Chapter

Clinical Scholars: Effective Approaches to Leadership Development

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Abstract

The Clinical Scholars (CS) National Leadership Institute (CSNLI) equips interprofessional teams of health care professionals through equity-centered leadership training, preparing them to be change leaders working to advance health equity in communities across the US and its territories. At the time of this writing, four cohorts consisting of 131 Fellows from 14 different disciplines, participating in 36 different teams of two to five members are working on "Wicked Problem Impact Projects", an implementation science-based approach to action learning projects. This chapter reports on the design of the 3-year CS experience, the onsite and distance-based training support, and the subsequent learning responses of 98 participants, 30 of whom had completed the 3-year training (Cohort 1), 34 of whom had completed 2-years of the training (Cohort 2), and 34 who had completed 1-year of the training (Cohort 3). The training program is guided by 25 competencies that weave leadership and equity throughout, which are divided into four families: Personal, Interpersonal, Organizational, and Community & Systems. Learning outcomes indicated that Fellows are highly satisfied, with all participants rating their experience at 6.10-6.77 on a 7-point scale across all sessions, all years. Retrospective pre-and post-tests assessed learning gains on the competencies, indicating statistically significant changes from baseline to midpoint in participant knowledge, attitude, use, and self-efficacy in each of the 25 competencies and large and significant gains by competency family. The Clinical Scholars Program presents an in-depth, longitudinal, state-of-the-art approach to promoting the cultivation and development of a large and sophisticated set of skills that intentionally integrate leadership competencies with a focus on health equity. Taken together, these outcomes show how a logical and structured process, using widely available tools, can contribute to both learning and implementation of skills that lead to real world impacts in communities. Given the results reported at the close of their Clinical Scholars experience, the data suggest that investing in robust, intensive leadership development of interprofessional teams is a smart decision for impacting the culture of health in communities nationwide.

Keywords: leadership development, competencies, curriculum, workforce development, culture of health, leadership, return on investment

1. Introduction

A broad range of health-related professions have called for or implemented leadership training as an essential component of workforce development, increasingly recognizing it as a core skill. Such fields of practice include post-graduate training in medicine, nursing, and other professions [1–12], academia and academic administration [8, 10, 13], and public health [5, 14–25]. Even at the pre-professional level [26, 27], and notably at the advanced degree training in health professions [5, 9, 28–32], leadership development has enjoyed decades of experimentation and implementation.

Studies of the impact of leadership training illuminate the topics of common focus, the learning of participants [3, 11–16], and some studies address the outcomes participants achieve as they employ the skills honed in their development programs [3, 13, 14, 16, 28, 29]. Health and healthcare has embraced the call for leadership development [8–10, 17, 30, 33, 34], with an emphasis typically on training physicians and nurses. Some programs have emphasized the importance of interdisciplinary training [9, 14, 28, 29]. Others have called for leadership training to occur over time and in practice-focused settings for maximum and lasting impact [13, 35–37].

Built upon insights gained from a long history of leadership programs at the University of North Carolina's School of Public Health [1, 3, 4, 13–15, 29, 38–44] and elsewhere [11, 16, 22, 34, 36], the Clinical Scholars National Leadership Institute (CSNLI, online at www.ClinicalScholarsNLI.org) also referred to broadly as Clinical Scholars (CS) and as the Clinical Scholars Program, aims to significantly expand the skills in leadership, health equity, public health, and the breadth of enrolled interdisciplinary Fellows. Of the three mid-career leadership development initiatives funded in 2015 under the Robert Wood Johnson Foundation's (RWJF) Culture of Health family of programs, the Clinical Scholars National Leadership Institute focuses on mid- to senior-level health professionals who are tackling complex, or "wicked", problems [45–47] that are impacting US communities. The University of North Carolina at Chapel Hill (UNC) serves as the National Program Center (NPC) for the Clinical Scholars Program.

The Clinical Scholars Program prepares health professionals to be change leaders. As trusted members of their communities, Fellows learn to partner with stakeholder groups to address the fundamental issues and root causes that underlie poor health among populations or communities in the United States. To do so, they require sophisticated and nuanced skills in a variety of areas that encompass and integrate leadership and domains of equity, diversity and inclusion (EDI). This chapter describes the pedagogical construction of the CS Program, addressing the overarching program goals, the skill-development approaches implemented, and a brief examination of the subsequent skill outcomes documented. Subsequent chapters in this section address the development and integration of competencies related to EDI (Chapter 2); the evaluation approach to Clinical Scholars (Chapter 3), which provides a deeper examination of program outcomes; and a series of chapters that present the outcomes of the Wicked Problem Impact Projects (WPIP) of the Clinical Scholars teams from the initial cohorts enrolled in the program (Chapters 5-9, 11-14).

2. The Clinical Scholars National Leadership Institute

Clinical Scholars is a 3-year leadership development program which accepts up to 35 Fellows in each cohort. Potential participants apply in teams of between two to five members. All applicant teams propose a WPIP [46], which identifies an intractable, multifaceted issue around health equity made more complex by the

very real contributions of politics, policy, behavior, environment and other complicating social and economic factors. This WPIP serves as a focus point for Fellow development and as the applied-implementation science project for the team's work throughout the program.

Selection of teams is based on competitive applications and follows a multi-stage process (**Figure 1**). Multi-pronged recruitment efforts reach health professionals through the health professional organizations in which they are networked, the health profession educational communities in which they were trained, and the public and private healthcare systems in which they are employed, through list-servs, in-person convenings, public webinars, and word of mouth. Applications are accepted annually from January to March via the RWJF website. Completed applications are reviewed by a National Advisory Committee (NAC), RWJF project officers and staff, and the Co-Directors and staff of the CS Program. In the semi-finalist stage teams participate in video-based live interviews with selection committee representatives. The NAC recommends the final slate of candidate teams to the NPC, which are officially accepted by the RWJF. Typically, about 10% of completed applicants are selected and named as Fellows of Clinical Scholars and enrolled into a cohort. New cohorts launch each fall.

Once enrolled, Fellows engage in both onsite and distance-based learning. Teams accepted into the Clinical Scholars Program receive a funding award of $35,000 per team member for each of the three years they matriculate through the CS program. This funding is intended to support their time for learning and development and to support costs associated with the implementation of their WPIPs.

This chapter includes data from the first three cohorts of Clinical Scholars, representing a total of 98 individual Fellows (Cohort 1: 30 Fellows, Cohort 2: 34 Fellows; Cohort 3: 34 Fellows) from 25 states and US territories. The demographics of enrolled Fellows in the first four cohorts is presented in **Figure 2**, representing the enrolled participants at the time of this writing.

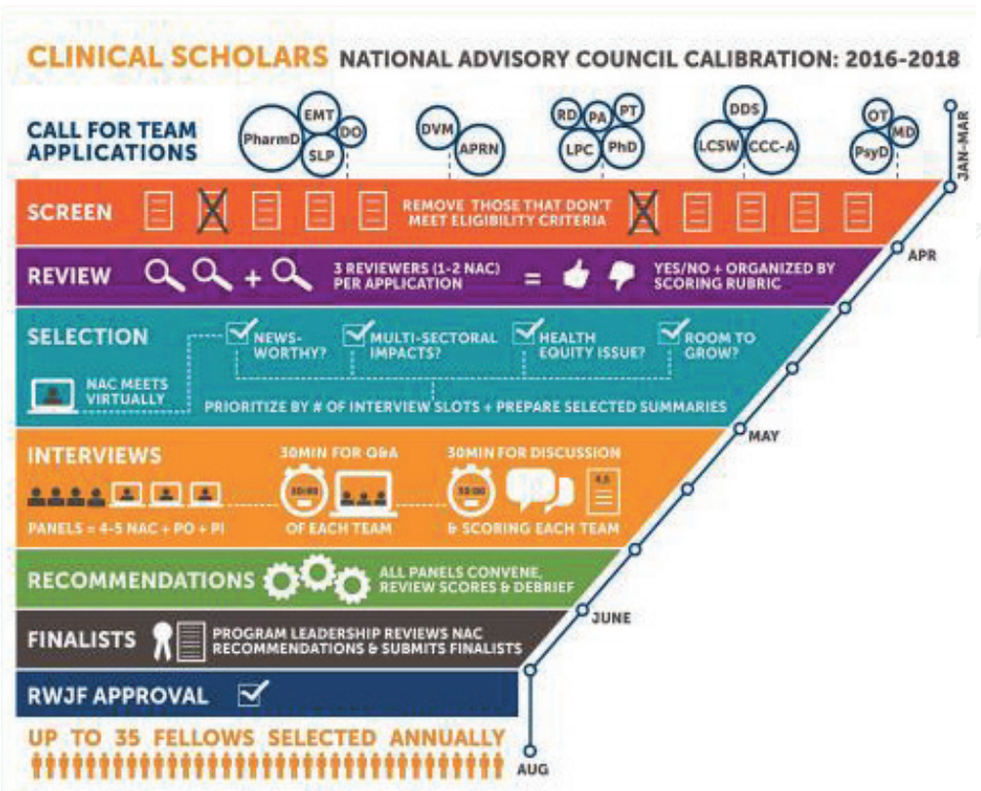

Figure 1.
The clinical scholars selection process.

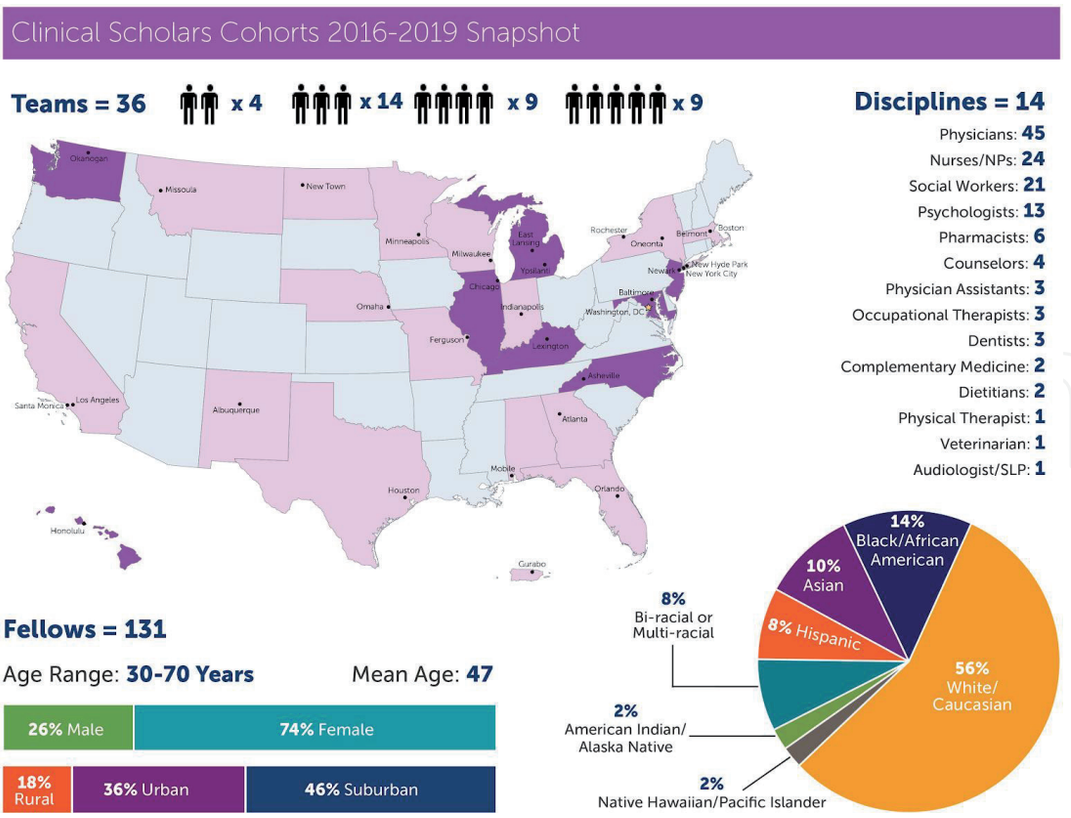

Figure 2.
Demographics of Enrolled CS Program Fellows, Cohorts 1-4.

2.1 Goals of the clinical scholars program

Clinical Scholars has been strategically created to enable a diverse cohort of mid-to-senior career healthcare professionals to broaden their perspective and skills to become leaders and change agents over the remainder of their careers. Eight overarching goals guide the program's curricula across both the integrated leadership and health equity cores of the program (**Table 1**).

2.2 Core competencies of the Clinical Scholars National Leadership Institute

To gain the nuanced and sophisticated skills needed to move their WPIPs forward, 25 leadership competencies stand at the core of the Clinical Scholars training experience and stem from these overarching goals (**Figure 3**). These competencies were developed after reviewing core competencies successfully implemented in similar leadership programs [1, 3, 4, 13–15] and expanded to integrate domains of health EDI [2, 47, 48]. The Clinical Scholars program groups these competencies into four meta-categories of Leadership Skills: *Personal*, *Interpersonal*, *Organizational*, and *Community and Systems* (see **Figure 3**). Sessions provided throughout the program are cross-walked against these competencies to ensure that these critical areas are addressed multiple times throughout the training, each time with an added nuance, facet or deepening of the content to reinforce skill development.

Clinical Scholars represents a highly robust program that couples "hard skills" drawn from health services research, public and population health, engaged scholarship, health equity research, and cultural sociology with methods developing individual and team "boundary-spanning leadership skills" shown to significantly impact participant development [1, 3, 4, 13–15, 36], interdisciplinary effectiveness [28, 29] and project-related real-world outcomes, as described in subsequent chapters of this work.

By the End of Training the Clinical Scholars Participants Will:
Understand leadership styles and how to be increasingly effective in leading and managing others while working collaboratively and inter-professionally.
Advocate for positive change within teams, organizations, community, or in policy.
Promote creative thinking, innovation, and thought diversity.
Understand how to appraise, synthesize, and use best evidence to guide practice and policy recommendations.
Communicate effectively with both technical and non-technical stakeholders in multiple formats.
Negotiate to create win/win outcomes for all stakeholders.
Engage in project-focused learning with a strong lens on healthy equity and implementation science.
Positively impact complex issues that create "Wicked Problems" around achieving a culture of health and health equity across the country, demonstrating effectiveness in project outcomes.

Table 1.
Overarching goals of the clinical scholars program.

Figure 3.
The 25 Core competencies of the clinical scholars program.

2.3 Pedagogical design of the Clinical Scholars National Leadership Institute

The Clinical Scholars program delivers professional training and development through two main components of the program: onsite face-to-face intensive development programs (retreats) and a robust distance-based "Continuous Learning Program" (CLS), occasionally similarly described in the literature as a Personalized Learning Cloud (PLC) [35]. Fellows progress through the 7 onsite curricula (**Figure 4**), which progressively teach the leadership and health equity skills targeted in the program. Retreats are labeled to follow the visible color spectrum (Red, Orange, Yellow, Green, Blue, Indigo, Violet) in order to clearly differentiate between them, as the curricular content is unique to each intensive onsite training and builds across the entire experience. Core themes thread throughout all the onsite retreats and lead to overall outcomes at the individual participant level, the team level and at the WPIP level. These onsite intensive retreats meet in fall and spring throughout the 3-year experience (approximately 14 days of in-person training/year). Each retreat is typically about five days in length. The

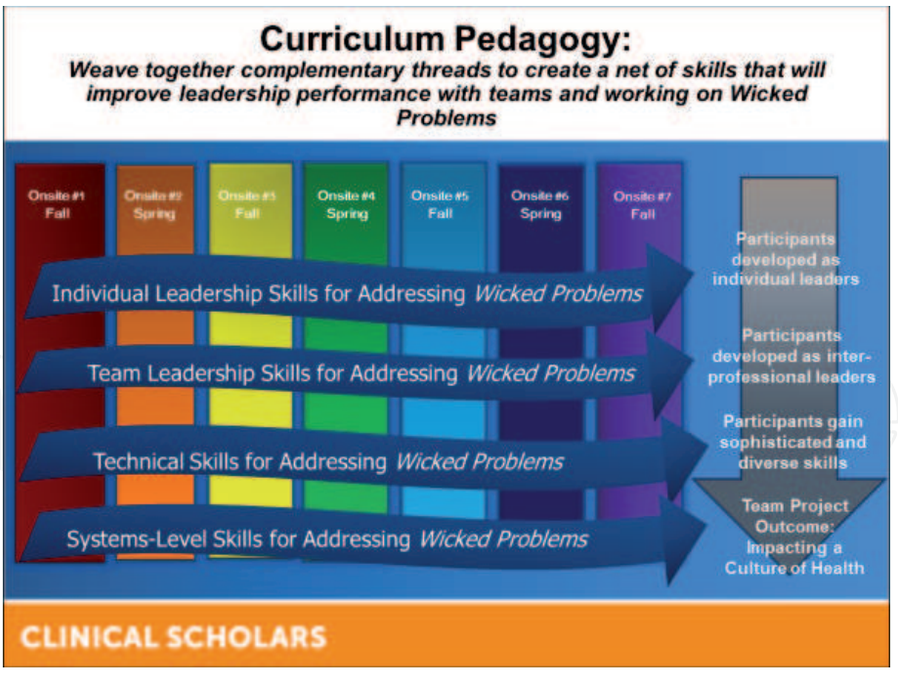

Figure 4.
Clinical scholars onsite curriculum structure and timeline for cohorts.

full curriculum provides approximately 210 contact hours of continuing education per participant over the three-year experience. Each year CS provides nearly 7000 contact hours of face-to-face training and approximately 10,000 hours of self-paced, distance-based education to the participating healthcare professionals.

2.4 Onsite retreats

Onsite retreats are grounded in current leadership and health equity science and utilize a variety of psychological and leadership assessments, including a 360-degree multi-rater feedback survey, which is administered in the "Orange" retreat program [1, 2, 4, 13, 15, 18, 29, 39–44, 47–49]. In all, the Clinical Scholars Program includes 12 different leadership and psychological assessment tools, each of which provides different insights into leadership behavior and effectiveness. All tools are debriefed initially at the onsite retreats and participants can continue to seek insight from the assessment in working with the personal executive coach assigned to them for the duration of the three-year program. The Clinical Scholars team includes seven team members and partners who are certified in many of the assessments used and experienced in delivering the simulations. **Figure 5** depicts the assessments currently included in the curriculum.

Based on principles of adult learning theory, the Clinical Scholars Program also emphasizes experiential learning, in addition to the WPIP-focused learning. A variety of simulation exercises, group based experiential learning through role-play, scenarios or situations that demonstrate behaviors or skills, are built into the program and utilized at most retreats. These sessions typically either teach skills with immediate application or participants engage in simulation-based learning with intermittent debriefs. More than ten simulations are embedded throughout the onsite portion of the program (**Figure 5**). While the didactic sessions impact participant knowledge and the experiential practice sessions develop skills, the simulation activities help change attitudes, values, and perspectives.

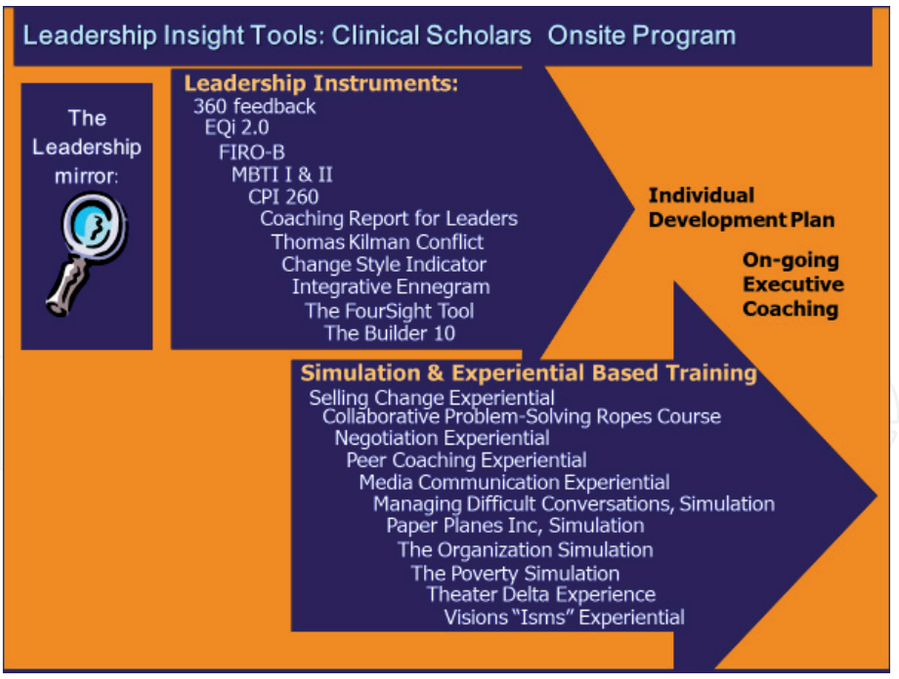

Figure 5.
Leadership assessment, experiential training and simulations used in the clinical scholars National Leadership Institute.

2.5 The distance-based continuous learning system

Between the intensive retreat programs, Fellows return to their home communities and engage in the multi-platform, distance-based CLS, which includes web, phone, print, and video/audio-based participation strategies that work at the levels of individual, team, small group and entire cohort learning. **Figure 6** depicts the Continuous Learning System's "Learning Wheel" with its 14 experiential components.

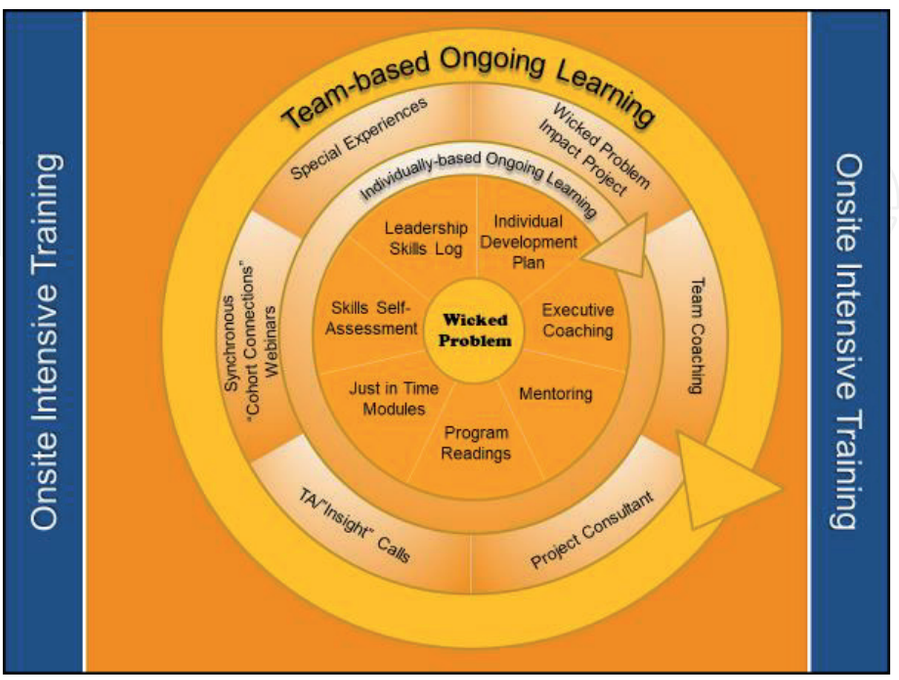

Figure 6.
The continuous learning system wheel of the clinical scholars program.

This system is highly customizable to both individual and team learning needs as a wide variety of experiences are offered, with Fellows required to complete a minimum subset of learning events of their own choosing within each component that align with their learning goals and team needs (**Table 2**). The outside layer of the wheel illustrates the team-based learning strategies while the inside layer of the wheel presents the individual learning strategies, all of which ultimately contribute

Components of the Continuous Learning System			
	Component	**Description**	**Minimum Completion Requirement**
Individual Based CLS Work	Leadership Skills Self-Assessment	Self-rating on the 25 program competencies	25, completed at program start, midpoint, and end
	Leadership Skills Log	Behavioral examples of implementing the program competencies	18 behavioral descriptions of competency statements (6/year)
	Individual Development Plan	Stated goals for self-development with action plans and outcome statements	1 set
	Executive Coaching	1:1 phone-based sessions, between 4 and 8 per year	4 per year
	Mentoring	Fellow identified, initiated and managed mentoring relationship	1 mentor required
	Program Readings/ Book Club	~3 books/onsite session usually with 2 selected for follow-on phone-based book club (3 Fellows/book assigned to lead book club)	1 required for selected Fellows
	Just-in-Time Modules	Commercially available online leadership library with half-hour modules directly related to core leadership and health equity lessons taught in program (FastTrack, Inc., Chapel Hill, NC)	18 modules required (6/year)
Team Based CLS Work	Project Consultant	Budget available to support team-identified consultant(s) to foster WPIP progress	Optional
	Technical Assistance Call	Hour-long phone calls of selective interest to cohort, 5 offered per year	10 per year (split between TA calls and Webinars)
	Program Webinars	Hour-long webinars of general interest to cohort, 5 offered per year	
	Team Executive Coaching	Bi-monthly coaching support calls, with support available at the onsite intensives	5 per year
	Special Onsite Experiences	Optional 2-day onsite trainings in special topics such as structural racism, communications, health policy and advocacy, etc.	Optional
	Wicked Problem Impact Projects	Team identified problem-based learning projects in partnership with community, focused on a "wicked problem" in that community	1 required per team

Table 2.
Clinical scholars CLS component descriptions.

to the team's Wicked Problem Impact Project. Each component of the CLS Learning Wheel is briefly defined in **Table 2**. Throughout the 3-year experience, Executive Coaches deepen skills development at the individual level, while Team Coaches support team development and progress on the WPIPs and the deliverables. All coaches provide feedback to the UNC-based Clinical Scholars team of emerging participant needs to inform the content of technical assistance and webinar topics.

While founded on evidence-based strategies for developing the competencies listed in **Figure 3**, Clinical Scholars also uses rapid-cycle innovation to tailor and modify the learning opportunities to be responsive to the Fellows' needs, interests and changing conditions in economic, political, social and health systems over the course of the program. For example, Peer Coaching was initially conceived as a team-to-team activity that would take place within cohorts, however through experimentation, the program will institute it as an individual-learning based cross-cohort activity.

Participation is tracked in the varying CLS components. Minimum levels of participation in the Clinical Scholars program require approximately 2-3 hours per week on the part of each individual participant. Program Fellows spend additional time on their team projects. The $35,000 learning grant awarded per team member to each team is intended to support both individual and team learning as well as the project focused work required by their WPIPs. Internal evaluation data indicate that during the first three years of the Clinical Scholars program being implemented, each Fellow spent between 509 and 600 hours per year engaged in the Clinical Scholars Program. Data indicate that 80-85% (411-510 hours) of this time was spent on Team WPIPs, the activities of which are integrated with their workplace duties because of the structure of the grant support from the RWJF. Ten to 14% (62-71 hours) were spent in onsite session convening. Fellows report 10-12 hours of coaching and/or mentoring per year and an additional 17-21 hours of individual learning, per individual. Time spent in individual learning is highest in the first year of the program and time spent in the team based WPIP is highest in the final year of the program.

3. Key learning events

3.1 WPIP and team progress

As a learning competency, communication and the ability to effectively present materials to both technical and non-technical stakeholders in multiple formats is strongly valued in the Clinical Scholars Program. Thus, program Fellows present the evolving outcomes of their WPIPs, as early as their very first retreat ("Red"). At each retreat, teams provide a brief update to their cohort and the NPC representatives of their progress to date. In the Green retreat, this presentation becomes more formalized with each team presenting a poster session, which all current cohorts of Clinical Scholars attend, as well as a variety of invited guests, including Robert Wood Johnson Foundation (RWJF) representatives.

3.2 Presentation of participant-generated outcomes

In their third year of the program, teams present their outcomes and WPIP impacts at a separate meeting, convened by the RWJF which brings together four different branches of the Leadership for Better Health programs (Health Policy Research Scholars, Interdisciplinary Research Scholars, Culture of Health Leaders, and Clinical Scholars). During the Clinical Scholars "Blue" and "Indigo" retreats the Fellows learn how to use social and digital media to present the outcomes of their learning, incorporating B-roll in video-based presentations that they can then use to disseminate their WPIP programs and activities. In the "Violet" retreat each team presents the next

generation idea that has grown from the team WPIP in a short "Big Idea Talk", based on the TED talk format. These presentations are digitally captured and made available on the web. Each team also creates a Tool Kit that describes their WPIP and provides tools and advice for those in other communities who are facing similar health equity challenges. These tool kits are also available at the Clinical Scholars website (www.ClinicalScholarsNLI.org/community). In addition, all Clinical Scholars teams in Cohort 1 and select teams from Cohort 2 were invited to contribute a chapter to this volume.

4. Pedagogical impact: findings of participant satisfaction and learning outcomes

The difficulty of evaluating leadership development programs is a common challenge in the field [49–53]. Chapter 3 in this volume addresses a) the complex issues

Participant Feedback Scores and Comments				
Retreat	**Overall Onsite Session Satisfaction Score (out of 7.0 possible**	**Number of participant session ratings**	**Cohorts included in rating**	**Example participant quote (session title, session rating)**
Red	6.5	631	1, 2, 3	"It is empowering to be a part of this network of professionals doing important work to create a culture of health." (Team Wicked Problem Impact Project Presentations, Score: 6.71)
Orange	6.43	131	1, 2, 3	"Practical, applicable, engaging, skills-based." Communicating in High Stakes Situations, Score: 7.0)
Yellow	6.10	353	1, 2	"Thank you so much for allowing us the time and the space to talk and listen to one another." (Year 2 Planning Score: 6.75)
Green	6.37	93	1, 2	"Visual and interactive scenarios. Made me more aware of my biases and assumptions." (Experiential Teaching Health Disparities and Racism, Score: 6.77)
Blue	6.75	285	1	This session has given me a lot of great knowledge on language, framework, and tools to incorporate into culturally responsive programs. (Moving Beyond Recruitment: Utilizing a Culturally Responsive Approach to All Levels of Evaluation Design and Execution, 6.63)
Indigo	6.37	52	1	This is so powerful for clinicians who are accustomed to presenting via data and clinical knowledge. (Presenting Your Best You, 6.89)
Violet	6.77	38	1	-It really has been the best professional development experience of my life, and I feel like it will be. Any others will pale in comparison to this. Thank you!
Participants are asked to rate their experience at the Onsite Retreat on a 7-point Likert-type scale (1 = Very Poor, 7 = Outstanding);				

Table 3.
Overall participant satisfaction with onsite retreat sessions.

in program evaluation, b) the approach used in evaluating the CS Program, and c) a deeper look at program impacts. The below examination of the broad measures observed-to-date help link the pedagogical structure with findings and contribute to elucidating the impact programs such as CS have on participant experience and skill development.

4.1 Program-related measures: participant satisfaction and fellow learning

The Clinical Scholars program tracks a variety of program-related outcomes. Data presented are for Cohorts 1-3, with Cohort 1 (n = 30) completing three years of the program, Cohort 2 (n = 34) completing two years of the program and Cohort 3 (n = 34) completing just one year of the program.

4.2 Participant satisfaction

At each retreat, participants complete evaluations at the end of each program session. Additionally, Fellows rate their overall experience for each retreat. Ratings are made on an anchored 7-point scale. Across all retreats, Program Fellows rate the experience highly, with overall session ratings ranging between 6.10-6.77 on a 7-point scale (**Table 3**), covering each of the retreats in the curriculum. The distance-based CLS portion of the program does not formally evaluate each specific component in order to reduce respondent burden.

5. Fellow learning

Assessments of learning gains by competency are made utilizing a retrospective pre- and post-test method [54–56], examining participant knowledge, attitude, use, and self-efficacy in each of the target competencies. Participants complete a survey at start, midpoint and end of the program. This approach is described more fully in Chapter 3. At publication, findings in the competency assessment are promising, in that Fellows are reporting significant growth in all 25 target competencies. **Figure 7**

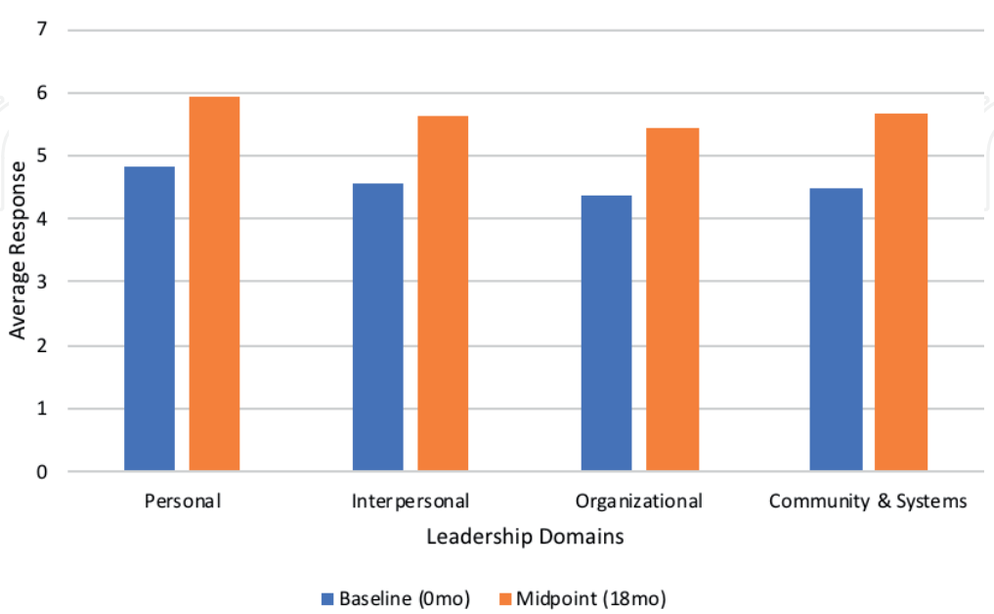

Figure 7.
*Competency changes from baseline to midpoint in cohorts 1 and 2 of the clinical scholars program by competency family. *See Chapter 3 for a detailed explanation of the Clinical Scholars Competency Assessment. **Based on a 7-point Likert-type scale. ***Data is presented as a composite of four dimensions of growth (knowledge, attitude, use, and self-efficacy) and grouped into competency domains.*

depicts the change in competency scores in each competency family for Cohorts 1 and 2 from baseline to 6 months into the program. Data are collected utilizing a retrospective pre/post approach (see Chapter 3 for more detail).

In addition to these competency-gain measurements, the evaluation approach also measures session knowledge, captures behavioral implementation of the competencies, engages in concept mapping with Fellow cohorts, and assess community engagement and network development. Chapter 3 provides an in-depth description of the evaluation efforts of the CS Program.

6. Discussion

The Clinical Scholars Program presents an in-depth, longitudinal, state-of-the-art approach to promoting the cultivation and development of a large and sophisticated set of skills that intentionally integrate leadership competencies with a focus on health equity. While the integration of leadership and equity competencies is an innovation, the pedagogical approaches and components of Clinical Scholars are similar to other prominent UNC-based national or global leadership programs, including the Maternal and Child Health Public Health Leadership Program (MCHPHLI.org), the Food Systems Leadership Institute (FSLI.org), and the ACOG-Robert C. Cefalo Leadership Institute (ACOGLeadershipInstitute.org). Each of these programs has previously published on similar learning impacts in audiences also focused on serving the greater good, and collectively these programs illustrate how significant gains in learning can be achieved in relatively short onsite development experiences, particularly when those experiences are supported by pedagogically-connected distance-based activities. Taken together, these outcomes show how a logical and structured process, using widely available tools, can contribute to both learning and implementation of skills that lead to real world impacts in communities (please refer to the chapters 5-9, 11-14 in this volume).

Approaching leadership development in the Clinical Scholars method is the product of partnership, and not solely reliant on the resources of two large academic institutions (the University of North Carolina at Chapel Hill and the University of Nebraska). This ability to achieve the high level of leadership training was accomplished through partnering with both nimble and agile businesses [57–60] as well as community-based organizations [61] and professional organizations [62], all highlighted as important considerations by the Macy Foundation [63]. In this way, the program itself role models the expectations given to the program Fellows: partnering across sectors to create successful outcomes. In 2017, Grimm, et al. [64] distinguished between *leader* development and *leadership* development, with the former focused on individual improvement and the latter focused on how teams, organizations, and communities share in the impact of the efforts. While the data shown in this chapter present only a limited view of the Clinical Scholars as leaders who are gaining knowledge and abilities as individuals, the program is, in reality, a strong blend of both *leader* and *leadership* development. As detailed in Chapter 2, leadership and the concepts of equity, diversity and inclusion cannot be separated from one another in the experience. Nor can the teams and their projects be separated from the community. The Clinical Scholars Program invests deeply both in leader and leadership development. Indeed, the latter can hardly be attained in the absence of the former. Evaluating outcomes on so many levels goes far beyond the scope of the pedagogical data presented here. However, in Chapter 3, the evaluation approach which robustly assesses many components of leadership development and the involvement of communities and systems is documented. The chapters in this work which are written by the Clinical Scholars themselves (Chapters 5-9, 11-14)

clearly illustrate the many involvements, outcomes, and impacts of their work in the communities they serve and further help to elucidate how the CS Program promotes leadership development.

Creating a robust pedagogical underpinning that supports and drives achieving complex project outcomes by participants is crucial in meeting the visions and goals of organizations leading the call for impacting health equity in the United States. In 2014, The Robert Wood Johnson Foundation unveiled their new vision for creating a Culture of Health in which "every person has an equal opportunity to live the healthiest life they can—regardless of where they may live, how much they earn, or the color of their skin" [65]. Rather than try to achieve change by engaging in "doing more of the same", the RWJF held that a "new vision for a healthy population will require different sectors to come together in innovative ways to solve interconnected problems". To that end, the Foundation introduced their Action Framework (see *Leading Community-Based Changes in the Culture of Health in the US: Experiences in Developing the Team and Impacting the Community*). The Framework translates the broad range of sectors and people involved in building a Culture of Health into four interconnected Action Areas: Making Health a Shared Value, Fostering Cross-Sector Collaboration to improve well-being, Creating healthier, more equitable communities; and Strengthening integration of health services and systems. Clinical Scholars answers this call by developing a cadre of interprofessional leaders with a multitude of skills in integrated teams of health professionals working on complex, community-based wicked problems in the culture of health. Outcome data illustrate that participants enjoy the intensive learning experience, they significantly improve their skills on twenty-five competencies related to the RWJF framework, and they implement those skills in real-world settings to create notable impacts in communities (Chapters 5-9, 11-14). These data, taken along with the reports of most significant change stories and qualitative comments of the program Fellows (data presented elsewhere), lend to the conclusion that the pedagogical design of the Clinical Scholars Program has greatly facilitated the ability of these health professionals to contribute to furthering the vision of the RWJF in their own communities.

While those at the Gillings School of Global Public Health at the University of North Carolina at Chapel Hill have been engaged in this type of workforce development for literally decades, others have also sought to improve health by "better aligning health professions education with societal needs", thus echoing the call from the Robert Wood Johnson Foundation [1, 3, 4, 15, 18, 28, 29, 40–44, 47]. For example, in 2018, the Josiah Macy Jr. Foundation [63] highlighted the following priority areas: interprofessional education and teamwork; education for the care of underserved populations; new models of clinical education along with a focus on career development; rigorous research and expanded scholarship to improve health professions learning environments; and organizational commit to diversity, equity and inclusivity. While more specific than the Culture of Health Framework, this alignment is an example of trends in leadership development in health professions [47, 48, 64]. This trend recognizes the need for pedagogical approaches that prepare leaders for the quickly changing and complex system of care in which they practice. These leaders need to be equipped to work effectively in teams and to lead change within and outside of healthcare systems to ensure just opportunities for a healthy life for all people. The Clinical Scholars program answers this call for new curriculum content through the integration of leadership and health equity training, an emphasis on boundary spanning leadership skills, and project-focused work in partnership with communities to address health inequities.

We believe that it is no accident that more health care and philanthropic organizations are calling for innovative and robust ways for developing leaders that

share a serious commitment to creating a culture of health. Yet meeting the need for this type of leader brings its own challenges. The sheer number of communities in distress and facing serious health inequity can seem overwhelming. While the CS Program represents a demonstrated impactful training program, it cannot possibly meet the needs of the tens of thousands of potential candidates who would benefit from this type of development. It is the belief of these authors, given our combined decades of experience in the field, that serious leadership development requires a serious investment in the individual and the team--both leader and leadership development. Equivalent experiences, skills development and self-insight does not result from reading a book, attending webinars or an afternoon lecture—it comes from intensive training focused on the needs of the learner(s) at the time of learning and applied to real world problems. These types of experiences are intensive and infrastructure heavy, and thus are impossible to deliver on a massive scale. A significant limitation of leader development efforts, in general, is that by their very nature they are focused on the individual. Adding interpersonal relationships and leadership development, such as by working in teams adds another layer of complexity. Intentionally integrating complex content, like addressing health equity, further complicates the process, making the intervention even less appropriate to mass application. Clinical Scholars advances a further step down the path of complexity in that each of the enrolled teams partners with the local communities they serve to address community-identified problems, making these truly community-based participatory projects and truly examples of leadership development. While it would be an ideal outcome to take the insights learned from developing participants in the Clinical Scholars Program and apply them on a broad scale, an inherent limitation to this approach is that this development is most effective when done in cohort-sized groups in which a networked community is formed. Our experience suggests that the idea size of this community is between 25 and 35 members.

The most important outcome for Clinical Scholars—and the measure of whether the program is worth the considerable investment of the Robert Wood Johnson Foundation—is the ultimate impacts of both the Fellow Teams' WPIPs and their continued influences through the course of their careers. While these outcomes may take several years to culminate in measurable changes, the observable changes reported in their chapters in this volume are impressive—and penned at the conclusion of their 3 year Fellowship-based Wicked Problem Impact Project, but not at the conclusion of how those projects endure beyond this Fellowship experience. Given the results reported at the close of their Clinical Scholars experience, the data suggest that investing in robust, intensive leadership development of interprofessional teams is a smart decision for impacting the culture of health in communities nationwide.

DOI: http://dx.doi.org/10.5772/intechopen.98449

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