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Exploring the Experiences of Latina/os in Graduate Health Science Programs: A Qualitative Study

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EXPLORING THE EXPERIENCES OF LATINA/OS IN GRADUATE HEALTH SCIENCE PROGRAMS: A QUALITATIVE STUDY

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By

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"Los niños son la esperanza del mundo."

THE UNIVERSITY OF SAN FRANCISCO
Dissertation Abstract

"Exploring The Experiences Of Latina/os In Graduate Health Science Programs: A Qualitative Study"

This qualitative study conducted at a Northern California university explored how six Latino/a health science professionals navigated their academic trajectory. The six participants identify as Latino/a and shared their journeys to the health sciences. This study examined how participants utilized their community cultural wealth to navigate the complexities of campus climate during their pursuit of a graduate or professional degree in the health sciences. Research data included narratives from in-depth interviews with the six participants and a focus group.

The key findings of this study illustrate the profound significance of mentorship in the pursuit of health science careers. This study also highlighted the participants' resilience and reliance upon aspirational, familial, navigational, resistant, social and linguistic wealth in order to successfully realize their dreams of becoming health science professionals.

Keywords: Latino/a students, Latino/a faculty, academic achievement, higher education, health sciences, education pipeline, diversity, cultural capital wealth, LatCrit.

This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the Faculty of the School of Education in partial fulfillment of the requirements for the degree of Doctor of Education. The content and research methodologies presented in this work represent the work of the candidate alone.

Mijiza Maláne Sanchez	November 4, 2014
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To my participants *y mi familia*. *Gracias por sus testimonios y su amor*.

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A wise person once told me, “If the sky is the limit; reach for the stars.” My journey through higher education is my quest to reach for the stars. I stood on many shoulders in my quest to reach for the stars, or in this case, my doctorate in education. This journey taught me much more than education scholarship and pedagogy; I learned so much about myself, and my community of support that spans the globe.

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always be grateful to have been on this journey with you. Having the opportunity to share space with each of you was my absolute favorite part of this entire process, and each of you will always occupy a very special place in my heart. This dissertation is for you, for us, *mi familia*, and everyone who ever dreamed of pursing a career in the sciences. To those of you who have been instrumental on my journey and I may have forgotten to mention you here, please charge it to my head and not my heart. I realize that I stand on the shoulders of many and I will be eternally grateful to all of you. Thank you for helping me to reach for the stars…

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Introduction

Education was the cornerstone in my household. Growing up I heard the phrase, "You are going to college!" so much that it was my own personal mantra before even knowing what a "mantra" was. Other famous statements in the Sanchez household were: "Education is the one thing no one can take from you" or "Education is the key to success!" In the rare event when I was naughty, my punishment was inevitably: "Go read a book!" If I asked how to spell something, my father's response was always, "Go look it up!" If I dared to utter the words "I'm bored!" My parents would immediately demand that I go read a book. It is no wonder that I am an avid lover of reading to this day. I am an Afro-Caribbean Latina born to immigrant parents who between the two of them only held one high school diploma. Yet, they instilled in me that education was extremely important. Although at the time of my upbringing in Queens, New York, neither of them ever went to college, I knew one thing was certain: I was going to college. I had no clue how I was going to get there, but I knew for sure I was going.

I have spent the past 12 years of my career on health science campuses at graduate and professional institutions, and the struggles, challenges and triumphs of underrepresented minority (URM) students and faculty have become painfully clear to me. Over the years, I began to notice that the small percentage of Latino/as in the student body (many whom are first generation to college and or graduate school) is even lower among ladder-rank faculty.

As a first generation graduate student, I have realized that I have so much in common with my Latino/a colleagues in that they too heard the same mantras, and the importance of education was also drilled into their psyche at a very young age. I had no one to guide me

through the application process and relied heavily upon my guidance counselor to help me navigate my transition to higher education. From test preparation for the American College Testing (ACT) and Scholastic Aptitude Test (SAT) to how to complete the Free Application for Federal Student Aid (FASFA), I was clueless and upon arriving on my undergraduate campus. I quickly discovered that I learned I was not alone. I have had countless discussions with my colleagues in undergrad and graduate school who were and are frustrated by how "lonely or isolated" they feel. I understand now that I have learned how to draw upon my own social and cultural capital in order to achieve success in academia.

Despite the great lengths that institutions go through to recruit students and faculty of color, once they are actually there, students and faculty encounter a climate that is quite cold and sometimes hostile. I began to wonder why URM faculty are so scarce, and why so few of these Latino/a professors are tenured. Furthermore, why aren't institutions doing a better job of retaining URM students and faculty as they are of recruiting them? Is the problem the institutions? Or is the new generation of Latino/as in health sciences themselves not interested in academic positions once they complete their health science training?

For example, in a study conducted at the University of California (2006) over a 14-year period, the representation of Chicano/Latino ladder-rank faculty across disciplines hovered around only 4%. In looking at the overall distribution of URM faculty by field, the representation of URM in engineering, computer sciences, physical sciences and life sciences is very low. How then can we encourage and expect URM students to return to academic medicine after their training when they see the few faculty that look like them facing daunting challenges in health science graduate and professional programs? How can institutions level the playing field and create a more equitable environment for faculty of

color? And in the process of doing so, how can they make academic medicine more attractive for students of color to remain actively engaged in the educational pipeline? These are the questions I hope to address in my study.

Statement of the Problem

The lack of Latino/a faculty in health and life sciences graduate and professional programs is far too great. In the University of California (UC), Latino/a ladder- rank faculty represent only 3.7% of the health and life sciences faculty (University of California, 2006). For example, in the entire UC system URM make up 15.8% of the faculty in Sociology departments and 11% in History departments. In contrast, URM are only 4% of the faculty in Economics and 4.5% in Political Science. In 2006 there were only 45 Latino/a- identified tenured faculty in health sciences in the entire University of California system. (It should be noted that these 45 Latino/a faculty represent only 2.8% of a total of 1,617.)

Education pipeline programs designed to increase the number of URM students in the health sciences are trying desperately to address this disparity; however the numbers are still below par. Great efforts are made to recruit URM students; however when they arrive on campuses, they are sadly disappointed in the lack of URM faculty to educate or provide mentorship. Yet even with the dismal representation of faculty of color, URM students are still not returning to academia after the completion of their training. Therefore, it is crucial that we increase the number of URM and particularly Latino/a students who complete health sciences training to return to academia and pursue careers in academic medicine and faculty track positions as faculty and/or researchers. This need is critical because we need to have health care providers, educators and researchers that reflect the population that they serve particularly in California where the majority of the state is of Latin origin or heritage.

Background and Need for the Study

The underrepresentation in the health sciences has a negative impact on communities of color, as underrepresented minorities (URM) clinicians are more likely than non-URMs to study issues specific to underrepresented communities (Hurtado, Cabrera, Lin, Arellano, & Espinosa, 2008), thus potentially decreasing many of the health disparities that disproportionately affect communities of color. The lack of faculty diversity in health science programs is becoming an increasing problem on graduate and professional campuses across the United States. In the health sciences, it is critical that we increase the number of URM practitioners in the field and in the academy, especially since "minorities" are now becoming the majority in this country. Trevino et al (1993) showed that 75 percent of Mexican American physicians who graduated from California medical schools between 1971 and 1977 were practicing directly in underrepresented or underserved communities.

In fact, the long-term health of our nation and quality of patient care depend upon having more health practitioners and researchers who reflect the demographics of the patient population in the United States. As Dr. Eliseo Pérez-Stable (2008) of the University of California, San Francisco, states: "We can't have 33% of the population who are Latino, and less than 5% of physicians who are Latino. It's beyond language issues… Just as 50 years ago, there were very few women in medicine. Now, women like the fact that they can go to women doctors" (p. 12). Similarly, Latinos should have more choice in who delivers their health care. Relatedly Latino/a students pursing careers in health sciences should have faculty, professors, and mentors that look like them.

Theoretical Framework

This study aims to understand the lived experiences of Latina/o students and faculty who have overcome multiple challenges and successfully navigated their academic journeys despite the dominant narrative of their academic failure. As a result, I chose to use the concept of community cultural wealth, which was derived from Critical Race Theory as the theoretical framework of this research. The dominant narrative of Latino/as in higher education emphasizes the deficits and lack of academic achievement. Numerous studies (Chapa & De La Rosa, 2006; Fry, 2002; Moreno, 1998) of the Latino/a achievement gap, underachievement, and low enrollment document discouraging statistics about the high school drop-out rate. In contrast, rather than focusing on the impediments, my study highlighted the successes and triumphs of Latino/as in the graduate health sciences by illuminating the counter stories of people who have effectively navigated institutions that historically have not welcomed them.

Critical Race Theory (CRT) and Latino/a Critical Race Theory (LatCrit) offer a lens from which to understand the experiences and stories that the participants shared. CRT is not just a theoretical construct; as applied to graduate education it has an impact on praxis to account for the central role of race and racism in the educational sphere. In addition, CRT works toward the elimination of racism as part of a larger goal of eliminating other forms of subordination, such as gender, class and sexual orientation (Solorzano & Yosso, 2001).

Critical Race Theory

The origins of Critical Race Theory (CRT) lie in legal scholarship dating back to the mid 1970s. CRT was born out of Critical Legal Studies (CLS), which argues that because of power relationships in U.S. society, people of color who are traditionally oppressed or

marginalized could never fairly be served by the law. During the mid-1970s Critical Race Theory made its way into the social sciences and education discourse from legal studies based on race relations in America, and the juxtaposition of inequities in property rights and inequities in education (Ladson-Billings & Tate, 1995). One of the most powerful elements of Critical Race Theory in education is how it provides researchers with a critical lens not offered by other theoretical frameworks. Another way to think about the CRT framework in education is "CRT in educational research unapologetically centers the ways race, class, gender, sexuality and other forms of oppression manifest in the educational experiences of People of Color" (Huber, 2010, p. 78). Specifically, CRT provides a lens through which to examine how multiple forms of oppression intersect within the lives of People of Color and how those intersections impact our education (Huber, 2010).

As Solorzano and Yosso (2011) claim: "The overall goal of CRT is to develop a conceptual and methodological approach that accounts for the role of race and racism, working toward the elimination of racism and other forms of subordination, such as gender, class and sexual orientation" (p. 472). According to Solorzano and Yosso, CRT has the following five tenets:

1. **The centrality of race and racism and their intersectionality with other forms of subordination**: The idea that racism is a central factor in how people of color are oppressed or marginalized.
2. **The challenge to dominant ideology**: "CRT in education challenges the traditional claims the educational system and its institutions make toward objectivity, meritocracy, color-blindness, race neutrality, and equal opportunity" (p. 472)

3. **The commitment to social justice:** The idea of a specific focus on social justice as a means to liberate or transform oppression based on race, gender or class.
4. **The centrality of experiential knowledge:** CRT look at experiential knowledge as an asset and use the lived experiences of students of color by including methods like storytelling, family history, biographies, scenarios, parables, *testimonios*, *cuentos*, *consejos*, chronicles, and narratives.
5. **The transdisciplinary perspective:** CRT in education challenges the lack of a historical perspective and a one-dimensional approach to analyzing race and racism and focusing, instead of placing these issues in a historical and contemporary context (p. 473).

Because this study focused on the lived experiences of Latino/a participants, these tenets of CRT provided central tools of analysis of the data.

LatCrit Theory

LatCrit is a branch of Critical Race Theory that is applied to Latino/as based on systems of oppression and their impact on Latino/as. Solorzano and Yosso (2001) define LatCrit in this way:

> A LatCrit theory in education is a framework that can be used to theorize and examine the ways in which *race and racism* explicitly and implicitly impact on the educations structures, processes, and discourses that effect People of Color generally and Latinas/os specifically. Utilizing the *experiences* of Latinas/os, a LatCrit theory in education also theorizes and examines that place where racism *intersects* with other forms of subordination such as sexism and classism. LatCrit scholars in education acknowledge that educational institutions operate in contradictory ways with their

> potential to oppress and marginalize co-existing with their potential to emancipate and empower. LatCrit theory in education is conceived as a *social justice* project that attempts to link theory with practice, scholarship with teaching, and the academy with the community. LatCrit theory in education is *Transdisciplinary* and draws on many other schools of progressive scholarship. (Solorzano & Yosso, 2001, p. 479).

Using LatCrit as a theoretical framework in this study was important because the participants shared their lived experiences in higher education and told their counterstories and personal truths. The insertion of the voices and counterstories of traditionally underrepresented health science students provided powerful testimony and validity to the discourse and experiences of the participants.

Community Cultural Wealth

Latino/as who have chosen health sciences as a career path bring with them their strong sense of family, community, language, resilience, and passion for education to the health sciences. Beyond overcoming barriers, they draw on their strengths and persevere against institutional barriers to excel in their respective fields. Rather than look at the challenges they faced as a deficit, their experiences have served them in affirmative ways they may not even realize. I draw on the work of Yosso (2005), who posits that:

> CRT shifts the research lens away from a deficit view of Communities of Color as places full of cultural poverty disadvantages, and instead focus on and learns from the array of cultural knowledge, skills, abilities and contacts possessed by socially nurtured through cultural wealth include aspirational, navigational, social, linguistic, familial and resident capital (2005, p. 69).

The lens through which Yosso looks at the "cultural capital" of People of Color is provocative and important because much of the research literature operates from an assumption of lack or deficit. According to Yosso (2005), CRT is a framework that can be utilized to theorize, observe and challenge the way race and racism implicitly and explicitly impact on social structures, practices and discourses. This framework was important to explore how Latino/as navigate academia using their cultural capital to advance through rigorous health science graduate and professional programs. Latino/as who have life long hopes and dreams of entering the sciences do so bringing with them the beautiful diversity of their cultural, ethnic and familial backgrounds, which often lends to their ability to connect with patients with similar backgrounds.

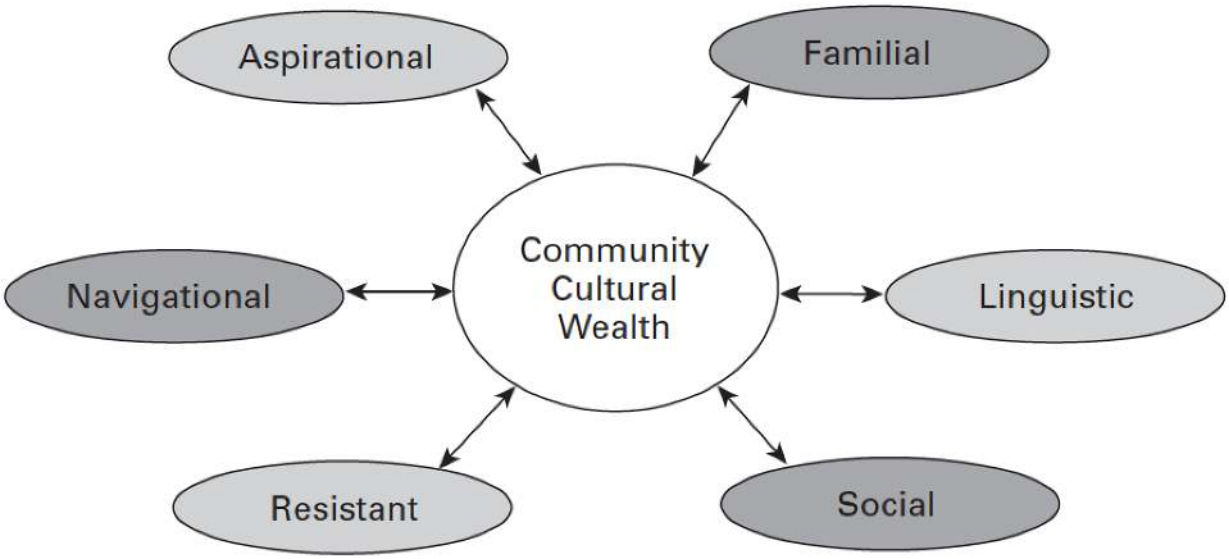

Figure 1. A model of community cultural wealth. Adapted from: Huber, 2009, p. 711.

The figure above illustrates community cultural wealth in a way that expands the idea of wealth beyond monetary assets. Aspirational capital refers to the skill of holding on to one's hopes and dreams despite challenges or barriers, whether real or perceived. "Familial capital is the forms of knowledge "nurtured among *familia* (kin) that carry a sense of community history, memory, and cultural intuition" (Huber, 2009, p. 710). Social capital can be thought of as the community resources, and resistant capital embodies the skills developed by people of color in order to persevere through opposition and inequality.

I focused on all of these areas of capital with particular attention to linguistic, social and navigational capital. Linguistic capital includes the knowledge and social skills obtained through bilingual or multilingual communication, reflecting the multiple language skills that bilingual and bicultural Latino/a students bring to academic and clinical settings. Navigational capital refers to the skills and abilities that people of color develop while negotiating with social institutions that were not created with their interests in mind (Yosso, 2005). The concept of community cultural wealth goes against the dominant narrative and was highlighted in the counterstories of the Latino/as who stood on the shoulders of their ancestors to become the next generation of leaders in health sciences.

Purpose of the Study

The purpose of this qualitative study was to gain a better understanding of the lived experiences and factors that contribute to the success and achievement of students and faculty in graduate health science programs. By documenting the narratives of Latino/a health science students and faculty, my hope was to explore how their testimonies could inform best practices to strengthen the pipeline and pave a smoother pathway for prospective students. Furthermore, I wished to examine the key factors which health science students and

faculty attributed to their success in hopes of empowering the next generation of health science professionals. Lastly, I hoped to acquire an understanding of the role that institutions play in the retention of students and faculty in health science programs. Both internal and external factors prepare students to successfully navigate through high school and college, and ultimately through graduate and professional schools.

This examination of the academic, professional, and personal experiences and narratives of Latino/as in higher education will help to develop a better understanding of how administrators and educators may be better equipped to serve their URM students in health science programs. The ultimate goal is strengthening the pipeline from K-12 through higher education and closing the achievement gap for Latino/a students.

Research Questions

1. How do Latino/as navigate their health science academic trajectory?
2. What factors contribute to Latino/as decision to enter the health professions?
3. How do Latino/a students and faculty describe their overall experiences in academia?

Research question number one aimed to explore how the study participants used their navigational capital throughout their academic journey. Research question number two aimed to explore how the study participants used their aspirational and familial capital. For many of them, it was their dream to become a health care professional and despite people telling them that they could not because of their background they persevered and did it anyway. Additionally, familial capital was a determining factor in the source of strength and motivation during their quest to become health professionals. Research question number

three explored how the study participants used their linguistic, social and resistant capital to their advantage in their quest to become health care professionals.

Significance of the Study

This study aimed to contribute to a greater understanding of how Latino\as navigate graduate and professional health science programs. Exploring the lived experiences of Latino/as before, during and after their training in health science and the trajectory that led them to academic medicine will add their voices to the literature in the hopes of paving the way for other Latino/a who are interested in pursing both clinical and academic careers. My hope is that focusing on the lived experiences and highlighting the successes, rather than the challenges, adds to the counter-narrative scholarship. By illustrating and highlighting the use of their cultural capital as a tool to rise above challenges, one goal is that this study can paint a beautiful picture of positive stories of triumphs and resilience rather than despair and hopelessness.

The significance of sharing these stories is so that perhaps all higher education administrators, faculty and upperclassman students would create authentic opportunities for mentorship for UMR students not only from K through 12, but also throughout undergraduate, graduate and even post doctoral training. This will ensure that Latino/as do not fall out of the education pipeline and consider remaining in academia after the completion of their training, hence creating a more diverse climate and culture within academic medicine.

Definition of Terms

Diversity: A defining feature of California's past, present and future – refers to the variety of personal experiences, values, and worldviews that arise from differences of culture and

circumstance. Such differences include race, ethnicity, gender, age, religion, language, abilities/disabilities, sexual orientation, socioeconomic status, and geographic region, and more (UC President's Task Force on Faculty Diversity, 2006).

First Generation to College/Graduate School: Any student who is among the first in their immediate family to go to college and or graduate school.

Health Sciences: For the purposes of this study, health sciences refers to graduate or professional programs in the fields of medicine, dentistry, nursing, optometry, pharmacy or public health.

Latina/o and Latinos/as: Those individuals who identify themselves as being of Latin descent (Central/South American, Caribbean, Cuban, Dominican, Mexican or Puerto Rican).

Social belonging: Greg Walton describes social belonging as the need to feel socially connected as a basic human motivation (Walton & Cohen, 2007).

Under Represented Minority (URM): The U.S. Department of Education defines URM students under federal affirmative action regulations as students from underrepresented backgrounds: African American, Hispanic (Chicano/Latino) and Native American (American Indian).

CHAPTER II: REVIEW OF LITERATURE

The literature for this study spans a 20-year period (1993-2013) and is comprised of four central themes in the experiences of Latina/os in health science graduate and professional programs: (1) education pipeline (undergraduate to graduate); (2) achievement and attainment; (3) campus climate in higher education; and (4) health sciences and faculty diversity. As stated in my introduction, I used community cultural wealth as my theoretical framework.

This review of literature is intended to illustrate the intersection of race and culture in the attainment and achievement of Latina/os in health science programs. My goal is to demonstrate the obstacles and triumphs throughout the academic trajectories of Latina/os who pursue careers in health sciences. The literature shows the non-traditional paths of Latina/os to graduate and professional education and how they have learned to navigate academia, particularly the campus climate, as they flow through the educational pipeline.

For decades researchers have investigated the academic underachievement of Latina/os in particular and achievement gaps among minorities in general. An abundance of studies (Fry, 2002, 2005; Haro, 2004) have focused exclusively on school failure and academic underachievement of Latina/o students. For example, key findings from a 2002 study by the Pew Hispanic Center (PHC) indicated a college enrollment gap for 18-24 year olds between Latino/as and all other ethnic groups and suggested a notable difference among Latino/as by generation and country of origin. "Native-born Latino/a high school graduates are enrolling in college at higher rates than their foreign-born counterparts, and that is especially true of the second generation, the U.S –born children of immigrants." (p. 10.) Additionally the PHC study found that Latino/as pursing graduate and professional degrees

do so at lower rates than other ethnicities (Fry, 2002). Consequently, the intent of my research study was to shift the focus away from Latino/a under-achievement; instead I investigated how Latino/as have built upon the cultural wealth and capital (navigational, linguistic, familia, social, resistant and aspirational) to become successful in health sciences despite race, class or other sociocultural barriers.

My study concentrates on health sciences, since it is critical to increase the number of underrepresented minority (URM) practitioners, clinicians and faculty in the field; in fact, the long-term health of our nation depends on it. The fact is that "minorities" are becoming the majority in the United States. Winkleby et al (2009) argues that the demographic and technological changes in the United States population have created an urgent need for a diverse workforce in science and health professions. According to Hurtado, Cabrera, Lin, Arellano, & Espinosa (2009), this underrepresentation has a particularly negative impact on communities of color as URM scientists are more likely than non-URMs to study issues specific to minority communities. Increasing the number of URM health scientists could potentially decrease many of the health disparities that disproportionately affect communities of color.

However, Latino/a enrollments have not kept pace despite their growing population, mainly due to continuing barriers in access and retention in college (Hurtado & Kamimura, 2003; Nora, 2003). Hurtado et al (2009) set out to understand more about how talented racial/ethnic minorities experience "becoming scientists" in undergraduate science programs. Their findings can provide insight into the complexity of diversifying the scientific workforce. Since we are seeing an increase in higher education enrollments among

Latino/as, it is imperative that administrators and educators encourage these students as they pursue health science careers and help to remove the barriers once they have gained access.

Education Pipeline

The term "education pipeline" refers to the educational trajectory or journey of students from kindergarten through higher education. The educational "pipeline" for Latinos is rife with massive leaks. The ultimate result is that graduate degree recipients from the nation's colleges and universities do not reflect the racial and ethnic diversity of the population (Chapa & De La Rosa, 2006). In health care this is a tremendous problem because of the lack of practitioners, caregivers, scientists and researchers who are working on improving the health and care of underrepresented people of color. The percentage of Latinos with doctorates is also very low, illustrating how few Latino students make it through to the end of the education pipeline.

According to Treviño, Sumaya, Miranda, Martinez and Saldaña (1993), there are three reasons for striving to educate Latino/a health professionals: 1) To achieve equity in access to higher education, 2) To ensure potentially cost-effective solution to the health needs of the United States population, and 3) To produce productive and sustaining members of society. Beyond the goal of equity, I would argue that perhaps the most important reason for recruiting and retaining Latino/as in academic medicine and health sciences is to combat health disparities that disproportionality affect Latino/as in the United States.

Based on their study, Treviño, Sumaya, Miranda, Martinez and Saldaña (1993) offered the following recommendations and strategies that are all relevant today:

1. Improve and coordinate collection of data on the health professions
2. Improve federal, state, and community initiatives (Pipeline programs)

3. Enhance financial support programs for Hispanic-Latino students pursing health professions and science education
4. Increase efforts to develop Hispanic-Latino preprofessional faculty
5. Increase efforts to advance Hispanic-Latino health professionals
6. Examine the impact of licensure and certification requirements
7. Improve coordination among the federal and national, state, and community-based health related organizations

Although these recommendations were made over 20 years ago, they are even more relevant today in the health professions since we now have more data and financial support for education pipeline programs. Several of these recommendations, like increasing efforts to develop and advance Latino/a faculty, address a persistent problem in health science graduate and professional institutions.

Numerous studies focus on education pipeline programs from the framework of "best practices." Despite their positive track record, federal and state budget cuts have often targeted education pipeline programs, such as Health Career Opportunity Program (HCOP), as the first to go (Haro, 2004). Yet these programs have experienced tremendous success, particularly in the recruitment and retention of URM students in the health sciences. Furthermore, education pipeline programs have also been successful in nurturing URM students into academic medicine and faculty positions where they are so desperately needed.

According to Haro (2004), several key factors affect Latinos' access to college, successful matriculation, and preparation for graduate study: 1) The type of institution where Latino/a students begin their undergraduate experience, 2) the type and quality of academic preparation and guidance in the K-12, and 3) advising staff, services and faculty assistance

and access to enrichment programs, undergraduate research opportunities. Haro's (2004) study aimed to identify the methods and practices that some institutions use to help Latino students obtain bachelors' degrees and to develop a strong portfolio that will enable them to access top graduate programs and schools. This is why education pipeline programs are crucial to the academic and professional success of health science URM students.

Haro (2004) highlighted pipeline programs such as PUENTE (*Puente* means "bridge" in Spanish) and a program at Stanford University as best practices. This program couples students with faculty members who guide students through a research project. The project becomes a key element within a portfolio that is used as a part of their application for research study and is important to ensuring that URM students are given opportunities to encourage their participation in research in health sciences.

Achievement and Attainment

Borrero (2011) stated that success stories could be told about the academic achievement of Latino/as through their own voices. Their voices reveal their strong cultural pride as students who have beaten the odds and who want to continue to share their successes with their families and communities. In contrast, a plethora of research focuses on the achievement gap, dismal enrollment figures and high dropout and failure rates of Latino/as (Fry, 2002 & 2005; Gonzáles, 2010; Moreno, 1998; Sciarra & Whitson, 2007).

Sciarra and Whitson (2007) shed some light on factors that contributed to Latino/a educational attainment. In their quantitative longitudinal study, they looked at the increasing number of Latina/o students who complete high school, matriculate in college, and ultimately earn undergraduate degrees. Two interesting findings were parent support and locus of control as noted predictors of success. Locus of control refers to the sense of control the

participants felt they had over their future. Other underlying factors related to the level at which students were supported by their school counselors as well as generational or immigration status. While many factors contribute to educational achievement or attainment, administrators and educators need to get to the root of how we can remove the institutional barriers to higher education for Latino/as.

Another factor to consider is whether these students are among the first generation to attend college and graduate school. Padilla and Gonzalez's (2001) study of academic performance among immigrant students showed that Latina/o students born in the United States were more likely to enroll and complete undergraduate programs. However, the literature lacks narratives from the students themselves, which could inform administrators on how to cultivate success for all students, including those from underrepresented backgrounds.

The role of resilience in the lives of many Latina/o youth is documented as a cultural strength that many Latino youth carry along to school (Cabrera & Padilla, 2004; Portes & Rumbaut, 2001; Suárez-Orozco & Suárez-Orozco, 2001). According to Cabrera and Padilla (2004), resiliency in this context is evidenced among "students who despite economic, cultural, and social barriers still succeed at high levels" (p. 152). In their qualitative study, the authors looked at the academic experiences of two Mexican American students from kindergarten through graduation from Stanford University. The researchers were particularly interested in looking for information that was relevant to academic resilience. Overall, they found that students' needs changed; while some experiences were out of their control despite the best efforts from advocates (overt and covert forms of racism), "resilient forms of

behaviors can be learned and sustained when families, schools and communities unite to enable children to succeed" (Cabrera & Padilla, 2004, p. 169).

Rivas-Drake (2008) conducted one of the only studies focusing on factors that contribute to success for Latino/as. This study explored perceptions of opportunity, ethnic identity beliefs, and motivation orientations among Latina/o students. The author investigated the concepts of "achievement motivations," "social barriers or social inequity" and "feelings of alienation" (p. 113). The purpose of this study was to identify and understand variation in perceived opportunity among Latina/os who had already succeeded in school. The 10 participants were broken into three different "profiles." Profile one was referred to as the "Justifiers," characterized by individualistic achievement motivators, meaning that they attributed their success solely to their own merit. Profile two was referred to as the "Critically Conscious," who had a strong sense of ethnic identity and was motivated by the potential to give back and advance their families and communities. Finally, Profile three included the "Accommodators," who believed that achievement was a matter of putting their own individual goals first. Unlike the first group, these students conveyed a positive sense of identity that suggested that being Latina/o was a meaningful, if not central, aspect of their lives (Rivas-Drake, 2008).

Finally, González's (2010) work highlighted the critical role that educators and administrators play in the academic success of Latino children. She developed the Leadership Success Model, which focused on four domains critical for leadership success: contextual, academic, psychosocial and linguistic domains. According to González, even one child dropping out of school is unacceptable and implicates an entire educational system. She

asks the question: “What would happen if 1 of 5 patients left hospitals before being treated?” (p. 482).

The health sciences are desperately in need of faculty of color in academic medicine to mentor the Underrepresented Minority (URM) students increasingly entering the academic health science graduate and professional pipeline. 75 percent of Mexican American physicians who graduated from California medical schools between 1971 and 1977 were practicing directly in or adjacent to designated Critical Health Manpower Shortage Areas (CHMSAs) (Treviño et al, 1993). In fact, URM graduates were twice as likely to locate their practices in areas with shortages of health care aid patients; they treated three times the number of minority patients compared with nonminority physicians.

Lastly, and perhaps most importantly, is the concept of social belonging. “If social belonging is important to intellectual achievement, members of historically excluded ethnic groups may suffer a disadvantage. When Black Americans, Latino Americans, and Native Americans look at schools and workplaces in the United States, they see places in which members of their group are numerically under-represented” (Walton & Cohen, 2007, p. 82).

Greg Walton et al (2007, 2009, 2011, 2012) have done extensive research looking at how social belonging and belonging uncertainty directly impacts the motivation and achievement of people whose groups have historically been negatively characterized in academic settings (Walton & Cohen, 2007). In their 2007 pilot study that examined the belonging uncertainty of Black Americans and Latino/as in computer sciences, the authors found that students with friends who shared similar personal characters were more likely to feel as if they fit in academic settings.

I believe that the same holds true in the health sciences in that both students and faculty have better experiences and higher levels of achievement when they feel like they belong to an institution. Social belonging is a concept that is worth addressing in this study as URM students and Latino/as in particular struggle with this, but have learned how to navigate in spite of belonging uncertainty on their respective campuses. This is an appropriate segue way into the next important and relevant topic of campus climate.

Campus Climate in Higher Education

The landscape of higher education is rapidly changing as the U.S. population is becoming more multicultural and diverse. We cannot have a discussion about Latina/os in higher education without looking at the overall campus climate, landscape of academia, and the systems within which many higher education institutions operate. In this dissertation study, I am interested in the lived experiences of Latino/as as they navigate higher education institutions. What is it really like on their respective campuses and programs? What are their challenges, but more importantly, their successes?

Sylvia Hurtado (2009) has dedicated her work to researching campus climate, diversity, and inclusion in health sciences for Latina/os and other underrepresented populations. Her research along with her colleagues in the field of higher education lays the foundation for a broader discussion of Latina/os in the health sciences. Hurtado's 1994 study of high-achieving Latina/o students revealed that students tended to perceive a less hostile and more inclusive climate at predominately White institutions with relatively higher Latina/o student enrollments. Many higher education institutions are investing in rigorous campus climate surveys in order to assess the campus climate. The survey results allow campuses to assess and determine what the climate is really like, particularly for URM

students. Campuses use this data to inform their recruitment and retention of a diverse student body. In another study, Hurtado and Carter (1997) looked at the perceptions of the campus racial climate on Latino/a college students' sense of belonging. What they found was more attention is needed for URM students in terms of students' integration in campus life and overall sense of belonging.

Hurtado, Cabrera, Lin, Arellano & Espinosa (2009) conducted a study looking at underrepresented minority (URM) students and how they experience science. The findings revealed that participants struggled with balancing complex issues such as race and social stigma in scientific training. In their 2009 study Hurtado et al, argued, "in addition to the culture of science, URMs frequently experience social stigma that can, in turn, inhibit their academic development. Specifically, when underrepresented students find themselves in classrooms, labs, or environments where they are one of a few, stigmatization can potentially affect students' levels of academic self-confidence and performance" (p. 194).

Hurtado and Ponjuan (2005) conducted a national longitudinal quantitative study to understand the factors that affect educational outcomes for Latino\as in public universities. They developed a framework for understanding exactly how the campus climate for diversity is shaped within educational institutions. The areas vital to college student success were: student perceptions, sense of belonging, and development of skills and abilities. According to the authors, the campus environment is influenced by: 1) Historical legacy of inclusion/exclusion; 2) Structural diversity or number of representation of diverse people; 3) Nature or interactions among diverse groups; and 4) Individual perceptions. Hurtado and Ponjuan found no significant differences among Latinos based on ability, gender, socioeconomic status, generation (recent immigration), or being the first to attend college in

their family. However, students who tended to speak Spanish at home were more likely than English dominant speakers to perceive a hostile climate for diversity on campus.

Hurtado and Kamimuras 2003 studied Latina/o retention in four-year institutions looked at the retention of faculty, administrators and students in higher education and how the climate at graduate institutions makes it difficult to not only attract but also retain Latino/as in higher education. According to Hurtado and Kamimura (2003), seven principles can be implemented to address Latina/o retention in four-year institutions:

1. Increase Participation Rates to Create a Latina/o Presence on Campus
2. Assist Students in Navigating the Institution
3. Monitor Adjustment for Retention
4. Build Support from Peers: "It takes one to retain one."
5. Increase Communication between Racial Groups
6. Employ Faculty and Administrators as a Form of Structural Support
7. Understand Retention on Campus through Research (p. 148)

Hurtado and Kamimura suggested that higher education institutions still have much to learn about creating inclusive and multicultural learning environments, as evidenced by the difficulties in retaining Latina/o students. Multicultural learning environments are ones that create a safe space and resources for students from different backgrounds to learn across disciplines. Institutions ought to expend as many resources on creating an inclusive culture on their campuses as they spend on the recruitment and retention of URM students.

According to Gloria and Castellanos (2003), the campus climate of selective research universities often results in Latino/as students feeling isolated or marginalized. For example,

one student shared: “I try to adjust to it the best I can, but mostly I just mind my own business and keep to myself” (Latino male) (p. 78). Another Latina student shared:

> It is taking a lot for me to adjust and feel part of this campus. The study body is not adequately represented culturally. There are only a few minorities. It was extremely difficult adjusting to this culture shock, because I didn’t feel like I could relate to many people here. (Gloria & Castellanos, 2003, p. 79)

In this vein, Chapa and De La Rosa (2006) argued that the discussion so far has centered on the fact that Latinos are seriously underrepresented in higher education programs and that the degree of underrepresentation increases as the level of education increases. While much scholarly debate has taken place about the climate on undergraduate and graduate campuses, few studies offer solutions for improving that climate.

According to Haro (2004), two factors affect Latino/a students’ access to college: successful matriculation and preparation for graduate study. The type of institution where Latino/a students begin their instruction and the quality (or lack thereof) of preparation in K-12 greatly impact students’ ability to enroll in higher education programs. Schools often reproduce existing societal inequalities based on race/ethnicity, socioeconomic status, language, and other variables (Irizarry, 2001). These factors certainly contribute, but are not limited to, access, barriers, achievement and attainment of higher education degrees for Latino/a students. Unfortunately, the issues of campus and racial climate are consistently overlooked when examining academic persistence or explicitly addressing the creation of ethnic/racial minority student programming (Gloria & Castellanos, 2003).

The discourse around campus climate in higher education touches quite a bit on the concept of cultural congruity. Cultural congruity has been defined as the cultural fit or match

between one's internal values and those of the university environment (Gloria & Castellanos, 2003). Latino/a students in particular may encounter difficulties adjusting to the campus climate and thus have developed creative ways to navigate the campus culture. Furthermore, URM students traditionally have had challenges fitting into environments that are not designed to be welcoming and inclusive of students of color. As students are constantly trying to reconcile, negotiate, and navigate higher education, they carry with them their own cultural beliefs, values, and morals which are not always aligned with that of the institution.

Finally, institutions need to take a closer look at several dimensions that affect the climate for diversity, including their historical legacy (which may include practices that privilege certain student groups), structural representation (number of Latina/o students, faculty and staff), the psychological climate (the nature of interactions between students, faculty and staff), and behavioral dimensions (the nature of interactions between students, faculty, and administrators). All of these factors can and do affect the retention of Latina/os (Hurtado, 2002). Latino/a health science students might be more likely to consider academic faculty positions if they see serious efforts to improve campus climate.

Health Sciences Faculty Diversity

Unfortunately Latina/o and African American faculty are scarce in the health sciences and in higher education overall. A 2011 report from the National Center for Education Statistics stated that in Fall 2009, 6.6 percent of faculty members were Black, 6 percent were Asian/Pacific Islander and 4 percent were Latino/a at all institutions, including historically Black colleges and universities. Although these figures represent Latino/a faculty across all disciplines in higher education, they are even more daunting if we look at a cross section of Latino/a faculty only in health science graduate programs. According to the faculty roster for

the American Association of Medical Colleges (AAMC) in 2004, of the 114,087 faculty, only 7.2% were URM (Daley, Wingard, & Reznik, 2006). The Hispanic Border Leadership Institute (2002) has conducted studies in several states with large and expanding Latino/a populations which reveal that the number and percentage of Latino/a faculty (tenure track, full-time teaching positions only) are increasing at two-year colleges, barely gaining ground at four-year regional universities, and remaining almost stagnant at the most selective research universities (Haro & Lara, 2004).

The underrepresentation of faculty of color is extensively documented (Turner, González & Wood, 2008) and is even more dismal at health science graduate and professional institutions. At public and four-year colleges and universities, administrators of color represent 15% of all professional positions, while Latina/os only represent about 2.9%; faculty of color represent 14.5% of all research and instructional positions with Latina/os holding only 2.5% of these positions (NCES, 2001). With so few faculty of color, a big challenge on health science campuses across the United States is the lack of mentors to graduate and professional students of color.

Faculty of color remain seriously underrepresented, making up a mere 17% of total full-time faculty across all disciplines. The few URM faculty who are represented in health sciences are often burned out from being the only ones in their entire department or discipline. They are overstretched from often serving as the voice or face for all diversity issues on their respective campuses. URM faculty carry the burden of being expected to be educators, scholars, researchers, mentors, clinicians, practitioners, and advisors and to excel in each role simultaneously. This insurmountable stress contributes to feelings of guilt,

despair, and fear of letting down their students and colleagues, sometimes leading to leaving academia altogether.

Students view the employment of Latina/o faculty and administrators in colleges and universities as an important device in the retention of Latina/o college students. Latina/o faculty and administrators serve as role models, showing young Latina/o students that positions of power and influence are available to Latina/os, consequently motivating these students to remain in school and be academically successful (Castellanos & Jones, 2003). To better prepare students for an increasingly diverse society, campuses across the country are engaged in efforts to diversify the racial and ethnic makeup of their faculties (Turner, González & Wood, 2008).

Role models for students should be located within the faculty, student-services support staff, active alumni, and among upperclassmen. In the latter category, student peer groups are invaluable sources of support and encouragement, providing not just examples of those able to successfully negotiate the campus climate and environment, but also as interpreters and guides to help other students negotiate the campus system and develop the skills necessary to survive, thrive and succeed (Haro, 2004).

Gloria and Castellanos (2003), Turner, González, and Wood (2008), and Daley, Wingard, and Reznik (2006) all have examined the barriers in the experiences of health sciences faculty through either a psychological, social, or cultural construct. However, none of these studies have explored how these three constructs intersect or how URM faculty can transcend these barriers. For example, an assessment of Latina/o students' self- perceptions (psychological), faculty or staff perceptions of Latina/o students (social), and the university setting (cultural) could more clearly reveal the complexities of student interactions (Gloria &

Castellanos, 2003). The educational and lived experiences of Latino/as in health science are scarcely represented. Gaining better insight into the contextual barriers may lead to more programs and services to support Latino/a students and faculty.

Turner, González and Woods' (2008) extensive literature review on faculty of color focused on departmental, institutional and national contexts. The authors highlighted the supports and challenges within these three contexts:

> Faculty of color's love of teaching was noted as a primary reason for their persistence in academe. However, undervaluation of their research interests, approaches, and theoretical frameworks and challenges to their credentials and intellect in the classroom contribute to their dissatisfaction with their professorial roles. In addition, isolation, perceived biases in the hiring process, being representatives of their racial/ethnic group and accent discrimination are noted negatives described in the literature (p. 143).

The challenges for faculty of color in the health sciences are plentiful. In order to truly understand these challenges for Latino/a faculty, their voices and testimonies need to be included in the literature.

Community Cultural Wealth

Yosso's (2005) work centers on challenging racism and revealing cultural wealth. She uses the CRT lens to critique "deficit theorizing" that inadvertently leaves out the voices of people of color. "I believe CRT can offer such an approach by identifying, analyzing and challenging distorted notions of People of Color" (p. 75). Many of the participants shared counter stories of encountering racism and discrimination in different stages of their trajectory in the health sciences. Using the theory of community cultural wealth, I looked

more closely at the six tenets: aspirational capital, familial capital, social capital, linguistic capital, resistant capital and navigational capital. The sixth theme that emerged from the data analysis has to do with familial capital. "*Familial capital* refers to those cultural knowledges nurtured among *familia* (kin) that carry a sense of community history, memory and cultural intuition (Delgado Bernal, 1998, 2002).

Huber's (2009) study utilized Yosso's (2005) community cultural wealth framework to highlight the vastly rich capital that existed in the lineage of her 10 Latina student participants from a top-tier research university. Huber challenged dominant frames by emphasizing the community cultural wealth of the Latinas in her study and used *testimonios* as her methodology. Originally developed as a research methodology in Latin American and Chicana feminist studies, *testimonios* engender the participant who narrates her story to shed light upon exploitative and oppressive circumstances while validating her experiential knowledge. The findings of Huber's (2009) study confirmed that the participants utilized various forms of community wealth. Huber explained how each of the participants tapped into aspirational and familial, linguistic, social, navigational and resistant capital during their academic careers. She discussed the participants' ability to draw upon familial strength in their migration stories as well as their community networks to gain significant academic and financial resources.

While these are all important findings, linguistic capital was highlighted as participants identified their bilingualism as a strength that enhanced their educational experiences. Many of her participants had a variety of linguistic abilities as they were multilingual and served as "language brokers" (translators for their families), utilizing a skill that many of my own study's participants also possessed. "Consistent with past research that

explains how community cultural wealth capital can shift and overlap, we see how particular forms of community cultural wealth intersected in the lived experiences of these women as they drew from various forms of capital simultaneously" (Huber, 2009, p. 723). These findings validate and highlight the importance of many facets of cultural wealth that contribute to the success of Latino/as in education.

Linguistic Capital

Considering the multilingual society in which we live, it is impossible to address the lived experiences of Latino/as without looking at the intersection of language and its role for students in higher education in the professional and graduate health sciences. The bilingualism of my participants was an important issue to introduce for several reasons. First, bilingual practitioners can deliver more comprehensive care to patients without relying on translators. Daley et al., (2006), Flores, (2006), Treviño et al., (1993), and Santiago (2012) all have shown that bilingual caregivers are more likely to practice in underrepresented communities. Secondly, the ability to share culture and language between students and mentors can overcome serious barriers that tend to inhibit Latino/a students' adjustments and academic performances (Haro, 2004).

Latino/as who are bilingual realize their native or heritage languages are indeed assets and cultural capital rather than a barrier to their successes. Furthermore, in the health sciences bilingualism gives Latino/a clinicians the advantage of being able to effectively communicate with Latino/a patients thus delivering more comprehensive care and not having to rely on translators or translation services. "Language is power, life, and the instrument of culture, the instrument of domination and liberation" (Carter, 1997, p. 43).

According to Dr. Flores:

> The physician-patient interaction has been the cornerstone of excellence in health care and, when poor communication occurs, there is an increased risk for poor outcome. Success in communication with the physician provides the patient with a sense of having his or her health care needs understood and creates the first bridge to the healing process. When the patient speaks the same language and has the same sociocultural experiences as the physician, communication is maximized. When the physician neither speaks the same language nor has the same sociocultural experiences as the patient or his or her family, the cornerstone of our health care system is fractured. (p. 638)

Summary

Scholarly literature on Latina/os in health sciences education covers a vast breath of topics that touch on factors contributing to success. However, most studies focus on the gaps, challenges, deficit, failures and unprecedented high school dropout rates. Very few studies highlight the success stories and the triumphs of Latina/os in higher education. Looking at the data on campus climate in higher education gives a backdrop to the challenges that Latino/as face in higher education. LatCrit introduces a framework through which we can look at Latina/os in higher education and brings linguicism as a factor into the discussion. Finally, all the literature around health sciences, faculty issues and pipeline depicts the landscape of challenges and opportunities for Latino/as in health sciences. In looking at both qualitative and quantitative studies, the voices of Latino/a students and faculty themselves are missing in the literature.

Therefore, to fill this gap in the literature, my study explored the lived experiences of Latino/a students and faculty in the health sciences graduate and professional programs.

Instead of focusing on the challenges, my study focused on the successful narratives and highlights best practices in an attempt to develop more programs and resources for students who are along the academic path to health professions and academic medicine. A secondary goal was to conduct a study that examined how their language and bilingualism served their academic and professional pursuits. Specifically, I was interested in gaining a better understanding of how bilingualism can be an asset in patient care and overall communication strategies for health care.

The voices, knowledge and lived experiences of Latino/as in higher education paint a vivid portrait using their colors, their voices, and their language. Historically these stories were passed down from generations to generations and somehow have gotten lost in translation. My intent through this study was to keep the stories alive and give voice to yet another generation of Latino/as through the pipeline into health science education. Through this qualitative study, my goal was to document the narratives of Latina/o students and faculty who have successfully navigated health sciences academia.

Highlighting the success stories and narratives of these individuals will serve as inspiration to others who share the goal of pursing careers in health sciences and academic medicine. Using counterstorytelling as a methodology to gather the collective lived experiences of Latina/os faculty and students in health science professions will hopefully foster a broader understanding of how to attract more Latina/os into academic medicine. While the discourse on how students of color lack knowledge or ability prevails, what is needed are strategies for success based upon the perspectives of the students themselves.

CHAPTER III: RESEARCH DESIGN

Overview

This study employed a qualitative research approach to describe the perspectives and educational experiences of Latino/as in health science programs and academic careers at an institution in Northern California. I selected counter-storytelling as the method because it allowed me to capture the participants' stories during the interview process, while also challenging the dominant narrative about Latino/as in higher education. Thorough qualitative inquiry I attempted to respond to the following research questions:

1. What factors contribute to Latino/as decision to enter the health professions?
2. How do Latino/as navigate their health science academic trajectory?
3. How do Latino/a students and faculty describe their overall experiences in academia?

The purpose of this qualitative study was to gain a better understanding of the lived experiences and factors that contribute to the success and achievement of students and faculty in graduate health science programs. By exploring the counternarratives of Latino/a health science students and faculty, my hope was to grasp how their stories could inform best practices to strengthen the education pipeline, pave a smoother pathway for prospective students, and increase the retention of Latino/a students in health science teaching positions.

This study aimed to contribute to a greater understanding of how Latino\as navigate graduate and professional health science programs. Exploration of the lived experiences of Latino/as before, during and after their training in academic medicine will hopefully pave the way for other Latino/a who are interested in pursing academic and faculty careers.

Additionally my study seeks to explicate the experiences of Latino/a health science students and faculty as a means of challenging the dominant narrative about this population.

Participant Selection

My profession has given me the great fortune of allowing me to have built relationships with highly accomplished and committed URM faculty and students across many different fields in the health sciences. Having spent the past 14 years working in the health care industry (10 in higher education), I have had the honor and privilege of developing relationships with some of the most brilliant minds and hearts in the field. I used a purposive sampling technique by asking my colleagues who I know identify as Latina/o in departments of medicine, nursing, dentistry and pharmacy and who are willing to participate. Purposive sampling occurs when researchers purposely select the individuals to be included in the sample based on specific criteria, which may include knowledge of the issue, capacity or willingness to participate in the research. As a former administrator and founding director of the Multicultural Resource Center at the identified university, I had direct access to faculty and student contact information. I recruited my participants from four health science programs: medicine, nursing, dentistry and pharmacy.

My goal was to recruit eight participants (four faculty and four students) for the study; however because of scheduling conflicts, travel, and availability I was only able to recruit six participants. I also hoped to have an equal gender balance in my participant sample. My goal was to recruit four women and four men; however I ended up with a sample of four men and two women. I initially identified and sent recruitment emails to 17 people to request their participation in my study (nine students and eight faculty). Within two hours of sending out my recruitment emails, I received several responses with messages of people

expressing their willingness to participate and the importance of this study. Many people wanted to participate but were traveling or doing away rotations during my interview times, and, unfortunately, I was unable to meet with everyone who wanted to participate.

The participants who were selected were interviewed once in person for 60 to 90 minutes. After the participants were selected, I provided them with consent forms (See Appendix A). I also requested that the participants complete a short demographic survey using Survey Monkey® (an on-line survey tool) (see Appendix B) with the purpose of gathering basic demographic information, like nationality, country of origin and educational background. I used TimeTrade®, an online scheduling program, to schedule times to meet with the six participants. I reserved study rooms at a local university in order to meet with the students in a private and quiet area; I met with faculty in their offices. Because of patient confidentiality and Health Insurance Portability and Accountability Act (HIPPA), I limited my interactions with faculty participants to times when they were not seeing patients or in clinical settings. (Interview questions are in Appendix C).

Data Collection

Focus Group

After all six individual interviews were completed and I identified preliminary themes, I wanted to bring all of the participants together to conduct a focus group. My goal was to share with the participants the themes that I had identified during coding. I wanted the participants to actively contribute to my research and engage with me during my data analysis so I consulted with them for feedback on my emerging themes in order to further inform my research. Gathering feedback from participants is a qualitative analytical tool commonly used and is referred to as "member checking" (Creswell, 2011, p. 259). This was

important to my study because I wanted to be certain of the accuracy and integrity of their counter stories. I wanted them to feel as if they contributed to the entire research process, not just the sharing of their stories.

I also hoped that bringing the participants together as a focus group could serve as a way for the students and faculty to provide support and inspiration to each other in the form of mentorship and professional development. During the focus group I began with welcomes and introductions, gave an overview of the research problem, and shared my research questions, data analysis and preliminary findings. I requested their feedback and then followed with a group exercise. For the small group exercise, I asked the participants to pair up in faculty or student dyads to reflect on the following questions:

For students: "What is the biggest factor that keeps you from pursing faculty or academic positions?"

For faculty: "What are some encouraging words that you would offer students to consider pursing a faculty position."

After they discussed their respective questions, the students reported out their reflections and gave the faculty the opportunity to comment. Afterwards the faculty reported their advice to the students. At the conclusion of the focus group, I presented each of the participants with a small token of my appreciation for their participation in my study. (The focus group agenda is in Appendix D and the PowerPoint presentation can be found in Appendix E.)

I was fortunate to have two research assistants that assisted me with set up, note taking and video recording, and clean up of the focus group. I took field notes during the focus group, and asked the participants to write words of wisdom and encouragement for me,

which they placed in a sealed envelope. I also kept a research journal throughout my data collection and reflected on personal thoughts and feelings that came up for me after each interview. For the Participant Interview Schedule, see Table 1. Following is the data collection timetable in Table 2.

Participant Interview Schedule:

Individual Interviews		
Students	**Discipline**	**Date/Time**
"Ernesto"	Medicine	March 16, 2014 12:00pm
"Natalie"	Nursing	March 27, 2014 7:00pm
"Daniel"	Pharmacy	March 10, 2014 4:00pm
Faculty		
Esteban	Medicine/Pharmacy	March 14, 2014 11:00am
"Pili"	Nursing	March 24, 2014 3:00pm
"Manuel"	Dentistry	March 7, 2014 1:00pm
Focus Group		
All	All Disciplines	May 28th, 2014 5:30pm

Table 1.

Data Collection Timeline:

Student & Faculty Interviews (60-90 minutes)	March 7th through 28th 2014
Transcription	April 1-4th
Data analysis/coding	April-May 2014
Focus Group (2 hours)	May 28th 2014
Final data analysis	June-July

Table 2.

The six interviews were audio and video recorded using various Apple devices, which allowed for simultaneous audio recording and note taking. Five interviews were transcribed, using a transcription service (Transcribe Team). I transcribed one of the interviews and then coded and analyzed the data using qualitative analysis software NVivo 10 for Mac version 10.0.4. After uploading all of the video, audio files, and transcripts into NVivo, I then created

"nodes" or themes to code my data and ran queries to help flush out the developing themes. I elaborate on this process in the data analysis section. Because I was seeking to develop an understanding of the participants' lived experiences, it was helpful that I had already built a rapport and trust with my participants; therefore I believe they were very authentic and candid in the sharing of their stories.

Research Setting

This study took place at a large health science campus in Northern California that will be referred to as Northern California Medical University (NCMU). NCMU is a world-renowned health science and research institution that is highly competitive in student admissions. The growing campus sprawls across much of the city. With two hospitals, a Veteran's Affairs (VA) hospital and a children's hospital currently under construction, one could easily think that NCMU is its own city in and of itself. Each of the six campuses and three hospitals at NCMU has its own unique, thriving and bustling culture. Each campus and hospital has a completely different look and feel due largely in part to the wonderful diversity and topography of the city. NCMU is internationally known for its top-tier teaching hospitals and is a major benefactor of National Institutes of Health (NIH) funding, world-renowned for its research and ground breaking discoveries. Because of its global reputation, NCMU attracts the best and brightest scholars, researchers, clinicians and trainees. Patients come from all over California (and the United States) to NCMU to be seen and treated by some of the country's best practitioners and researchers in various specialties. Having received care at NCMU, I know first hand about the excellence and quality of the patient care and training of the clinicians and scientist at this institution.

Data Analysis

In order to protect the identity of the participants, I gave them the opportunity to choose their own pseudonym. One of the faculty participants did not want to choose a pseudonym and preferred that I used his real name. Once the data was transcribed, I uploaded the files into 'Nvivo" to code the data. I created "nodes", which are key words that emerged in my interviews such as "leadership, academic success, diversity, education pipeline etc. (I used the nodes to create a Wordle™ that can be found in Appendix F.) As I began coding each interview I began to notice themes emerging, which I discuss in greater depth in the following chapter. As the themes emerged, I noted them in the "memo" section of NVivo. I also took note of questions that came up or topics on which I wanted further clarification. Since I knew I would see my participants again at the focus group, I wanted to be sure to keep track of topic areas that I wanted to have further discussion and flush out in the group setting.

As I developed and identified the themes that emerged from the participants' narratives, I conducted an analysis of the data and offer an interpretation in Chapter V. I shaped my descriptions, analysis and interpretations of the data using the three research questions as my guide. This allowed me to systematically focus on the experiences of URM students and faculty. Once the interviews were transcribed and coded, I conducted an analysis in order to identify themes or categories. I then determined which of the six tenets of Cultural Capital Wealth each participant employed during their academic journeys, and finally present key findings once the narratives are analyzed, coded and interpreted.

My analysis included answering all three of my research questions for each participant. I used my field notes, focus group notes, journal, memos, and additional data

gathered in the focus group to inform my analysis. In addition, I employed an analytical tool known as member checking in order to solicit feedback from the participants to allow them to contribute to the emerging themes and ensure that I accurately represented their stories.

Counterstorytelling

Capturing Latino/a stories about their own successes and challenges is important because these stories are often missing in educational literature (Cabrera & Padilla, 2004; Nieto, 2002). To this end, Delgado Bernal (1989) has used a methodology called "counter-storytelling," arguing that it is both a method of telling the story of those experiences that are not often told and a tool for analyzing and challenging the stories for those in power.

Solórzano and Yosso (2002) define counterstories as:

> …a method of telling the stories of those people whose experiences are not often told (i.e., those on the margins of society). The counter-story is also a tool for exposing, analyzing, and challenging the majoritarian stories of racial privilege. Counter-stories can shatter complacency, challenge the dominant discourse on race and further the struggle for racial reform… Indeed, within the histories and lives of people of color, these are numerous unheard counter-stories. Storytelling and counter-storytelling these experiences can help strengthen traditions of social, political, and cultural survival and resistance. (p. 32)

In this study, I also used counter-storytelling as the methodology in order to tap the voices and feelings of the Latino/a participants. My hope was that these counter-stories would serve as tools to raise awareness among educators and administrators in the development of pipeline programs. Another long-term objective is to increase the

representation of Latina/o students in graduate and professional health science programs and, ultimately, in Latina/o tenured faculty in health science programs.

Ethical Considerations

URM students and faculty constitute a vulnerable population. Many URM students are first generation to college and graduate school and may have been born to immigrant parents (especially if Latino/as). I treated my participants and the information they shared with the upmost respect and confidentiality, being mindful to avoid feelings of exploitation. All participants signed an informed consent form prior to interviews. I ensured that all participants understood the form, and each signed it willingly. I provided each participant with a copy of the consent form for his or her review. I assured each participant that his or her comments would not be attributed to them in any identifiable way and that I would use their assigned pseudonyms throughout my data analysis and the writing of this dissertation. In all places, certain small details and names of people mentioned throughout the stories were changed to protect the identity of the participants.

Delimitations

Creswell (2011) defines delimitations as the boundaries of the study, the narrow scope, the time frame, location, sample, all of which are controlled by the researcher. The findings and recommendations of my study are based on data obtained from a small and select number of students and faculty at one health science graduate campus in Northern California. It should also be noted that this is not a longitudinal study; rather data was collected at one time in the participants' academic careers. Lastly, due to the limited number of participants in this study, the data does not capture all of the factors that contribute to the success of Latino/as in health science programs. For example, other fields of health sciences,

such as public health, optometry, and veterinary medicine, were not evaluated or taken into consideration in this study. This study merely scratched the tip of the iceberg and requires further inquiry and warrants future investigation based on the rich data gathered on this topic.

Protection of Human Subjects

On February 4, 2014, I obtained permission from the University of San Francisco's International Review Board for the Protection of Human Subjects (IRBPHS) prior to the beginning of my data collection. Before starting the interviews, I distributed consent letters to willing participants and obtained their signature of approval. The consent letter (APPENDIX A) includes a description of the research purpose and methodology. I informed each of my six participants that the data gathered during this study was for my dissertation, and each participant agreed to this before initiating their participation. All information exchanged was done on a voluntary basis. All participants understood that they had the opportunity to withdraw from the study at any time.

Background and Interests of the Researcher

I am a child of West Indian parents who immigrated to New York in the late 1960's. My father is from Jamaica, and my bi-racial mother is from Barbados. My paternal great grandfather is from Panama. Both of my parents migrated to Queens, New York, to make a better life for themselves. Neither of them had more than a high school education but instilled the importance of education into every fiber of my being. Growing up in Queens, one of the most diverse cities in the United States, provided me with a very unique lens from which I view the world. At an early age I was labeled "gifted" in the New York City public school system and, to my parents' delight, I excelled in school. There was no question whether or not I was going to college; I knew that I was going. Although my parents were not able to

help me navigate the college application process, I relied heavily on my high school guidance counselors, and friends to help me circumnavigate the at times arduous and confusing process.

I started my academic career at a Historically Black College/University (HBCU): Virginia Union University (VUU) in Richmond, Virginia. VUU was somewhat of a culture shock for me. It was the first time I was confronted by other people of color and was told I wasn't really Black, "black enough" or that I was a "foreigner" because my West Indian parents spoke with accents and I have a Latin surname. VUU taught me everything I know about the class system in the Black community. In addition to learning about Business Administration and Marketing, I learned about the legacy of my elite upper class second and third generation friends. Like many young adults, for the first time in my life I struggled with my cultural identity and quickly realized that I was "different" even though black and brown people surrounded me. I found my "community" in other Latina/o and Caribbean folk who became my support system during my undergraduate years in the South.

I have spent the past 10 years working in higher education and much of my career in the health care industry. My introduction to the health sciences began in 2001 when I assumed the role as a health programs manager at the American Cancer Society (ACS). In this role I realized how many health disparities disproportionately affected people of color. During my tenure at ACS, I met a wonderful woman who became my mentor and recruited me to the University of California, San Francisco, where I spent nine years in various positions. I am an educator, instructor, facilitator, trainer and administrator of student affairs at a medical school. I have been lucky and blessed to have amazing women (and a few good men) who have mentored me throughout my professional trajectory in higher education. As

mentioned earlier, I was the inaugural director of the Multicultural Resource Center at a large public university and enjoyed my role as an advocate for URM and first generation to graduate education students. Yet still, I can recall having moments of self-doubt, impostor syndrome and isolation. Much of my work in this area informs my research and has allowed me the privilege and opportunity to understand the needs and challenges of these students who are the future health care providers and educators all over the world.

I also understand the challenges of my URM colleagues and faculty who struggle with feelings of isolation and sometimes-hostile environments. My ethnic background and Latin roots inspire and drive me to figure out how we can get more people who look like me in academia in teaching positions in the health sciences. I believe that only then will many of the disparities in health that disproportionately infect and effect people of color will be eradicated. I would like to dedicate my future academic career to conducting research in order to inform programs, services, recruitment and retention efforts and curriculum in a way that is culturally sensitive and ensuring that graduate institutions are cognizant of creating a campus climate of inclusion for all students, staff and faculty. I believe this is the only way that we can empower change in academia, and encourage URM students to consider being the next generation of professors and educators in health science education.

CHAPTER IV: FINDINGS

This study examined the lived experiences and academic journeys of Latino/a students and faculty in the health sciences. I have always believed that a person's story has tremendous power. One of my favorite authors is Dr. Brené Brown, a professor at the University of Houston, who has focused her research on understanding vulnerability, courage, worthiness, and shame. As Brown (2012) says, "Maybe stories are just data with a soul" (p. 252).

The following stories embody the true heart and soul of my research. I deliberately chose an alternative format to present the findings in this chapter that aligned with my methodology of counter-storytelling. In other words, I intentionally used their own words in extended discourse in order to share their lived experiences. This chapter is organized by first sharing the participants' stories using their own words along with my reflections to answer my three research questions. Secondly, I offer a summary of the findings according to the research questions and then a summary within the framework of cultural community wealth.

Overview

This study explored how six Latino/as at a northern California health sciences campus navigated their health science academic trajectory. I wanted to understand what factors contributed to their respective decisions to enter the health sciences and to hear their stories about their overall experiences in academia. For some of my participants, it was a very clear and linear path, but for others, their journey was a very windy, arduous yet fruitful road. The data compiled, coded, and analyzed gave me yet a deeper understanding of the complexities that are prevalent for URM students and faculty. In particular, I believe I have more insight

on how we can have more faculty in health science graduate and professional schools that mirror the increasingly diverse population in the United States.

All of my participants self-identified as Latino/a, and all but one were born and raised in the United States. All are in the health professions in one of four health science disciplines: medicine, dentistry, pharmacy or nursing. One of the participants, Esteban, is unique in that he was trained as a medical doctor but also holds a faculty position with his own lab in the School of Pharmacy. The three students were all born in California. Two of the faculty members were native Californians, and the other was born in Colombia. Two out of the three students attended private school at some point during their education, as did two out of the three faculty. The following table presents basic demographic information about my six study participants:

Participant	Discipline	Country of Origin	Nationality
Natalie – Student	Nursing	United States	Central American
Daniel – Student	Pharmacy	United States	Mexican
Ernesto – Student	Medicine	United States	Mexican American
Esteban – Faculty	Medicine & Pharmacy	United States	Mexican American
Pili – Faculty	Nursing	Colombia	Colombian
Manuel - Faculty	Dentistry	United States	Mexican American

Table 3.

The following sections illustrate six very different journeys. What they all have in common is that they ended up either doing their training and or teaching at NCMU, they know me through this study, but most importantly, they now know and have each other for

support. Although the participants have very different stories, backgrounds and trajectories, their stories have common themes, which I highlight in chapter V.

Students

My work in the health sciences has afforded me the great honor and privilege in being able to know, teach and work with some of the most brilliant students. The following three students are no exception and are some of the brightest stars at NCMU. Here are their stories.

Ernesto's Story

Background

Ernesto grew up as a second generation Mexican American to a mother who is a teacher and a father who is a physician. He experienced many challenges along his trajectory to higher education; even now as a third year medical student he continues to face challenges involving microaggressions, racism and isolation. Ernesto's parents are first-generation Mexican Americans who met in Northern California when his father was a medical student and mother was a special education teacher. Ernesto hails from a tightly knit family and is very close to his younger sister. His familial bond was the primary reason he chose to matriculate at colleges in California in order to be close to his family. Ernesto shared with me how happy he was that he made this decision, because when his grandmother passed away, he was able to be there with his family during that difficult time.

Ernesto began first and second grade in a local public school, but his mother transferred him to a Catholic school after discovering his learning difficulties. He also suffered from severe asthma, and by the second grade, he was not able to read. He reflected fondly on the diversity of his Catholic school.

> I repeated second grade. So, I did second through fifth at the Catholic school. It was a wonderful school. It was very diverse - very, very diverse: Indian students and, you know, Vietnamese students and Mexican students and white students. You know, it was really a special time. You know, working-class families, and it was great.

Ernesto's mom made the decision to enter Ernesto into a private preparatory school where he had difficulty making the transition.

> And that was a very difficult transition for me for a number of reasons. One of the primary reasons was because I went from this very diverse school, where probably half of the student population was white, but that was like - you know, there were still enough where I had Mexican friends and Indian friends and friends of color and white friends. But there was, like I said, some diversity. So, I became the only student of color in my class and one of, I think, two in the sixth- through eighth-grade level.

At this private school, Ernesto experienced microaggressions and reported painful experiences of discrimination, commonly shared by many URM students. Over time these experiences become compounded, impacting a person's spirit and motivation.

> I remember in History, and I don't even know how it came up; but the history teacher, who was, you know, this white guy, and there I am, the only Mexican student in the class, the only student of color in the class. The history teacher says something about Mexicans being called "wetbacks," because they have long, greasy hair. And so it's like the grease on their hair - it's wet. [Chuckles]

> And I'll never forget feeling, you know, like, offended; but at the same time, like, "Well, if you're going to offend us, at least get it right." [Chuckles] You know? And I was like - you know, I'm in sixth grade, but I know what that means, and that's not what it means. And so I corrected him.

Ernesto offered several other anecdotes that helped me to understand why his journey to medical school had been so difficult. These painful experiences attest to the cultural capital wealth that Ernesto learned to use to his advantage as he advanced through secondary school and higher education. Specifically, Ernesto became skillful in tapping into his aspirational, navigational, familial, and social capital, which I will discuss further in the next chapter. Ernesto also became heavily involved in sports; he played soccer, lacrosse, and basketball. He also took up ballet, tap dance, jazz and musical theater. He really enjoyed ballet and discovered that not only was he good at it, but it also helped his athletic ability. The following excerpts from our interview convey how Ernesto navigated his trajectory to medical school.

Navigation

As a product of private secondary and undergraduate education, one would assume from the outside looking on that Ernesto had a very privileged and easy path to the sciences. He grew very emotional when sharing how his mother always kept him grounded and reminded him not to forget where he came from.

> My mom told me, actually, when I got into [private school]- you know, sixth grade - and then she would keep telling me throughout - she said, "God opens a door for you, you go through it. You don't get to" [chokes up with emotion] - "You don't get to ask why. Go through it." And she says, "And you hold it open. You don't dare

> forget where you came from, and you never forget that even within your own family, you have cousins who don't have any opportunities you have. You walk through that door, and you bring people along with you. And you never forget where you came from.

Decision to Enter the Health Professions

I was surprised to learn that Ernesto had no desire to follow in his father's footsteps to become a physician. However, he acknowledged his father's powerful influence on his decision to become a doctor.

> So, my dad's an M.D., and I think it's taken me a long time to realize how powerful his influence has been on me. I think that the example that he set indirectly was incredible, because he never spoke to me about medicine directly. He never said, "You should be a doctor." He would never come home and say, "Let me tell you about something that happened today." Never, ever. And when I was a kid, people would say, "What do you want to be," and I would be like, "Anything but a doctor, 'cause doctors are never home. Doctors never see their kids."

I have always known that Ernesto's father was a physician, but this was the first time I understood the impact his father had on his decision to go to medical school. Ernesto is the exception to the rule as most of the Latino/a students that I have had the honor and privilege of working with did not have parents in the health professions. Below Ernesto explains how he viewed his father and the impact both his parents had on shaping the way Ernesto approaches medicine today.

> But I think that there was something really very special that I could see in terms of the way my dad treated people. And there were times when my father's

approach to a problem drove me nuts, because my parents were very different. My mother is very emotional; very, you know, loud; very excited, passionate - all of these things. And my father is very - he can be quite methodical and logical in his approach…

I mean the hours that he works and the years he's worked - he's delivered children - two children that he delivered. I mean he's taken care of generations of families. And when he gets new patients who have just come from Mexico - I mean we know that there's a migration phenomenon - right - where, like, towns in Mexico will leave; and they'll all follow somebody to a new town in the United States. And they'll come to his clinic, and they say, you know, "We just arrived from" - whatever village it was in Mexico. And they tell - everybody there knows that when they arrive, they have to go see "Dr. Garcia."

So, it's not that I don't respect him. And, ultimately, I've chosen to follow the path that he set in a lot of ways, but it's going to be different for me because of my mom - you know? And so sometimes when I read academic papers, I have to do so much work to find, okay, "At the end of the day, how can I use this in a passionate and productive way that's going to have an impact on the lives of a lot of children?" because I read - and this is so much the product of my upbringing.

Lastly, Ernesto described his experiences teaching English as a Second Language (ESL) to adults in East Palo Alto and coaching girls' soccer while in undergraduate school. He believed these experiences ultimately led him to the field of medicine and solidified his decision to become a doctor.

> And I would wake up every morning just so excited to be alive. And more than anything else, it was the opportunity to bring knowledge and bring science and bring an appreciation of history and an appreciation of the fact that things don't have to be the way they are; that every circumstance and the environments in which my family and our communities are living in are the product of powerful, historic, social trajectories - to bring that kind of knowledge and say that we can create something different, and then to be there - right there - with the people; and to know them and to be a part of their life - you know - and to coach them year after year, the same girls, three years coaching them, seeing them grow and seeing them, you know, awakened to academic possibilities; and to see adults finally feeling comfortable speaking English and not terrified, you know, of their bosses, because they can speak up for themselves in English - it was that combination of factors that brought me to medicine.

Overall Experiences

Ernesto spoke of very personal accounts of his successes and challenges in academia. Overall his experiences were positive, because he used many of the negative experiences as fuel and ammunition to channel positive energy. He tapped his strong faith and familial support, which he attributed as the primary motivators for his success in the academy.

> My overall experience is, you know [pauses] many, many beautiful opportunities and interactions that, unfortunately, are overshadowed by far too many negative situations, or circumstances, or - you know, like I said before, it's really hard to hold on to the positive sometimes; because from a very early period of time, it's made clear - like, explicitly and implicitly, if that's the right way of saying it - that the

way you want to do things is inconsistent with the way things are done, and nobody - but then it's like, okay. Well, that dream of mine - it's not like I made it up myself. You know? [Chuckles] It's not like I just decided [and], like, came up with it.

Ernesto reflected on his experiences at his undergraduate private college. His story illustrates what many URM first generation college students' experience; however Ernesto conveyed this situation in such an eloquent and unique way. Below he talks about how his Chicano and Mexican American classmates treated him when learning that he attended a private preparatory school.

The Chicanos [and] Latinos were suspicious of me, they were like, "Who's this sellout?" like, "You went to prep school. You're not one of us!"
So, what I wanted to tell them was, like, "I'm basically your kid." Like, "It just so happens that, for whatever reason, my dad got a shot" - right? He was drafted into the Army. He went to Vietnam. He came back. He worked with Cesar Chavez. Like, my dad, when he was in high school, he had no vision of going to medical school; but, you know, that's the way it went. And so he went to medical [school, and] he became a physician. My mom, she didn't have these kind[s] of grand dreams of pursuing graduate studies. You know? That wasn't a narrative that she was being told that she was supposed to pursue. So my parents both have graduate degrees; and so, you know, "Here I am." "Yeah, I went to private school." "Yeah, my trajectory was a little different."

And so what I wanted to tell those students who were initially so suspicious of me is that, like, "I'm your kid. You're going to graduate. You're going to make a lot of money. You're going to have your master's." A lot of them are now marrying women

who went to Stanford, or Santa Clara, or whatever. And it's funny, because when we first met, and we were freshmen, and none of them had been married, none of them had kids, we'd have these conversations. And we're like, you know, "Well, what are you guys going to do? Are you going to send your kids to public school [or] private school?"

"Man, my kids are going to go to public school, you know? I went to public school. I made it," you know, blah, blah, blah. So, now all these years are passed, and now my peers- the ones who were so suspicious of me - they have children, and they send them to private schools. I am literally their kid, and it's crazy because it's like, "Don't hate me" [chuckles] - you know - "because, then, how will you look at your own children?" And now that they're parents, they're like, "Of course we're going to send our kids to private school. Why would we send our kids to public school?"

My interview with Ernesto was the longest and most intimate. I attribute his candor to the friendship/mentorship and mutual respect we have developed over the years. Like all of my interviews, we ended with a hug, and he thanked me for including him in the study and for doing the study in the first place. He said, "…this is important what you are doing!"

Natalie's Story

Natalie is a registered nurse and second year Master's nursing student in the family practitioner program at NCMU. Natalie's story is one of an extraordinary triumph against many obstacles. Her story is packaged in well-traveled and weathered baggage - baggage that has weathered an arduous journey that tugged on my heartstrings as she told me her beautiful but (in her words) "disjointed history."

Background

Natalie is the daughter of a single parent. Her mother is one of 12 children who immigrated to the United States from El Salvador. As Natalie says, "We are an immigrant bi-national family." Natalie has two significantly older half siblings who both still live in Central America. Her older brother used to live here in California but struggled with substance abuse and gang involvement, and eventually was deported to Central America. She describes her early childhood as rough, because she grew up in a very tough inner city neighborhood and referred to the gang lifestyle as a "form of protection." She talked about going down the wrong path herself in looking to gangs for "family and protection."

Natalie's mom was a housekeeper who would often take Natalie along with her to clean homes (due to lack of childcare) in the affluent and wealthy neighborhood not more that six miles away from where Natalie grew up. Cleaning these huge mansions opened Natalie's eyes to a life of which she only dreamed. Rather than going to summer school, Natalie accompanied her mother and began helping her clean homes. Natalie recalls almost being kicked out of elementary school because she did not put forth much effort. Natalie credits two women (Leslie and Martha) who were her employers as being "very critical in supporting my mom to support me into developing a higher education."

Leslie took a keen interest in Natalie, encouraged her academically, and motivated her to pursue a higher education. Leslie and Martha bought her books, and she began reading and taking an interest in school. When Leslie became ill with lymphedema, she offered Natalie and her mother the opportunity to become live-in caretakers, which was a blessing since Natalie's mother had trouble paying her rent and got evicted from their apartment.

(Lymphedema is a condition of localized fluid retention and tissue swelling caused by problems with the lymphatic system.)

The experience of being a caretaker initially sparked the interest in Natalie to pursue a career in the health sciences. She went from living in the inner city to living in a mansion in one of the most affluent and wealthy areas of Northern California, and then she began to excel in school. This shift in her living situation was the beginning of Natalie's personal understanding of social determinants of health. Natalie grew very close to Leslie and began referring to her as "Nana" because she was like a grandmother to her. Leslie encouraged Natalie to apply to a private, academically rigorous all girls' high school. Natalie was not only accepted to this school, but also offered a full scholarship. Nana passed away during Natalie's senior year in high school, which caused Natalie to suffer tremendous grief. After explaining confidentially to one of her why she did so poorly on an exam, Natalie was nominated to deliver the school's graduation address. She was chosen because she represented a commitment to the core values of the school. The 5 C's represent "conscience, courtesy, character, courage and charity."

> I think it was that experience that opened me up to them [her teachers at her private school] to share what I'd been going through the four years, and that they in the ceremony I decided that my mom doesn't understand English very well, so I gave a bilingual speech which I know was very – I'm glad I did. I was very nervous about doing it. I know a lot of the folks there would not understand why I was doing it that way, but in retrospect I was really happy I did that because it was my way of making sure that my mom would understand what I was saying, and that a lot of my

achievements reflected back on her hard work, and that tough year in high school, and the journey ahead of us.

Navigation

The next section contains excerpts from my interview with Natalie to illustrate how she navigated her academic trajectory moving forward to describe her experiences leading up to her current graduate work at NCMU. Natalie was blessed to have assistance navigating the education system since she could not rely on her mother to help her figure it out. Leslie gave Natalie the boost of confidence that she needed to soar academically and helped her realize that she was actually a very good student.

> I think she [Leslie] was probably my biggest advocate in terms of helping me and my mom navigate the educational system. She was able to get me into a different school, so I ended up going to a school in Riverside, which was a lot better than where I was. She ended up helping me see how - try and support me in terms of my education. I think that was a huge shift, and I think one of the reasons I went into public health later in my career was because I saw how big of a difference a change in my environment had on me. I think that was probably one of the two biggest factors - was moving to a different neighborhood where I was supported and didn't have to worry about rent, bills and worrying that my mom was going to have to be - I mean, she was still working, but it wasn't like she wasn't going to make the rent, and we were in a safer place, so I think that was - it blew my mind that they didn't even lock their doors in this neighborhood because that's how safe they felt.
>
> That was, I think, the start of something that I was like, "Oh, I think I could actually do something. I could actually be good in school." I think that was the first

time I ended up doing a little bit better in school. We lived as caregivers in this place, but in the couple of days, during the day, we would go out and clean the other houses. So the other lady was also very close to me and she also encouraged me to apply to a private school, which is in Riverside, which is a very academically rigorous high school.

Natalie talks about what it was like going to a private all girls' school. She shares her experience of living in two different worlds – one filled with poverty with gangs and the other of privilege and wealth. Natalie never imagined that she would be able to go to a school like Trujillo and shares her experiences below.

Trujillo is an all-girls' private school and very small and very wealthy. So I didn't like it when I went in, but she encouraged and my mom was by that point really excited about the all-girls' high school. So I applied and I got in. I got a scholarship to go in. So, at that point, there was really no excuse for me not to go because I didn't think I was going to get in, and then I probably wouldn't be able to afford it, but they ended up giving me a full ride. So I went to Trujillo and I think that was a great experience, and also very challenging. I was the only Latina in my class. There was one other person of color. She was African American. It was just, and I was still cleaning houses, including a couple of my classmates houses, and I remember - I mean being a teen in high school and I just remember that was very challenging for me just to be in those two worlds. You know, you had a little bit of like, "Do I really belong here?" It's such a different lifestyle that I was almost like a dual life. So, and I was still - we were still live-in caregivers at the time during high school. So it was very hard for me to connect with anyone, but I knew it was a great

education and I eventually found my group of friends and tried not to let the other things of like, “I don’t really belong in this school,” get to me. I ended up meeting some really amazing people and some really great teachers who - one of them specifically, my math teacher, was so critical in helping me through everything.

Decision to Enter Health Professions

Natalie reflected fondly how she first became interested in the health professions. Unlike Ernesto with a parent who was a physician, Natalie was the first person in her family to graduate from college, earn a Master’s degree, and work toward a terminal degree in nursing. Many doors opened up that gave Natalie opportunities to pursue her dreams. Natalie originally wanted to become a doctor but encountered difficulties scoring high enough on the Medical College Admissions Test (MCAT). Although she was invited to interview at several medical schools, she was ultimately not able to secure admission. She credits the help of her mentors to navigate graduate school and realize her dream to become a health professional.

So, my first interest was I knew I wanted to do something health-related when I started being a caregiver with Nana. And that was - so, probably when I really started thinking about it seriously, probably a sophomore in high school. "Okay. Maybe I should do something in medicine. Maybe I could be a doctor." So, I was thinking something definitely in the health sciences. I went to Harvard. I got all confused first year. I loved everything, and I was actually going to do - I was really interested in bilingual children, so I started doing a lot of work there. And then I was doing human biology, and I really liked that. And then I tried poking in political science, and I - what I ended up sticking with was the biology in terms of how the

human body worked and also the nagging feeling in the back of my mind that I wanted to be a doctor.

So, I didn't really fully commit until probably my junior year. I ended up doing a - I went to Washington, D.C., for a semester and did, like, health policy; because I was thinking, "Maybe I should do health policy." I realized politics was not for me [chuckles] after that trip in D.C., although it was a great experience. It just wasn't for me. And then I came back, and I was like, "Okay. If I'm going to be serious about this, I have to" - so, I ended up doing the entire premed, which was a very bad idea - not many of us goes [sic] to premed - in two years, working part-time [chuckles], which was not great. And, of course, my mom got kicked out of her place during the time, so she came to live with me at the dorm. So, just lovely - although she had a great time [chuckles].

Overall Experiences

Natalie had a rocky road throughout her journey; however she is certain that all of her experiences make her a better daughter, student, friend, colleague, and ultimately a superb clinician. She describes her journey as "painful," yet she says she is very happy where she is now. She believes in the end that everything worked out for the right reasons. Like many of the other participants, she attributes much of her success to "luck" and to her strong bond with her mother.

Well, I think my experience growing up is actually very similar to a lot of folks. I think I got lucky. I met some amazing people who really motivated me to continue. Of course, I'm a very hard worker and tend to get good grades now, at least, but I think it really was meeting, having those folks in my life and holding on dear

life to them. When I realized that, "Oh my God, yes, I can do this," and thank you so much and please help me, support me. If it weren't for any of that lady, those ladies, my caregiver – not my caregiver, the person I was a caregiver for – she was huge. And how lucky was that?

Natalie story broke my heart in a million pieces; while her courage, smile, and strength lovingly put it all back together. She is the perfect example of how one uses their cultural community wealth and experiential knowledge to create a beautiful life for herself and her family. She is now her mother's primary care giver as she completes her training to give excellent care to her patients.

Daniel's Story

Background

Daniel is a second year pharmacy student at NCMU. His story began in a small rural ranch town in Mexico where his parents originated that he describes it as being "in the middle of nowhere!" Daniel's parents took them back to their town twice per year to visit. His father came illegally to the United States three times. Due to the Immigration Reform and Control Act of 1986 signed into law by Ronald Reagan, Daniel's father was deported twice. According to Ronald Reagan, the goal of the Immigration Reform and Control Act was to reform United States immigration laws in order to supposedly "regain control of our borders" (Donato, Durand, & Massey, 1992). The problem with this immigration reform policy - like many others - is that it caused discrimination against people who did not appear "American" (meaning anyone who was not white).

After "fixing papers for himself," Daniel's father was able to re-enter the United States and brought his wife and Daniel's eldest sister along with him. When they first arrived

in the United States, they moved to the rural Central Valley where the parents both worked on a farm picking grapes. Later Daniel was born and raised in the same region, along with one older and two younger sisters with whom he is extremely close. His parents are devout followers of Jehovah's Witness whom he describes as "very religious." If it were up to his parents, they would have probably preferred if Daniel had stayed close to home and been more involved in the church.

As a young child, Daniel attended a very small local school with about 90 students from kindergarten through 12th grade. He is very smart and skipped grades throughout his K-12 years. He attributes much of his trajectory to several factors: his bilingualism, his luck, his social connections, and his high school chemistry teacher who planted the seed to become a pharmacist. Daniel never considered the idea of becoming a pharmacist before his chemistry teacher suggested it.

Navigation

Daniel was focused and determined since childhood to do well, motivated by sheer determination to live a better life than he had growing up. However, Daniel attributes his path to NCMU as due to luck or being in the right place at the right time. Someone told him about a pipeline program, Health Careers Opportunity Program (HCOP), and he eagerly took advantage of this program that landed him at one of the best pharmacy programs in the country. Like Natalie, Daniel believes that he was "lucky" to have received these opportunities and shares candidly about his modest upbringing and the experiences encountered during his academic trajectory.

> It was very lucky, I would say, because not a lot of people would get the opportunity that I got. During my collegiate years, in undergrad, I did coursework for

chemistry. I majored in chemistry for two years. I didn't see a counselor once, because I was so hardheaded that I wanted to just do this on my own. I knew what I was doing.

I ended up taking the calculus-based physics and an extra year of calculus for my major, but I ended up needing, like, an easier version for pharmacy school. I could've done better, but it didn't happen, because I just didn't want to see a counselor. Until finally, in my third year, they told me, "Go into the counselor, or we're not letting you register for the next semester." So, I went. He told me I was fine, and I was fine. It was cleared.

However, somebody kept telling me HCOP was a program, Health Career Opportunity Program, and so my junior year, the second half, the spring semester, I joined. I applied in the fall semester and then I got in the spring semester. And then immediately, I went to this program in Fresno. They have a building there and so I listened to what they were talking about, and - It wasn't a big turnout or anything, so it was really personal, I guess.

Below Daniel reflects on his experience with an administrator who became his mentor. As he debated his next steps in his academic career, Lisa came into his life and offered him a summer internship because he is bilingual. This experience led to his successful acceptance into his current pharmacy program at NCMU.

Then I met Lisa and we had a conversation, and at that point I was studying to do my technician license and I had just - In fact, that week, I was going to take the test and if I passed, I would've just applied to get my tech license and I would've gotten it. I passed. I did pass, but I told Lisa - We talked for a little bit, like a five-

minute conversation. I told her I was pre-pharmacy. I told her I was in HCOP. I told her I was getting my tech license, and she kept asking questions to get more information out of me. Then she asked me if I speak Spanish, I said I did. Then she asked if I applied for the summer internship program through HCOP and I said, "Yes," and she said, "Okay, perfect, because I need somebody to work with us." I said, "Okay." So, she said she would place me with her and I didn't know what that meant, because I didn't know who she was.

Daniel drew upon aspirational, familial, and linguistic cultural capital wealth in the navigation of his academic career. We talked at length about growing up poor in a rural area and he reflected on what it was like working on a farm. The following story presents an experience that stayed with him and motivated him to strive for a more comfortable life.

Yeah, I did work in the grapes. I did learn quite a bit about the perception of field-working immigrants. Because I was born here. It was horrible work. I mean, I'm 6'2". The vines are like six feet tall, but they drape down, so I kind of had to bend down to get them. My back was hurting, the chemicals were in my face because I was walking through the vines, and I started coughing. It was super hot, 115 degrees in the summer.

The managers ... I remember one time I tried, it was after my senior year of high school that I worked in the fields, so I was looking for a job the whole summer because I couldn't find anything. So, at the grapes, people's, I guess, goals were so bland, like they just were not very ambitious and I was just like, "You're satisfied with this level of life that you're - You're okay with living like this?" People had been doing this for years and they were okay with it. I was like, "Yeah, I'm not okay with

this." That's what they were used to, I guess. I mean somebody had to pay the check. I mean, somebody had to pay the rent and the food and everything, and this was the only thing they knew how to do because they were immigrant.

As we discussed Daniel's experiences in working on the grape farms, he recalled a story about how he and other farm workers were treated by the managers.

So, one time I remember specifically, I tried to talk to the manager who was this big, fat white guy. He came and started looking at the grapes that we were picking. I remember I asked him a question, I don't remember what it was. I think it was just about the ripeness of the grapes, like how do you know when they're ripe? He answered me like I was stupid. He didn't even look at me, he just like brushed me off and told me to go away. So, I was just like, I found it very offensive because he treated us like dogs, really. They weren't very nice. They would yell at you, they'd make you feel like they could have fired you whenever they wanted, and they did. They fired a few people while I was there just because they did something wrong. They treated us pretty badly and so I was just like, "I'm probably way smarter than you, right now." I didn't want to get into it, but I got very angry.

The pay was so bad. They paid you by the box and since I was slow, I couldn't do a whole lot. I was new and everybody had been, like, they're just at it. It was so bad. I couldn't do that amount of work they did. I remember I got paid $250 for a week's worth of work. That was back-breaking labor for like six days, like ten hours a day. I was like, "This is garbage."

So, I was like never will I go back, ever to a field. If I do, it will be at something way better than a normal worker. That was really and eye-opener to the

reality of what many people were experiencing in their lives. They just deal with it and I was like, "No, I don't want that." So, that was really a, I guess, motivational experience.

Decision to Enter the Health Professions

Had it not been for Daniel's eight-grade chemistry teacher, he would have never considered becoming a pharmacist. Daniel never forgot where he came from throughout his academic career. In fact, seeing his parents work so hard to provide for his family was an unconscious but constant motivator for Daniel to strive for success in school.

It was my junior year and he told me, "You know, you get this really well. I think you can do pretty well if you go into becoming a pharmacist," and I said, "Well, what's that?" He was like, "You basically work as a pharmacist and all medications and stuff. It's health-related, pays well," and he basically told me he wanted to do that, but he got somebody pregnant and he couldn't. He was a sour man, to tell you the truth. But he gave me the bug about pharmacy, and so I said, "Okay," and that was basically it. After that, I said - when people would ask me, "What are you going to do?" I was like, "I'm going to study pharmacy," and that was pretty much how it happened.

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I knew I wanted to do something - I guess, prestigious, I felt like I could go a little further than others have been able to do from where I'm from, because I just figured out I could do it. And so, I didn't want to be a doctor because I didn't want to go and see sick people all day, because I'm not germophobic, but I don't like people coughing on me all day, right? So, I figured I don't want to do that, so - and since my

chemistry professor told me to do pharmacy, I just looked into it a little bit, and I said, “Yeah, sure, I'll do it,” and I didn't have a clear-cut reason why, I just kind of just went with it, and it built on itself over and over through the years in my undergrad because I realized that pharmacy was a really big profession and you could really impact health.

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And so I got more and more into it as I went along, but at first, the initial decision was just a point-blank "that, I'm doing that." And that was it. So, but I could have switched, but as I learned more and more that pharmacy was a big deal, it was just reinforced, the ideas. And then for sure, after I went to the conferences for my junior year and, I was like, "yeah, yeah, for sure that's what I want to do.”

Daniel discussed his bilingualism and how it served him in the health profession. He has great fulfillment and pride in his ability to connect with patients and to understand where they are coming. Daniel mentioned that he believes his ability to speak Spanish allowed him the opportunity to get into a pre-pharmacy program, which ultimately led to the pharmacy program at NCMU.

The gratitude of the patients, to tell you the truth, when I spoke to them they were just so happy that I could speak Spanish. I understood where they came from because I was the first of my family to be born in the USA, and most of them were straight from Mexico, so I could relate perfectly - I knew exactly what they were going through, and so by doing that, they were really appreciative, and they shared a lot more than they would usually with somebody that, like, with the other pharmacist that was talking to them.

As in Daniel's case, mentorship arose as a theme, as was common in all the students' stories. Daniel believes that his mentors paved the way for him to get accepted into his pharmacy program. When we talked about the keys to his academic success, he smiled as he recounted stories of his "connections" and mentors.

> I would say, probably connections, to tell you the truth. Because, when I met Lisa before that, I had nothing. I had no experience in pharmacy. I had very little knowledge about the workings of pharmacies. And I wasn't easily going to attain a job as a pharmacy technician even though I had my license. Because it's just saturated where I'm from, there's just - people looking for jobs all over the place. So it wasn't going to be easy for me to attain any type of experience, or any type of - anything that would be like a builder to - for applying to pharmacy school, which I was going to apply the following year. So, I think by meeting Lisa, by being in the program that I was in, and getting the experience that I did, without that, I don't think I would be here. That was one of the sole factors I think, so - like I said, very lucky. Because there were other students in the pre-pharmacy club. I wasn't in there myself, but I knew there was a lot of people in the pre-pharmacy club, that applied and didn't get here, so the influences of having someone in the university saying, "yeah, he's a good candidate," I think that was everything, to tell you the truth.

Overall Experiences

Daniel described his overall experiences in academia as pleasant. Due to his intellect and ability to align himself with wonderful mentors, he sailed through his elementary and secondary education, even finding undergraduate work to be relatively easy.

> It's not that different from undergrad, you go to classes - the only thing that is extra are events that you have to attend or things that are extracurricular. In terms of education, it's been great, but where I come from, I'm used to - it's funny because - I was just noticing the other day, the averages for the exams are so high, that even though I scored relatively high, I'm still below standard deviation of the mean. So I feel a lot less prepared than they are, or maybe they just study all day, I don't know what they do. But I think my grades are fine, but these people just make me seem like it's not fine. I'll figure it out later, I guess.

Daniel's story illustrates how he drew upon his community cultural capital in order to navigate through the sciences. Having mentors along the way certainly helped; however, Daniel spoke very passionately how his bilingualism helped him connect more intimately with patients in ways that his colleagues cannot.

Daniel expressed that although he is not spiritual, his parents' religious background shaped and grounded him. Furthermore, he is still close to his friends from his religious community in his hometown. I am fairly certain that Daniel's desire for a family and work life balance will ultimately take him back to a rural area in a local pharmacy rather than working at an academic institution or large health maintenance organization. This quest for a peaceful family life where he can be home with his family has deterred Daniel from pursing a faculty career in the health sciences.

Summary of Students' Stories

Early childhood education for all the participants was important because it set the framework of how they viewed their education as they moved through the pipeline. Ernesto and Natalie's private school education came with its own set of challenges and obstacles.

Daniel's challenges during his early childhood education stemmed mainly from his geographic location in a rural area. All three had key people along their paths that gently guided them to the health sciences.

The three students navigated their journeys toward the health professions very differently based on their upbringing, access, and opportunities. Both Daniel and Natalie attributed their academic success to "luck." The exception was Ernesto, who was positioned as an excellent candidate in the health sciences since his father was a medical doctor and mother a schoolteacher. Despite their differences in background and access, they all became successful in their own right and are pursuing careers in the health professions. Both Ernesto and Natalie share an interest in seeking a faculty appointment, but Daniel was clear that he wanted a work/life balance and had no interest in a faculty position. It is important to note that Ernesto and Natalie attended private high schools and undergraduate universities since both felt that their access to a different caliber of educational rigor helped prepare them for the rigor of their graduate training in the health sciences.

Both Natalie and Daniel speak Spanish primarily at home, and all three stated that their bilingualism makes them better health care providers. Ernesto's primary language spoken at home was English but he later became fluent in Spanish. This is important to note because language emerged as a theme in all of the participants' stories, which I discuss in chapter V.

All of the students had personal stories and feelings of inadequacy at some point in their academic careers. In retrospect some felt at some point in their health science trajectory as though they did not belong. Not surprisingly, this was an issue for Natalie and Ernesto who both attended private schools. Both gave specific examples of not feeling like they had

initially fit into the culture of their schools. However, both were able to find their own community of people that made their time in school more enjoyable.

Faculty

Esteban's Story

Esteban is a professor who holds a medical degree from Stanford University and a Master's of Public Health from Harvard University. He has received funding of millions of dollars in National Institutes of Health (NIH) for his research and has authored more than 120 scientific publications about genetics and asthma research. His research single-handedly has changed the face of global health and genetics.

Background

Esteban's compelling story began in a very diverse urban neighborhood in San Francisco, California, in the 1960s and 1970s. His mother was Mexican, and his father was Caucasian. Esteban's mother was a migrant worker who was one of 14 children. She was the first in her family to go to college; in fact she was the first minority to attend Pomona College. She did not speak English until she was in her late teens to early twenties. Esteban's parents divorced when he was eight years old. Even though his single mother struggled to care for her family, Esteban still has fond memories of his childhood. He offered these thoughts while reflecting on his childhood:

> When my parents were divorced, my mom was a schoolteacher and money was tight and she had four kids and people pitched in. And it was really neat, in retrospect, to look back, that she had a whole network of women that helped her. So I would have women taking me fishing, I had women taking me to cultural events.

> One of the interesting things was a family that was next door to us, who was Chinese, pitched in and would feed me, helped feed me and would take me everywhere. They had two boys and it was neat; so that was from seven through thirteen that I was with them. I'd go with them everywhere and unbeknownst to me at the time, the father was a senior associate member of one of the Chinese mafias, called the Hop Sing Tong, and I was just a little kid. I was ten, thirteen. And they had family associations. They're not called mafias, but they were developed in the mid eighteen hundreds to protect the Chinese from discrimination and so there are three main families in San Francisco; the Hop Sing Tongs, the Wah Chings, and the Joe Boys, and ultimately they started making money through fireworks, extortion, and then murders were involved and I was around all this. My mom didn't know that this person was so high up until he appeared on the local news one time handcuffed. So if I could imagine what my mom thought, but it was a neat thing because my mom is Mexican, really dark. I was around a very diverse group of people in my neighborhood, and then I got exposed to this Chinese culture which I, in retrospect, I am very grateful for.

Growing up in a single parent household in the inner city without a father caused many difficulties and hardships for Esteban. He said that he "was a troubled teen and was kicked out of a very prestigious high school," landing him in an inner city high school. At this school his involvement with sports saved him. His coach was the male role model he needed that "whipped him and other troubled youth into shape." Esteban became a league champion in wrestling and went on to play in college. He worked hard, became very

competitive, and channeled his energy into his academic trajectory. He refers to his coach and teammates as his mentors, and his teammates became his study partners.

Esteban's early love of fishing developed into an interest in marine biology. Because of his passion for genetics, Esteban switched undergraduate majors to cell and molecular biology. At this point, Esteban decided to apply to medical school. What Esteban did not realize until later on in his life was all of his experiences (good, bad, and indifferent) were molding and shaping him into an exceptional and ideal candidate for medical school.

> My father never finished high school. He finished high school when I was in college. He got a GED. I didn't know him after the divorce, but I heard that through the grapevine. My mother - her parents didn't speak English. She was very driven, a student athlete as well. Education was first and foremost for her, and she was a schoolteacher. So, the background in my house was, "It is expected that you go to college. There's not an option that you won't. It is expected." I was the last of four. She had the divorce. Money was tight. She had to buy the house back from my father. I was a troubled teenage boy without a father, and after getting kicked out, I think my mom kind of - I was difficult, so she let me go.

The next excerpt from the interview with Ernest attests to how his community helped raise and take care of him. He highlights the importance of role models and how he became interested in marine biology.

> And I think that's where it helped to have good male role models through my sports. When I was younger, since my mother was single and working multiple jobs, she didn't have childcare. So in the summer, she would drop me off at a place called Mission Rock, which is next door to Mission Bay. It was a vibrant bar on the water

> that was vibrant during a time when the shipyards were vibrant in the Mission Bay area. And it was packed with fishermen, and I would sit there all day and fish. She'd drop me off at seven in the morning; pick me up at six at night. And I'd fish, and I'd catch small fish, big fish. And I'd sell them to the fishermen, who were poaching fish at the time, and I'd get money for lunch. And I'd sit there and watch the fish. And that spawned my curiosity about marine life and, hence, my initial interest in marine biology.

Navigation

Esteban had to be creative in navigating his academic path which went from San Francisco State University, to Stanford, to Harvard, and finally to his home institution at NCMU. Now he is a professor and principal investigator conducting ground-breaking research on asthma and pharmaceutical interventions for people of color. Esteban believes his mentors and career in wrestling provided him with the resilience and fortitude to navigate through his academic trajectory to becoming a world-renowned researcher/scientist.

> I only applied to two colleges, and I think my mom might have been burnt out at the time when I was applying. So, she really didn't help me. I only applied to Santa Cruz and San Francisco State because they had marine biology programs. I got into both programs, but my mother wouldn't, or couldn't, fill out the financial aid forms for Santa Cruz. So, I ended up not going to Santa Cruz, and the default pathway was go to San Francisco State because I knew the wrestling coach and so forth. So, it was easy. So, in that regard, you could say that I might have been misplaced academically, but San Francisco State was wonderful for me, mostly because I landed at a program,

on a wrestling team. So, everything was taken care of for me. I knew I already had friends, walking in from day one.

San Francisco State turned out to be a great school, because they had a wonderful biology program. So, many of the classes that I took at San Francisco State, when I got into medical school, all I had to do was retake them. I had already taken, you know, molecular biology, genetics, biochemistry, immunology. Those are all the basics of the medical school curriculum. So, it made it easy for me at Stanford. I never knew that I was going to go on to an advanced degree, and I never knew that I was going to go on to do research. I took it one day at a time. I knew college was required for me, and once I got into college, I didn't have any academic role models in my family, and I didn't have any academic role models in college. But I think that having the exposure through wrestling made me very, very, very, very competitive. And because of my mom being a teacher, I had a strong appreciation for being intellectual. Or the intellectual pursuits, I should say.

Decision to Enter the Health Professions

When discussing the factors contributing to Esteban's decision to enter into the health sciences, he recalled very vividly the exact moment of his decision. Like Daniel, Esteban never forgot where he came from and used his inner city upbringing as a motivator to excel in his academic career.

I remember making a very, very calculated decision, which I do all the time. I weighed getting the Ph.D. with going into genetics, and I weighed getting an M.D. and studying genetics. It was at my mother's kitchen table, I think in 1986 or '87. Mind you I had no role models in medicine, or no role models with a Ph.D.

Esteban singled out “luck” as the primary factor in his success, as did other participants. Below he describes his trajectory in his medical training and some of the opportunities that he accepted in order to create a very successful study on genetics and race.

> I was lucky. I had grown up in the school of medicine, really came of age in the school of medicine. My whole mindset was in the department of medicine at Stanford, at Harvard, UCSF. But because of my research, since we were able to compare different Hispanic ethnic groups, and we had all these children who we measured lung function on, and we also gave them a drug, then measured their response to the drug, our first publication demonstrated that there are ethnic differences in drug response to commonly used asthma medications. Then we followed up with genetic factors that explain those differences.
>
> So now I'm going down the pharmacogenetics track, and the chair of my department, bioengineering and therapeutic sciences, was looking for someone who would lead a pharmacogenetics project. And I was leading the GALA study already, and we were winding down, and she needed help with recruitment for a pharmacogenetics study, and we had all the infrastructure, so I built a study called SOPHIE - Study of Pharmacogenetics in Ethnically Diverse Populations, and that got me exposed to the School of Pharmacy. And so, when a position opened up in the School of Pharmacy, I applied. And I got it.
>
> And there are good things and bad things, but I'm now in the School of Pharmacy, and in the School of Medicine. It's hard to have two masters, that's the downside, but School of Pharmacy is small and nimble, and I get a lot of autonomy, and I'm now leading a whole course - co-directing a course on pharmacogenetics,

> where I teach 122 students, and we're actually spearheading a whole project on precision medicine. And it's really fun, because it's like being an artist in a clay shop. You get a raw block of clay, and you actually get to shape and mold it. We're doing pharmacogenetic research, we have all the infrastructure to recruit our own patients, do the genetic testing, do our own analysis, and I'm teaching 122 students, so I'm just basically taking what I learned in my lab, and my professional career, and applying it to my teaching. And it's been a win-win situation.

Mentorship is a thread woven throughout Esteban's story. He spoke very highly of his mentors, crediting them with giving him the opportunities and tools needed to be successful. He is grateful to them for "taking a chance" on him. However, not every one was supportive of Esteban during his academic career. Below is a story of overt discrimination that is common in the lives of URM students and faculty in the health sciences. These microaggressions occur constantly; however, while some may have been offended and defeated by the comment, Esteban used it as ammunition and motivation.

> Something interesting happened to me though, which you should know about. Because this brings up another mentor that I had. In medical school, when you do your rotations, two months at a time, one month with one physician and another month with another physician. And I was doing my internal medicine rotation. And at the end of the month, the attending physician asked me what I wanted to do for my career. And I said, "Well, I'd like to go to internal medicine residency at either UCSF or Harvard." And she laughed. She sat me down and said, "You know, you don't have the right cultural background to do that. And I think you're overselling yourself." And I said, "Well, what do you mean?" She said, "Well, you know, my mom, my dad's a

doctor, my brothers and sisters are doctors. Around Thanksgiving, we talk medicine. You know, you don't have that." And she was an infectious disease doctor, a very famous one.

And there was a young junior faculty in her department and he kind of was a mentor to me. But when I told him the story, he challenged me. He took me under his wing, and every Sunday, for about a year, year-and-a-half, we'd meet in the Laboratories, in the medical school, and we'd go over cases and we'd go over practicing public speaking and those cases. And it was wonderful. And he volunteered his time to mentor me, hours and hours.

Stories such as these often go untold. Every time I have ever heard Esteban talk, I have been moved and inspired by his story. Our interview was no different. I loved every minute I spent hearing Esteban's story because this time I had the opportunity to understand more about his background, which is the heart of his story. I learned the true essence of what motivates and drives him to be the best. In his lab and research, Esteban applied tools he had acquired in wrestling which allowed him to become one of the most world-renowned researches and scientist in our generation.

Pili's Story

Pili is a clinical professor at NCMU. She teaches women's health, advanced health assessment skills, primary care for nurse midwives, communication with the Latino patient, and pregnant women in a clinical setting. She is a wonderful clinician whom her students and patients adore. Pili maintains a faculty practice at a neighborhood health center and is the founder of the Young Women's Program (YWP) established in 1972. The mission of this program is to provide excellent age-appropriate prenatal and gynecologic care to adolescents

and young women and to educate family nurse practitioner students. The YWP provides care to approximately 150 patients per year, with approximately 700 patient visits annually.

Background

Pili's dynamic and beautiful story starts in Colombia. Pili came to the United States to learn English. She had no intention of staying once she acquired the language. Pili's siblings came to America to learn English, and she wanted to follow in the steps of her siblings since she believed knowing English would help in patient care. She told stories of growing up in an upper middle class family and going to private schools because the public schools "were not very good." She had a great childhood and still attends her class reunions after 45 years. Her journey to the health sciences started in her country where she was already a well-respected faculty and community nurse practitioner.

> So I came here to learn English when I was in my late 20s to mid 20s. It was 1978. And I stayed here a year and a half, but not only I learned the language, but then I went to Los Angeles, and then I worked with people in fetal monitoring. I was already a midwife in Colombia, so I got training in that area. So I stayed here for a year and a half, and I never, ever thought about it. When I was here, I decided to get all the credentials here and to get my license as a nurse, even though I never thought of coming to live here, but it was just like what the heck, why not. And I did it. Even at that time, they offered me jobs here, but the life that I lived there, even though my salary as a nurse – nurses do not get paid well there. My salary as a nurse never – was much less there.

Navigation

Pili knew from the very beginning that she wanted to be a nurse. She was very active in her community in Colombia, and taking care of people was an innate passion of hers. As it turns out, teaching was a calling, which is how she naturally ended up in a faculty position where she has done remarkably well. Below she describes her early introduction to the health profession and how she joined the faculty at NCMU.

> So in Colombia, so that's why I think that in part I became a nurse, is that when I was in the last year of high school, actually the sister of the president, Colombia president, for the youth Red Cross [what is it called?] the Red Cross for the youth in my city, and I was one of the founders. And every weekend, we would go to poor neighborhoods and take care of people, and that was my passion. I could not care about parties. My life, I loved to go and – we were working in trenches. We were teaching, cooking. We were not good cooks but wee would teach how to cook and we would teach how to clean kids. I love it. It was just my life. So of course, I didn't even think about it. I went to nursing, and I was quite good, and my patients love me.

Below Pili explains the differences in nursing in her Colombia versus here in the United States. I found the differences in health care delivery between the countries fascinating and in light of health care reform in the U.S., it was refreshing to hear about what an influential role nurses can play in patient care. Pili elaborates on how she navigated her teaching/nursing career.

> And being even in Colombia that nursing is more dependent, I was very independent. I had in many times my own clinics and see my own patients – I did

many things that when I came here to study as a nurse practitioner, I did many things that the nurse practitioners already did. I delivered babies. I placed IUDs that people didn't know how to place here as a nurse. I didn't have a nurse practitioner title, but I used a microscope to diagnose vaginal discharge. I did many things that still I'm doing. So for me, that transition to the role was nothing new. It was something very easy for me to do, thank God. So that's why I think that it was easier for me to teach too, because it was already engrained.

There was no question in Pili's mind about what she would be when she grew up. From the time she was a young child, she wanted to be a nurse and an educator.

Always. There was nothing else that I thought about it. There was nothing else that I thought I could be. Always I have been a nurse, and I have been always so very happy to be a nurse. I could not imagine being anything else, nothing else.

Below Pili talks about teaching and describes the differences in clinical teaching and patient care in Colombia versus in the United States.

I think it became very natural. I loved it from the very beginning. I didn't start teaching, but I remember still when there was a clinic. Clinics in Colombia are more kind of private hospitals, and that private hospital was where I was born. And they asked me if I could go work there managing the OB ward because I have been here already learning English in Los Angeles doing fetal monitoring. And at that time, we didn't have a monitor. So I was the monitor- the one that was managing the fetal monitoring for all the patients. But not only was I that, I had my own clinic to do fetal monitoring and charge the private patients. So I would manage – when they send out patients for fetal monitoring, I would go in and charge my own patients. And

> they'd give me my own room, and I would do Lamaze classes, and I would teach the Lamaze classes. Then in the morning time, we'd go from room to room teaching about breast feeding, teaching about post-partum care, doing all this. I was always teaching, teaching. I loved that.

Often when health professionals receive their training abroad or in different countries, health care professionals can be skeptical about their training, expertise, or practices. Below Pili offers her experiences of teaching in South America and reflects on returning to her home country of Colombia, where she has been met with skepticism.

> Before I started teaching in Colombia, I lived in Argentina in a year because I was an expert in fetal monitoring, so I was there teaching physicians and nurses how to interpret fetal monitoring. So when I came back to Colombia, I started working as a faculty, I developed a manual on how to do fetal monitoring. And I was teaching around Colombia how to do fetal monitoring. So I was very involved in teaching and actually in some ways, it was something very respected, because I was teaching physicians how to do fetal monitoring there, a nurse teaching physicians. That was unspeakable. But the funny thing is that, the only place in which I was not successful – not that I was not successful, but they didn't invite me to teach was in my own city with my own people. And there's a saying in Spanish that is "No body is prophet in their own land". *"Nadie es profeta en su tierra."* That means that people outside will trust me, will believe me, will listen to me, but people in my own circles, you are teaching me? I saw you grow up. No, you'll never teach me, and that's exactly what happened. That's exactly what happened.

> Taking care of patients and even more, teaching, doing patient care with the students because when I teach them, it's how to treat as a patient with respect but also with the same level that my friends, my patients. And that cannot be taught in a classroom. That is taught by role modeling.

Overall Experiences

Pili described her overall experiences in academia and her trajectory through the health sciences as "wonderful." However, both in our interview and during the focus group, she mentioned being very naïve as a young woman. Her naiveté prevented her from advocating for herself because she did not know what she could ask for. Now she makes a point to empower her students and patients how to advocate for themselves. In fact Pili started a study abroad program in the early 1990s and annually took students from NCMU to Columbia to study there.

> It has been wonderful, really good, really positive. I felt I have always received a lot of support from the start. I will say that the only thing that I regret, there are two things that I regret. The first one is that when I came from Colombia, I was a very important person in Colombia, and I came here and I didn't advocate for myself. I start very low. And it's just because when I got here, it was the United States, and it was the University of California. And I didn't start as a faculty, so I never said that I have done this, and this, and this, and this, and this. So I started at a very low level. And I wish I would have somebody to say – I'm not blaming people here; I'm blaming myself, because I didn't say – but I didn't talk about all the things that I have done. So I just – they told me, you do this, and I did that. I never fought

for myself, and I never was unhappy. I was making of course much more money than I was making in Colombia.

Pili reflected on her experiences once she joined the faculty at NCMU. The excerpts below describe some of the lessons Pili learned, which she makes sure to pass on to her students as she empowers them to be advocates for themselves as well as their patients.

So I remember when I came to my first office and said, this is your office, let us know what you need. And I said, "I don't even know what to ask!" I have never had anything like this. My own office, my own phone, direct line, my own computer. I had no idea how to type at that time. Everything – I said, I'm sorry, I don't even know what to ask. And even now, now I'm used to it, and I'm asking things. I need a computer, whatever. I asked for these two monitors. But at that time, forget it.

Below Pili discusses what she would have done differently. She blames herself for not being a better advocate for herself and now encourages her mentees how to be ask for what they need and to how to negotiate.

I think that the only regret that I have is that I, me, myself, I was a person known on a national level in Colombia. I already had a big reputation in Colombia, and I didn't – I started very low. I regretted, because now I could have retired at a much higher level if I would have started at a higher level, because I would have started higher- I never thought about that. So if there's anything that I can teach from the research is that the mentoring- that I always said to the people, you need to value yourself. So that's one thing. And the other thing that I regret but again this is only my decision is when my kids were growing up, I was working 80%. I reduced my time to 80%. But I regret it because I was working 100%. The reality is not like I was

working – the days I was with my kids, I was correcting papers at night, I was doing stuff during the weekend. We always have worked very hard, and that has a repercussion because now by the books, I have worked here only 23 years and reality, I have been here 25 years. See. So those are the two major regrets that I have, and when I have the opportunity to talk to faculty, I say, do not work less than 100% because nobody works here less than 100%. So that's the two regrets that I have. I don't blame anybody but myself.

Below Pili talks about the impact of the people who have helped shape her career and the support she received from the institution to implement a program to give NCMU nursing students clinical experiences abroad.

I would say that I have been very privileged by the people that I have worked with. People have recognized my commitment. I work very hard, it's true, but people recognize and respect my commitment. Things have changed a little bit, but I know it's because of economics, but beginning of '93 to '98, the whole summer, I would go to Colombia, take students from here there, and stay in Colombia with my kids, my family, and the students there. This was all happening by the support of the school. So I always felt that the people were really very supportive of my needs. So I have no regrets to be here.

Before we parted, Pili reached in her purse and showed me a card she received from one of her students earlier that day. She asked me if she could read it to me. I said: "Of course!" Then Pili read:

"Dear Pili, you have been such an incredible mentor, professor, and example to me on my journey towards becoming a Nurse Practitioner. Working with you at the

program was both fun and challenging. I enjoyed really help me grow. Thank you for modeling" this is the part that I love- "thank you for modeling how to give each patient your full attention, how to do clinical care with excellence, and how to work collaboratively in prenatal care. I love learning from you. With gratitude."

I could have listened to Pili talk all afternoon. Her Colombian accent and exuberant passion radiating through her voice as she told her story will stay with me forever. Pili's interview, like all of the others, left a special imprint on my heart. Her story was one of love, care, and a deep passion for teaching and patients.

Manuel's Story

Manuel is a health sciences clinical professor at NCMU, leading a thriving dental practice in Northern California. He is committed to and passionate about providing quality bilingual dental care and specializes in preventative, restorative, cosmetic, and prosthetic dentistry. His research involves educational research in the area of testing to predict preclinical grades.

Background

Manuel's story begins in Southern California. Manuel's parents are originally from Mexico. His father was born in the United States but was deported to Mexico in 1930 because of the Mexican Repatriation Act. The Mexican Repatriation Act refers to a mass migration that took place between 1929 and 1939, when as many as two million people of Mexican descent were forced or pressured to leave the United States (Aguila, 2007). He reflected on the irony of what is happening now in the United States with immigration reform. His father returned to the United States when he was 16 years old, but went back to

Mexico to find a suitable wife because "there were no appropriate women for him here in the United States."

Born and raised in Southern California, Manuel is the eldest of five siblings (he has two brothers and two sisters). He was the first in his family to go to college and believes he set a great example that most of his youngest siblings followed. Manuel has a great sense of pride when he speaks of his siblings and is still very close to his family.

> I was close to my parents; actually I love my parents a lot even though they really – they weren't into education like most Mexican families are or Hispanic families, let's say, and um, so I actually went to school and they; I could have gone to school my entire life and they would never ask me for a grade or anything; I just did it on my own and then my dad… because I knew I was doing well in school; for some reason or another I liked school!

Manuel recalls begging his father to attend parent/teacher conferences, but he would not go. His mother went because she felt sorry for him. Since she did not speak English, Manuel would go to translate for her, joking he could have told her anything and she would not have known the truth.

Manuel shared with me that his home was filled with violence since his parents fought a great deal. The police were at their home constantly, and he believes this environment negatively affected his siblings, particularly his sister, in a profound way. His sister became an alcoholic, but luckily she was able to turn her life around and completed college later on in her life. I could see that it pained him to reflect on these memories however he was hopeful since his sister is doing well now. Due to his scholastic aptitude, Manuel used school as a motivating factor to shelter himself from what was happening at

home. He realized that since his parents were unable to help him navigate his education, he would have to figure it out by himself.

Navigation

Manuel explained how he navigated his education despite having no role models or anyone to help guide him through the process. He joked that even his fellow gang members motivated him because they knew he was smart and could make something of himself.

> I got in to Cal State Fullerton because that's where I grew up and I was determined to – cause I already knew it was going to be hard, cause everybody told me. Every time I told some one – my friends in high school – I was a gang member in high school so, I had a low rider car and all my friends were joiners. They used to make fun of me, matter of fact my nickname was "the professor" <laughs> so whenever I would come and join them they'd say, they'd make fun of me, they'd say "Hey here comes the professor!" So when I tell high school students that, I say "Hey, don't think that I was fool, they weren't complementing me, they were making fun of me. Cause it's not cool to be smart!" I don't know why that is! Ya know, but when you are smart all of a sudden you are an outsider, and I was, even though I was a part of the gang I was never really a part of it, I was on the fringes <motions with hands on the outside> Ya know, here's Manuel- you know he is you know, he's not really one of us, but he hangs with us, and I had a car and the other guys didn't have cars so I drove a lot of the time- but you know I was still a good student – that's why they called me "the professor"- every time I told them that I wanted to be a dentist , they would just scoff at it, like "oh that's going to take too long", or "too hard", "hardly anybody makes it" I heard that a lot. "Very few people make it!"

Manuel was determined to do what he needed to do in order to be successful in undergrad. Below he talks about how he was able to shut out the negative things he heard from naysayers and tapped into his resolve in order to focus.

> When I went to college I had all those things in my head. That there's a great chance that I wouldn't make it. That's what I was thinking but I wasn't going to leave anything to chance so I thought to myself what I gotta do for the next four years is forget everything! Including girls – I had a lot of girlfriends in high school and I thought all their going to do is distract me so I dumped everything that I thought would hinder me and I moved forward.

Below Manuel talks about his line of thinking when he was trying to navigate his transition to graduate dental schools. He spoke of his father's reaction when he found out that Manuel wanted to be a dentist as well as his father's inability to truly understand what exactly that meant for Manual. Like all the other participants, he recognizes the significance his mentors had on his journey and how just having someone to "keep tabs" on you or hold you accountable can make all the difference in where you end up.

> I applied to all the California schools so USC, UCLA and UCSF and I didn't apply to University of the Pacific because I heard it was too expensive and I decided to keep it down. Oh and I applied to Loma Linda but I knew they wouldn't accept me because I knew I had to be Seventh Day Adventist it's a religious school. So I didn't get into Loma Linda like I thought but I got into the other three – USC, UCLA and UCSF. And I was going to UCLA because I never wanted to leave LA so my second acceptance was to UCLA that's when I told my dad that I was going to be a dentist. My dad was shocked; he had no idea what I was doing so when I told him "Dad I'm

> going to dental school!" He said "What? You're going to be a doctor?" "What do you think I've been doing, where have you been?" <laughs> "I just didn't know what to think!" But after that my dad totally changed. I think it's because he never thought that was our place. He's been working all his life.

Manuel introduces the idea of his mentor "keeping tabs" on him below. Several participants also discussed the value in having mentors stay on top of them and keep track of their academic trajectory.

> I was the only one that got accepted to this school of all the pre-dental students so one of my professors kept tabs on me and sent a message to me that – cause he knew I wanted to go to UCLA and I was already going to go there, that was my dream- you know how you set a dream? I wanted to go to UCLA and so my friend came up to me and said "Dr. Andrews wants to talk to you before you make your decision." I'm getting a little emotional <puts hands up; holds back tears> He was so happy for me and he told me you're going to love NCMU. <Holds up hands> Here I am! <laughs>

Decision to Enter the Health Professions

As a young man, Manuel put very little thought into his career aspirations. In fact he said he did not even think about it nor had a clue what he wanted to do when he grew up. Becoming a health professional was not on his radar. He performed remarkably well in school and particularly enjoyed recognition from his teachers. Manuel believes that rather than him choosing his profession, his profession chose him. Daniel was very self-sufficient and relied upon motivation and support from others outside of his family to strive for greater academic success.

> So I, without even being told to do well I enjoyed- what it was is that I enjoyed the accolades of doing well. So as soon as I started getting feedback from the teachers that "Hey, you're pretty smart!" – it just motivated me. So I just continued to do it. I didn't get that at home because you know my mom didn't speak English, and my dad spoke English but he didn't really take interest in it, and so the people around me other than my parents were the ones that really motivated me.

Manuel explains below how both his PE and shop teachers mentored him and encouraged him to consider pursuing a career in dentistry.

> Mr. Patterson who was a PE teacher took an interest in us and he gave us summer jobs all the time. Every time he'd have a chance he gave us life lessons, he told us don't do this don't do that, I remember that. But we grew to like him a lot actually he just got a hold of my brother because he read an article on both of us, my brother has done pretty well too- he's really proud of us. And it was in middle school in the eight grade – I've always been really good with my hands so I took metal shop, and wood shop and those two shops were right next to us so wood shop was 7th grade and metal shop was 8th grade Mr. Green and Mr. Jones, so they taught and the rooms were connected so Mr. Jones approached me during my 8th grade year and said "Manuel you have really good hands. I think we know what you are going to do when you grow up. So he took it, and said Mr. Green and I know what you are going to do.

Just like Daniel, school was very easy for Manuel. School was effortless, and he took great pride in his work. Below he recounts a story of his mentor who encouraged him to dream bigger and told Daniel to become a dentist instead of a technician.

> All I knew is that I liked school; I knew I did well in school. So then I graduated from middle school, I went to high school to a semester system. I took geometry, algebra one, in my first year in high school, and then I got a "B" in it. I didn't really try that hard, I mean, I remembered just kind of liking it- you know I did all the- followed all the steps and I took class that way. I got a "B" in algebra and when I had my requisite- really one of my counselors, a really jolly, bald-headed guy (I remember him and I just saw him at my 30 year reunion) And he said "Manuel what do you want to do when you graduate?" I said I want to be a dental technician", so he was looking at my grades and he said, "No, I don't think so! I don't think that's appropriate" When he said that at first I'm thinking, "What the heck does he mean?" And he says "You got a "B" in algebra – he goes "You be the dentist; to hell with the technician!" And that's it! <Throws up hands>

Although Manuel did not consider teaching as a profession, his mentor at NCMU took him under his wing because he noticed something special in him. Manuel's experiences in academia are woven together by mentors who encouraged him along the way. Grateful for these experiences, below he explains how he was received his first faculty appointment.

> It's been ah; I've been doing it for a long time. I've really grown to like it. At first I never thought about teaching. That's the other thing, you know, I wasn't in the Dental School thinking ok, I'm going to be a teacher. Matter of fact I wanted to go back to LA and open an office and just be a clinician. That was my original plan. It was January of 1984. I graduated in 1984. And I had been asked to help teach the students. Like a student teacher. So I did that a little bit. Dr. Townsend asked me, and – because I did very well as a dental student. Cause I had the same philosophy; I

wanted to give back, that's what I'm here for. So I did a little of that – I enjoyed it but I didn't think about it as a career.

Manuel recalls how he was approached by one of his mentors to join the faculty in the School of Dentistry. He believes that this moment changed his live forever and is grateful that his mentor extended the invitation to teach.

I just did it because I liked what I was doing and he asked me, and I liked him, he was a good person and I said okay, I'll help out so I showed up and I helped him teach the undergrad, the freshmen and the sophomores, different things it's part of; along with them and then in January of 1984 Dr. – I was working on a patient and I'll never forget – here comes over and he says I need to talk to you for just a second so I washed my hands and I walked over and he asked me to be part of the faculty. At first I said, let me think about it – I thought about it fifteen seconds – I said sure! Why not?

I know it was security too because I – it was a job. A lot of guys were graduating but they didn't have a job. Because I didn't have a job. And I had a baby coming, I had just gotten married, and it was going to be important – but the prospect upon graduation that I would have a job that would give me benefits and security, I jumped on it. I said okay, I'll do it. I didn't think I was going to stay here, I said I'll do it for now to see if I like it; and I did. I never left, I just continued to teach. I climbed the academic ladder and now I'm the course director, of the curriculum – If you would have told me I was going to be doing that {laughs} I would have thought that was crazy! {laughing}

Unlike Pili, Manuel did not set out to teach or join the faculty. In fact, he was very determined on retuning back to Southern California to open a clinical dental practice because he knew he had a family to support. If his mentor had not asked for his assistance in teaching, he most likely would have done just that. Instead he took a chance and 30 years later, he is still on the faculty and receives great joy from teaching students while maintaining a private dental practice.

Manuel said he is most proud of being a dentist and of his family, particularly his daughters.

> I am very grateful that NCMU took me and gambled on me. I am very grateful to having completed my medical training at the best places and having competed with the best. I am very grateful that I've had wonderful mentors. I'm very grateful that I built the largest pediatric study of asthma in minority children in the United States. I'm very grateful for the wonderful students and fellows that I've mentored, who all have gone on to become junior faculty on their own, or successful in their own medical career. I don't use, if you notice, I don't use the word proud because I don't go boasting it. I'm just grateful.

Summary of Faculty Stories

Esteban, Pili, and Manuel came from very different places (San Francisco, the Central Valley of California and Colombia respectively) and took three different roads but all landed in tenured faculty appointments at NCMU. Like the students, the faculty too drew upon their cultural capital wealth to attain success during their academic trajectory and ultimately propelled them into their appointments in the School of Pharmacy, Nursing and Dentistry. All three attribute their academic success to “luck,” and Esteban states he is grateful that

someone took a chance on him. This notion of attributing academic success to "luck" is interesting and important to note because I believe this has to do with the "impostor syndrome" (Young, 2011), from many students in graduate schools suffer. I expand on this point in Chapter V.

Both Esteban and Manuel grew up in inner city neighborhoods and went to public and state undergraduate colleges. They both believe that they earned excellent educations and did well academically. Esteban went to Stanford University for medical school, while Manuel went to dental school in Northern California. This is significant because despite receiving mediocre primary and secondary educations, both participants cited feeling adequately prepared for both undergraduate and graduate school.

Pili also expressed that she felt very welcomed when she arrived on the faculty at NCMU and never encountered feelings of not belonging. On the other hand, she received her nursing education and credentials in Colombia. When Pili arrived in the United States, she already held a faculty position at a university in Colombia and was a clinician. Her journey to the U.S. was for the sole purpose of learning English; however upon arrival she felt that fate had other plans for her. Opportunities opened up that allowed her to combine her passion for teaching and nursing, so she remained here in this country. She applied to a fellowship program and was accepted. Two months later Pili met and fell in love with her now husband.

As discussed in Chapter 1, the theoretical framework used to frame this study was Community Cultural Wealth, which emerged from Critical Race Theory and Latina/o Critical Theory. The summary below is intended to review the research questions and summarize the participants' counterstories.

Summary of Findings According to Research Questions

Research Question #1:

How Do Latino/as Navigate Their Health Science Academic Trajectory?

Students

The six participants each took very different paths to the health sciences. The three students faced a range of challenges from learning difficulties to socioeconomic pitfalls and inadequate access to education. Because Daniel lived in a rural area, he did not have access to a good primary education. Natalie and Ernesto attended private secondary schools as well as undergraduate institutions, while Daniel attended a local state college. Despite the very different paths these students took, they are now currently on their way to becoming health professionals.

In Castro-Salazar and Bagley's (2010) three-year study, the authors acknowledged the counter-stories of Mexican college graduates who navigated across *and* between historical, socioeconomic, political and cultural boundaries, barriers and contexts. The participants in this study demonstrated ways in which they too had to constantly negotiate between their academic, professional and family lives. The ability to navigate and negotiate constantly is a skill set that many of the participants alluded to in their stories which has contributed to their success.

When I asked the students if they were considering academic careers, Natalie said "yes," Ernesto "maybe," and Daniel "no." When I probed further, both Ernesto and Daniel student cited that they wanted a better balance between work and personal life. Both shared that they noticed that their health science faculty are constantly working around the clock, which is not the life they want for themselves. Natalie was the only student who did consider

a faculty career. Out of the three she most enjoyed the research aspect of a faculty position. Having early opportunities for research and academic teaching can cultivate and plant the seed for students to consider teaching and faculty positions. I believe that if the other students had been given similar research opportunities during their training that they might also consider faculty or research positions.

Faculty

While the faculty had very different paths, all three explained that their mentors were remarkably influential on their journeys in the academy. In fact, all three shared that they still work with their mentors and check in with them regularly. The faculty still desire mentorship and opportunities to connect with colleagues across disciplines, more specifically with other faculty of color. While most people do not have a linear path to academia, what I found most interesting about the outcome of this study is how all of the participants drew heavily upon their cultural capital wealth to excel and become successful in their respective academic careers.

Both Esteban and Manuel grew up in an inner city environment. They shared vivid stories about the people they met along the way who helped them navigate their sometimes treacherous journey to their current faculty positions. For Pili, her motivation to enter into the help professions came from an innate desire to help and to teach. Nevertheless all three ended up as faculty members at one of the most well regarded health science institutions in the United States. Drawing upon their cultural capital, they have paved the ways for other Latino/a trainees and provide mentorship to the younger generations of future faculty.

Research Question #2:

What Factors Contribute to Latino/as Decision to Enter the Health Professions?

In Hurtado et al (2007) study, the key predictors of participation in health science programs were students' reliance on peer networks and whether campuses provide structured opportunities for first-year students. Daniel is a perfect example of a student who utilized his peer network and took advantage of campus programs, such as HCOP to gain admission to pharmacy school. The importance and significance of structured opportunities and pipeline programs cannot be stressed enough. Winkleby, Ned, Ahn, Koehler, & Kennedy's (2009) 21-year longitudinal study on their five-week summer program indicated that of the 476 URM students that participated in this program, 47% completed medical or graduate school, and 43% were working towards becoming health professionals. Programs like these are critical to the academic and personal success of URM students and often contribute to them gaining entry into the health professions.

The answers to this research question are personal, varying from one participant to another. My hunch is that most people who enter the health professions have an innate desire and passion to take care of people. This was certainly the case for some of my participants. However, for others a mentor told them that they would be good in a particular field and this mentor gently guided them to their respective health science fields. Others followed their dreams and despite obstacles that arose, they persevered and realized their dreams to become health care practitioners.

The nature of health sciences and the health professions across disciplines is that teaching is built into the curriculum, so that practitioners and clinicians are trained to teach. One would assume that this very natural atmosphere is fertile ground for producing future faculty, but this is often not the case. As Manuel shared in his story, one of his mentors specifically noticed that he was a strong teacher and asked him to join the faculty. Pili's

mentors also observed her teaching ability and thus invited her to join the university faculty in Colombia 10 years after she graduated.

Research Question #3:

How do Latino/a Students and Faculty Describe Their Overall Experiences in Academia?

The stories the participants told not only reflect their personal journeys but also represent the stories of other Latino/as and URM students currently aspiring to enter health professions. These six participants were brought together because of this study, but collectively their stories span two continents, several generations, three different languages, along with countless opportunities for collaboration and potential research. Despite the small sample size for this study, the narratives are painstakingly similar to the experiences of other underrepresented students in the health sciences. For example, in Hurtado, Cabrera, Lin, Park and Lopez's (2008) study that examined how URM students developed scientific research goals, they also found that students encountered challenges, such as social stigmas, as they tried to navigate the culture of science.

I asked the participants to tell me their overall experiences in academia (Research question #3) and asked if they would rate their experiences on a scale of 1-10 (1 being awful and 10 being amazing). Below is a table showing their ratings. It is worth noting that the two people with the lowest ratings (Natalie and Esteban) are the two who had the most struggles and challenges throughout their trajectory. Although both are very successful they both overcame the most obstacles both personally and professionally. The table illustrates their ratings of their overall academic experiences on a scale of 1 to 10. The highest ratings were from Pili and Manuel, both faculty members. They both had lovely experiences during their trajectory in academia.

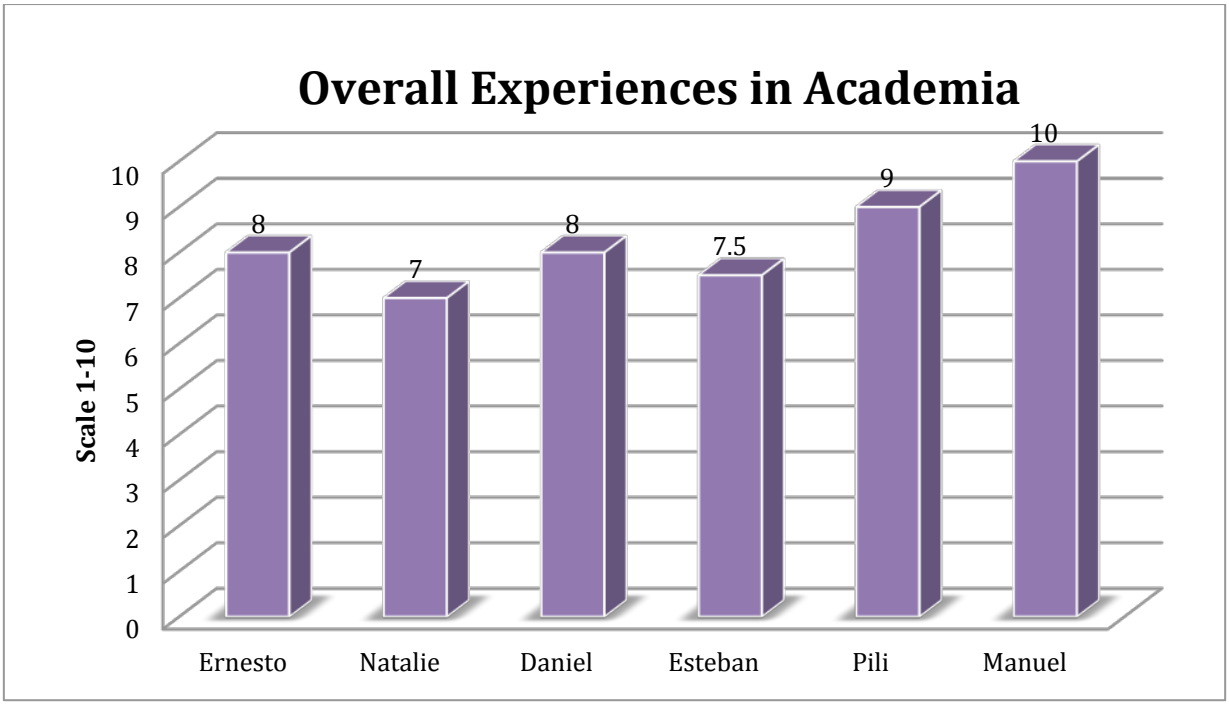

Figure 2.

Summary of Findings According to Community Cultural Wealth Framework

The following six themes emerged in the responses to the research questions. Here I expand on how these themes aligned with the study's theoretical framework

Aspirational Capital

Aspirational capital refers to the resiliency developed through an ability to uphold one's hopes and dreams despite barriers (Yosso, 2006). Although all of the participants drew upon their aspirational capital on some level; there were four participants that stood out as having drawn heavily upon their aspirational capital. Students, Natalie and Daniel, and faculty, Esteban and Manuel, faced both real and perceived barriers in their upbringing, and yet were motivated to hold on to their dreams of making a better lives for themselves. All

four were able to become health professionals, utilizing strength from deep within to strive and thrive in an academically rigorous field.

Resiliency in this context has been acknowledged as "a set of inner resources, social competencies and cultural strategies that permit individuals to not only survive, recover, or even thrive after stressful events, but also to draw from the experience to enhance subsequent functioning" (Stanton-Salazar & Spina, 2000, p 229). Natalie's story exemplified the use of resilience that developed after mourning the death of her employer and overcoming homelessness, which led to being chosen to deliver her high school commencement address. Natalie's triumphant story illustrated how she tapped into her inner resources to thrive after many stressful events. For example, her brother who was involved in a gang was deported, which took a heavy toll on Natalie's mother. Natalie's mother had a difficult time making ends meet, and several times the family was evicted from their home. Any one of these experiences would be enough to cause significant stress and even depression; however Natalie was able to use these experiences to motivate herself and attain academic success. This resiliency served Natalie and other participants well in that they gained coping mechanisms and strategies to deal with tough challenges along the way on their academic journeys.

Familial Capital

According to Bernal (1998, 2002), familial capital refers to the cultural knowledge fostered through one's family and within that carries a sense of community history, memory, and cultural intuition. During Esteban's interview, he described what it was like growing up in the inner city of San Francisco and the impact of the community of women who helped his single mother raise her children.

> My mom was Mexican, my dad was Caucasian. They were divorced when I was about eight. So I grew up with a single mom in the sixties and seventies. She happened to be very, very dark... and that was in San Francisco in the Mission District at a time when we had what was called white flight, which was occurring in cities within inner cities throughout the United States; we had lots of people just leaving the cities, living in the suburbs, and working in the cities but leaving the city devoid of a tax base and so, in the sixties and seventies and early eighties, inner city San Francisco was really an inner city place-- it was like Harlem. So I grew up in that environment.

Below Esteban gives us a glimpse inside his background by telling us about his mother's past. She was a trailblazer who had a profound influence on Esteban's motivation and drive. This part of Esteban's story illustrates the familial capital wealth that he continues to utilize and which has now passed on to his own family.

> My mom was a migrant worker, came from a family of fourteen, so fourteen people- 28 hands- so a lot of her background was shaped by that. She was the first in her family to go to college. First minority ever accepted at Pomona College. She didn't speak English until she was twenty or around eighteen. And that really shaped a lot of my upbringing and also growing up in the inner city, in the Mission district, it was very colorful meaning that we had the projects, we had poor whites, we had poor blacks, poor Asians... and at that time, everybody was labeled by their identification, like you would say "oh, the Chinese guy Marco or the black guy, Brandon or the white guy- Troy the white boy, we call him." And so that shaped my whole, or colored my whole experience.

> So then when my parents were divorced, my mom was a schoolteacher and money was tight and she had four kids and people pitched in. And it was really neat, in retrospect, to look back, that she had a whole network of women that helped her. So I would have women taking me fishing, I had women taking me to cultural events. And one of the interesting things was a family that was next door to us, who was Chinese, pitched in and would feed me, helped feed me and would take me everywhere. They had two boys and it was neat; so that was from seven through thirteen that I was with them.

This "network of women" that Esteban describes is a perfect example of familial capital wealth. The women who took him fishing as well as his next-door neighbors grew to be his extended *familia* or kin. Natalie also shared stories about how her employers became like her grandmothers. Her bond with one of her employers for whom she was a live-in caretaker was so strong that she referred to this woman as "Nana."

Social Capital

Social capital can be thought of as one's network of people and community resources in which peer and social connections offer critical emotional support (Yosso, 2006). Although Daniel did not describe himself as religious, he still held on to the religious community of his parents. He shared stories of childhood friends from the Jehovah Witness church with whom he is still in contact and spends time when he returns for visits. Pili explained that although she graduated from her private school in Colombia 45 years ago, they still hold reunions every five years. She never misses the opportunity to return to see her childhood friends; many of whom are also in the health professions. Ernesto found his community while attending a private university in a Latino/Chicano student organization.

Although he felt like he was shunned initially, these folks are now some of his closest friends and colleagues.

According to Katz (1999), social capital can become activated in the context of teacher-student relationships. She posits that productive relationships that yield student achievement can be viewed as a form of social capital (Katz, 1999). For example, Manuel's wood shop teacher took a special interest in him and encouraged him to consider becoming a dentist. This investment in Manuel's education made him work harder and led to his eventually becoming a dentist.

Navigational Capital

Since the second research question in my study specifically addressed the navigation of the academic journeys in the health sciences, the concept of navigational capital was of particular interest to me. I used this lens to analyze the data on how the participants navigated through their respective educational pipelines. Navigational capital refers to skills of maneuvering through social institutions, particularly through institutions that were historically created without people of color in mind (Yosso, 2006).

Ernesto shared his jarring experience of transferring to a private elementary school from a more diverse public school. Because he was one of the few students of color, he recalled feelings of isolation. He also remembered being ridiculed or "teased" because of the type of music he liked to listen to (R&B and hip-hop) and administrators giving him a hard time about how he chose to wear his hair. Ernesto's strategy was to become heavily involved in multiple sports and music in order to overcome the vulnerability he felt when he first arrived at his preparatory school.

Another example of the use of navigational capital is Natalie's reflection upon her dream to become a physician. When she realized that she would probably not get accepted to medical school, she decided to take another path. She applied and was accepted to the Master's of Public Health programs at Harvard and University of California at Berkeley (UCB). Although her peers and colleagues strongly urged her to go to Harvard, she decided to attend UCB so that she could be closer to her mother.

Resistant Capital

Resistant capital is about one's use of knowledges and skills cultivated through oppositional behavior that challenges inequality (Yosso, 2006). In other words, historically people of color who have typically encountered racism, patriarchy, or other forms of oppression have had to find transformative ways to resist through oppositional behavior to challenge inequality. Communities of color have had to become resistant throughout history and certainlyin the present day. Whether this resistance has been a conscious decision or learned implicitly, it is an asset and indeed a form of cultural wealth. For example, Ernesto had an attending physician tell him that he lacked the right cultural background to become a physician. Instead of being devastated or offended by this overt statement of racism, Ernesto used that remark and experience to not only prove her wrong, but to resist and challenge her notion of what he could become. This comment ignited a passion in him to persevere because of rather than despite his cultural background.

Similarly, Daniel shared stories of oppression when he spoke about working on the farm picking grapes and the way he was treated by the farm owners. Daniel understood the structural nature of oppression and made a conscious decision to challenge the farm owners by demanding respect. These micro- and macro-aggressions embody what people of color

constantly endure, particularly in higher education. In response, we tap into our inner strength in order to challenge the status quo and resist against the inequities and inequalities that are often present in institutions of higher learning with an unfriendly or even hostile climate toward URM students and faculty.

Linguistic Capital

> Language is power, life, and the instrument of culture, the instrument of domination and liberation. (Carter, 1997, p. 43)

Linguistic capital includes both the social and intellectual skills acquired through communication experiences in more than one language and/or style. This concept emerged from research highlighting the value of bilingual education with an emphasis on connections between racialized cultural history and language (Yosso, 2006). Linguistic capital can be thought of as a unique toolkit utilized by bilingual students who arrive on college campuses with a vast communication skill set at their disposal. All participants in this study used their linguistic capital throughout their academic trajectories, and all believe that their ability to be bilingual and bicultural had made them better health care professionals.

The following example from Natalie's story illustrates how she drew upon both aspirational and linguistic capital when selected to deliver her high school commencement address. Natalie attributes much of her success to her mother and how hard she worked to support and help Natalie realize her dreams. The experience that Natalie refers to below is the passing of her employer (Lisa) during her senior year in high school, which profoundly affected her:

> I think it was that experience that opened me up to them to share what I'd been going through the four years, and in the ceremony I decided that since my mom

> doesn't understand English very well, I gave a bilingual speech which – I'm glad I did. I was very nervous about doing it. I know a lot of the folks there did not understand why I was doing it that way, but in retrospect I was really happy I did that because it was my way of making sure that my mom would understand what I was saying, and that a lot of my achievements reflected back on her hard work, and that tough year in high school, and the journey ahead of us.

Natalie made a very intentional decision to deliver her commencement address in Spanish. She wanted to ensure that her mother understood the speech, as Natalie knew how much her mother's support and love contributed to her educational accomplishments. Although many blank faces were staring back at her, the one face in the audience that meant the most to Natalie was her mother's. Natalie recognized the value of her linguistic capital wealth, which she demonstrated by her decision to give the speech to a predominantly English speaking audience in Spanish. This was a bold and powerful move on her part, and Natalie was consciously making a statement – a very specific statement in her mother tongue.

Another illustration of how participants tapped into their linguistic capital lies in Daniel's story. Daniel shared that his mother forbade him and his siblings from speaking English to or around her. In fact, Daniel said, "…my mom would slap our mouths whenever we spoke English to each other." Daniel attributes his bilingualism as the sole reason he was able to land a spot in the Health Career Opportunity Program (HCOP). Below he shares an experience where he was working at a low-income health clinic in which the primary language of the patients was Spanish. He was one of the few people that worked at the clinic who were bilingual and bicultural. As a result, he immediately began interpreting for the patients.

When I spoke to them they were just so happy that I could speak Spanish. I understood where they came from because I was the first of my family to be born in the USA, and most of them were straight from Mexico, so I could relate perfectly - I knew exactly what they were going through, and so by doing that, they were really appreciative, and they shared a lot more than they would usually with the other pharmacists that was talking to them. In fact, it was funny, one time this male patient came by - you have to ask questions about alcohol consumption and he told him, like, one or two beers a week. It was funny I talked to him for a little while, chit-chatting in Spanish and going through our roots, and I managed to get out of him, he drinks a lot more.

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And so, because I kind of knew, by the figures that you kind of, you know your own type of people, the way they conduct themselves, the type of people they are. And so, sure enough he drank like ten times more than what he said. So, that was good information to get for his health. So, just by speaking Spanish and being culturally relevant to him, it helped for me to understand, and in turn, the pharmacists themselves, to help the patient. So after all these interactions with patients, I just knew, yeah, I want to do this, I want to help, want to get them healthy. So it was good.

Daniel's story is a classic example of how Latino/as draw upon their experiential knowledge and linguistic capital to communicate effectively with patients in health care situations. Other participants shared similar stories about having a special connection with patients when they can deliver care in the patients' native language. Many patients report that

they prefer receiving health care from someone who looks like them. The ability to connect and build rapport with patients is something built into the curriculum in health science programs. The ability to have health care professionals who are able to connect culturally with a patient cannot be taught in medical school.

Conclusion

The six courageous and beautiful individuals who participated in my study left a permanent imprint on my heart and in my soul. I laughed, cried, and embraced each one of them. The time we spent together was one of the biggest gifts my doctoral journey has given me. My hope is that this dissertation can become my gift to them. In the next chapter I discuss the six prominent themes that emerged from the findings, and how the findings intersect with the scholarly literature.

CHAPTER V: SUMMARY, DISCUSSION, REFLECTIONS, RECOMMENDATIONS, AND CONCLUSION

Summary

Chapter IV portrayed the stories of six Latino/a students and faculty that contribute to the research literature on the representation of Latino/as in the sciences (Hurtado, et al, 2009; Hurtado et al., 1997; Hurtado & Kamimura., 2003; Hurtado et al., 1998; Hurtado & Ponjuan, 2005). Their stories provide counternarratives to the dominant discourse about underrepresented minorities in the health sciences. While much of the literature on Latino/as in higher education focus on the achievement gap, increasing high school drop-out rates and deficit thinking models, the stories of my participants counter these models and offer stories of triumph, resilience and success. Using community cultural wealth as the theoretical framework to analyze the data, I showed how the participants navigated their academic and professional careers in the health sciences. In this chapter, I present the following: 1) the emergent themes and discuss how they relate to scholarly literature, 2) reflections on the research process and focus group, 3) participant recommendations, 4) my recommendations for future research, practice, and policy, and 5) the conclusion.

Discussion

Themes

Below are the major themes that emerged from the interviews:

1. Participation in sports and other extracurricular activities was paramount in their academic success.

2. Language played a key role in their academic success. All participants attributed being bilingual as a key asset in their ability to deliver quality patient care.

3. Mentorship is paramount in the motivation and influence to pursue health science careers.

4. Students attribute quality of life and work/life balance as the main deterrent from pursuing faculty/academic positions.

5. A majority (4 out of 6) of the participants used the words: "luck, lucky or good fortune" to describe their success.

6. All participants attributed their success to their families.

Extracurricular Activities and Academic Success

Four out of the six participants expressed that their involvement in sports positively impacted their academic success. For Esteban it was wrestling, and he still uses the skills he acquired in wrestling in his work today. Esteban explained that: "…fortunately I had been saved by sports, someone: a young African American wrestling coach, right out of college, took a bunch of inner city kids and whipped us into shape. I lost a lot of weight and became league champion and went on to college to wrestle, and in college I was great. I worked really hard." Esteban also took up fishing, which initially sparked his interest in marine biology and ultimately the sciences. These activities took Esteban outside of his inner city neighborhood and gave him an outlet to explore different things, meet different people, and challenge himself in ways that he might not have otherwise been challenged had he not become so involved with wrestling and fishing.

For Natalie it was basketball. Her math teacher was also her basketball coach and Natalie shared "…I ended up falling in love with basketball which I think was my outlet in certain respects…" She believes that basketball really helped her disconnect from problems at home and focus more on school. Lastly, Ernesto played soccer, basketball and lacrosse

and was the award-winning captain of each of those teams. The leadership roles he held on these teams provided him with a unique skill set that he took with him throughout his academic trajectory. He discussed the social capital associated with certain sports and how he used his athletic gifts to gain social capital in his preparatory school.

Because Daniel was not challenged in his school academically, he sailed through his elementary and secondary school, stating that his classes were too easy. He desperately needed a challenge, and for him that challenge was sports. Playing both football and basketball gave him physical and athletic challenges to compensate for the lack of academic rigor in his coursework. He explained that he loved sports and placed number two in his division for three and a half years.

Natalie, like Esteban, found that sports gave her an outlet to disconnect from what was happening in her at times problematic home life. Ernesto pursued and excelled in sports and found it to be a social outlet that enhanced and added to his academic success and provided leadership opportunities. Pili is the only participant in the study who was not involved in any sports. The extracurricular activities provided social connections for the students and also served as a source of community. These extracurricular activities provided more than an outlet but useful skills that became transferable in their academic environments. Furthermore involvement in sports proved to be invaluable in making Natalie, Esteban and Ernesto more attractive undergraduate school candidates.

Similarly, Walton and Cohen (2007) discussed the importance of extracurricular activities and sports for at-risk students as a way to connect socially and determined that students who were active in sports were less likely to drop out of school (Walton & Cohen, 2007). Furthermore, Yosso, Smith, Ceja, and Solorzano (2009) introduced the concept of

"counterspaces" and offered "Often social counterspaces develop out of academic ones, and vice versa. Social counterspaces allow room outside the confines of the classroom for students to vent frustrations and cultivate friendships with people who share many of their experiences" (Yosso et al., 2009, p. 677). In this way, sports served as a very crucial counterspace for the students and faculty in this study.

Additionally, other counterspaces inhabited by the participants in this study were Chicano/Latino student organizations, the Latino Medical Student Association (LMSA), Chicanos in Health Education (CHE), and *Voces Latinas*. a student-based nursing organization. These spaces provided a safe place for my participants to build community, collaborate, and develop life long relationships which offer social capital.

Language and Bilingualism

All of the participants in this study are bilingual in both Spanish and English. Except for Ernesto and Esteban, the participants' primary and native languages were Spanish. Ernesto's mother's first language was Spanish, and she recalled having difficulty learning English. As a result of her desire for her children to master the English language, she primarily spoke English in the home and thus Ernesto learned Spanish as his second language. Both Natalie and Daniel still speak Spanish primarily at home with their families. Manuel speaks Spanish primarily in his dental practice, as many of his patients are monolingual Spanish speakers who prefer going to a native Spanish-speaking dentist. Daniel recalls that his mother would slap his mouth if he spoke English in the home; she wanted only Spanish spoken in the home at all times and did not want them to "lose their Spanish." Pili came to the United States primarily to learn English and intended to return back to Colombia to continue her faculty position. For this reason, she has retained her bilingualism.

In summary, all participants are fluent Spanish-speakers whose bilingualism has served them well throughout their academic and professional trajectories and in their current practice.

Esteban shared this sweet story about learning Spanish.

> Then growing up in the Mission, I picked up Spanish because everybody spoke Spanish. And college, not so much, but in medical school, my Spanish really picked up. And in my medical training, my Spanish really picked up. And it's really cool, because I was acutely aware that I was Hispanic, but my mom, like I said, was really dark. And I'm light. I remember this. When I was really young, and I'd crawl in her bed, and she'd read stories, she told me one time, "You know, son, you don't look like me. You can go places where I couldn't go, and you can be the informant." And I remember that. So it was almost like as if I had a responsibility to give back, because I could do things that she couldn't do.

According to Flores (2006), “Some 49.6 million Americans (18.7 percent of U.S. residents) speak a language other than English at home; 22.3 million (8.4 percent) have limited English proficiency, speaking English less than “very well,’ according to self-ratings” (p. 229). Flores explained that language barriers can have deleterious effects on patients who are less likely than others to have a usual source of medical care. He also discussed results from a previous study, which revealed that no bilingual interpreters were used in 46 percent of emergency department cases involving patients with limited English proficiency. The quality of care and health outcomes for patients who need medical interpreters but do not have access suffers greatly. This is just one example of why it is critical to train more bilingual health care professionals.

In Flores et al (2003), they found that limited English proficient (LEP) "patients often defer needed medical care, have a higher risk of leaving the hospital against medical advice, are less likely to have a regular health care provider, and are more likely to miss follow-up appointments, to be non-adherent with medications, and to be in fair/poor health" (p. 6). The results of their study highlighted the adverse health outcomes of LEP pediatric patients based on errors of language interpreters. In general institutions tend to ignore the important role that language plays in health care, which leads to not recognizing or valuing the linguistic capital of their providers. This fact ultimately could have life-threatening consequences, such as doctors misdiagnosing conditions due to inaccurate information in patient history or patients misunderstanding instructions for taking medication (Flores et al, 2003).

In my study, the diverse breadth of bilingualism culminated into a dynamic group of health professionals who all attest that their bilingualism has made them better health care providers. Having this linguistic capital meant that each of the participants arrived either on campuses, clinics, or labs armed with the ability to communicate across cultures with their peers, patients, and colleagues.

Mentorship

Every participant mentioned the word "mentorship" multiple times during the interviews and focus group. All credited the mentors they had throughout their entire health science trajectory as influential in their academic or professional success. The faculty all spoke fondly of their mentors with whom they still work with regularly. The students spoke with admiration and respect of their mentors in grade school through undergraduate years, explaining how important it was for them to have mentors at every stage of their academic

careers. In fact, both Daniel and Manuel shared that had it not been for their mentors suggesting careers in pharmacy and dentistry, they would not have considered pursing a career in the health sciences. Natalie spoke of her family members (aunts and uncles) as her mentors, revealing familial capital as community cultural wealth. For many URM students in the sciences, their mentors became their extended families and shaped an integral part of their ability to thrive while training in the rigorous health science environment.

However, in their study on mentorship in the health sciences, Feldman, Arean, Marshall, Lovett and O'Sullivan (2010) found that clinician educator faculty with more teaching and patient care responsibilities were significantly less likely to have a mentor as compared with faculty in research intensive series. Having a mentor was associated with greater satisfaction with time allocation at work and with higher academic self-efficacy scores, compared to those without a mentor (Feldman, et al., 2010). An example of how research intensive programs yield more mentorship opportunities was in Natalie's graduate studies. When Natalie became interested in public health and earned her Master's degree, she did research on the social determinants of health. While doing this research, she picked up several mentors along the way who helped support her dream of becoming a nurse.

Hurtado et al. (2007) discuss the importance of "institutional agents" and their role as mentors for URM students. "Institutional agents such as academic advisors, faculty, or student affairs administrators may play a particularly important role for URM students because they are in positions to provide mentorship and support for these students as well as advocate for their needs on a larger, administrative level" (p. 131). As a professional in student affairs, I have extensive experience in advocating for and supporting URM students and understand deeply how crucial mentorship is for their academic success.

In terms of faculty mentorship, Daley et al. (2006) found that the implementation of a dedicated faculty development program with a focus on mentorship directly increased the rate of retention of URM junior faculty. According to Turner et al. (2008), "faculty who were not successful in the tenure process often lacked mentorship to aid their incorporation into academia" (p. 148). These examples from the literature underscore the profound importance of mentoring URM students for their retention in the academy.

Work/Life Balance

Of the three students, Natalie is the only one who has considered pursing an academic career once she completes her training. Both Ernesto and Daniel explicitly desire a work/life balance. They witness their faculty mentors struggling to teach, do research, publish, serve on committees/task forces, mentor, and maintain clinical practices. This is not the life they envisioned. Ernesto complained that his physician father was rarely home, not representing the type of father he wants to be. Daniel's dream is to return to a rural community once he completes his pharmacy training, and wants to start a family.

Other studies confirm that faculty of color in particular experience challenges to their work/life balance. As Hurtado and Kaamimura (2003) explain, "The numbers of faculty and administrators who are Latina/o are keeping pace with the growing numbers of Latina/o students. As a result, the demands on these individuals are great because of the expectations placed on them by student communities of color and it is difficult for them to find balance with the roles they hold in the university" (p. 147). Despite these challenges the faculty in my study expressed great job satisfaction and ability to balance family life with work life.

Luck/Good Fortune

When discussing the factors that the participants attributed to their academic success, all but one believed that it was due to luck or good fortune. Many were too humble to accept credit or accolades for their own success, accomplishments, or intellect. Daniel, Natalie and Esteban specifically spoke about how lucky they were to receive the opportunities they did. Esteban says he is grateful that the faculty "took a chance" on him. (I would argue that NCMU is lucky to have Esteban.). Below Esteban talks about his good fortune, mentorship, and hard work.

> I was fortuitous. Lucky to have good mentors in high school, college, medical school, residency, fellowship, and even now as a faculty, I still get mentorship. The other thing is, I think you have to have what I call intestinal fortitude or drive, ambition. I was never the smartest in my class, but I was always the hardest working.

Similarly Natalie shared:

> I think I got lucky. I met some amazing people who really motivated me to continue. Of course, I'm a very hard worker and tend to get good grades now, at least, but I think it really was meeting, having those folks in my life and holding on dear life to them. When I realized that, "Oh my God, yes, I can do this," and thank you so much and please help me, support me.

As mentioned earlier, I too suffer from "impostor syndrome," and Daniel, Natalie, and Esteban's references to luck are classic examples of attributing successes to luck rather than skill. Since I have struggled with similar feelings in my own academic career, I immediately picked up on this as an emerging theme in speaking with the participants. This phenomenon is not unique to my study. According to Young (2011), people who are high

achievers often struggle with owning their accomplishments and will instead attribute their success to luck, timing, connections, or personality. As Young states, "there's danger in viewing success *solely* in terms of luck" (p. 97). Some URM students and faculty dismiss their accomplishments as luck, and Young believes that this is dangerous because it escalates feeling of inadequacy. Instead she suggests reframing dismissive statements by acknowledging intellect and hard work. It is quite common for People of Color in particular to grapple with impostor syndrome as they are constantly trying to affirm their belongingness in higher education. It can be easier to assert that "luck" is responsible for their place in higher education rather than skill. It is important to note that only two of the participants in this study acknowledge their hard work as one of the keys to their success.

Traditionally, women and people of color in higher education struggle with feelings of inadequacy and a sense of not belonging, constantly doubting their academic and professional success. Solorzano and Yosso (2001) looked at Chicana and Chicano graduate school experiences, finding that it is quite common for these students to struggle with self-doubt, survivor guilt, impostor syndrome, and invisibility.

> Women of Color in the academy are not commonplace, we are an aberration – outliers. We often ask ourselves, how is it that I 'arrived' when so many others like me haven't? Will someone discover that a mistake was made and I don't really belong here? How long will it take for 'them' to realize that I am an impostor, an 'other,' I'm not 'one of them?' (p. 485)

Similarly, this "impostor syndrome" was also an important finding in my study. High achieving women and people of color typically struggle with the impostor syndrome and have a tendency to diminish their vast success by attributing their accomplishments

merely to luck. This was also true with five of the six participants; the one participant who did not attribute her success to luck was female. This participant had an instinctive ability to tap into her community cultural wealth without any testimony of luck or good fortune. All the participants in my study are high achievers who utilized community cultural wealth in their own way, but did not fully realize the importance of their own cultural assets. Instead they attributed their many accomplishments simply to good fortune or luck.

Family

Every participant passionately articulated the influential support they received from their families (nuclear and extended). Many were emotional when offering words of wisdom and encouragement from parents, grandparents, siblings, and spouses. Manuel explained that when he was offered a faculty appointment, his first child was on the way, which helped him to make the decision to teach. Because he had a family to support, he wanted the stability that a faculty appointment would afford.

Yosso (2006) posited that our families model lessons for caring, coping, and providing *educación* that lays a foundation for how we develop our emotional, moral, educational, and occupational consciousness. The participants all told stories about how their families instilled in them the value of hard work and the importance of education. I believe that the strong familial bonds also modeled lessons that proved to be beneficial in patient care and their ability to connect with patients. Natalie is a perfect example of how being a caregiver for her mother and for her employer set the stage for how she is able to provide care for her patients now. The lessons learned from their families about caring and coping have served them well both in academic and clinical settings.

Summary

The six themes which emerged in my study were: 1) extracurricular activities and academic success, 2) language and bilingualism, 3) mentorship, 4) work/life balance, 5) luck/good fortune, and 6) family.

1) Extracurricular activities and academic success: The participants spoke passionately about their involvement in sports and extracurricular activities as not only an outlet, but also a source of community. They gained leadership and collaborative skills that they have taken and will take with them into their clinical and academic careers. 2) Language and bilingualism: Language was paramount in the lives of my participants, and their bilingualism undoubtedly makes them better practitioners. 3) Mentorship: Every participant spoke deeply about their mentors in reflection of their pursuit of their health science careers. 4) Work/life balance: Two out of the three students expressed concerns about work/life balance in faculty careers and explicitly stated that their family life was more essential than pursuing an academic or faculty position. 5) Luck/Good Fortune: Most of the participants attributed their academic success to luck or good fortune. 6) Family: Finally, all of the participants noted that their families were a huge source of support during their academic trajectories.

These six themes were salient in the counter-stories of all the participants, although other minor themes also emerged. The following section highlights my reflections of the research process.

Reflections

Research Process

I was surprised at how seamless the recruitment was for this study. Within several hours after sending out recruitment emails several people responded and expressed an interest in participating in this study. Colleagues thanked me for doing this study and commented on how important this research is. This was very affirming and validating to a new researcher. As I mentioned in the previous chapter, my goal was to recruit eight participants; one from each discipline with an even gender distribution; four males and four females. Due to scheduling conflicts, it was not feasible to have an even gender distribution; never the less, the participants who did participate in this study were absolutely phenomenal and the lack of gender parity did not compromise the data collection.

I was also impressed with each participants' candor and willingness to offer such personal accounts with me. The interviews were an easy flow of stories, information, and enlightenment. Every participant was forthcoming and told their stories from an authentic and vulnerable place. I learned a great deal about the participants but also learned a lot about myself. As I look back over my field notes and observations, I am moved by what an incredibly intimate process this dissertation study embodied. I am humbled to have been able to hold space for and with these remarkable individuals.

Upon reflection of the data analysis, I experienced a wave of emotions. I felt joy, dread, and excitement. Joy, because I got to relive the stories once again and delighted in reading through the transcripts because it allowed me to delve deeper into their stories. I felt a sense of panic and dread because the impostor syndrome crept in and I wondered, "Will I get this right? Will I be able to do justice to these beautiful stories?" I was excited because as the themes began to emerge, I began to see how this was all coming together quite nicely.

I was also very excited to present this preliminary data during the focus group and to see the participants again.

Focus Group

My original data collection plan was to conduct a focus group one month after my last interview. I wanted time to complete the data analysis and hoped that the focus group would serve as a platform to present my preliminary findings and gather feedback from the participants to ensure I was on the right track with my analysis. Additionally, I hoped to create potential mentorship opportunities among the participants.

The focus group began with a welcome and introductions. I asked the participants to introduce themselves and disclose one highlight of their day. Pili began by offering that her highlight was coming to the focus group. After the welcome and introductions, I proceeded to give a short presentation. I briefly presented the overview of the research problem, the research questions, and the preliminary data analysis and findings. I then requested feedback from the group. In the presentation of findings I presented a Wordle™ that I created using the keywords from the transcripts. (The Wordle™ appears in Appendix F) I asked the participants if there were any words they thought were missing. I added words they offered and used their comments for further analysis.

We discussed emerging themes, such as mentorship, involvement in sports, and language. We explored the following topics: how to find good mentors and coaches in the health sciences, microaggressions and stressors in the health sciences, academia and cultural rejection, and the pressure and expectation of having to "represent your ethnic group" or being the "face of the minority group." We had a very rich dialogue and could have easily

spent the entire focus group discussing these issues. In the interest of time, we moved on to group work.

After the participants provided feedback, we did a small group exercise. In pairs, I gave them each a question to discuss. The question for students was: "What is the biggest factor that keeps you from pursing a faculty or academic position?" The question for faculty was: "What are some encouraging words that you would offer to students considering pursing a faculty position?" During the report back, the students reported that the idea of an academic position in the health sciences seemed daunting at best. They wondered how they would balance research, teaching, community work and clinical work. Ernesto said, "How could you be faculty and not spend less time outside of clinic? If you are in the community, then you are not there for the patients." They shared frustrations about the lack of representation of faculty of color in their respective disciplines.

As for the faculty, Pili's response to Ernesto's question was, "You can combine both! When I am in the clinic I am in heaven and when I teach I am also in heaven. You can make it work!" I witnessed Pili offer Esteban advice lovingly. She said, "Go where your heart is. Do what you love. Be committed, be passionate, believe in yourself. Have confidence in yourself. Competence is important. Some goals will take longer, some shorter. Do what you like, you will make it."

The focus group was the highlight of the entire study. My hope was that the students could be in the same space with these successful faculty members and that mentorship opportunities would naturally emerge. Upon reflection of Pili's advice to Esteban, it occurred to me that even at advanced stages in their professional and academic careers, they too still need, desire, and welcome mentorship opportunities. It was in that moment I realized that

this focus group offered a rare opportunity for faculty and students across disciplines to meet together to discuss triumphs and challenges and help support each other in a safe space. Even though they were from different backgrounds, I watched in awe as people smiled and nodded in agreement as one participant shared a piece of their story with the others.

I wondered how this experience could be institutionalized. Would it be possible for universities or health science programs to create small interdisciplinary groups to have meaningful discussions about how to retain more URM students in the academy? Who would take this on? Whose responsibility would it be to facilitate these discussions and offer a safe space for community building among URM faculty and students? I believe that institutions of higher education can and should create spaces for URM faculty and students. It is the responsibility of everyone (staff, faculty and students) to ensure and mandate that these spaces be created.

Recommendations

Participants' Recommendations

The powerful stories that emerged from the participants allowed their voices to be heard. I am extremely humbled to have been given the honor to share them. These counter stories are valuable because they help inform how educators think about recruitment and retention practices for Latino/a students in the health sciences. The following are recommendations from the participants about what institutions can do better to retain both students and faculty in the health sciences. Following their recommendations, I offer my own.

Daniel

> I honestly don't think they can do anything to try and have somebody be a mentor teacher, professor. I think people come here with a notion that they want to be professors before they get here. At this point, we're like 22, 23, 30 maybe. I think if you want to be a professor you would come with the idea beforehand. I don't think they've ever advertised, "Hey, come be a professor for us." They've never done that; But I haven't seen any schools advertise, "Hey, come teach for us." At all. Not directly at least.

Ernesto

> Give them something to look up to. When I asked the deans of our institution if it would be possible to institute, for example, a mentoring program for students of color, with faculty of color, it was looked down upon. When we talked about having recruiters to this institution attend conferences for students of color, she asked, "Does that person need to be a person of color?"
>
> You know, incorporate them in teaching. Have connections with alumni, so even though we may be few, those of us who have gone through this university and who actually have returned to communities where we want to serve – I mean that would present tremendous logistical challenges, but give us something to aim at. Find creative ways to show us that what we want to do isn't crazy. [Chuckles] You know? Let us feel like we can stand on our own two feet; that we belong here, too. And don't treat student groups like they're just clubs. Don't do that. That's home. That's family. That's what gets us through.

Esteban

We always get put on so many damn committees cause we're the only ones in the university. That's problematic. And it's frustrating. And it's - but honestly, I think NCMU has been very good to me and very supportive, so as a faculty member, I don't have complaints about myself. But I know it's hard on all faculty. But I do think minority faculty get burdened with extra service commitments, whether they be on committees or being a puppet for something else. That happens.

I think increasing the number of minority faculty are important to inspire minority students.

I don't think the universities are doing very well at any of this, period. But honestly, it's tough. We're at the professional level, we're at the professional league. And whether you're white, black, Hispanic, Asian, we all got to compete. And I think regardless of your racial or cultural background, I think we have to compete. I think it does help to have a quorum of people. I know it helps. There's no quorum for me here. So I don't - one of the wonderful things about having wrestled is I don't need external validation to make me feel good. I rely on my internal drive, my own abilities, to compete. I would love it if we had more minority faculty. I would love it. I'd feel so at home. But I come to work and I am competing. I walk in and I know I'm competing. And in fact, as I'm going to turn forty-eight, I'm going back to when I competed in college. Still walk in my work with my headphones on, music blaring, and walk in like who's ass am I going to kick today.

Manuel

That’s hard. Because it’s such an individual type of thing. They have to kind of- it comes from leadership. You gotta get the leadership positions or encourage

them [URM students/faculty] to take them so they can see that they have the ability to change things and to guide things, that's what you got to do.

You got to make them [faculty] feel like they make a difference and then advance them, because you can't be stagnant- because if they get stagnant then they get bored – you feel like you're not really accomplishing anything – offering – I don't know what… to make the position upwardly mobile with an increase in responsibility, therefore increase in satisfaction. These positions have to be offered to them. When senior faculty see minority students with potential they should actively seek them out.

Natalie

To retain students in the health sciences. I think a big thing is fostering some sort of cohesion within the school. It's not academically related, doesn't even have to be a social event. It's almost like school pride. Like having nursing t-shirts. You're proud to be a nurse. We ended up doing that for the MEPN class and everyone was like, "Wow, how cool!" Some symbol of how close you are as a school and proud of being at your school in your profession.

Pili

Mentorship. Mentorship is very important. I had actually a student, and she's beginning to teach with us, that since the beginning, I would sense that she was very, very smart. I told her I wanted her to be my replacement. I told her that, and I have been mentoring her and talking to her. So mentorship by a person from the same ethnicity is very important. I could not see it any other way.

Summary of Participant Recommendations

In summary, the participants made these six recommendations aimed toward institutions interested in retaining URM faculty and students:

1. Provide ample opportunities for mentorship for URM students and faculty
2. Create opportunities for URM alumni to connect with current trainees
3. Recruit more faculty of color
4. Create leadership and advancement opportunities for URM faculty and students
5. Build a campus climate of inclusion to ensure student cohesion and pride
6. Encourage faculty to seek out students to groom to become the next generation of faculty in the institution

My Recommendations

I whole-heartedly agree with the participants' recommendations. URM students are recruited heavily into institutions of higher education in the health sciences; however once there they fail to get the support they need to thrive. Understanding how to build on the community cultural capital and experiential knowledge can be a great tool that educators and administrators can use to provide academic, social support, and mentorship if they are interested in keeping URM students in the academy.

Lastly, I agree with Manuel that institutional leadership can do a better job to ensure a campus climate conducive to diverse perspectives, research and care. It is not just the primary role of leadership – but for everyone at the institution - to foster a diverse and inclusive environment. I believe this is the first step in changing the culture on campuses to guarantee that students, trainees and faculty thrive in the health sciences.

Specifically, for the retention of URM students and faculty, I recommend that health science institutions consider the following:

1. Create systems of support for URM students of faculty by providing resources for their professional and academic development.
2. Formalized mentorship programs that are widely available. Hold faculty responsible for mentorship by building tracking mentorship activity into their evaluations and factor this into their promotions.
3. Recognize and honor the unique perspectives of URM students and faculty by including them in decision-making around policy, curriculum, admissions, and selection of future faculty.
4. Cerate an inclusive and respectful environment that is nurturing fosters collaboration across disciplines.

Recommendations for Future Research

As discussed earlier, this dissertation was a small qualitative study. Future research may include looking at the same research questions for other URM groups such as African Americans and Native Americans. This study could be broadened to look at the success rates of educational pipeline programs in science, technology, engineering and math (STEM) programs. Latino/a health care providers across different disciplines, such as public health, optometry, and veterinary medicine, could also be considered as a vehicle for interdisciplinary mentorship. Another area for future research would be to look at gender differences in URM students in the way they navigate their health science trajectory. Future research in this area can also be focused on women in the health sciences. The American Association of Medical Colleges has a national subgroup called Group on Women in Medical Sciences (GWIMS) whose sole purpose is to create more advancement opportunities for women in medicine. I believe that groups such as this are critical to ensuring the retention of

Latino/a faculty in health sciences. Lastly, future research examining these issues in the LGBT student and faculty populations in the health professions would prove to be a valuable contribution to the discourse.

Recommendations for Practice

Recruitment efforts must include retention programs. The following are several thoughts on how health science institutions could improve efforts to retain valuable URM faculty. First and foremost, health science colleges and universities must address campus climate issues, such as microaggressions, racism and social belonging, in order to ensure that the institution has an environment in which students and faculty of color can experience academic and professional success. Faculty of color often carry the burden to serve on many committees and/or task forces that can detract from their research, teaching or clinical practice. Leadership must consider ways to create parity in leadership opportunities for URM faculty in order to lighten this burden. Leveling the playing field and creating equitable opportunities for faculty of color to serve in leadership roles will allow space for mentorship, pursuit of other research interests and other activities. These changes will provide an incentive for them to remain at the institution.

Safe spaces must be created on campuses for students and faculty of color so that they can engage and foster informal and formal mentorship. Both students and faculty of color should be invited to sit at the same table for policy discussions and decision-making at the leadership level of institutions. Health science programs must create opportunities for URM students to have early teaching opportunities to foster academic teaching early on in their health science curriculum. Lastly, educators in the health sciences need to acknowledge the community cultural wealth that URM students bring to the health sciences.

Another recommendation is for existing faculty of color to make a concerted effort to demystify the myths of work/life balance. Many students have a very skewed perception of what it means to be a faculty member at a health science institution. I believe that more faculty should approach mentorship like Pili and seek out trainees to develop, nurture and groom to one day take their place. Succession planning is a process by which key people are identified and developed to fill certain key roles in an organization. While this process is mostly utilized in corporate settings as opposed to the academy, more faculty of color should be thinking about who is best suited to replace them when they retire.

Mentorship is crucial and imperative, and I would argue that now more than ever mentorship needs to happen across disciplines. During the focus group I bore witness to interdisciplinary mentorship between faculty and students that validated the desire to give and receive mentorship.

The President's Task Force on Faculty Diversity (2006) offered the following recommendations for increasing faculty diversity in the health sciences:

A. Leadership: Strong leadership is critical to creating a campus climate that fosters equal opportunity and diversity
B. Academic Planning: Diversity will not thrive unless it is incorporated into academic planning at ever level
C. Resource Allocation and Faculty Rewards: Resource awards are essential to influence faculty and departmental behavior and demonstrate commitment to diversity and equal opportunity.
D. Faculty Recruitment and Retention: Campuses can do more to promote faculty diversity through recruitment, hiring and retention practices

E. Accountability: Increased accountability at the campus, division and department levels is a key component in increasing faculty diversity (University of California President's Task Force on Faculty Diversity, 2006).

Based on this study's findings, the most important of these recommendations are leadership, faculty recruitment/retention, and accountability. Several of the participants mentioned these components in their recommendations. I would argue that the most practical action institutions can take to retain diverse faculty is to consider additional methods for acknowledging the strengths and assets that faculty of color bring with them to the health sciences.

Recommendations for Policy

According to Trevino et al. (1993), "deliberate policy decisions and a concerted national effort to recruit and train minority students in the health professions has resulted in a significant increase in the number of minority health professionals" (p. 583). Policy measures to increasing financial support (such as scholarships or fellowships) for Latino/a students pursuing health professions and science education and increasing efforts to develop Latino/a faculty is critical. On an institutional level, efforts can be made to advance URM faculty to tenure positions in a more purposeful and intentional way. Recruitment efforts must include a wide and diverse candidate pool for faculty appointments. Search committees should have student input and engagement. Both students and faculty of color should be invited to contribute to policy discussions and decision-making.

Fry (2002) offers that new policy initiatives should go hand in hand with new research because we still have a lot to learn about Latino/as in post secondary and higher education. He argues that because of the decentralized nature of colleges and universities, the

"one size-fits-all" approach to academic policies that affect Latino/a students are ineffective and counterproductive.

Health science institutions should be required to offer foreign language electives so that students can study second languages that are common to the region with an emphasis on medical terminology. If students are interested in practicing in an underserved area or with an underserved population, then they should be offered the opportunity to attain linguistic competency in the language of their patients.

Conclusion

This study was truly the highlight of my doctoral journey. As I reflect on my own academic journey, I am reminded of how much my own story mirrors the participants' stories. I saw a bit of myself in every participant. Their stories represent my own story. My participants all became a part of my extended family and are now an integral part of my own community cultural wealth. I have learned invaluable lessons from our journey together. Our stories and voices are needed in the literature, and I feel blessed to have been entrusted with these personal accounts and lived experiences. I am inspired beyond measure by their courage, strength, perseverance, and heart. This inspiration informs how I do my work as an administrator supporting students who are aspiring to become health care providers.

This study contributes to the academic knowledge on how we think about recruitment and retention of Latino/a students in the health sciences. Given the small sample size, this study merely scratches the surface of a growing population of health care professionals. The intent of this study was not for these six people to represent an entire community, but rather to offer a glimpse into the experiences and lives of six remarkable individuals changing the face of the academy and health professions.

Yosso's (2006) concept of community cultural wealth provided a different lens through which to look at diversifying the health sciences. It is important to understand that while these are the counter stories of six individuals, their voices often represent many other untold stories. I am forever grateful to Ernesto, Natalie, Daniel, Esteban, Pili and Manuel for sharing a piece of their heart and soul with me. Finally, it is with an extremely happy heart that I share the following quote that Ernesto read to me at the end of our interview. This quote very nicely sums up this entire experience for me, for my participants and many other URM students like us in the health sciences.

> …Some say that Happiness is not Good for mortals & they ought to be answered that Sorrow is not fit for Immortals & is utterly useless to any one a blight never does good to a tree & if a blight kill not a tree but it still bear fruit let none say that the fruit was in consequence of the blight. (Blake, 1965, p. 737)

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APPENDIX A

INFORMED CONSENT FORM

CONSENT TO BE A PARTICIPANT
Below is a description of the research procedures and an explanation of your rights as a research participant. You should read this information carefully. If you agree to participate, you will sign in the space provided to indicate that you have read and understand the information on this consent form. You are entitled to and will receive a copy of this form.

You have been asked to participate in a research study conducted by Mijiza M. Sanchez, a graduate student in the Department of International and Multicultural Education at the University of San Francisco (USF). The faculty supervisor for this study is Dr. Susan Katz, a professor and chair in the Department of International and Multicultural Education at the USF.

PURPOSE AND BACKGROUND:
The purpose of this research study is to investigate the lived experiences of Latino/as in health science programs in the University of California system. The aim of this research is not only to understand the challenges and triumphs, but also to create pathways for more Latino/as to enter faculty track positions in the health sciences.

PROCEDURES:
If you agree to be a participant in this study, the following will happen:

1. You will meet a total once with the researcher to participate in a 60 minute interview.
2. You will meet once to participate in a 60-90 minute focus group to reflect on the data collection as a group.

DURATION AND LOCATION OF THE STUDY:
Your participation in this study will involve minimal time commitment. You will be expected to meet with the researcher twice. The researcher will meet once in February for a face-to-face interview (determined by participants). The focus group will occur in April (location determined by participants), will last no more than 90 minutes. All meetings will be video/audio recorded and transcribed by the Primary Investigator. The recordings will be stored on a personal computer for five years.

POTENTIAL RISKS AND DISCOMFORTS:
I do not anticipate any risks or discomforts to you from participating in this research. If you

wish, you may choose to withdraw your consent and discontinue your participation at any time during the study without penalty.

BENEFITS:
The possible benefits to you of participating in this study are emotional support and collaboration with colleagues, and a safe space to reflect on your experiences and to share your story. The research will benefit others as well. I imagine students and faculty will benefit from your participation in the study due to the possibility of mentorship among participants. The research will contribute to the construction of knowledge that may become a foundation for additional research, policy changes in recruitment or retention practices of URM students and faculty and possible curriculum reform. And finally, the researcher in collaboration with the participants will identify an action that may contribute to improving the experiences of Latino/a students, faculty and overall campus life, on health science campuses in California.

PRIVACY/CONFIDENTIALITY:
Because you will not be providing any information that can uniquely identify you (such as your name or institution), the data you provide will be anonymous.

COMPENSATION/PAYMENT FOR PARTICIPATION:
There is no payment or other form of compensation for your participation in this study.

VOLUNTARY NATURE OF THE STUDY:
Your participation is voluntary and you may refuse to participate without penalty or loss of benefits. Furthermore, you may skip any questions or tasks that make you uncomfortable and may discontinue your participation at any time. In addition, the researcher has the right to withdraw you from participation in the study at any time.

QUESTIONS:
Please ask any questions you have now. If you have questions later, you should contact the principal investigator: Mijiza M. Sanchez at [redacted]. If you have questions or concerns about your rights as a participant in this study, you may contact the contact the IRBPHS, which is concerned with protection of volunteers in research projects. You may reach the IRBPHS office by calling (415) 422-6091 and leaving a voicemail message, by e-mailing IRBPHS@usfca.edu, or by writing to the IRBPHS, Department of Psychology, University of San Francisco, 2130 Fulton Street, San Francisco, CA 94117-1080.

I HAVE READ THE ABOVE INFORMATION. ANY QUESTIONS I HAVE ASKED HAVE BEEN ANSWERED. I AGREE TO PARTICIPATE IN THIS RESEARCH PROJECT AND TO BEING RECORDED. I WILL RECEIVE A COPY OF THIS CONSENT FORM.

PARTICIPANT'S SIGNATURE *DATE*

APPENDIX B

Demographic Survey

Latino/as in Health Sciences Demographic Survey

***1. Do you identify as Latino/a or Hispanic?**

- Yes
- No

Other (please specify)

***2. What is your nationality/ethnicity?**

- Mexican
- Mexican-American
- Chicano
- Puerto Rican
- Cuban
- Cuban-American
- Central American
- Dominican
- South American

Other (please specify)

***3. What is your country of origin?**

4. Are you a student/postdoc/resident/fellow?

- ○ Yes
- ○ No

Other (please specify)

5. If you are a student, please state what program in which you are currently enrolled.

6. Are you a faculty member?

- ○ Yes
- ○ No

7. If you are a faculty member, please state what program and department in which you are affiliated.

8. For faculty members: Are you junior, adjunct or tenured?

- ○ Junior
- ○ Adjunct
- ○ Tenured

Other (please specify)

***9. What was the primary language spoken in your childhood home? (Please choose only one.)**

- ○ English
- ○ Spanish

Other (please specify)

***10. What language do you mainly speak at home?**

- ○ English
- ○ Spanish

Other (please specify)

Done

APPENDIX C

Interview Questions

a. Tell me about your family.

b. Can you share with me what your educational experiences were like growing up?

b. Tell me about what role language played in your education (primary, secondary and undergraduate).

c. Tell me about why you decided to enter the health profession.

d. Can you describe what your overall experiences have been thus far in your graduate education (students)/ profession in academia (faculty)?

e. What factors do you think have contributed to your success in health sciences thus far?

f. (For faculty) At what point in your career did you consider a teaching?

i. (For students) Have you ever considered an academic career? (Why or why not?)

f. Who were/are your mentors?

g. What advice would you give your undergraduate self?

h. What are you most proud of?

i. What recommendations can you give for institutions of higher education to retain URM students and faculty in the health sciences?

j. What do you think institutions do well to create inclusive environments for URM students?

k. How do you think/feel your experience differs from the dominant discourse on Latino/as in higher education?

UNIVERSITY OF SAN FRANCISCO
CHANGE THE WORLD FROM HERE

APPENDIX D

Focus Group
Agenda

Wednesday, May 28th 5:30-7:30pm
Room RH318B

Dissertation title: Exploring the Experiences of Latina/os in Graduate Health Science Programs: A Qualitative Study

Welcome & Introductions	*All*
Presentation	*Mijiza*
Overview of the research problem	
Research Questions	
Data Analysis & Preliminary Findings	
Request for Feedback	*All*
Group Exercise	*All*
Gratitude	*All*
Wrap-up/Closing	*Mijiza*

¡Gracias!

APPENDIX E

UNIVERSITY OF SAN FRANCISCO

Exploring the Experiences of Latina/os in Graduate Health Science Programs: A Qualitative Study Focus Group

Mijiza M. Sanchez, MPA, EdD (c)
School of Education
International & Multicultural Education
May 28, 2014
UCSF Mission Bay Rock Hall

Agenda

- Welcome & Introductions
- Overview of The Research Problem
- Research Questions
- Data Analysis & Preliminary Findings
- Request for Feedback
- Exercise
- Gratitude
- Wrap up

Overview of The Research Problem

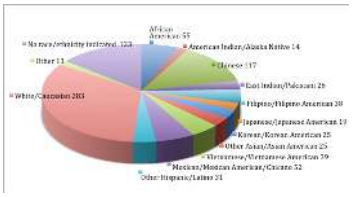
- There are too few Latina/o tenured faculty in the health sciences
- More effort needs to be placed on retention rather than recruitment in the health sciences
- Educational pipeline must extend beyond K-12
- A campus climate of inclusion is imperative for retention both for faculty and students
- The health professions needs to reflect the population they serve

Overview of the Research Problem continued…

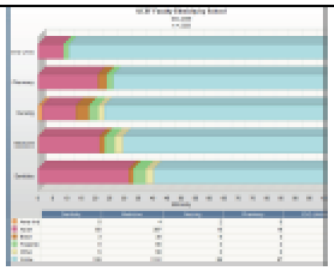
"We can't have 33% of the population who are Latino, and less than 5% of physicians who are Latino. It's beyond language issues… Just as 50 years ago, there were very few women in medicine. Now, women like the fact that they can go to women doctors."

– Dr. Eliseo Pérez-Stable

UCSF 2012 Racial/Ethnic Breakdown



UCSF Faculty Ethnicity by School

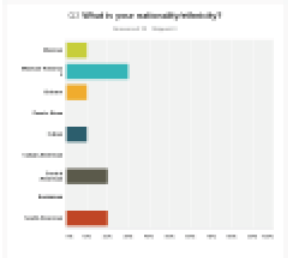


Research Questions

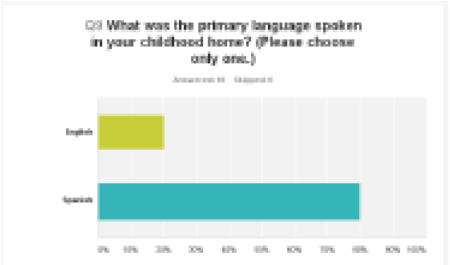
- How do Latino/as navigate their health science academic trajectory?
- What factors contribute to Latino/as decision to enter health professions?
- How do Latino/a students and faculty describe their overall experiences in academia?

Overview Research Design

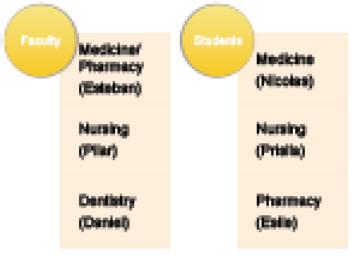
Demographics



Demographics



Participants



Commonalities

- 3/6 of you went to Stanford
- 2 of you went to California State schools
- 4/6 of you played sports (Basketball, Wrestling, Lacrosse & Football)
- Between the 6 of you – you speak English, Spanish, and Cantonese
- 4 of you were born in the US, 1 in Central America & 1 in South America

Preliminary findings/themes

Themes:

- Participation in sports played a critical positive role in academic success
- All it took was one person to have a powerful influence on motivation to pursue a career in the health sciences
- The challenge of balancing personal life as an impeding factor to entering academia
- Mentorship is paramount in all areas of the health sciences for faculty and for students

Themes

Discussion

- Comments/questions/suggestions???
- Am I on the right track?
- What am I missing?
- What would make this study stronger?
- What would you like to see happen with this data/ study?

Small Group Exercise

Students:

What is the biggest factor that keeps you from pursuing faculty or academic position?

Faculty:

What are some encouraging words that you would offer students to consider pursing a faculty position?

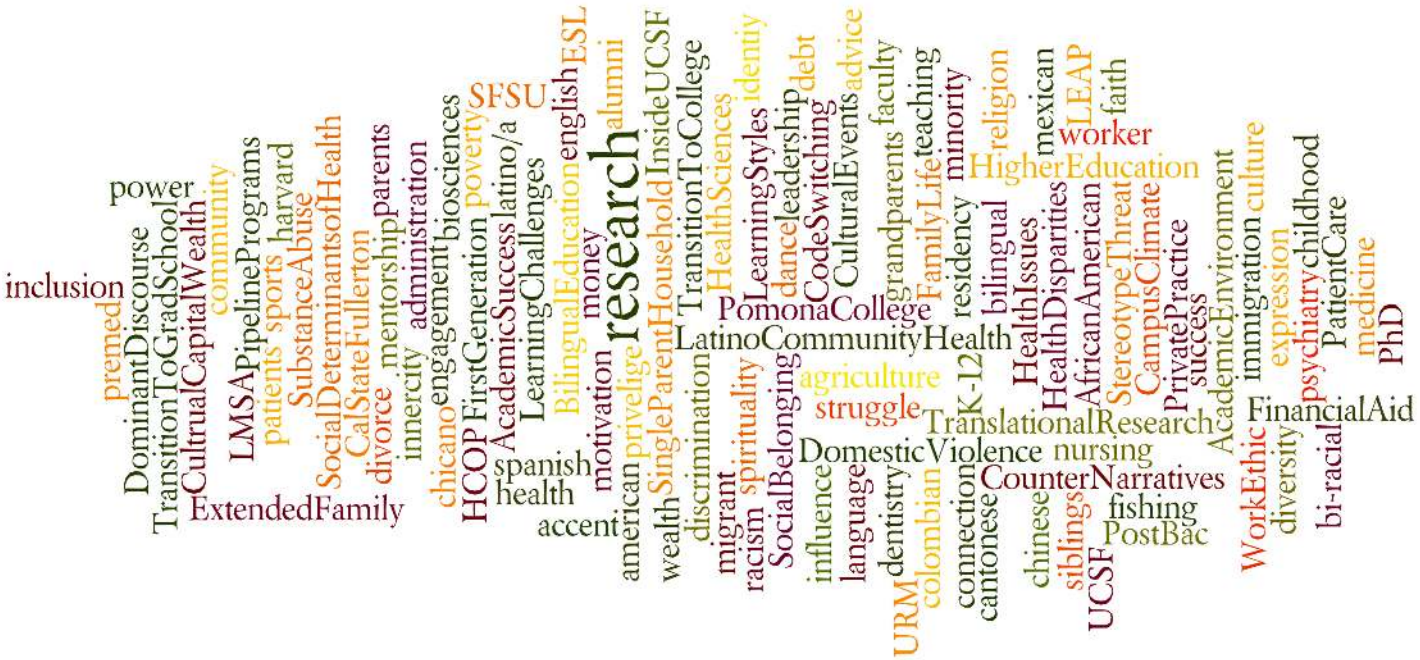
Next steps…

- More data analysis (insert your feedback)…
- Complete chapters 4 & 5 (Findings/Implications/ conclusion)
- Final dissertation defense in September (date TBD)
- Commencement December 12, 2014
- Graduation Celebration 12/13/14 (Location TBD)

Gratitude: grat·i·tude [grat-i-tood, -tyood]
noun
the quality or feeling of being grateful or thankful:

¡Gracias!

APPENDIX F


research
inclusion
power
premed
DominantDiscourse
TransitionToGradSchool
CulturalCapitalWealth
ExtendedFamily
community
LMSAPipelinePrograms
patients
sports
harvard
SubstanceAbuse
SocialDeterminantsofHealth
CalStateFullerton
divorce
mentorship
parents
innercity
administration
chicano
engagement
biosciences
HCOP
FirstGeneration
poverty
SFSU
AcademicSuccess
latino/a
LearningChallenges
spanish
health
accent
BilingualEducation
english
ESL
money
motivation
alumni
american
privelige
wealth
SingleParentHousehold
InsideUCSF
discrimination
TransitionToCollege
migrant
HealthSciences
racism
spirituality
LearningStyles
identity
SocialBelonging
danceleadership
debt
influence
CodeSwitching
language
CulturalEvents
advice
URM
dentistry
grandparents
faculty
colombian
FamilyLife
teaching
connection
cantonese
residency
minority
K-12
PomonaCollege
LatinoCommunityHealth
agriculture
struggle
bilingual
religion
HigherEducation
TranslationalResearch
DomesticViolence
nursing
HealthIssues
HealthDisparities
mexican
worker
LEAP
AfricanAmerican
faith
chinese
siblings
UCSF
CounterNarratives
fishing
PostBac
StereotypeThreat
CampusClimate
PrivatePractice
success
AcademicEnvironment
immigration
culture
WorkEthic
diversity
expression
psychiatry
childhood
bi-racial
FinancialAid
PatientCare
medicine
PhD