CRs are trying to
complete all requirements of their educational process as well as prepare for the termination of their role as chief, and applying for jobs and fellowships, in most cases. The incoming CRs, are trying to study the actions of the outgoing chiefs and reflect on how they will take over the role while they continue to do their clinical work. Concurrently, the clinic patients have to be seen and surgeries must be performed: the patient care duties of the CRs did not stop.

An observational framework was not in place for use during the observational episodes, presenting a limitation of the interpretation of that data.

Testing other types of interventions with the incoming CRs over the course of their next year might reveal different aspects of the process of identity formation and relationship development than what was uncovered during this study. Another vein of inquiry that was only slightly explored in this study involved interviewing those that had been CRs during the previous year in order to probe their retrospective view of their year as chief with some hindsight.

During the very beginning of formulating the study with the CRs, issues of race and gender were considered as ways to categorize the qualitative data. In the first pilot study, those classifications were noted. In the final study design, the compartments that emerged through the research question did not include these aspects of the CRs demographics. There would be value to examining race and gender to see what clear differences in identity development may be in evidence.

**Suggestions for Future Study**

The Palliative Care training that Byock discussed in the interview mentioned earlier, can be viewed as the qualities of relationship building that physicians need to
learn in order to communicate, act in a leadership role, and develop the relationships necessary to deliver patient centered care. I would propose that all physicians in training learn these skills in the experiential method that is used at the Institute for Human Caring. The ideals of being a healer are at the heart of this training. The Institute for Healthcare Improvement’s Triple Aim is a derivative of the same set of goals but includes a financial piece, described as, “improved patient experience of care, improving the health of the population, cost containment” (Berwick, Nolan, & Whittington, 2008, p. 759). There has been a call for a focus on “high quality medical care” (Sklar & Lee, 2010, p. 1401) and the necessary changes to medical education to get there.

In regard to future studies with CRs, an opportunity to experience the training imparted through the simulation center could be connected to the Authentic Leadership Questionnaire over the period of their experience as chief and comparison of them to another group that does not have the opportunity for the training. I believe that the skills imparted by the training would have a broad effect on the CRs, bolstering their communication agility throughout their professional sphere, making them better leaders and doctors and heighten their awareness of themselves in all of these roles.

A more definitive picture of the epic journey of identity crafting would be to employ a longitudinal study design. Over the course of two years, an Action Research study intervention could be developed for an outgoing CR and revised during that period. Then, the resulting intervention could be trialed with the incoming CR over the next year, again involving iterative design. This arrangement could be replicated within several medical specialties concurrently. By removing the extremely short timeframe that hindered the iterative nature of the current study, a deeper dive into the work life of CRs
yielding potential implementable “jolts” that would deepen the reflective capacity of the CRs and possibly result in changes within the GME curriculum. That may be accomplished by employing a coach specifically for this purpose and/or use of smartphone applications. By including the “experts” as part of the iterative process, other facets of identity, relationship, and leadership could be explored further.

The research concept in this study morphed into a session reflecting on the interviews with the outgoing CRs and having them lead a discussion with the incoming CRs based on that reflection. The results of the study gave me information about the lack of time or training on the importance of reflection, as well as the CRs lack of professional identity and leadership awareness. Through the meetings and interviews with the faculty and program directors, I was able to give them an understanding of what the CRs see as missing elements in the GME training regarding leadership. They acknowledged the information that I shared as valid and plan to address the issues but I still feel that training in the art of reflection and a “leadership/identity stimulus” is necessary to keep the ideals fresh in the minds of physicians, bringing a conscious awareness of themselves as professionals and leaders. Aspects of positive behavior, the ways that can help them succeed ethically as well as scientifically are necessary in this new world of multi-disciplinary health care. One of the mainstays of ongoing physician education is the Grand Rounds lectures that occur regularly in health care institutions. Why not have a leadership “case” discussion at each of these meetings or integrate an element of leadership awareness into the meeting?

As described by the CRs and the faculty, connections happen in many ways. Throughout the interviews the connections to people were portrayed as meaningful to the
individuals and vitally important to their work. Some positive social influence has been shown to connect people and create relationships as a pre-determinant to effective leadership among medical students (Hojat, Vergare, Isenberg, Cohen, & Spandorfer, 2015).

On a basic level, the quote from MacMurray (1961) resounds here, “Self exists only in dynamic relation with the other” (p. 17). In the complex world that the CRs find themselves in, they are attempting to make sense of their career and role transition, by figuring out how they fit into the current social structure, in their relationships with others, within the many different parts of the organization that they are members of, while forming their personal work identity (Pratt et al., 2006). The investment by the institution in the intentional development of the CRs identity as professionals and leaders has the potential for significant return.

As mentioned, some of the faculty members attend a leadership institute for physicians. This study would involve assigning some CRs to one of the “graduates” of the leadership institute for a designated mentorship and others would be assigned to faculty that did not participate in the leadership training. Comparison of the two groups could be done through qualitative techniques and/or a questionnaire.

Another study that might yield some very interesting insights would be a retrospective investigation with former CRs. Several of them end up being hired by their department once the residency period is complete. Also, there is some effort being put into maintaining relationships with graduates of the program that take positions or fellowships at other institutions. This would involve following up with them at designated intervals as they look back at their training, possibly years one through three
post-residency. An abbreviated version of the Reflected Best Self Exercise from the Center for Positive Organizations (Quinn, Dutton, Spreitzer, & Roberts, 2016) would allow the participants to compose their “best self-portrait” and determine how they will seek to sustain their best self. If this process were to begin during their year as chief and then at the designated intervals, a picture of their identity over time would emerge and illustrate patterns of behavior. Both leadership and professional identity elements would become evident.

By fully understanding the mechanisms that result in positive identity constructs for the CRs, the CRs will have a more significant perspective about themselves as physicians and leaders and the institution will enjoy the fruits of these labors.

Interestingly, all of the Program Directors are graduates of this institution’s residency program. Another study might involve comparison of another program where the Program Directors attended a residency program outside of their own institution. There may be elements of safety and resistance to change that are present in the current institution being studied. A question that could be posed would be about the Program Directors identity development and its link to a specific institution.

Within this particular residency program, out of the fourteen CRs that participated in this study, only two of them are non-Caucasian. Among the five Program Directors, only one of them is non-Caucasian. There may be very different results if there were more ethnic diversity was included in the participant pool in a similar study to this one.

An unexpected finding of this study was the little training provided to attending physicians and faculty in effective ways of teaching leadership and coaching related to professional identity. A study that would have a control group of attending physicians
and faculty that received specific trainings and coaching compared to a group that did not. The training for the participants would include relational aspects and measure change in the professional identity of the educators themselves. The question that follows is how and when will measurement occur that reveals the fabric of the leadership role of the CR from year to year and the ongoing development of improvements to the program.

**Influence of the Study**

The change that occurred for the CRs was through the reflection stimulated by the interviews and sessions together. This was evidenced through the Authentic Leadership Questionnaires. The methodology of this study shifted to suit the time that was available with the CRs. Following the interviews, the incoming and outgoing CRs met together. The outgoing CRs reviewed and reflected on the transcript of their interview, determined the most important information to transmit to the incoming chiefs and then they had a discussion. It was highly unusual for them to have time to reflect on themselves as leaders and professionals. Reflection is a basic element of identity formation and should be taught and encouraged in GME. Identity development theory and relational leadership theory are inextricably linked. Authentic leadership theory is truly relational in the behaviors that underlie its premises of the typology. The hallmarks of transformational leadership are simultaneously transactional and transformational. Characteristics of authentic leadership can enhance the transformational abilities of a leader and learning about them would be invaluable to the ICRs.

The original design of this study was structured as Action Research and involved an iterative process with the CRs playing a lead role. At that particular time of the year, the incoming and outgoing CRs overlap briefly and it was not possible to get that much
of their time. The iterative process then became the review of the study results with the Program Directors and their takeaway changes to their thought processes and actions regarding the professional identity formation for the CRs relating to their leadership roles as physicians.

As a result of the report that I presented to the Program Directors, major issues regarding leadership training and professional identity were magnified. The transactional leadership skills that the CRs requested during the interviews were reported and then noted by the Directors.

One of the faculty members communicated that she had already made changes to a system that she has developed for querying the residents based on my interview with her to include the following question:

Please tell us briefly about one of your favorite moments of leadership in the past six months.

This is a mechanism for reflection that was not present before this study.

Concerning the incoming CRs, their ratings on the Authentic Leadership Questionnaire showed change in their self-perception following the final sessions. The areas of Internalized Moral Perspective and Relational Transparency showed the highest percentage of change in ratings, 8.5% and 10.6% respectively. One of the outgoing surgery chiefs responded to the effect that the intervention had on her leadership overall:

It’s really changed (me) for the better and I really feel like I have become a much more direct person because I am trying to communicate the right thing to do.

**Opportunities Provided by Study**

It is time to change this paradigm of medical residency by helping the CRs to become their best professional selves. They should be enabled to reflect upon themselves
and make corrections to the “drift of the boat” and become the leaders that we need to steer in health care in the right direction. One of the participants had been chief resident in the Family Medicine program the year prior to the interview and subsequently hired on as faculty. His take on what the residency needs to provide to sustain the life of a CR was as follows:

Faculty 8: Just sort of being able to set boundaries between the work, and again going back to the wellness piece, and make sure this is a survivable and viable career for folks.

In industries outside of health care, leadership is more clearly defined and taught, this is mentioned in the literature about physician leadership (Itani et al., 2004) and in the interviews in this study. The health of our country is at stake. We have to do better at cultivating robust leadership and professional identity through the graduate medical education process.

Conclusion and the Future of Graduate Medical Education

At this meeting we went to last month in New Orleans one of the presenters told a story. There was a manager talking to the CEO. “What if you spend all this time and money training and investing in these people and they leave?” And the CEO says, “And what if they stay?”

Associate Program Director

In addition to integrated care for patients, the system must be integrated as well in terms of physician practice and training (Enthoven, 2008). A non-university GME program may be the ideal place to start the tsunami of change that needed. The current model may be working for the residency program in terms of the institution but it is shortchanging the CRs. Some of them are on the verge of leaving the institution, however, the benefit of training the CRs in the ways of leadership benefits the greater
good. Incidentally, all of the interviewed program directors graduated from this institution’s residency program, staying after all.

The elements of education that would serve the CRs as physicians, teachers, and creators of their own identity (and ultimately patients) is a continuum of identity development or inner space (the individual’s developmental state) (Figure 5.3).

Figure 5.3. Cycle of identity development and learning.

In order to instigate change in the realm of leadership and identity awareness for the CRs, the following action items will have to be discussed, assigned, and implemented:

- Determination by institutional leaders and program leaders for how time can be diverted from other activities considered essential to CR work to leadership education and formalizing time for reflection
- Commitment to implementing a defined and required leadership curriculum for the CRs that includes transformation and transactional elements
• Train existing faculty in coaching skills to assist the CRs in terms of their professional development

• Develop leadership skills training for faculty and methods to model leadership for the CRs which includes Palliative Care training elements regarding communication and shared decision making

• Identify a process for the OCRs to develop leadership training for the ICRs

• Determine a mechanism for inserting leadership/identity stimuli at regular intervals, whether it is through meetings, text messages, or other use of media

Creating the opportunity for this to happen is up to the faculty, program directors, and institutional leaders. The best scenario could be enabled if the ACGME became passionate about identity formation and leadership. Setting standards that encourage residency programs to focus on faculty development that would ensure the highest quality of teaching and modeling of leadership for all residents would force institutions to be adept in this area.
Afterword

As a result of the work described in this dissertation, several opportunities for further the research and work in the field have developed.

Following the completion of the research study, which included the report on the findings to the program directors, changes to the residency program were identified. The next step, of course, is implementation. One of the findings reported was the lack of leadership training for the faculty members that are the instructors for the chief residents. I have been asked to help the assistant program director for Family Medicine create a curriculum for that purpose.

A program specifically for training chief residents in leadership within a medical specialty was developed at Boston University/Boston Medical Center in the discipline of Gerontology. I became aware of this program through a former faculty member, quite surprised that I had not come across it in the literature search for this dissertation. Apparently, there have not been any publications about the program. Chief Resident Immersion Training (CRIT) programs have been offering case-based education in Geriatrics since 2003. Another program has been created for chief residents in the area of Addiction Medicine using the framework from the Geriatrics training. According to the website that describes the program, the results that trainees have experienced include greater confidence in clinical skills and teaching clinical skills to others, improved interdisciplinary approaches to care, and development of leadership skills among Chief Residents that have participated (http://adgap.americangeriatrics.org/adgap-programs/crit/). To date, there has not been a CRIT program developed for the specialty of Palliative Care. The model of training in Palliative Care communication techniques
emerged from my study as a sound template for teaching relational leadership. According to Gawande (2016), Palliative Care trained physicians can elicit “broader goals and tailor care to include them” from patients and families. All physicians should be educated and have the skills to discuss goals, preferences, and values, regardless of their specialty, he concludes. The methods used for Palliative Care consultation and treatment are also consistent with the goals of the Triple Aim-improving patient care, facilitating the health of the community, and conserving resources. As mentioned in the dissertation, the Triple Aim is pertinent to health care at large and physician leaders are needed to guide this type of reform.

A CRIT program in Palliative Care would ensure that the chief residents would have the leadership and clinical skills to deliver the highest quality clinical care and teaching. I have submitted a proposal to leaders at a residency program to which I am connected. They have agreed that I can manage this process and develop the program. The CRIT program takes place over two days at an off-site location. A case based strategy is used to train chief residents. An interactive Palliative Care case would be presented followed by evidence based lectures and interactive exercises. In addition to training chiefs in an area of specialty, there is focus on teaching leadership skills and modes of collaboration with other disciplines. An action project is developed that will be completed over the chief residency year. I will be responsible for organizing all aspects of the overall program in conjunction with the residency program director and directing development of the leadership curriculum.

Additionally, I am considering another research study in conjunction with the CRIT program. There are two mixed methods concepts that I am formulating. The first
would involve a coaching component in addition to the CRIT curriculum. One cohort would receive the coaching intervention and the other would not. Comparison of the data collected between the two cohorts would then be analyzed. The second idea would include having one cohort attend the simulation laboratory at The Institute for Human Caring (hands on Palliative Care training) in addition to the CRIT program and compare to another cohort that did not have that opportunity. Interviews pre and post interventions would take place and tools would be developed or identified to measure longitudinal effects.

The Institute for the Study of Health and Illness (ISHI) program’s tagline is “remembering the heart of medicine” (Remen, 2016). The programs were developed by Remen and one of the offerings is the “Healer’s Art” course, as mentioned within this dissertation. The program has trained faculty members at hundreds of health care institutions world-wide, including a nearby academic medical center. I am connecting the residency program’s institutional leadership with faculty at this institution in order to offer the program at this site. I believe this will help residents and practicing physicians hone their relational and reflective skills, while shifting their professional identity. Again, as in the other future study ideas, comparison of cohorts that complete the course could be compared to those that do not. The program includes rigorous study of outcomes and those tools could be utilized in this case.

Another interest of mine that came about as a result of this study, is to develop a phone application or messaging system that would serve as a stimulus for leadership reflection. As reported within the dissertation, I became a catalyst for stimulating the leadership awareness of the chief residents and led them to take action. I want to be able
to have the stimulus effect remotely and over time. Since I have had the experience of
developing a phone application previously, I feel competent to take this on. Also, I would
like to test the viability of existing phone applications for this purpose (i.e., Superbetter).

As time goes on, I plan to continue this work that I deem so very important to
health care’s future. Publishing my research and findings to further the field of leadership
among physicians in training and practice remains my goal.
Appendix
Appendix A: Chief Resident Interview Guide

Session 1 Questions

Describe your 3 greatest accomplishments

What made these accomplishments stand out for you?

Who are or have been your major role models?

Describe your role as a chief resident and the things that have been successful for you in the role

On a scale of 1-10, rate the quality of your leadership abilities now

What energizes you?

What is your professional vision?

What would you need to become your personal definition of a dynamic leader?

Session 2 Questions

Have you had any thoughts in regard to our last meeting?

Have you made any changes to your leadership style since then?

How would you describe your leadership style?

What approaches to change have you found effective for you in the past? Not so much?

Tell me about a time that you feel you excelled as a leader-what was going on, who was involved, what made it so memorable?

Can you tell me about what the involvement of others meant in this case?
Appendix B: Interview Guide for Faculty, Program Directors, and Subject Matter Experts

What sparked your interest in your field?

How long have you been at your institution?

What are the things that drew you to that institution?

What did you see as possible there?

What is your role in medical education?

How did that role begin?

Do you think that the leadership awareness and opportunities at your institution are unique?

What changes have you seen in the past 5 years?

Would you say that developing leaders is a focus of the medical school at your institution?

What lessons do you think health care leaders can learn from other industries?

Are there differences between leadership training at an academic institution versus an independent program?

Does your program have any affiliation with academic (or independent) institutions?

Are there differences in leadership training between medical specialties?

Is there an opportunity in your program for students to design curriculum?

Do you serve as a mentor for students?

How are faculty evaluated as mentors and trainers for leadership awareness and skills?

If you had unlimited funding, what changes would you make to your program?
Appendix C: Authentic Leadership Questionnaire

Instructions: This questionnaire contains items about different dimensions of authentic leadership. There are no right or wrong responses, so please answer honestly. Use the following scale when responding to each statement by writing the number from the scale below which you feel most accurately characterizes your response to that statement.

Sample Questions
Key: 1 = Strongly disagree 2= Disagree 3= Neutral 4=Agree 5=Strongly agree
1 I can list my three greatest weaknesses. 1 2 3 4 5
2 My actions reflect my core values. 1 2 3 4 5
3 I seek others’ opinions before making up my own mind. 1 2 3 4 5

Scoring
1 Sum the responses on items 1, 5, 9, and 13 (self-awareness).
2 Sum the responses on items 2, 6, 10, and 14 (internalized moral perspective).
3 Sum the responses on items 3, 7, 11, and 15 (balanced processing).
4 Sum the responses on items 4, 8, 12, and 16 (relational transparency).
5 Sum the responses on all items (authentic leadership).

Total Scores
Self-awareness:______
Internalized Moral Perspective:______
Balanced Processing:______
Relational Transparency:______
Authentic Leadership:______

Scoring Interpretation
This self-assessment questionnaire is designed to measure your authentic leadership by assessing four components of the process: self-awareness, internalized moral perspective, balanced processing, and relational transparency. By comparing your scores on each of these components, you can determine which are your stronger and which are your weaker components in regard to your overall authentic leadership score. You can interpret your authentic leadership score (the total score) using the following guidelines: very high = 64-80, high = 48-64, low = 32-48, and very low = 16-32. Scores in the upper ranges indicate stronger authentic leadership, whereas scores in the lower ranges indicate weaker authentic leadership.
Appendix D: Authentic Leadership Questionnaire Research Permission

To whom it may concern,

This letter is to grant permission for Meridithe Mendelsohn to use the following copyright material for his/her research:

Instrument: *Authentic Leadership Questionnaire (ALQ)*

Authors: *Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa*

Copyright: *2007 by Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa*

Three sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation. The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

[Signature]
Appendix E: Report to Program Directors

Chief Residents and Leadership
Enabling a Positive Future

Meaning and Identity

Purpose: Working with Chief Medical Residents (CMRs), the investigation of positive framing as a means of developing leadership identity in the context of work emerged from two pilot studies completed by this researcher. Professional identity is formed during the period of residency (Sklar, 2014). Even though clinical education is significant for CMRs, preparation for their roles as physician leaders can be optimized during this time. Medical residency research indicates that this educational period leads to significant stress as demands increase for CMRs particularly (Saxena et al., 2014). While in a learning and work environment, identity development is tied to the activities of training and practical application of what is learned. Development of a preferred or best “leadership self” at work would allow CMRs to identify their strengths and capabilities, which would enable them to achieve resilience, vitality, and thriving within their environment (Roberts & Dutton, 2009). This would then result in self-awareness and identification of themselves as leaders. Support that enables the CMRs to develop recognition of themselves as leaders and maintain their leadership awareness will enhance the performance of their role as a Chief Resident and, therefore, the experience of other residents in the program. As future physician leaders they will then have the experience needed to improve organizational performance overall. Both transactional and transformational leadership must be understood so that the organization can develop followers as well as leaders (Avolio, 2010). For CMRs, it is an explicit expectation that followers (other residents) are inspired and instructed in the culture and activities of the organization.

Problem: Chief medical residents are given little coursework or training regarding their meaning making of the residency experience in a leadership role, which is a new reality and social context for them. A mechanism that inspires leadership, relating to concepts of sound leadership practice through identity reflection is not documented in literature regarding residency programs to date. The influence and impact of “high quality relationships” (Dutton & Heaphy, 2003) (other residents, mentors, advisors, attending physicians) in medical residency plays an important role but the effect on leadership awareness and skill is not known regarding CMRs. Identification of the potential places where setting the positive frame regarding identity as a leader in medical resident education, specifically for CMRs, is the goal of this work. Investigation of positive leadership identity inspiration (Dutton et al., 2010) seems applicable. Inquiry as to what might serve as leadership “jolts” (trigger events that disrupt the automatic modes of information processing that are likely to induce change) (Roberts et al., 2005) and stimulation of leadership awareness for the CMRs was considered during the study period. There may be differences in leadership identity and awareness between medical specialties.
Methods: Qualitative methods of interviewing were utilized with incoming and outgoing CMRs in the Family Medicine (First Hill and Cherry Hill) and Surgery Programs. Attending physicians and faculty were also interviewed about their personal experiences that drew them to the SMC Residency Program and how this has shaped their identity as physicians and leaders, as well as their perceived obligation to facilitate the leadership identity development as well as the meaning that future physicians ascribe to their identity formation. Analysis of the interviews was done with the use of NVivo 10 analytic software as well as significant review and reflection by the researcher in order to identify themes that emerged. The Authentic Leadership Questionnaire (Northouse, 2012) was administered as both a pre-final session and post-final session tool to the incoming CMRs. In addition to the individual interviews, the CMRs participated in group sessions within their specialty and campus, which were conducted to uncover the outgoing CMRs personal adaptive strengths, motivation to become happier, optimistic, trusting, and resilient that enabled positive, transformative change in their leadership actions and impart their reflections to the incoming CMRs. The interviews and sessions began in May, 2015, and were completed in August, 2015.

Findings: As a group, the CMRS are passionately devoted to the residency program. “I am somewhat of a zealot about this place.” They are extremely proud of their role with the other residents and the relationships that they have with them. The support they receive from faculty, program directors, other residents, and attending physicians is significant and meaningful. Almost all of the outgoing CMRs hope to work in a teaching role in the future because of the experience they have had as chiefs. Many CMRs commented about being able to “make concrete change” as a highlight of their experience and felt they have made contributions to “curriculum building”. They value the relationship with all those who are involved in the program. “It is a very sacred thing, to have a group of people that are so in tune with their patients and with each other and have noble goals and aspirations.” They identify as new leaders and find that this is a time that they are expected to work in a “real world setting where you have all different organizational levels, different age groups, different backgrounds, and personalities”. An overview of the role of CMR is described as, “Mostly it is just kind of keeping the boat steady so that everybody else is happy. And that’s important to me. Making sure if someone is struggling that it is attended to and gets better. That serves as a catalyst to everyone to be able to do well”.

They expressed the desire to have training in the mechanisms that would result in robust transactional leadership skills such as methods of handling conflict, work life balance, time management, boundary setting, and working with group process. In terms of transformational leadership abilities, “getting to the level of professionalism with my interactions” is another area that they would like to have some instruction in. More time spent on leadership theory and readings were suggested. A challenge that was mentioned pertained to “the bureaucracy” that is part of the CMR role. Concerning their leadership identity, they are challenged by “being a really strong advocate for the residents and not act(ing) out of a place of fear and not worry what the faculty are going to think of me when I bring up different perspectives” and “bridging the residents and the faculty slash program director”. They find the co-chief model very
supportive and a relationship of much value to them, giving them a sense of balance to the role. They identify as one of their peak leadership experiences times when they “run your own service, help with decision making, and play a more active role”.

Time to reflect about their personal leadership style and role is scant or non-existent. “You don’t have a lot of opportunity for leadership so … you don’t really get to be proactive with people”. Faculty also mentioned that “the time constraints are significant” and “we talk about limits of 80 hours and so forth, limits that are well beyond what any reasonable person would want for work and yet that’s the limit”.

The Authentic Leadership Questionnaire administration yielded some interesting results. The questionnaire was administered to the incoming CMRs only. They were asked to respond to it twice. They were asked to reflect on themselves prior to the first session that they had with the researcher and then a second time, following the joint session with the outgoing CMRs. All incoming CMRs experienced some positive change in their scores following the joint session. The areas of Internalized Moral Perspective and Relational Transparency showed the highest percentage of change in scores, showing an 8.5% and 10.6% change respectively.

As a result of this research, a leadership question has been proposed by one of the faculty members to be added to the biannual resident self-evaluation system used in the Family Medicine program: Please tell us briefly about one your favorite moments of leadership in the past 6 months.

Conclusions: Within the complex setting of health care and specifically in their roles as leaders, CMRs are subject to a “competing values framework”, as outlined by Quinn and Cameron (Cameron & Quinn, 2005). All of the values that the institution and the CMRs are committed to are positive and complementary. The CMRs are faced with these “dynamic tensions” (Quinn, 2015) and navigating them on a daily basis.

<table>
<thead>
<tr>
<th>Collaborative Quadrant</th>
<th>Create Quadrant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Balance</td>
<td>Growth Focus</td>
</tr>
<tr>
<td>Cohesive Teamwork</td>
<td>Self-Organizing Process</td>
</tr>
<tr>
<td>Group Deliberation</td>
<td>Creative Action</td>
</tr>
<tr>
<td>Authentic</td>
<td>Intrinsic Motivation</td>
</tr>
<tr>
<td></td>
<td>Positive Contagion</td>
</tr>
<tr>
<td>Expression</td>
<td></td>
</tr>
<tr>
<td>Appreciative</td>
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<table>
<thead>
<tr>
<th>Control Quadrant</th>
<th>Compete Quadrant</th>
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</thead>
<tbody>
<tr>
<td>Cost Containment</td>
<td>Full Engagement</td>
</tr>
<tr>
<td>Predictability</td>
<td>Individual Accountability</td>
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<tr>
<td>Procedural Compliance</td>
<td>Decisive Action</td>
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<tr>
<td>Role Clarity</td>
<td>Achievement Focus</td>
</tr>
<tr>
<td>Objective Analysis</td>
<td>Constructive Confrontation</td>
</tr>
</tbody>
</table>

Understanding this concept and maintaining the larger view of leadership would tie values to everyday functioning of the CMRs.
The strength of the residency program lies in the passion and dedication of the CMRs, faculty, and program directors. There is a call from CMRs as well as faculty to instigate a defined leadership curriculum that includes both transactional and transformational elements. There is a significant interest on the part of the faculty, Chief Medical Officer, and Executive Medical Director to initiate or extend the leadership training curriculum to the residents in general. Currently, the residents are able to attend this institution’s University’s program when they are recommended for participation. There have been efforts to begin the process and curriculum is available, as well as local expertise. The CMRs attend a few workshops regarding leadership within their role but the value of having faculty from this institution deliver the training would be significant. Even though time is the most precious variable, in order to stimulate leadership awareness and craft leadership identity that supports the organization’s mission while developing sustainable physician leadership, time will have to be devoted to the pursuit. The “intervention” (interviews and discussions) that was applied for this research was a stimulus for the CMRs to evaluate and consider themselves as leaders. This technique coupled with some formalized training would bolster the teaching/role modeling/mentoring for the faculty, as well.

Recommendations for Future Research: A longitudinal study of incoming CMRs that would extend over the period from when they are selected or entering their final year of residency to the end of their year as CMR would expand the view of the leadership role. Having a control group that receives an intervention (training or other stimulus) and another group that does not would allow for designing a program of potential training. Another aspect of study that might prove interesting would be to examine differences in age, gender, and area of medical specialty among the CMRs. Publication of the results of this study or presentation at regional or national meetings is recommended in order to share the information that has been gathered.

Questions:
1. How does this fit with your sense of the CMR role?
2. Does this affect your ideas about faculty/attending physician training in terms of teaching leadership?
3. Thinking about this work and the current state of leadership awareness of CMRs, how do you see change taking place going forward?
Appendix F: Informed Consent for Residents

Project Title: Leadership by Design: Medical Residents and Leadership

Project Investigator: Meridithe A. Mendelsohn, PhD Program in Leadership & Change

Research Faculty: Laura Morgan Roberts, PhD; Jon Wergin, PhD

1. I understand that this study is of research nature. It may offer no direct benefit to me.

2. Participation in this study is voluntary. I may refuse to enter it or may withdraw at any time without creating any harmful consequences to myself. I understand also that if I choose to withdraw from the study the investigator may choose not to include my data in the study.

3. The purpose of the study is to determine if a session with outgoing chief residents developed for incoming chief residents with a leadership focus is of benefit to the incoming chief residents.

4. As a participant in the study, I will be asked to take part in the following procedures:
   a. Attend 1-3 sessions for interviews and discussion
   b. Respond to the Authentic Leadership survey

Participation in the study will take three hours of my time and will take place at Institution.

1. The risks, discomforts, and inconveniences of the above procedures might result in my reflection on my attitudes and practices of leadership and becoming dissatisfied with my current status of leadership activity. I may share information with other participants that could bring about social consequences. I may choose to contact the Caregiver Assistance Program at (xxx) xxx-xxxx at any time (24/7) for assistance if I experience any of these stated effects. There are no physical or financial risks to me.

5. The possible benefits of the process might include:
   a. An increased awareness of my leadership style, command of tools to use to change my reflex behaviors, and increase my sense of my goals as a leader. Also, I may experience self-awareness of my own leadership skills, style, gaps in knowledge, improved leadership within my group of residents, knowledge of how to take the lead in conflict resolution, understanding how to manage difficult individuals, and skills that will allow me to give and get effective feedback.
b. Benefits to others such as improved skills in the ways that I participate in teamwork activities, improved communication with many people that I come into contact with, and decreased conflict with others.

c. Information about the study was discussed with me by Meridithe Mendelsohn (principal investigator) and (manager, medical education). If I have further questions, I can call her/him at (xxx) xxx-xxxx.

6. Though the purpose of this study is primarily to fulfill Meridithe Mendelsohn’s requirement to complete a formal research project at Antioch University, the investigator intends to include the data and results of the study in future scholarly publications and presentations. All data will be de-identified so that participants will not be known to anyone but the investigator. The confidentiality agreement, as articulated above, will be effective in all cases of data sharing.

   If I have any questions about the study, I will contact Meridithe Mendelsohn at (xxx) xxx-xxxx or xxxxx.xxxx@xxx.xxx

   If I have any questions about my rights as a research participant, I may contact Dr. Philomena Essed, Chair Ethics Committee, PhD in Leadership and Change Program, Antioch University at essed@antioch.edu

   Date: ________________       Signed: __________________________________________
Appendix G: Informed Consent Faculty and Program Directors

Project Title: Leadership by Design: Medical Residents and Leadership
Project Investigator: Meridithe A. Mendelsohn, PhD Program in Leadership & Change
Research Faculty: Laura Morgan Roberts, PhD; Jon Wergin, PhD

2. I understand that this study is of research nature. It may offer no direct benefit to me.

3. Participation in this study is voluntary. I may refuse to enter it or may withdraw at any time without creating any harmful consequences to myself. I understand also that if I choose to withdraw from the study the investigator may choose not to include my data in the study.

4. The purpose of the study is to determine if a session with outgoing chief residents developed for incoming chief residents with a leadership focus is of benefit to the incoming chief residents.

5. As a participant in the study, I will be asked to take part in the following procedures:
   a. Attend 1-3 sessions for interviews and discussion

6. Participation in the study will take three hours of my time and will take place at Institution.

7. The risks, discomforts, and inconveniences of the above procedures might result in my reflection on my attitudes and practices of leadership and becoming dissatisfied with my current status of leadership activity. I may share information with other participants that could bring about social consequences. I may choose to contact the Caregiver Assistance Program at xxx-xxxx-xxxx at any time (24/7) for assistance if I experience any of these stated effects. There are no physical or financial risks to me.

8. The possible benefits of the process might include:
   a. An increased awareness of my leadership style. Also, I may experience self-awareness of my own leadership skills, style and gaps in knowledge, Benefits to others may include awareness of leadership training in the ways that I engage with residents.

9. Information about the study was discussed with me by Meridithe Mendelsohn (principal investigator). If I have further questions, I can call her/him at (xxx) xxx-xxxx.
10. Though the purpose of this study is primarily to fulfill Meridithe Mendelsohn’s requirement to complete a formal research project at Antioch University, the investigator intends to include the data and results of the study in future scholarly publications and presentations. All data will be de-identified so that participants will not be known to anyone but the investigator.

If I have any questions about the study, I will contact Meridithe Mendelsohn at (xxx) xxx-xxxx or xxxxxx@xxx.xxx.

If I have any questions about my rights as a research participant, I may contact Dr. Philomena Essed, Chair Ethics Committee, PhD in Leadership and Change Program, Antioch University, at essed@antioch.edu

Date: ____________________  Signed: ____________________
## Appendix H: ICMR Authentic Leadership Questionnaire Scoring Detail

<table>
<thead>
<tr>
<th>ICMR</th>
<th>Instrument Element</th>
<th>Total Scores Pre Session</th>
<th>Total Scores Post Session</th>
<th>Percent Change</th>
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<td>Relational Transparency</td>
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<td>Balanced Processing</td>
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<td>Relational Transparency</td>
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<td>Total</td>
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<td>5.4%</td>
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<tr>
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<td>Internalized Moral Perspective</td>
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<td>Balanced Processing</td>
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<td></td>
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<td>Internalized Moral Perspective</td>
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<td>Relational Transparency</td>
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<tr>
<td></td>
<td>Total</td>
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<td>63</td>
<td>14.3%</td>
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Appendix I: Transcripts of Supplemental Files

DissClip_1.01_Author_Intro

Welcome to my dissertation, Leading by Design: Physicians in Training and Leadership Awareness. I am Meridithe Mendelsohn, the author. The background for my work underlies my support for the Triple Aim, developed by the Institute for Health Care Improvement: Achieve better outcomes in population health, improve the experience for patients and doctors, and reduce per capita costs. To achieve this type of patient centered care in the United States, we need strong physician leaders who can lead the charge. It is assumed that physicians are trained as leaders. This is most often not the case. There is a scarcity of leadership training in Graduate Medical Education. Within my research, I looked through lenses of professional identity development, social identity formation, leadership, adult learning, and organizational behavior theories. Prior to this study, I conducted two preliminary studies. As a result of these experiences, I came to understand that I could have the most impact by working with chief residents who are in their final year of training. This study included interviews and meetings with outgoing and incoming chief residents in Surgery and Family Medicine, program directors in both specialties, as well as institutional directors, faculty members, and regional subject matter experts. My findings included identification of the effect of a catalyst to inspire leadership awareness among the residents, underscoring the importance of relational, authentic, and transformational leadership for physicians in training, and highlighting the need for implementing leadership training for residents as well as faculty. I hope you find this study helpful to your own area of research.

DissClip 4.01 OCR 11

I was the one that called the family conference. I got Palliative Care, Oncology, Medicine, and I got all these people to weigh in and then I actually led the family care conference. It was just a really cool thing to have everyone looking towards me and that was something that I never really had before. I had always been on the sidelines. I had been at lots of care conferences but this was kind of cool. So, as Dr. W. says guide things that way that you want them to go. So, going into it, I knew that I wanted, that I felt like it was best for him, if, with the family’s approval, that we kind of let it go because it turned out it wasn’t diverticulitis, it was cancer, stage IV cancer and his kidneys were down, his lungs were down, all systems were kind of down. It seemed to me the best use of, it was in the patient’s best interest was to move to comfort care. And so, with that in mind, I went into the family discussion thinking, “This is what I want to happen.” And communicating with the family in a way that made it clear that that was the right thing to do. And they saw me as the surgeon and this is my opinion and they went with it. Just really cool. That was a big leadership experience for me this year.
Medical students arrive at residency with open hearts and generous spirits and then residency makes them into the doctor that makes our system. The machine that creates, the people that create our medical system that is dysfunctional, and really immoral system, is residency. And I think the residency needs to be done in a way to really preserve, to do no harm to those generous souls that arrive at our doors and not, instead, to make them into cynical, self-serving people that are entitled to high salaries and to everything. You know, I think that residency is so difficult and so painful and so soul crushing in a lot of contexts that you create a doctor who is crushed in the soul and, technically smart and good

It’s hard to wear both hats, the defend hat and the co-resident hat and then the chief resident hat ‘cause then you see things from 2 different levels and I have been trying to marriage the 2 into 1 like final parting thoughts or notes and I find myself telling people things that like I wanted to know or things I feel like they should know. And there’s one particular person who I am not going to name that I might have said more things ‘cause I know this person is interested in leadership and that anything, their heart is in the right place but they have a lot to learn and I found myself thinking a lot about what I could say to help them get in the right direction.
References


