

AN INVESTIGATION OF PARAMEDICAL VOCATIONAL INTEREST AND CHOICE  
FOR MEN OF COLOR IN TEXAS COMMUNITY COLLEGES

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Although the recent annual growth rate in the US paramedic field has been 4%, Latino and African American men have been significantly underrepresented in the field compared to their proportion in the US population at large. This problem threatens both the quality and quantity of available emergency health care. The purpose of this study was to describe how men of color (MOC) in community college paramedical programs experienced their awareness, interest, and proactive choice of paramedicine as a course of study. Using a qualitative phenomenological approach and social cognitive career theory as a theoretical framework, I interviewed 23 MOC enrolled during one semester across three community college paramedical programs in the southwestern US: 9 Latino and 14 African American, aged 18-29 with mean age 22 years. The focus of the interviews was the participants' lived experiences at various career points, as well as the enablers and disablers they had encountered. I identified three primary themes for possible use in enhancing recruitment of MOC to the paramedic field: strategic use of new digital media, promotion of the vocation's quasi-familial characteristics, and augmentation of neighborhood-based outreach. Identified areas for further research included recruitment dynamics of female paramedics, MOC persistence issues, and MOC job satisfaction assessments.

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## CHAPTER 1

### INTRODUCTION

Paramedicine is a growing and critical component of the American health care delivery system (EMS Report, 2008). Correspondingly, men of color (MOC) in community college programs represent a valuable source of health care workers for this expanding career field. The importance of accessing this population is heightened by the literature's growing evidence that ethnic and race-concordant medical practices improve medical outcomes (Hamilton & Marco, 2003; Helm, Grabarek, & Reveal, 2002; Saha, Komaromy, Koespell, & Bindman 1999; Selassie, McCarthy & Pickelsimer, 2003; Sullivan Commission, 2004). Thus, participation from MOC is required not only to meet growing demographic demand, but to also improve overall service quality in emergency medical services (EMS).

Paramedics are regularly called upon to quickly assess a wide variety of potentially complicated diagnoses, and unlike other health care professionals, work with limited access to a second opinion. A few of these conditions include difficulties with airway/respiration, pharmacology, severe trauma, cardiology, obstetrics, geriatrics, pain management, and pediatrics (Grange, 2015). These conditions are often treated in high-stress environments where patients, as well as families, require reassurance, thus the paramedics skillsets must encompass more than just medical training. This palliative influence cannot be underestimated because traumatized victims often require calm professionals to help decrease their mortality – a phenomenon well known to military medics (Regehr, Goldberg, & Hughes, 2002). The job's high-stress nature is well documented in findings that show paramedics twice as likely as the general population to suffer from post-traumatic stress disorder (Goldberg & Hughes, 2002). Additionally, as health care workers that frequently treat poor and underserved communities, paramedics represent an

important psychosocial point-of-contact for many underprivileged patients interacting with the medical profession (EMS Report, 2008).

### Statement of the Problem

There is a need to improve our understanding of how MOC experientially gain paramedical awareness, interest, and proactive commitment to its course of study. MOC underrepresent the paramedical vocation when compared to the U.S. population, at large, however insufficient information is available to provide policy-based remediation (Brown, Dickison, Misselbeck, & Levine, 2002; U.S. Census, 2013). Extant literature that can help guide community college policy is extremely limited (EMS Report, 2008). In order to improve our understanding, this study provides experiential descriptions of the Latinos and African American men who are pursuing paramedical careers.

From a societal perspective, this MOC underrepresentation presents three main vulnerabilities. First, a consistent lack of demographic concordance between EMTs and their patients makes it more difficult to strengthen community relationships (Smedley, Butler, & Bristow, 2004). These community relationships are critical to the evolving nature of EMS in areas such as preventative medicine, health monitoring, accident awareness/avoidance, and coordination with police and firefighting services (NHTSA, 2000a). Concordantly, these types of holistic health care deliveries benefit from community involvement and reciprocal amity, a situation that is weakened by a lack of provider/patient concordance (Grabarek & Reveal, 2002).

Second, patient satisfaction can be negatively impacted when the medical providers consistently fail to reflect their backgrounds and life experiences (Hamilton & Marco, 2003; Helm, Grabarek, & Reveal, 2002; LaVeist & Nuru-Jeter, 2002; Saha et al., 1999). This

satisfaction is important because the perception gained by patients about the quality of their health care greatly affects their relationship with future medical professionals (LaVeist & Nuru-Jeter, 2002). Satisfaction aside, actual health care outcomes can also be degraded when there is a lack of racial and ethnic-specific understanding on the part of service providers (Hamilton & Marco, 2003). Lack of knowledge regarding how different African American and Latina/o populations relate to the medical profession can threaten nutritional recommendations, medications taken, perceptions of authoritative medical information, and lifestyle choices. From all of these factors, misperceptions can grow and promote negative health care outcomes (Gardenshire-Crooks, Collado, Martin, & Castro, 2010).

Finally, from a community college perspective, in order to supply enough health care workers who are capable of handling the increasingly older U.S. population, wider participation from MOC – and Women of Color – will be required (EMS Report, 2008; Russ-Eft, Dickison, & Levine, 2008). To meet the demand for ambulatory services, which are growing at approximately 10 million visits per year, more EMTs will be required to maintain existing service levels (Centers for Disease Control, 2013). Patients have come to expect that EMT services will be available. This demand has culminated in 20% of U.S. adults (excluding children) reporting at least one emergency room visit in the last year, with 16% of that 20% arriving via ambulance (CDC, 2013). Thus, from a purely medical services perspective – as well as a public safety perspective – EMTs are becoming an ever-increasing source of health care delivery. Through this growth, MOC represent a valuable source of talent that community colleges could empower and deploy.

### Purpose of the Study

The purpose of this study was to describe how MOC in community college paramedical

programs experienced awareness, interest, and proactive choice of paramedicine as a course of study. To achieve this, I utilized a qualitative phenomenological approach to access their lived experiences in regards to these vocational factors. My research focused on examining the idiocentric experiences of MOC in paramedical programs and what meanings they ascribed to the guiding elements of their vocational pathways. Through this study's elaboration of their phenomenological experiences, community colleges will have better information with which to improve their recruitment of Latinos and African American men into paramedicine. Additionally, an improved understanding of career choice-making dynamics serves the purposes of other vocational choice researchers anent MOC and their involvement in emergency medicine.

### Theoretical Framework

The theoretical framework that supported the study was Lent, Brown, and Hackett's social cognitive career theory (SCCT) (1994; 2000). It was selected due to its heuristic focus on the relevant phenomenological factors that contribute to career-seeker behavior. This process, which ultimately results in the selection of an occupation, provided a framework through which to examine and cluster the study data. In regards to its applicability to MOC research, the model's iterative descriptions of vocational self-efficacy and outcome expectations were perceived as a strength. This characteristic of the framework enabled me to examine the associated study phenomena within the context of broader integrated elements (e.g., background affordances, distal influences, proximal influences), and the correlated reciprocal components as well (e.g., self-efficacy, outcome expectations, interests, choices).

The extant literature's repeated emphasis on the importance of internal psychological attributes within MOC populations also contributed to the selection of the SCCT framework

(Harper, 2006; Harris III & Wood, 2013; Rendón, 1994; 2002). In these studies, the importance of self-confidence and the ability to effectuate desired outcomes is key to their academic and vocational success. The iterative and reciprocal elements of the model, in relation to these factors, and its ancillary ability to incorporate distal and proximal influences into the vocation-seeking heuristic were highly useful. Thus, these interactive relationships provided a basis for understanding the participants' phenomenological perceptions and described behaviors anent their vocational awareness, interest, and proactive choices.

### Research Questions

This study focused on identifying and studying the various experiential factors that caused MOC to express an awareness, interest, and corresponding choice of paramedicine as a course of study. Due to the significant underrepresentation of African American men and Latinos in paramedicine, special emphasis was placed on the descriptions they provided of the experiences that led to their successful entry into a community college paramedical program. As appropriate, exploration of these experiences included, but was not limited to, economic, racial, ethnic, language, cultural, mentor-related, and familial factors. Thus, the research questions were:

1. How do men of color (MOC) in community colleges define and make meaning of their initial awareness and interest in paramedicine as a potential career choice?
2. How do MOC in community colleges define and make meaning of their active choice of paramedicine as a course of study?

My motivation for the first research question of attraction and interest was grounded in the particular MOC psychosocial environments that were capable of engendering EMS awareness and attraction. These exploratory factors, which included mentorship, internship

opportunities, media, peers, family, and entertainment merited closer examination due to their study relevance.

My complement to the first research question, one which was reciprocally linked to vocational affinity, involved identifying the factors that led to a proactive choice of paramedicine as a course of study. This reciprocity essentially created the second research question through specific exploration of active choice as described by social cognitive career theory [SCCT] (Lent, Brown, & Hackett, 1994; 2000). Psychologically, the extant literature supported the distinctness of awareness and interest versus active selection, with each having differently induced qualities (Lent, Brown, & Hackett, 2000). Thus, a selectively combined, and separate, qualitative treatment elicited strong potential for an improved holistic understanding of the vocational pathway experience.

### Research Design

The phenomenological research design that was selected reflected the object of the research purpose and the nature of the qualitative perceptions and meanings that were sought. The research purpose also partially dictated the choice of the theoretical framework, the recruitment methodology, the subsequent data collection, and the concordant clustering of meanings.

In this study, capturing the idiocentric views and perspectives of the participants was paramount. A desire to enable an understanding of the men's lived experiences and their holistic interpretations drove the research design in order to enhance an understanding of their constructed meanings within paramedical contexts (Creswell, 2007 & Merriam, 2009). Concordantly, I wished to give study participants a "voice" that spoke to their experiences and

perspectives that qualitative methodologies could more easily access. In order to provide that “voice,” I wanted to effectively capture and cluster those MOC-constructed meanings as they discovered, became interested in, and chose paramedicine as a course of study.

Using SCCT as a guiding framework through which to examine and cluster the men’s pathway experiences, greater understanding was sought anent the motivators and de-motivators that they encountered. Hence, through a qualitative heuristic, the collection of individual MOC perspectives and the rich constructivist meanings they engendered was paramount. Through this iterative clustering of their first-person perspectives, a robust collection and classification of their narratives, and metanarratives, was then used to advance a deeper understanding of their experience (Merriam, 2009).

Through my individual interviewing of 23 Latino and African American male students across three community colleges, coverage of their particular perspectives was elicited. By acting as a passive non-biased agent who collected their qualitative experiences, an effective phenomenological research methodology was effected. This process was selected because it was capable of capturing the relevant details about their vocational pathways – as they experienced them – and how these perceptions affected their thoughts and actions.

### Participation Requirements

The requirements to participate in the study were: 1) the student identified as male; 2) the student identified as Latino or African American; and 3) the student was currently enrolled in one of the study’s community college paramedical programs. To participate, all three conditions had to be met. Additionally, in keeping with Lent, Brown, and Hackett’s (2004) lack of distinction between selecting a career, and selecting the related course of study, focus was placed

on participants as they chose the course of study – regardless of their ultimate career plans. This was done because initial participant perceptions of paramedicine could greatly affect their final career choices.

### Significance of the Study

Although much of the extant literature on community colleges addressed the students' institutional experiences and their related efficacious or inefficacious outcomes, much remains unknown about vocational attraction and choice (Bailey, Jenkins, & Leinbach, 2005; Cohen, Brawer, & Kisker, 2014; Dougherty & Townsend, 2006; Laanan, 2003; Townsend, 2008). Concordantly, EMS-specific information about the psychological and sociological forces that shape entry into specific careers is likewise relatively unknown (EMS Report, 2008). Extending this lacuna to MOC, although many Latinos and African American men have experienced vocational underrepresentation in EMS, limited research exists to improve demographic concordance. In spite of community college efforts to diversify their emergency medical programs, little progress has been made (Sullivan Commission, 2004).

Due to this deficiency, this study represented a valuable contribution to the *corpus opus* of what experiences and inherent perceptions motivated MOC in community colleges to discover, learn, and ultimately choose paramedicine as a course of study. Grounded in community college environments, it was situated within the institutions that they frequented most in order to examine their relevant motivations. The importance of centering the work in community colleges – for MOC specifically – was highlighted in a 2010 National Center for Public Policy and Higher Education report (Kuh, et al., 2011). In this study, it was revealed that 28% of White male students began their post-secondary education in community colleges. In



contrast, 50% of Latinos and nearly 33% of African American men began there. Thus, examining their community college paramedical experiences provided valuable insights into the opportunities and challenges that they encountered.

Another strength of the study involved its focus on the particular environments and experiences commonly shared by Latino and African American males. Since many of them sourced from low-income environments, and lacked parents with college degrees, they often had similar early life experiences (Kuh, et al., 2011). The relevance of these low-income environments was demonstrated through 44% of low-income students, and 38% of all students, beginning in community colleges (when either group lacked a college-educated parent) (Bers, 2005; Cox, 2016; Harris III & Wood, 2013). In contrast, among high-income students, or those who had at least one college-educated parent, only 15% and 20%, respectively, began in community colleges (Harris III & Wood, 2013). Potential access to low-income students who lacked these parental college backgrounds afforded the study important insights into these common MOC environments.

To help advance community college policy development, this study was designed to improve understanding anent the elements that influenced MOC awareness, interest, and active choice of paramedicine as a course of study. Community college administrators need high-quality information in these areas to effect meaningful recruitment reforms. These reforms, frequently focused on improving program diversity, are a key to widening participation. An improved understanding of the hindrances and enablements that MOC regularly experience would help address this problem (Betz & Hackett, 1986).

In addition to paramedical programs, vocational psychologists could also benefit from this study's direct application of SCCT within a specific industry. Through acquisition of this

career-specific knowledge, SCCT's applicability – or lack thereof – would serve to improve contextualization of existing theoretical frameworks. The current paucity of vocation and race-specific models has frequently been caused by the wide swathe of different occupations and the difficulty of distinguishing their characteristics within specific groups (Leung, 2008). This study afforded an opportunity to improve knowledge in a rapidly growing vocation such as paramedicine, and the likewise expanding Latino and African American male demography. Ongoing researchers who focus on other allied health fields would benefit from this knowledge by highlighting potential commonalities, and differences, that could likewise inform their work.

Finally, from a social justice perspective, a lack of ethnic and racial concordance in medicine has been considered socially caustic (Hamilton & Marco, 2003). If patients fail to see professionals of similar cultural and experiential backgrounds, a “social distance” can be created that is capable of perpetuating undesirable health outcomes (Hamilton & Marco, 2003; Helm, Grabarek, & Reveal, 2002; LaVeist & Nuru-Jeter, 2002; Saha et al., 1999). An improved understanding of how to achieve greater participation from MOC would have societal as well as individual benefits. A dispositive tendency on the part of some medical occupations to dismiss these social justice implications should be resisted to avoid compromising patient care (Hamilton & Marco, 2003). Through blatant underrepresentation, deficient societal misperceptions can be fostered regarding underrepresented groups (Helm, Grabarek, & Reveal, 2002). It is through these vocational and cognitive misperceptions that more social harm can occur than solely at the individual patient service level. Although, long term, they are inextricably linked (LaVeist & Nuru-Jeter, 2002).

## Limitations and Delimitations of the Study

### Limitations

My study had a strong survivor bias. Individuals who had never enrolled, or had previously dropped out, were unavailable for interviews or observations. Self-selection bias was present during recruitment because all the participants were volunteers. Any men who refused to participate – to the extent that their experiences could have enriched the study – did not contribute their perspectives. Understanding the experiences of these different individuals could have improved my understanding of the experienced phenomena.

Due to the age and background variability of the men who participated in this study, some were recalling experiences that were relatively recent, while others quite long ago. Their abilities to accurately describe these experiences and reflect on their feelings about them could have been affected by the amount of time that had elapsed. While some were recalling mentors and school environments from just a few years ago, some were remembering them from over a decade ago. The effect of remembering across variable lengths of time, with clarity, is unclear. How these life-related remembrances and perceptions were affected was an accepted study limitation.

### Delimitations

The study was strictly androcentric with no significant gynocentric factors considered. Although I encountered female paramedical students, their experiences were not captured. Having these women's perspectives may have further contextualized the men's experiences. Also, issues of sexual identity were excluded from the study. In this regard, the participants were only required to identify as male.

Geographic and institutional limitations were present, since all the participating students came from Texas community colleges. The geographic areas I chose encompassed Northern Texas and South Central Texas. Wanting to focus my study at the community college level also meant that no private technical schools were considered. Since they train many less paramedics than community colleges, they were excluded from the study.

Wishing to focus exclusively on men who identified as Latino or African American, I did not incorporate any mixed race variabilities and freely allowed participants to self-identify. The potentially distortive effects of this decision were not completely understood as self-identity protocols can vary greatly by individual (Rockquemore & Brunσμα, 2002). Segregating those men who identified concurrently as Latino and African American, and studying them separately, may have produced different experiences.

Since I was the sole researcher in this study, I alone coded all the data. Since I did not have a research team to confer with and exchange ideas about the phenomena encountered, the study lacked “on-ground” researcher diversity. Although I utilized member checking and peer review, trustworthiness and credibility might have been improved with a team of diverse investigators who concurrently reviewed the data.

#### Definition of Key Terms

- African American - A person having origins in any of the Black racial groups of Africa. It includes people who indicate their race as "Black, African American, or Negro," or indicate heritage such as African American, Afro American, Kenyan, Nigerian, or Haitian.
- Asian – A person having origins in a panethnic group that includes diverse populations, which have ancestral origins in East Asia, Southeast Asia, or South Asia

- Emergency responders (emergency care assistants, ECAs) are trained to provide basic emergency medical care because they tend to be the first people to arrive at the scene of an accident or medical incident. Many firefighters, police officers, ski patrol, and other emergency workers have this level of training.

- EMS (emergency medical services) – More expansive definition of what EMTs provide in the overall pre-hospital environments found on site, in transit, and upon immediate arrival at a medical facility.

- EMT (emergency medical technician) – A specially trained medical technician certified to provide basic through advanced emergency services onsite, in-transit, and in select hospital environments.

- EMT-Basic – EMT-B certification represents the first component of the emergency medical technician system. An EMT is trained to care for patients at the scene of an accident/health event and while ambulating patients to the hospital under medical direction. An EMT has the emergency skills to assess a patient's condition and manage respiratory, cardiac and trauma emergencies.

- EMT-Intermediate – EMT-I certification has additional advanced training that allows the administration of intravenous fluids, the use of manual defibrillators to give lifesaving shocks to a stopped heart and the application of advanced airway techniques and equipment to assist patients experiencing respiratory emergencies.

- EMT-Paramedic certification provides the most extensive prehospital care. Paramedics usually graduate from a community college and earn an associate's degree. In addition to carrying out all of the procedures for the other EMT designations, paramedics may

administer drugs orally and intravenously, interpret electrocardiograms (EKGs), perform endotracheal intubations and use monitors and other complex equipment.

- Ethnicity – Category of people who identify with each other based on common language, ancestral, social, cultural, or national experiences.
- Hispanic – A person of Mexican, Puerto Rican, South or Central American, Cuban, or other Spanish culture or origin regardless of race.
- Latina/o – A person who was born or lives in South America, Central America, or Mexico or a person in the U.S. whose family is originally from South America, Central America, or Mexico. Latino denotes a male and Latina a female.
- Native American – Refers to a person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.
- NREMT, National Registry of Emergency Medical Technicians – the national governing body of emergency medicine that establishes and implements uniform requirements for emergency medical technicians (EMTs), their training, examination, and continuing education.
- Paramedicine – The totality of the roles and responsibilities of individuals trained and credentialed as EMS practitioners. These practitioners are subdivided into various levels of EMTs.
- Race – Use of race as utilized by the U.S. Census bureau and defined by the 1997 Office of Management and Budget (OMB) standards on race and ethnicity. They are socially – not biologically, anthropologically, or genetically defined – as White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific

Islander.

- White – A person having origins in any of the original peoples of Europe, the Middle East, or North Africa. It includes people who indicate their race as "White" or indicate heritage such as Irish, German, Italian, Lebanese, Near Easterner, Arab, or Polish.

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### Chapter Summary

Chapter 1 included: 1) introduction to paramedicine, 2) problem statement, 3) study's purpose, 4) study's theoretical framework, 5) research questions, 6) research design, 7) participation requirements, 8) study's significance, 9) limitations and delimitations, and 10) definition of key terms. This section concludes an introduction to community college paramedicine, and general study purposes and methodologies. Chapter 2 reviews the extant literature that is germane to student community college vocational choice models and the relevant research questions. Additionally, it introduces the study's theoretical framework (social cognitive career theory). Chapter 3 delineates the detailed research methodology and the applicable theoretical framework.

## CHAPTER 2

### REVIEW OF LITERATURE

#### Chapter Overview

This chapter presents a justification for the need to study the experiential descriptions of how men of color (MOC) acquire awareness, interest, and proactively choose paramedical studies. Many researchers in vocational choice psychology have contributed greatly to the field's body of understanding. As such, these studies have been primarily focused on the student's vocational awareness and individuated desires to actualize prospective careers. Both of these areas, combined with complementary college choice research, have advanced a general understanding of the personal choice factors, academic environments, familial considerations, and economic considerations that drive career decisionmaking (Bailey, Jenkins, & Leinbach, 2005). My study sought to expand knowledge in this area by specifically addressing the experiences of MOC in community college as they gained paramedical awareness, interest, and proactive commitment to course of study. In support of this goal, an exploration of the experiential endogenous meanings that MOC construct and apply was engaged to enhance understanding.

Organizationally, this chapter contains: 1) background of paramedicine; 2) role of community colleges in paramedicine; 3) EMS certifications; 4) role of MOC in paramedicine; 5) paramedical career attributes; 6) college choice relevance to community college paramedicine review of career choice research; 7) review of two dominant vocational trait and factor theories; 8) review of two dominant vocational developmental and constructivist theories; 9) vocational theory utilizing Bandura's social cognitive approach; 10) summary of theories; and 11) chapter summary. Along with the theories, consonant and dissonant studies that are relevant to MOC in



community college will also be elaborated. These studies are presented to help describe the environmental and psychosocial factors that MOC experience while navigating career pathways.

### Background of Paramedicine

Paramedicine originated in military organizations that contextualized the role of first responders within constricted ambulatory roles (Dennison, 2000). The goal was to transport victims as quickly as possible to physicians and nurses who could then provide primary care. Progressively, within and without military settings, more care was delivered onsite and during transport to reduce patient morbidity. However, the path to dislocating initial onsite medical treatment from hospital care did not begin in earnest until the 1960s (Bass, 2014).

As late as 1957, over half of emergency responders still worked as mortuary attendants and used hearses to take accident victims to the hospital through ancillary contracts (Barkley, 1978). Three important developments helped propel emergency medicine towards a larger role within the overall health care system, and a more formalized educational locus within community colleges. These three progressions: an enhanced understanding of pathophysiologies, the growing crisis in automobile-related casualties and deaths, and the establishment of the Department of Transportation (DoT), greatly contributed to the modern development of emergency medical services (EMS). All of them, tangibly or intangibly, made the pre-hospital environment more relevant to the medical profession, while also creating the seminal building blocks of current community college programs for paramedicine.

The first was an improved understanding of the various pathophysiologies (medical conditions and their assessments) encountered during emergency health situations (Eisenberg, 1997). This led to advances that would greatly reduce mortality rates. For example, in the early

1960s, cardiac arrest was particularly fatal with a low 1% survival rate (American Heart Association, 2000). In contrast, by 2015, the involvement of Emergency Medical Technicians (EMTs) had increased survivability to 12%, and the use of AEDs (automated external defibrillators) raised it further to 38% (Grange, 2015). Addressing this, and other cardiac conditions, the medical profession quickly designed a slate of new time-sensitive treatments for dysrhythmia (irregular heartbeat), angina (chest pain), and heart attacks that could effectively be treated onsite with pharmaceuticals, defibrillators, and other lifesaving procedures (Boyd, 1983).

The second development was the growing crisis in automobile-related casualties and deaths that was addressed by the National Academy of Sciences in 1966. Their white paper entitled *Accidental Death and Disability: The Neglected Disease of Modern Society* highlighted the need to address traffic-related deaths and disabilities – incidents that could be reduced or prevented through better pre-hospital care (Bass, 2014; Bledsoe, Porter, & Cherry, 2000). Surprisingly, this paper revealed that from birth to the age of 37, the highest cause of mortality was automobile accidents – a great impetus towards seatbelt regulations.

By quantifying the extent to which Americans were dying in automobile accidents – more than in the Korean and Vietnamese wars – numerous recommendations were addressed in regards to ambulatory services (Bledsoe, Porter, & Shade, 1997). Specifically addressed were minimum EMT training levels, improved hospital voice communications, better ambulance provisioning, and the promotion of state level policies that could help regulate EMS education (National Academy of Sciences, 1966). This strategic awareness of EMS' emerging role in public safety would formalize and disseminate knowledge anent its ability to save lives and contribute to overall community health.

The final development, which came in response to the aforementioned white paper, was

the establishment of the Department of Transportation (DoT). It was primarily created to address the aforementioned threat to public safety posed by automobile accidents via the passage of the National Highway Traffic Safety Act of 1966 (NHTSA, 1996). Through its formation, the DoT was legislatively authorized to improve EMS education through the development and implementation of general training standards and curricula. For the first time, states were empowered to establish regional councils that could begin administering nominal EMS standards.

These standards, more than other reforms, presaged the role that community colleges would eventually assume in paramedical education (Stoy & Margolis, 1998). Forming the curricular foundations that enabled EMS education, they established the modern practice of onsite and ambulatory medicine. Absent their active role in shaping paramedical training, the current status of emergency medicine would be much less formal (Bass, 2014).

Continuing this legislative formalization, in 1973, the federal government passed Title XII of the Public Health Service Act (Post, 1992). Better known as the Emergency Medical Services Systems Act of 1973, it funded the development of 304 EMS regions across the U.S., each one coordinated by a dedicated state office. This level of organization for EMS administration was unprecedented and greatly improved the design and delivery of emergency services throughout the nation (Boyd, 1983).

Correspondingly, as of 2014, the U.S. had approximately 17,000 ambulance services and 255,000 EMTs that serviced more than 122 million annual emergency room visits (NAEMT, 2014). Approximately 40% of EMTs work in private ambulance services, 30% in public ambulance services or fire departments, 10% in education/administration, and relatively unknown to the public, 20% practice in hospitals. These EMTs answer incoming ambulatory calls and administer medical handoffs to emergency room personnel (Grange, 2015).

Evolving and extending beyond emergency care and into community health maintenance, the role of EMTs has continued to evolve (NHTSA, 1996). Enhanced focus on flu shots, elderly health monitoring, and injury awareness/prevention has advanced the trend towards community health involvement. Their role in an overloaded medical infrastructure befits an increasing focus on emergency health prevention, versus solely reactive treatments (Strange, Chen, & DSanders, 1992). This proactive approach, as piloted in select communities, has proven particularly effective with the elderly. Since senior citizens are 4.4 times more likely to require emergency care, monitoring offers a significant preventative benefit (Eisenberg, 1997).

Monitoring this population with health assessments and pharmaceutical reviews acts as a buffer between emergency and non-emergency health care, while also improving outcomes. Combining these gerontological needs with the many uninsured and underinsured individuals who over-rely on emergency medicine, explains the vocation's 4% annual growth rate (Emergency Medical Technicians and Paramedics, 2006).

### Role of Community Colleges in Paramedicine

The role of community colleges is still evolving in the relatively nascent field of paramedicine. During the 1950s and early 60s, on-the-job training was common, with hospitals sometimes training their own emergency responders as required (Boyd, 1983). This training was generally rudimentary and consisted of little more than first aid and the basics of rapid transportation. Significantly, in the mid-1960s, the American College of Surgeons (ACS) began to document the training standards that began suggesting what ambulance attendants should know. In 1967, the American Academy of Orthopedic Surgeons (AAOS) wrote an influential text colloquially known as the "Orange Book," but formally entitled *Emergency Care and*

*Transportation of the Sick and Injured* (Bass, 2014). Edited by Dr. Walter Hoyt, an influential pioneer in emergency medicine, it would represent an important guide for a new generation of EMS professionals, and remains in widespread use through 2015. Another influential book that guided early education was *The Training of Ambulance Personnel and Others Responsible for Emergency Care of the Sick and Injured at the Scene and During Transport* that was written in 1968 by the National Academy of Sciences and National Research Council (NAS/NRC) (Bass, 2014). All of these texts served to formalize and facilitate standardization at the state and federal level.

Building on the momentum created by these texts, and the aforementioned 1966 white paper issued by the National Academy of Sciences, community colleges rapidly assumed a dominant role in EMS education (Dennison, 2000; NHTSA, 2000b). Utilizing the newly created EMS texts, they began the process of formalizing an objective basis for national testing and certification. By 2005, this effort had culminated in 1,200 institutions (1,100 public community colleges and 200 private technical schools) teaching at least one EMS certification (EMS Workforce, 2008). Reflecting an increasing shift towards greater professionalization, as of 2013, 20 universities offered bachelor's degrees in paramedical care (NAEMT, 2014). These tendencies towards greater formalization have been consistently driven by increasing technology and complex pre-hospital interventions (Bass, 2014).

Also contributing to the increasing professionalization was a 1993 paper published by the National Highway Traffic Safety Administration (NHTSA) entitled the *National EMS Education and Practice Blueprint* "the Blueprint" (EMS Report, 2008; Margolis, 2005). The Blueprint espoused a series of guidelines containing the required educational content by different EMS levels. The articulated levels spanned from basic responder to paramedic. In many cases, these

guidelines would become the current basis for community college paramedical curricula (NAEMT, 2014). Through their definitions of the various levels of EMT service, community colleges could finally establish minimum knowledge and skill levels that were necessary to formalize education.

Generally meeting with success, the Blueprint provided an interstate model for curricular and educational reciprocity that greatly lessened regulatory differences. Due to this standardization, many community colleges quickly adopted its tenets (Bass, 2014). As evidence, through 2013, approximately 500 paramedical community college programs were accredited and complied with the Blueprint standards (NAEMT, 2014). Anticipating an accelerating adoption rate, many industry analysts expect a majority of community colleges to be in compliance by 2020.

### EMS Certifications

Community colleges are in many ways a key component of EMS certification. As in many health fields, EMS has stratified and become more hierarchical (Bass, 2014). In response, community colleges have differentiated the training between EMT-Basic (EMT-B), EMT-Intermediate (EMT-I), and EMT-Paramedic (EMT-P) in order to segregate their curricula (Fox, Thomas, Clemmer, & Jensen, 1986). Importantly, it should be noted that some individuals that are capable of basic onsite care such as lifeguards, law enforcement, firefighters, and ski patrols are frequently called responders, but are not within this study's explicit focus. Their exclusion is based solely on their limited diversity and breadth of medical knowledge when compared to graduates of community college programs. States rely on these programs to qualify an individual for EMT service, and responders, while playing a valuable role, do not possess that level of

medical knowledge.

EMT-B represents an entry-level designation (110-150 hours of training) that provides basic life support functions without invasive procedures (breaking of the skin) (Samules & Stoy, 1994). They are allowed to help a patient take medications, as prescribed by a doctor, but cannot administer new ones. Their duties are generally (Fox, Thomas, Clemmer, & Jensen, 1986):

- Cardiopulmonary resuscitation (CPR)
- Automated external defibrillation (AED)
- Bone splinting
- Suctioning fluids to assist more advanced EMTs

EMT-I represents an intermediate designation (200-400 hours of training) that is capable of expanded medical services (Stoy & Margolis, 1998). This classification contains the widest variance by state in terms of job duties, especially in regards to the administration of new medications. Generally, even if new medications can be introduced, they are greatly restricted. Unlike EMT-B's they are allowed to exercise more judgment, and within a limited domain, administer invasive remediation. This has been primarily manifested through IV insertions and endotracheal intubations (procedure to assist breathing) (Fox, Thomas, Clemmer, & Jensen, 1986).

Paramedics have two years of training (associates degree) with at least 1,200 hours of experience and possess greater medical capabilities (Stoy & Margolis, 1998). Within emergency medicine, they represent the closest a patient comes to receiving assessment, diagnosis, and remediation – onsite or in-transit – from a physician. Thus, their services are greatly in demand, especially in urban and high-population areas (Strange, Chen, & DSanders, 1992). Working closely with physicians if possible, although sometimes autonomously in emergencies, they are

capable of performing all of the duties prescribed above plus: (Fox, Thomas, Clemmer, & Jensen, 1986)

- Administering drugs intravenously and by mouth
- Reading lab results, EKGs, and X-rays
- Conducting cardiac defibrillations (use of electro-cardio treatments to restart hearts)
- Emergency tracheotomy (neck incision to open airway)
- Administering post-heart attack / stroke medications

Importantly, these three certifications all involve a community college student having to pass a national exam to obtain a license. To maintain that license, they also have to meet minimum experience requirements and enroll in continuing education. Often, that continuing education is also provided by community colleges, hence their crucial ongoing role. In support, states – with some guidance from the DoT – regulate minimum practice requirements while the national certifying exams are administered by the National Registry of Emergency Medical Technicians (NREMT). For a relative comparison by certification type, Appendix G contains a 2014 breakdown, by classification, of approximately 250,000 EMTs (NAEMT, 2014).

### Role of MOC in Paramedicine

Historically, MOC have been underrepresented in allied health fields such as emergency medicine – as well as medical fields in general (Brown et al., 2002a & Hunter, 2001; 2003). Unfortunately, assessing that underrepresentation has been difficult, mostly due to unstructured and inconsistent state recordkeeping by ethnicity and race. However, a few examples are available that help illuminate the problem.

Aghababian, Tandberg, and Iseron, (1993) revealed that 40% of EMS departments did



not have one Latino or African American male on staff – a demography most commonly found in rural areas. A voluntary 2003 state population survey in which respondents could dually identify revealed that EMS had a composition of 8% African American male and 9% Latino (EMS Report, 2008). Another 2003 compilation by the NREMT, which prevented dual identification, revealed that African American males and Latinos were 6% and 4.7%, respectively, of EMTs.

To provide some contrast, in the 2003 U.S. Census African American males and Latinos comprised 13% and 14%, respectively, of the overall U.S. population (U.S. Census, 2003). While the EMS underrepresentation percentage improved for both groups from 1980 to 2003 by approximately 10%, the population concordance was still relatively weak (Smedley, Butler, & Bristow, 2004). Moreover, it should be noted that since Latino is an ethnicity – and not a race – in some cases MOC representation is likely inflated. This phenomenon is caused by dual identification, a common measurement problem within ethnic studies.

The significance of this underrepresentation is threefold. First, as a medical career, EMS is one of the most accessible (EMS Report, 2008). From a time and affordability perspective, MOC should have an excellent opportunity to enter health care via this career. Demonstrating the typical time required, as of 2005, 73.4% of community colleges offered an EMT certificate program of one year or less (EMS Report, 2008). This is significant because many MOC have work and family responsibilities that make it difficult to enter long-term training programs (Arbona, 1995; Strayhorn, 2008).

In regards to cost, earning an EMT-B – although varying by geographical area – generally costs from \$2,000-\$3,000 in tuition (EMS Report, 2008). Each successive step towards paramedic adds another \$1,000-\$1,500 in tuition: still a relatively modest cost when compared to other health fields such as physician, dentist, or registered nurse. Even respectively factoring in

the 2010 median incomes for African American and Hispanic families of \$34,000 and \$35,000, the cost of tuition and availability of potential financial assistance should at least elicit more career exploration (Blanchard, Haywood, & Scott, 2003; U.S. Census, 2013).

Second, although MOC have a slightly higher mean age, the mean age of all EMTs (35) is the lowest among the major allied health fields (Grange, 2015). Due to the psychomotor activities they engage in, and the job's inherent physical strength requirements, EMTs are often the youngest of emergency onsite professionals (mean age for firefighters, 38; police officers, 39) (EMS Report, 2008). When they arrive at a hospital, EMTs regularly work with registered nurses who are almost a decade older. Thus, even in a career that greatly utilizes youth, MOC with relatively low mean ages (Latinos, 27; African American males, 34) experience paramedical underrepresentation (U.S. Census, 2013).

This underrepresentation is particularly noteworthy since the Air Force and Army – military branches that experience MOC overrepresentation – train their medics as EMTs (NAEMT, 2014). As such, this should represent a potential transitioning point for returning military veterans who are familiar with the field and can pass the certifying exams.

Finally, due to the dearth of women in EMS, MOC encounter little gender-based competition for vocational positions. Although gains have been made in female participation, as of 2005, only 29% of them were EMTs in major metropolitan areas (EMS Report, 2008). Updating to 2011, the participation rate was still only 35% in those same environments (Bureau of Labor Statistics, 2013). Within related public safety fields, this regnant androcentric position is only stronger in firefighters and police officers (EMS Report, 2008). Thus, MOC should be encountering very little gender-based competition for employment – especially in a field growing 4% annually.

## Paramedical Career Attributes

### Demographic Challenges

Paramedicine, as an allied health field, represents an expanding segment of the American medical infrastructure; one that is becoming increasingly important as demographic aging and pre-hospital technology further dislocates medical care (EMS Report, 2008). To emphasize the effects of an aging population, and its growing need for additional emergency medicine, a basic demographic examination reveals the dynamics of patient growth.

After 2011, and daily for 19 years, approximately 10,000 “baby boomers” will reach the age of 65 (Pew Research Center, 2010). Although within 2011, those 65 and older represented only 13% of the U.S. population, by 2030 they will comprise 18% (a 38% increase). The aging boomer generation – currently comprising one quarter of the American population – will augur a time when more health care services are needed, especially at home and offsite living facilities.

Therefore, the demand for paramedics – especially those capable of delivering advanced life support services (a rapidly expanding treatment category), will grow by approximately 69,000 or 27% by 2030 (EMS Report, 2008). Given this need, and the demographic shift in the U.S. away from a White majority, to a combined African-American and Latina/o majority by 2043, greater MOC participation will be desirable (EMS Report, 2008; U.S. Census, 2015). Driving this desire will be an increasing demand for pre-hospital medical services and home-based health monitoring that will require more skilled medical services.

Given the current MOC underrepresentation in paramedicine, sourcing from these groups represents a valuable societal benefit and opportunity for improved service quality (EMS Report, 2008; Saha et al., 1999). For example, in 1999, African Americans and Latinas/os together represented approximately 24% of the U.S. population (12% each) but comprised only 2.6

percent and 3.5 percent, respectively, of all allied health workers: the workforce most likely to supply Emergency Medical Technicians (EMTs) (U.S. Census, 2013). Expressed differently, to achieve population concordance in 1999, society needed to more than quadruple the number of African Americans and more than triple the number of Latinas/os in allied health.

Updating to 2010, African Americans constituted approximately 13% of the general population, and had improved to 6.6% of the allied health workforce – still an approximate 50% underrepresentation (Cohen & Steinecke, 2011). Latinas/os, however, through faster population growth represented approximately 17% of the general population but only 5% of that same workforce – a virtually unchanged underrepresentation (U.S. Census, 2013). Remediating this imbalance through expanded MOC participation represents a valuable opportunity to meet growing labor demand and improve health care delivery capabilities (EMS Report, 2008).

As previously referenced, this imbalance is particularly acute when considering that EMTs have the lowest mean age (35) among prominent allied health fields (EMS Report, 2008). Thus, the vocation actively recruits from a younger demographic, but continues to experience MOC underrepresentation. This is significant because MOC as a group have one of the lowest mean ages (27 for Latinos and 34 for African American males) (U.S. Census, 2013). Providing a cross-industry comparison, other prominent allied health fields have the following mean ages: medical assistants, 37; nursing/psychiatric/home health aides, 39; respiratory therapists, 42; licensed practical/vocational nurses, 43; and registered nurses, 44. The evidence that younger workers are drawn to emergency medical services (EMS) seems clear, while the reasons that young MOC are not remains elusive.

Latinos and African American males represent a valuable prospective labor source for paramedicine (U.S. Census, 2013). This is particularly true given an aging U.S. demography that

is found within and without EMS. As of 2005, White males were 83% of EMTs, and 92% of EMT-Paramedics (a higher certification) (EMS Report, 2008). Moreover, as U.S. demography continues to diversify, cultural and ethnic sensitivity will increasingly occupy an important role in service quality (Hamilton & Marco, 2003). With patients reporting higher levels of satisfaction from culturally and ethnically similar health care providers, attracting more MOC will become a greater service quality imperative (Hamilton & Marco, 2003; LaVeist & Nuru-Jeter, 2002; Saha et al., 1999).

Factoring in patients, this dynamic grows in importance as one considers who consumes EMS. The service calls that paramedics frequently respond to, especially in urban neighborhoods, are often predominantly non-White patients (Lave & Leinhardt, 1972). Often this is due to poor health care access, lower levels of health insurance, higher tendencies towards emergency cardiac events, economic decisions to preempt medications, and limited access to preventative health services (Richardson, Babcock-Irvin, & Tamayo-Sarver, 2003). Unfortunately, these service dynamics when combined with current EMT demography, contribute to a lack of patient and provider concordance, especially along ethnic and racial lines (Blanchard, Haywood, & Scott, 2003). Through wider participation from MOC, population concordance could be enhanced while also raising emergency medical service levels.

#### Underrepresentation Amelioration

For MOC, the problem of retention and performance in community college – and other academic environments – is well documented (Harris III & Wood, 2013). The studies focused on these specific problems are varied in both approach and recommended actions. However, to effect any meaningful underrepresentation improvements, MOC must first be aware of and

attracted to the career field itself. This successful attraction, traditionally an institutional weakness of community college paramedical programs, must involve more than just, “success coaching” (Strayhorn, 2010). It will require a salient understanding of how MOC become aware of different careers, gain proficiency at evaluating their own abilities, vocationally prepare themselves to compete, and then learn how to apply for the relevant jobs.

Absent an adequate supply of MOC actually entering paramedicine, no amount of program success heuristics will effectively address underrepresentation. The educational pathways that MOC epistemologically construct and make meaning of as they select potential careers, will greatly affect this overall supply. Thus, seeking an understanding of how MOC are attracted to – and choose – the field of paramedicine at a community college is a valuable research focus. A deeper psychological understanding of what factors affect vocational attraction and choice are therefore desirable.

#### College Choice Relevance to Community College Paramedicine

Paramedicine is overwhelmingly a community college certificate and/or Associates degree program. Although college choice factors hold great relevancy due to their potential psychosocial effects (Chapman, 1981; Hossler & Gallagher, 1987), they were not overtly considered in this study. The assumptive focus of this study was that individuals who wanted to become paramedics would attend a community college to realize this goal. Although community colleges can have relatively lower enrollment barriers, paramedical programs do not have unlimited slots for admission. Therefore, entering a paramedical program is competitive based on the qualifications of the student and the available seats.

Due to the stringent program and national testing requirements, persistence in these

programs can be challenging. Up to 40% of African American males and Latino students fail to complete their program for a variety of reasons (EMS Report, 2008). When academic deficiencies exist, remedial programs attempt to address these problems prior to – or during – paramedical training, with varying success. However, while acknowledging these challenges, my study was primarily focused on vocational awareness, interest, and active choice of paramedicine as a course of study, with persistence representing only an ancillary concern.

Although variables such as family, mentors, and peers that are capable of contributing to the exploration, and corresponding institutional selection (community college, four-year public, four-year private, or highly selective) are important, study coverage centered on vocational choice, not college choice. From a practical perspective, students seeking a position in emergency medicine have two choices: attending community college or foregoing that career. Thus, my decision to shift focus from college choice factors to vocational choice was not meant as a diminishment of the former, or extolment of the latter. Instead it reflected a focus-based decision on my part to concentrate investigative attention on career choice due to paramedicine's particular training characteristics.

For purposes of this study, addressing these vocational choice areas represented a valuable opportunity to inform community college policy and potentially reduce MOC paramedical underrepresentation. Additionally, enhanced knowledge anent vocational choice could provide an excellent opportunity to improve relevant understanding in other ancillary fields. Future research on college choice will inevitably add more dimensions and insights as to the general and specific governing properties of MOC decisionmaking. However, this study's complementary focus on career choice was designed to augment rather than conflict with those research opportunities.

## Review of Career Choice Research

Due to this study's focused emphasis on career choice phenomena, an overview of the associated research provides a contextual framework from which to examine the choice dynamics that community college-bound MOC may encounter. Thus, an improved understanding of the predominant theories and their choice dynamics helps to advance a relevant understanding.

Researchers have been interested in improving the understanding of individual motivation anent career choice since the early twentieth century (Brown, 2002a). Beginning with a static industrial focus and evolving towards dynamic constructivist models, their efforts have greatly contributed to existing knowledge. Thus, seeking an understanding of their ideological evolution is important.

As early as 1909, Frank Parsons delineated a viewpoint that departed from the traditional orthodoxies of chance and social standing to explain occupational choice (Parsons, 1909). Utilizing proactive job seeker engagement and extensive vocational analysis, he sought to improve employee satisfaction, raise employee efficiency, and lower employer costs – a goal consistent with early industrialization. This approach would eventually evolve into modern trait and factor theory, which posited that success for the individual and organization was defined by the coherent strength between two attributes: the individual's traits and the organization's required skillsets.

Breaking from the stasis of trait and factor theory, Ginzberg, Ginzburg, Axelrad, and Herma (1951) elaborated a viewpoint that career choices evolved through a series of lifelong developmental processes. These processes represented an ongoing evolution in stark contrast to previous static assumptions. Donald Super (1953) widened the perspective of occupation-



seeking studies to elaborate a holistic psychological and sociological basis for an individual's career placement decisions. This approach essentially created a life stage and life role-sensitive developmental model from previous theories. Although, self-admittedly, he wrote that he had not succeeded at reconciling the various components of his theory, it remains an early important attempt to reconcile previous explanatory models (Super, Savickas, & Super, 1996). In 1956, Anne Roe published *The Psychology of Occupations*, which while not a specific theory of career development, influenced the development of numerous occupational classifications. Later, these classifications would be adopted by a variety of researchers such as Gottfredson, Dawis, and Holland.

In 1959, John Holland extended Parson's trait and factor approach to encompass trait-oriented characteristics of the individual and their impact on developmental progression. This work resulted in a rich typological cross reference of personality types to corresponding occupational positions – an effort that produced numerous evaluative instruments. Krumboltz, Mitchell, and Jones (1979) building on Bandura's (1977b) work, expanded social learning theory into the domain of career choice and development; while Lent, Brown, and Hackett (1994; 2000) did the same to Bandura's (1986) work on social cognitive theory. As repeatedly demonstrated, investigators built upon previous bodies of work to expand knowledge and update the literature to new cultural and societal considerations.

While through this process many of these theories have proven significant, others have been more transitory (Brown, 2002a). Adequately explaining the complex series of interactions between an individual's abilities, environments, and psychosocial constitutions, has proven difficult within the context of shifting modernity. A specific lack of sociological focus and an incomplete accounting of race, ethnicity, gender, and sexual orientation has fostered difficulties

when reviewing results from traditional choice models (Cheatham, 1990).

For example, Gottfredson's theory of circumscription and compromise (1986) has been influential since its initial publishing. It conceptualized a framework of evolving choice constrictions as individuals circumscribed and compromised down to what they felt was a good vocational choice. However, in doing so, while individuals attempted to optimize their sex type, prestige, and career interest preferences, no distinct theoretical provisions were made for their race or ethnicity. In response, Brown (1988; 1990) overtly rejected traditional incorporations of career development theories because they reflected Eurocentric tendencies towards individualism, and historically untrue assumptions regarding social equality. Thus within these tensions, allowances have been made for the incomplete addressment of the historically-relevant psychological and sociological effects of race and ethnicity (Leong & Serifica, 1995). However, these deficiencies do not completely nullify the potential applicability of Gottfredson or inherently validate Brown. Instead, what should be invited is great caution when applying any theoretical concepts within MOC populations.

To address this deficiency, Leong (2014) and a group of vocational researchers attempted to reconcile the main theories of career choice with the experiences of ethnic and racial minorities (Arbona, 1995; Brown, 1995; Johnson, Swartz, & Martin, 1995; Lent, & Savickas, 1994; Leong & Serifica, 1995). Although no definitive reconciliations were achieved, the need to advance research-based cross-theory integration was highlighted. Moreover, a need to extract a better understanding of the experiential qualities encountered by underrepresented groups was also identified.

Thus, to augment this understanding, a review of the dominant vocational choice theories and their potential applicability to MOC in community colleges is presented. This is achieved

through an elaboration of the most influential career choice theories per Leung (2008) and Osipow (1990), and their associated studies that are applicable to underrepresented groups in community college. They are presented, by type, to enable a better understanding of the compiled research in the field and its current state of evolution. Within each presentation, the theory's essential concepts, relevant research, critique, and applicability to MOC studies is provided. Through this review, an improved understanding of potential MOC vocational psychology is sought to facilitate community college paramedical administration.

It should be noted that my approach to the review of literature was predominantly grounded in an anti-deficit heuristic. Utilizing this approach, I did not blind myself to Marxian ideology that would diminish the active "choice" that MOC would lack in their assigned social class. Likewise, I did not ignore the critical race studies that would delineate a conscious societal suppression of MOC attempting to enter medical fields – assuming interest convergence is absent (Bell, 2004). I was aware of these worldviews and respect their applicability and relevance.

However, my decision to avoid approaching the literature or study with an explicit deficit mindset was fourfold. First, the academic entrance requirements for paramedicine are sufficiently low in community college programs to make it difficult to justify a significant enrollment difference. With a GED (General Education Development) diploma as the minimum educational requirement, most students have a realistic opportunity to enroll. Second, the cost of completing an EMT program is relatively modest when compared to other medical careers. Absent any tuition scholarships or grants, a student can expect to spend between \$1,000 and \$5,000 total, to complete a program (EMS Report, 2008). Third, any suppressive forces encountered by MOC was potentially revealed during interviewing. The nature of the questions

asked was capable of eliciting any negative feelings that the men may have had towards institutionally or personally mediated biases. Acting as the research instrument, I had an opportunity to probe for these types of biases within and without the men's community college experiences. Finally, as elucidated in Harper (2010), my goal was to elaborate an effective policy-based framework that could help identify the factors that caused MOC to succeed, and why. That tactical focus presupposed that African American and Latino males had achieved in the past, were capable of current achievement, and could extend those successes into the future. Therefore, through this focused effort, my approach was to explore the community college pathways these enrolled paramedical students had forged, and not employ a solely deficit-based methodology.

#### Trait and Factor Theories of Career Choice

Parsons (1909), attempted to explain the degree of connection between personal vocational aptitude and desired economic integration. As a pioneering effort in vocational psychology, it succinctly stated:

In the wise choice of a vocation there are three broad factors: (1) a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations, and knowledge of their causes; (2) a knowledge of the requirements, conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; (3) true reasoning on the relations of these two groups of facts. (Parsons, 1909)

This statement effectively formed the core of modern vocational choice research. At that time, Parsons was more concerned with the industrial efficiency of matching the right person to the right position – an exigent capitalistic concern. His work also created the foundation for the modern practice of personality profiling and job matching instruments. Set against the early industrial revolution, his instruments would become popular with many industrial firms,

universities, and the Department of Veterans Affairs (Capuzzi & Stauffer, 2012; Niles & Harris-Bowlsbey, 2002). Many adherents would further refine his ideas and extrapolate them across multiple fields. In specific support of the study's goals to describe the enrollment motivations of current paramedical community college students, two of the most influential trait and factor models are presented (Leung, 2008; Osipow, 1990).

## Holland's Theory of Personalities in Work Environments

### *Essential Concepts*

Holland's theory (1959) is a mature model of vocational choice behavior with numerous evolutions. Since it is over 50 years old, many of its tenets may seem discordant with modern vocational thought. However, since it has influenced numerous researchers (e.g., Gottfredson, Dawis, Lofquist, and Super), the intention is not to diminish its relevance, but instead to recognize its longstanding and often heuristic-friendly characteristics (Weinrach & Srebalus, 1990). To emphasize the depth of data rich foundations on which it is based, Holland's Self-Directed Search (SDS) and Vocational Preference Inventory (VPI) psychometric assessments have been taken by over 35 million individuals, in 28 languages, and used in more than 1,500 studies (Lenz, Sampson, & Peterson, 2000). Due to this predominance and its potential applicability to MOC in community colleges, it is elaborated in this section.

Holland's theory of personalities (personality defined as an enduring behavioral disposition) and work environments (environment defined as the unique characteristics of an occupational site) hypothesized that psychometric classifications of individuals, by personality type, could provide insight into their potential workplace efficacy. This success could then be directly related to the person-environment degree of work "fit." The coherence of the two was

assumed to presage that individuals would be naturally drawn to these environments in order to maximize success, or be repelled by the opposite. Notably – reflecting their rigor – most of the relationships Holland catalogued and identified were drawn from approximately 2,000 qualitative interviews that he performed while in the military (Weinrach & Srebalus, 1990).

Essentially, Holland (1959; 1966) grouped the personalities of career seekers into six relatively static groups: 1) realistic; 2) investigative; 3) artistic; 4) social; 5) enterprising; and 6) conventional. These categories were reflective of the predominant characteristics of most individuals, though future revisions would further refine subgroup interactions between groups (Holland, 1973). Much of the subsequent work has sought to delineate these various personality combinations and how they might affect vocational preference. To simplify examination, these personality types will be presented as originally depicted by Holland, recognizing that subtlety has been added over time – especially in regards to the cultural biases of exhibited “personality.”

Per Holland, “realistic” individuals preferred activities that involved regular, repeating, systematic repetitions of performance in objects, animals and machine-like environments (Holland, 1959). Socially related activities that exposed them to the vicissitudes of human interaction would frustrate these individuals, as they preferred the relatively heuristic-friendly certainty of purposeful environments. Physical outdoor careers would be more satisfying because these individuals enjoyed experientiality, versus sitting in a lecture. Typical careers that encompassed this personality type were machinist, electrician, veterinarian, factory worker, or the military. Technical competence was favored over cognitive applications, and “hands-on” opportunities were preferred over abstract discourse. For “realistic” job seekers, tangible results were more valued than intangible potential – with tangible objects preferred over ideas (Holland, 1966).

“Investigative” individuals were drawn to analytical, curiosity-seeking, precise environments. They enjoyed research and intellectually challenging activities with uncertain outcomes (Holland, 1959). Math and science could potentially provide the fields that they found satisfying. Highly structured environments stifled their curiosity and could lead to resentment. Complex problems attracted these individuals as they introspectively worked on solutions without an expressed desire to hold leadership positions. Often their ability to persuade others was secondary to their internal desire to satisfy their curiosity. Per Holland (1966), careers that meshed with this type included medicine, biology, chemistry, physics, and systems analysis positions requiring abstract interpretation.

“Artistic” individuals liked to express themselves and shunned conformative societal norms (Holland, 1959). They tended to craft their work into original “signatures” of self-expression. Music, writing, drawing, acting, and directing artistic compositions predominated their interests, while mechanistic, deterministic environments were off-putting. Aesthetically-pleasing work that defied conventional norms was attractive to them. Clerical and organizational skills were not highly valued by these individuals, as impulsiveness and emotionality were held in higher esteem. Self-expressive activities activated their interests while compliant behaviors diminished them. Ambiguity did not threaten their value system because creativity and the ability “to flexibly adjust” to situations was highly valued. Other non-artistic fields that attracted “artistic” individuals were reporter, interior decorator, and media consultant (Holland, 1966).

“Social” individuals enjoyed human interaction and helping others (Holland, 1959). They avoided ordered, mechanistic activities that involved pre-established heuristics or machinery. The pleasure they derived from their activities came from contact with people versus systems. Idealistic goals predominated their interests as activities such as healing, educating,

counseling, and mentoring others were paramount. They craved interpersonal, over introspective, activities. Frequently, with well-evolved people skills, they could be persuasive and able to guide groups towards consensus. Typical careers for “social” types were educator, counselor, social worker, politician, and community organizer (Holland, 1966).

“Enterprising” individuals were drawn to activities that challenged their abilities to manipulate others towards a common goal – organizational or personal (Holland, 1959). These types tended to be high energy, adventurous, and self-confident. They frequently had highly evolved interpersonal and leadership skills that they employed to reach goals. Routine and systematic activities bored them and failed to hold their interest. Public speaking was a frequent strength for these types and a refined ability to communicate an important skill set. Often they were seen as domineering or overbearing simply due to their exhibited confidence. Undeterred, they saw themselves as assertive and “able to get things done,” which they felt enhanced their credibility. Naturally drawn to management, law, sales, and executive leadership positions – status symbols such as money and status were considered highly motivating (Holland, 1966).

Finally, “conventional” types tended to enjoy manipulating data, numbers, records, or reproducing native information (Holland, 1959). Artistic environments did not attract them with precise methodology being preferred over ad hoc programs. Efficiency, conformity, and conscientious behavior was valued because it led to predictable results. Chain of command environments fit their leadership needs more than creative parlays. Well-defined heuristics were preferred with ambiguity and variability not engendering a comfortable work environment. While some shunned leadership positions, their thoroughness, reliability, and detail-oriented nature sometimes propelled them into it. Occasionally – regardless of job assignments – they conceptualized themselves as unimaginative or lacking in creativity. Typically, this personality



type was attracted to accounting, bookkeeping, banking, or database administration (Holland, 1966).

In order to visually depict these simplified personality types and their interrelationships, Holland developed a hexagonal model for interpreting inter-class and intra-class relationships (Appendix A). The significance of the model was that it depicted the strength of relationship between the different personality types. In essence, the closer a personality type was to its adjacent type, the more similar the personalities were and consequently the jobs that would “fit” them (Gati, Garty, & Fassa, 1996). Inversely, the types directly opposed on the hexagon shared the least similarities. Moreover, a significant component of the model was that work environments, likewise, exhibited characteristics that supported or opposed these personality types. This insight led to Holland’s now ubiquitous VPI instrument that provided a cross reference between the two variables [personalities and vocations] (Weinrach & Srebalus, 1990).

Through this observation, Holland concluded, homogeneously, that individuals who have a high degree of congruence between their personality type and their current environment were the happiest and most satisfied – ergo most productive (Holland, 1959). Embedded in this simplicity are the reasons that the model has enjoyed such widespread adoption, especially in vocational counseling (Spokane, 1996). Many attempts to understand why individuals are attracted to certain vocations rely on Holland’s relational norms regarding why people are drawn to certain activities, and how a successful vocational “match” can be achieved.

### *Research*

In an attempt to extend the model’s utility and diversity, some of the qualitative and quantitative work has focused on its applicability to disparate cultures and non-homogeneous

environments. Before considering Holland's theories for utility within MOC studies, a review of the applicable research is thus necessary to determine its practicable utility. With mixed success, the model has proven variably useful.

In the United States, Sheffey, Bingham, and Walsh (1986), executing an analysis of 151 African American men, surmised that Holland's SDS and VPI survey instruments effectively measured their personalities and related work environments. Utilizing similar methodologies, Walsh, Woods, and Ward (1986) found that the model effectively predicted the same phenomena in women who were African American or White – albeit with a basic matching heuristic (self-declared personality type to observed job type). Other attempts at statistically corroborating the components of Holland's model within U.S. populations have proven less successful (Brown, 1987; Osipow, 1990). Overall, in North America, some components of Holland's theory (especially those related to developmentally-oriented professions) have proven more corroborative, while more static ones, less so (Weinrach & Srebalus, 1990).

Specifically, within Asian populations, less corroborative research success has been demonstrated. For example, Leung and Hou (2005) found that utilizing the different SDS classifications, predictably yielded three interest clusters that coalesced around realistic and investigative; enterprising and conventional; and artistic and social. However, these clusters proved less efficacious at predicting happiness within job roles. Happiness, as expressed through job satisfaction scores that were tied to personality type, exhibited weak or no significant statistical support. This suggests that individuals from collective social traditions may define occupational happiness differently than students in Eurocentric environments – a possibility of key relevance within MOC studies (Brown, 2002b). Some scholars even believe that for some cultural groups, job happiness may be collateral to their perceived obligations in an established

family order (Sheffey, Bingham, & Walsh, 1986; Soh & Leong, 2001).

In support of this thesis, Hong Kongese students exhibited a very weak fit (.02) between expected occupations and their commensurate personality types (Leung, 2008; Leung & Hou, 2005). However, counterfactually, Chinese students exhibited a stronger – but still relatively weak – .30. As stated earlier, these findings suggest that Holland's model in collectivist countries may have understudied cultural subtleties that are not fully understood (Leong, 2014).

In a completely different part of the world – Croatia – Sverko and Babarovic (2006) administered the SDS to adolescents aged 15-19. In strong support of the model, they found effective correlations within its intramodal components. Interestingly – and of great applicability to MOC researchers – the model was more accurate as student age increased. This was hypothesized as true due to the greater career interest clarification that comes with age. The degree of fit between personality and job type seemed to suggest that in Eastern Europe the model exhibited greater effectiveness. Tempering some of these findings, researchers Weinrach and Srebalus (1990) found that the theory's lack of developmental understanding anent personality formation revealed itself through measurement variations. Thus, what some researchers may be defining as deterministic, or correlative, may simply reflect culturally-bound personality differences.

### *Critique/MOC Factors*

Although criticisms regarding the overly-simplistic personality categorizations have been levied, Holland (1973) himself acknowledged that people could have multiple personality types (depending on contextual environment and situational necessity). Given that some types were expected to predominate within one person, some variability was also anticipated. Less

coherently explained was why individuals with certain personality attributes were more or less “consistent” with certain jobs – an important marker of future vocational success (Brown, 1990). Establishing a relationship between personality and job type is useful but not per se an explanatory model of “fit.”

The model’s adherents have also been criticized for failing to describe how personalities (and job types) incipiently form and evolve longitudinally – an area particularly relevant to MOC entering community college (Brown, 1990). MOC personalities, having significant psychosocial variables, do not enter community college environments in a static fully-formed state (Hagedorn, Perrakis, & Maxwell, 2007; Magnusson, & Endler, 1977). Their interactions with campus, the workplace, society, and their families all impart an effect. Failure to fully account for these developmental changes over time risks weakening the model’s usefulness and any inferred correlations. Compounding this weakness is an inability to describe the mechanisms that explain why some working environments attract individuals, and how. The aptness of positions to individuals is more descriptive than explanatory (Brown, 2002b). Also missing is an acknowledgment that the “personality types” of MOC can be stereotypically constructed by society thereby impairing objective measurement and vocational placement (Arbona, 1995; Barak, 1981; Bowman, 1995; Brown, 1995; Fouad, 1995; Leong, 2014). Clearly, the absence of definitive explanations describing the nature of these mechanisms, and how they longitudinally interact with Holland’s theory reflects obvious areas of future inquiry (Brown, 2002a).

As found in some of the international research, the applicability of Holland’s theory across culture, and sub-culture populations – as MOC research would require – is ongoing and merits greater focus (Brooks, 1990; Cheatham, 1990; Hansen, Scullard, & Haviland, 2000; Isaacson & Brown, 2000; Leung & Hou, 2005; Osipow & Littlejohn, 1995; Soh & Leong, 2001).

A major complicating factor in this work is that different cultures frequently view different occupations with varying degrees of status (Soh & Leong, 2001). Occupations with low status in the U.S., could be higher status elsewhere, and vice versa. Additionally, the cultural concept of personality type has proven variable and less predictable outside of Western environments (Day & Rounds, 1998).

Extending this problem, Holland's psychometric instruments – even if administered properly – might fail to help MOC discover a full spectrum of career possibilities due to socialized circumscription (Gottfredson, 1996). For example, this phenomenon – commonly developed through extended negative social conditioning – could prevent MOC from even considering a scientific career (Britner & Pajares, 2006). Additionally, the particular problems encountered by some underrepresented groups (economic, language, K-12 deficiencies, etc.) might prevent them from even qualifying to study for a given profession – something not socially accounted for in Holland's model. Concordantly, his work may not adequately account for significant societal and environmental forces and their ability to affect the decision-making capabilities of MOC (Osipow & Littlejohn, 1995).

Finally, through the mere act of administering Holland's surveys to MOC, vocational aspirations might be inculcated regardless of any actual survey results. Thus, a vocational interest in emergency medicine might be stimulated and advanced simply through an “observer effect”: a phenomenon noticed at the Hawthorne Works facility in the 1920s through lighting changes. Perhaps paying attention to a historically marginalized group can provoke career interest, independent of the instrument(s) administered. Adjusting for these potentialities, research could attempt to tease apart these two effects (objective vocational interest assessment versus mere student-focused benefit) to promote strategic alternatives. Through this effort, an

understanding of the significant vocational influences encountered by community colleges and MOC could be holistically advanced.

Dawis and Lofquist: Theory of Work Adjustment Person-Environment Correspondence

*Essential Concepts*

Another influential trait and factor vocational choice model was Dawis and Lofquist's theory of work adjustment (TWA) and its ensuing corollary: person-environment correspondence (PEC) theory (Dawis & Lofquist, 1984; Lofquist & Dawis, 1991). Representing a multi-decadal effort, it extended Holland's work from a mere coupling of personality to job type, towards a more dynamic reciprocal model; specifically, one in which the role of people and environments was jointly considered. PEC particularly extended Lang and Dicken's (1988) human capital model, a theory in which individuals were assumed to exhibit behaviors that yielded the most favorable outcomes, while tempering other possibilities. Due to the critical importance of understanding community college settings and the personal characteristics that MOC bring into them, the theory extends well beyond the work place and other post-academic settings.

Both theories (TWA & PEC) are built upon a series of perpetually oscillating adjustments (active and reactive) that collectively describe career choice decisions. Through them, the "career chooser" (P) looks for work environments (E), where P's needs can be maximally satisfied – that state being known as "satisfaction." What makes the theory dynamically bilateral is that, likewise, E seeks P individuals with the skillsets and affective qualities required to optimally perform. To the degree that the latter is achieved, E is recognized as also having achieved satisfaction – a condition known as "satisfactoriness." For E to obtain from P the desired actions, E must provide "reinforcers" that uphold and recognize P's needs by

“transactionally” addressing them. Likewise, for P to address E’s needs, P must continue to develop skillsets that enhance E’s satisfactoriness.

Lofquist and Dawis (1991) generally classified these skillsets into four main categories: cognitive, perceptual, psychomotor, and affective. These classifications are significant because they represent important sources of information for vocational counselors who wish to gauge the skillset adequacy of MOC (Lapan, Gysbers, Stanley, & Pierce, 2012). This knowledge is particularly relevant since their abilities will ultimately make possible the reinforcers they seek from their work environments.

Importantly, the “reinforcers” provided by E – aside from pay – may encompass emotional and physiological “Mazlowian-type” needs. Inversely, P must also be cognizant of the adjunct mental and physical capabilities that the job requires. If both P and E are working towards mutual satisfaction and satisfactoriness, this condition is described as “correspondence”: a lack of it being known as “discorrespondence.” From the literature, it is noted that correspondence presages longer tenure on the job, and discorrespondence the opposite (Edwards & Harrison, 1993).

The act of predicting this tenure was a strong focus of Dawis and Lofquist’s early work (1984), ultimately culminating in the TWA model. This predictive model became a key tool that was later utilized by the U.S. Office of Vocational Rehabilitation and other governmental agencies (Brown & Brooks et al., 1994). Perhaps most significantly, it altered the hermeneutic assumptions of what constituted a strong bond between an employer and employee (Dawis & Lofquist, 1984).

Later in PEC theory, the dynamic act of attempting to maintain satisfaction and satisfactoriness (through correspondence mechanisms) became a complementary foundation.

This act was regulated by the presence of satisfaction, which induced a desire to maintain correspondence – and the presence of dissatisfaction that incentivized a desire to adjust back to correspondence. Within PEC, when P or E detected a lack, or degradation of correspondence, the preemptive maintenance response (active monitoring of current correspondence) or corrective adjustment response (correcting back to desired correspondence) was characterized by four qualities.

One was called response latency, or how quickly (slow to fast) it took for P or E to recognize an imbalance condition – known as “celerity.” Two was known as response intensity, or the magnitude of reaction (weak to strong) – called “pace.” Three was response pattern, or how the reaction was characterized (steady, cyclical or erratic) – also described as “rhythm.” Finally, response duration was how much time elapsed (short or long time period) during the intervention by P and/or E – also known as “endurance.” These measures were used within the model to describe the maintenance and adjustment phenomenological characteristics of P E correspondence – or alternatively discorrespondence. These characteristics are significant when applied to MOC in community college research because their relevant mechanisms are chiefly driven by perceptions, an area of great variability within this group (Hamilton, Stroessner, & Driscoll, 1994).

In addition to the four PEC response quantifications of celerity, pace, rhythm, and endurance, that were established for maintenance and adjustment of correspondence, Dawis and Lofquist (1991) characterized additional adjustment qualities. One, “flexibility” described how much tolerance for discorrespondence (low to high) existed during imbalance conditions. Two, “activeness,” measured how much adjusting effort was exerted once an imbalance was detected (low to high). Three, “reactiveness,” represented the degree to which sensitivity existed in the



system to discordance situations (low to high). Finally, “perseverance,” was the duration effort (low to high) of adjusting behaviors. As previously denoted, for most of these measures, a strict focus on the potential indigenous differences within MOC populations is largely unknown.

Nevertheless, the abundant measurement opportunities incorporated into TWA and PEC have engendered much empirical study of general populations. Correspondence has been particularly studied, with satisfaction and satisfactoriness drawing less attention. In order to further elaborate, some of the studies most germane to potential MOC community college studies are presented.

### *Research - Correspondence*

In multiple studies, correspondence, as a predictable dependent factor of P and E interactions, has been consistently replicated, with various subtleties revealed (Caplan, 1987; Edwards & Harrison, 1993; French, Caplan, & Harrison, 1982; Magnusson & Endler, 1977; Rounds, Dawis, & Lofquist, 1987; Spokane, 1985, 1987). Specifically, Rounds, Dawis, and Lofquist (1987) and Caplan (1987) found that satisfaction and satisfactoriness were positively correlated with tenure, and negatively correlated with turnover.

Additionally, the value of reinforcers was positively correlated with tenure – as well as high adjustment and maintenance measures (Edwards & Harrison, 1993). In these preemptive and corrective adjustments, Edwards and Harrison (1993), found indications that response rates (by P and E) tended to longitudinally improve, suggesting that stable and enduring characteristics for both may develop over time. Although these do not hold strong vocationally-focused value for MOC who are choosing careers, they do provide a glimpse into the workplace dynamics that could regulate their actions and reactions.

Moos (1987) was particularly applicable to MOC seeking medical careers because it included a qualitative review of work environments that encompassed health care settings. In those settings, Moos stressed how individuals (Ps) formed perceptions of work environments (Es), which correspondingly affected their behavior during correspondence attempts. Significantly, from a MOC perspective, this behavior was based on those exhibited perceptions – versus actual environments experienced. Thus, this process of initial adapted behavior could affect their success and abilities when establishing congruence between their needs, and that of their environment – as later referenced by Dawis (1994). Through this finding, Moos highlighted the relatively diminished role of individual personal attributes (physical abilities, mental aptitudes, work values), versus reciprocal workplace perceptions between worker and social setting. The exact nature of this reciprocity is therefore a source of future study – especially with its potential to affect prospective MOC vocational actions and efficacy.

Another influential study for MOC that built on Dawis and Lofquist (1991) was Wilk, Desmarais, & Sackett (1995). In this quantitative study, they posited that there was a longitudinal tendency for individuals to be attracted to work activities that most enhanced their “person-job” fit. This conclusion was based on measured cognitive abilities statistically describing the transit of individuals through increasingly higher job hierarchies during a five-year period. Additionally, another job dataset revealed that cognitive ability in less experienced workers was less homogenous (exhibiting less intra-group deviation) than in more experienced workers (exhibiting more inter-group deviation).

This finding was used to suggest that a “gravitational” hypothesis could be inferred between higher cognitive individuals and positions that required that quality. Gravitational was the term Wilk, Desmarais, and Sackett (1995) used to describe how measured cognitive ability

rose and gained homogeneity within groups with higher experience, and conversely dropped and gained heterogeneity in those with lower experience sets. This finding suggested that cognitive ability – however gained – is not deterministically passive. The degree to which this dynamic could apply to high-cognitive MOC is understudied, and since Wilk et al.'s (1995) research largely excluded ethnically diverse workers, relatively unknown. Absent direct testing, the applicability of gravitational theory – especially given some MOC's impaired ability to overcome societal obstacles and its depressive cognitive effects – is at best speculative (Robinson & Ginter, 1999).

### *Research - Satisfaction*

Although less studied than correspondence, predicting worker satisfaction from PEC has also been the subject of multiple studies. It is important to note that various studies have shown satisfaction to be a dependent variable of PEC scores, as well as an independent variable used to predict tenure and/or turnover. Hence, its complexity is multifold.

In their quantitative study, Spokane (1985) and Assouline and Meir (1987) had greater success predicting satisfaction from PEC when general – versus specific – occupational types were used, a potentially detrimental finding for the study of an extremely specific field like paramedicine. However, their highest statistical significance was still a relatively weak .30. Dawis and Lofquist (1991) had even less success, as their findings indicated a weak relationship (no statistical significance) between worker satisfaction and tenure or turnover. What these findings may indicate is that satisfaction (as both a quantitative and qualitative measure) still requires additional study to establish its relationship with PEC and/or satisfactoriness.

### *Research - Satisfactoriness*

Contrastingly, in multiple studies, statistical support (exceeding .50) has been demonstrated for predicting satisfactoriness based on the worker's skill sets (Hunter, 1986; Hunter & Hunter, 1984). Unsurprisingly, the workplace environment – E – will tend to experience satisfactoriness as worker abilities increase. Prior to PEC theory, Ghiselli (1966) documented similar outcomes across various occupational job classifications (general and specific) utilizing “work sample” tests and personnel selection instruments. Reliance on this work may explain why employers have traditionally placed such a high emphasis on pre-employment testing (Schmidt & Hunter, 1977). For community colleges, this holds particular relevance anent the importance of delivering high-quality paramedical training to buttress employer satisfactoriness expectations (Day & Rounds, 1998).

### *Critique/MOC Factors*

While Lofquist and Dawis (1991), acknowledge that a spectrum of different P types could be appropriate for a given E, and vice versa, there exists an incomplete accounting of the historically-documented aversions to MOC in certain vocations. Cultural specificity is not a characteristic in either TWA or PEC theory – a quality shared with many other vocational models. Although, researchers such as Leong (2014), Fouad and Arbona (1994), and Fouad and Bingham (1995) have collectively attempted to reconcile and adjust major theories to underrepresented populations, no major revisions or new theories have emerged. Instead incomplete reliance remains upon previous studies such as Brown, Fulkerson, Vedder, and Ware (1983), and later Westbrook, Buck, Wynne, and Sanford (1994), which document that African American adolescents are not as good as their White peers at ascertaining their own abilities and

traits. Thus, the effort to create new cross-cultural theories awaits more qualitative information from which to found new descriptive and prescriptive models.

While highlighting the reciprocal relationship between P and E, the theory fails to fully account for the potential differences between MOC perceptions and realities for E, and vice versa (Brown, 1995). P tries to perceive the reality of what E wants in the workplace – and E the inverse; but is this perceptual dynamic generalizable for underrepresented groups? If true, this requires an assumption of group homogeneity in need of additional corroborating evidence – especially given the heterogeneous findings anent individuals in Lubinski (2000). Assuming it is untrue reflects the need to identify the nature of the varying indigenous qualities and their vocational effects, an uncertain variable.

Another potential complication – as highlighted in previous research – is the difficulty of qualitatively measuring satisfaction (Dawis, 1991). Each P may have an olio of different satisfactions that may lack goal congruence. Achieving one satisfaction may actually lessen another, or amplify both – thus linear measurement of the attribute is not possible in a socially-complex algorithmic environment. Additionally, the reinforcers that E provides P are generally not time-adjusted. The timing of the reinforcers is assumed to be relatively equal and periodic. Given that in the 1963 Skinnerian model of reinforcement, reward timing was actually more important than the reward itself, this could affect the reliability of PEC dynamics.

Finally, the theory describes a developmental arc where P adjusts to E, and vice versa (bearing in mind that E always represents an assemblage of Ps), however, no detailed description of how satisfaction and satisfactoriness may change over time is provided (Brown, 1990). This point is important since longitudinal effects could create unanticipated outcomes. In addition, although PEC augmented Holland's previous work, no similar cross-reference of applicable job

types and personalities was created. This potentially impairs the model's day-to-day counseling utility, a detriment to community college guidance programs. As frequently observed, much remains unknown about the reciprocal functionalities of P and E. Given the indigenous characteristics that are frequently found in Latinos and African American males, better access to group-specific knowledge is necessary (Lee & Ransom, 2011).

### Developmental and Constructivist Theories of Career Choice

Developmental and constructivist theories of career choice reflect a more contemporary view of environment, society, and their resulting conceptualizations. Within them, greater importance is placed upon sociological forces and their ability to shape the psychosocial developments of the career seeker and their available vocational options. Thus, the interactive and integrative complexities that are incorporated are greater, and seldom result in simple dichotomous answers. The two key models presented – Gottfredson's Circumscription and Compromise (1981; 1996) and Super's Life Span and Life Space (1984; 1994) – represent foundational models that help illuminate the experiences of MOC in community college contexts (Leung, 2008; Osipow, 1990).

### Gottfredson's Theory of Circumscription and Compromise

#### *Essential Concepts*

Gottfredson's (1981; 1996) interest in career choice research began with two basic questions: 1) Why do children seem to reflect the social inequalities of their families long before experiencing any specific barriers themselves? and 2) Why do so many children from similar environments experience high degrees of success variability when attempting to implement their

career aspirations? Her focus on childhood as the foundation of nascent career selections – or deselections – extends through adolescence. However, though the model stops at adolescence (a self-acknowledged limitation), its tangential relevance to MOC and community college studies remains intact. An examination of these early career decisions can illuminate the sources of many vocational choice difficulties that are subsequently experienced by MOC (Flum & Blustein, 2000). Consequently, the questions elicited by her theory – perhaps more than the answers – befit the search for potential enablers and disablers of MOC entering community college programs.

Continually refined since inception, its tenets attempted to define not only how, but also why individuals end up with their vocational choices and outcomes (Gottfredson, 1981; 1985; 1996; Gottfredson & Lapan, 1997). The ambitious explanatory breadth of Gottfredson's theory, combined with her focus on early life stages, qualifies it as worthy of a detailed review. For it is within these early core components that many MOC experience significant motivators and demotivators (Harper, Patton, & Wooden, 2009; Swail, Redd, & Perna, 2003).

One of the preliminary core assumptions – delineated mainly through qualitative interviewing and associated quantitative testing – is that career seekers qualify their future vocations along three basic dimensions: sex type (developed around age six), prestige (developed around age nine), and field of interest (longitudinally throughout). Prioritizing sex type first and then prestige – individuals sequentially evaluate available positions according to their degree of masculinity versus femininity and then on prestige, as socially determined. Extending Holland's model of job classifications (realistic, investigative, artistic, social, enterprising, and conventional), Gottfredson also assigned a measure of sex type and prestige to various vocations in order to display the resulting relationships (Appendix B).

These relationships were then described through a cognitive occupational map that encompassed prestige and sex type, on the ordinate and abscissa, respectively. Unsurprisingly, in an androcentric culture, the higher prestige jobs tended to be male-dominated (Eccles, 1987). This dynamic unfairly forces prestige-seeking females to occupy male-dominated professions, rather than vice versa. Though unjust, this phenomenon does cause more women to transgress societally-derived sex types than men (Gottfredson, 1996).

Gottfredson's model is also used to depict prestige (on the ordinate) and sex type (on the abscissa) within ranges of masculine/feminine and tolerable effort/tolerable prestige levels (Appendix C). These are used to illuminate an individual's choice-making heuristic when selecting a career. In the chart, tolerable effort defines the most effort that an individual will exert to achieve an idealized prestige level, and tolerable level the least. This "least" results in the smallest measure of prestige that the individual will nominally accept in their vocation, a factor of great relevance to MOC studies (Saenz and Ponjuan, 2008; Strayhorn, 2008).

In order to further refine sex type, it is defined as the level of socially perceived masculine or feminine qualities a position occupies – in essence a tolerable gender boundary (Appendix C). This dynamic is greatly moderated by its cultural context within a society and the specific attributes assignable to its traditional male and female role (e.g., nurse versus construction worker; babysitter versus landscaper). Prestige is further delineated by the perceived level of admiration that an occupation has within its culture, and the forces that moderate its influence. Sometimes it is correlated to income, although not strictly, as some low-income military and religious professions hold high prestige. Inversely, some high-income criminal activities may hold low prestige. Additionally, familial considerations – especially in high socio-economic environments – may impart great pressure on offspring regarding minimum



tolerable work-related prestige. These familial forces can serve to constrict within a tight schema an individual's zone of acceptable alternatives (social space), from which to select jobs.

Another depiction (Appendix D) demonstrates a basic assumption of the theory, namely, that individuals will consistently sacrifice their inherent psychological self to satisfy their social self. They will allow societally-determined measures of sex type and prestige to regulate their career choice. This phenomenon leads to an ironic interplay where an individual's actual field of interest – the seemingly most important factor – may be suppressed within an overly-constricted acceptable social space (Hesketh & McLachlan, 1991).

An example would be someone who is practicing law due to familial or societal prestige expectations, in lieu of pursuing their “true calling” as a writer or musician. Although avocationally these unfulfilled interests may be pursued, research suggests they seldom are (Gottfredson, 1996). Individuals instead choose to constrain these interests and recast their self-concept towards normative social roles. This self-conceptual recasting for MOC can be particularly problematic if their societally-determined nominal prestige levels are inordinately low (Gottfredson, 1981). Since this recasting of self-concept is initiated most strongly for sex type, and then for prestige – both factors can greatly restrict vocational identity.

Essentially, an interplay between sex type, prestige, and field of interest is posited by Gottfredson as the chief mediator of vocational choice – with the person actively suppressing their individuality in favor of the social self. In this heuristic, genotypical and phenotypical differences are a factor, but only as amplified or diminished by societal forces, an important break from previous trait and factor models (Gottfredson, 1996).

This constricting interaction is described by Gottfredson (1981) as the concept of career circumscription and compromise. This concept elaborates a developmental process in which a

premature under-informed elimination of potential career options is a chief driver, versus an ancillary influence. Instead of considering a full range of vocations, individuals prematurely abridge their options. For women, MOC, and other underrepresented groups, this anticipatory exclusion can prevent many from even considering certain career fields, for internal psychological or external sociological reasons (Arbona, 1995; Brown, et al., 1983). Thus, an examination of the interplay between circumscription and compromise is important in achieving an adequate understanding of the theory and its potential applicability to MOC in community college programs.

### *Circumscription*

Circumscription is regulated by a few core principles. Graphically – as previously seen in Appendix C – it is the zone of acceptable alternatives into which individuals constrict themselves. This constriction is often permanent, sans an external force such as a mentor, educational program, or vocational exposure that can alter their perceived self-concept (Herr, 1997; Shivy, Phillips, & Koehly, 1996; Super, Savickas, & Super, 1996). If an individual is born to a high-status family, the acceptable floor for prestige is higher and the tolerable effort boundary ceiling is likewise higher. More problematic, for individuals such as MOC, the acceptable tolerable level and tolerable effort boundaries for prestige may be correspondingly lower (Strayhorn, 2008). This may be due to parental and/or socio-structural expectations that can effectively depress aspirations (Gottfredson, 1981). These entrenched phenomena may represent a form of “birth niche” or “vocational inheritance” from which MOC may not be able to obviate (Mortimer, 1974).

Perhaps most importantly, circumscription involves the passive – or active – foreclosure

of entire career fields, without thoughtful consideration and evaluation. This passive abridgement was found by researchers Armstrong and Crombie (2000) in qualitative interviewing, with many participants failing to even remember actively abnegating career options. Instead, many options were simply not considered due to vocational ignorance or combinations of familial, cultural, and institutional factors that accelerated the deselection process (Holt, 1989). Unfortunately, these processes may be regulated by gender, race, ethnicity, or low socio-economic status (SES), without adequate consideration given to individual talent or potential – a problem often endemic to Latinos and African American males (Strayhorn, 2010; Wood & Turner, 2010).

### *Compromise*

In contrast, compromise chronologically follows circumscription, and involves actively selecting a vocational choice within the zone of acceptable alternatives or “social space” (Gottfredson, 1981). This choice involves collectively factoring in sex type, prestige, and field of interest. Adding qualitative dimensions, Gottfredson introduces “choice sensitivity” within different options in the social space (Appendix D). This recognizes that even within acceptable alternatives, each potential choice can deviate somewhat from the individual’s internalized ideal. Gottfredson posits that if an individual has an abundance of desirable, low-deviation options (sex type, prestige, and field of interest all close to an internalized ideal), choice sensitivity is lessened. This may lead to the individual giving primacy to field of interest first, then prestige, and finally sex type – a more ideal situation (Gottfredson, 1996). Conversely, and most relevant to MOC, if the field of vocational choices within the social space represents a wider deviation (sex type, prestige, and field of interest all deviating far from the ideal), greater weight is then

assigned to sex type and prestige – in that order – with field of interest receiving the lowest weighting (a sub-optimal process).

This more negative compromise process incorporates an approach of staving off the “not good enough” instead of “opting for the good” – or better yet, expanding the zone of acceptable alternatives (Gottfredson, 1996; Taylor & Pryor, 1985). Even in cases where compromise involves selecting from options that deviate nominally from the ideal, the decision metric may still be flawed given androcentric tendencies. The individual, due to the circumscription of choices is still orienting towards the “good enough” instead of considering positions closer to the psychological ideal. Alternately stated, the sociological overtakes the psychological, by sacrificing the individual’s self-concept to a group-concept of occupations (Gottfredson, 1996). Thus, career dissatisfactions and talent underutilization are engendered in this social phenomenon.

### *Research*

Quantitative and qualitative support for the theory has been strong in some areas and weak in others. Most of the weak corroboration is due to the high subjectivity of the model’s components (e.g., conscription, compromise, zone of acceptable alternatives) that can be difficult to quantify regardless of instrumental efficacy.

In 2000, Armstrong and Crombie surveyed Canadian students from three school districts, and found that the amount of compromise between career aspirations and actual expectations widened greatly from 8<sup>th</sup> to 9<sup>th</sup> grade. This work supported the model’s prediction that increased exposure to societal and cultural forces would constrain vocational choice. Providing additional support, Shivy, Phillips, and Koehly (1996) examined undergraduate students from two large

state universities and found significant evidence of prestige as a strong component of career choice. However, they determined that the majority of the effect came from societal, versus psychological sources, a potential focal point for MOC studies. McLennan, and Arthur (1999) likewise found strong evidence of occupational sex typing through qualitative interviewing of male and female job seekers. As predicted by the model, occupations that crossed perceived sex type boundaries were quickly circumscribed.

Less compelling support was found by Taylor and Pryor (1985). Focused on Australian adolescent youth, the researchers sought the relative influence of three factors: prestige, sex type, and vocational interests. Of particular interest was the degree of compromise exhibited when deciding careers. Although some of the basic tenets of Gottfredson's theory were supported quantitatively afterwards, selective qualitative interviewing cast doubt on the strict independence of these three factors. Instead of participants viewing them as independent variables, it was found that interrelationships existed that were capable of moderating study results. For example, sex type seemed to correlate with prestige, and prestige inordinately influenced occupational interest in males. Thus, the model's inherent assumption of three independent variables was weakened.

Another study suggesting greater complexity was Holt (1989), this time looking at undergraduate social work versus engineering majors. In this study, interaction was also found between the three factors (prestige, sex type, and vocational interest), that convoluted their influence. Borrowing from Holland's occupational types, Holt found that realistic types (engineering majors) experienced stronger prestige influences than social types (social work majors). Concordantly, social work placed greater influence on occupational interest versus prestige. These corroborate the argument that the model contains more complex dynamics than

those explicitly depicted.

Finally, Henderson, Hesketh, and Tuffin (1988) researched children age 5-14 in New Zealand, examining whether – as the model predicts – sex type would be used to conscript first, and then prestige. Their study found that while prestige was predictably a factor at around age nine, sex typing – especially with males – began before age six. Surprisingly, some sex typing was detected in four-year old boys. The researchers attributed this to androcentric social forces that were stronger than previously thought. However, the study did corroborate the earlier findings of Taylor and Pryor (1985), and Frost and Diamond (1979) in regards to the greater sex type flexibility exhibited by female students. When asked, females considered more male-centric fields than males. These phenomena suggest that societal and cultural differences can greatly influence the timing and strength of the model's components, altering its effectiveness in specific environments such as MOC.

### *Critique/MOC Factors*

Although elements of the model (prestige, circumscription, compromise, etc.), can be selectively applied to MOC, the theory essentially genericizes their inherent characteristics (Leong, 2014; Osipow, 1995). While some macro-systemic influences such as tolerable prestige and sex type boundaries for underrepresented groups are applicable, no micro-systemic heuristics are available to inform policy. No specific attempt is made to tailor the model to the lived experiences of marginalized groups. Non-Eurocentric versions of self-concept are not explicitly incorporated – much less the different psychological realities they may inhabit (Fitzgerald & Betz, 1994). In addition to lower socially-determined assumptions of prestige and levels of effort for MOC, the psychologically-determined zones of acceptable alternatives could be lower

as well. The challenges for MOC in attempting to form a healthy self-concept (a powerful factor in perceived self-efficacy) is likewise not overtly addressed (Fouad & Smith, 1996). These hindrances, combined with many MOC coming from weaker K-12 school districts and low SES environments, may equally constrict their choices (Gainor & Lent, 1998).

Another weakness is the theory's lack of andragogical focus; especially since many MOC frequently enter paramedical programs as non-traditional students (Peterson, 1999). While the model does reveal the foundations of career choice up through adolescence, lacking specific adult learner focus could constrict its applicability to MOC. Since community college students as a whole tend to be older and frequently seek out certificate and associate degrees (such as paramedicine) later in life, this potentially diminishes its usefulness to underrepresented group research (EMS Report, 2008). As a growing cohort of adult learners – online and on-ground – enter community college due to job dislocation, altered career aspirations, and late life transitions, this will further challenge the model's utility.

Finally, the process of compromise is mechanistically described as chronologically sacrificing career interest, prestige, and sex type when jobs vary materially from a conceptualized ideal – less so when all options are equally ideal. Taylor and Pryor (1985) dispute this simplistic assumption because it ignores interactive elements between prestige and sex type. They present as evidence the underrepresentation of high prestige jobs available to women and minorities. The implication is that the very presence of women and minorities in positions may affect socially-perceived levels of prestige and depress corresponding pay levels (Fouad & Smith, 1996). These societally-determined impressions may also indirectly reinforce many of the vocational myths that MOC (and other groups) hold anent certain careers. These myths regarding skillsets required and time to degree have been found in many marginalized

populations to be inordinately high (Schrock & Schwalbe, 2009). Less a blanket rebuttal, and more a reason for further study, these phenomena all cast potential doubt on inherent assumptions within Gottfredson's model.

However, much value can be found in the model's focus on feminine assumptions and sex typing in corresponding occupations. MOC, especially Latinos, may exhibit a strong aversion to perceived feminine roles (e.g., nurse, caretaker, schoolteacher) that effectively constrict their career choices (Ponjuan, Clark, & Saenz, 2012; Saenz & Ponjuan, 2008; 2012). The theory suggests that "machismo" as described by Saenz and Ponjuan (2008) could act as a vocational regulator that eliminates desirable positions, all to preserve perceived sex type and prestige. It is these positions that could otherwise help them achieve a higher correlation with vocational interests. If the caretaking of paramedics is perceived more as nursing, and less as the practice of emergency medicine, some of the Latino underrepresentation could be better understood.

In African American males, a similar tie between caretaking professions and feminized misperceptions could likewise deter true career interests (Harper & Harris III, 2010; Schrock & Schwalbe, 2009). As in Latinos, the examination of literature suggests that African American males – due to societal and cultural forces – exhibit less flexibility in their exhibited masculinity (Schrock & Schwalbe, 2009). This may prevent them from fully considering all career options, thus constricting their zone of acceptable alternatives (social space). While African American masculinity research has expanded knowledge in this area, a specific interactive explication of its vocational effects is not available. In this area, Gottfredson's model at least provides a gynocentric perspective on vocational selection. However, as in similar African American research, their experiences cannot be generalized, and additional learning is still required beyond



the model's vocational depictions.

## Super's Life Span, Life Space Theory

### *Essential Concepts*

Super's theories (1953; 1963; 1984; 1990; 1996) are less a singular doctrine, and more a compilation of previous developmental and vocationally-centered psychologies (Super, Savickas, & Super, 1996). An example is his leveraging of life stage research from Buehler's (1933) work on life histories, and Erikson's (1963; 1968) studies of life transitions. Although his work was derivative of previous theories, it does not diminish its relevance. His derivations contributed greatly through cogent new re-configurations. His diligence was clearly exhibited through his willingness to follow the careers of 100 ninth-grade students for more than twenty years in order to create his influential Career Pattern Study, a work that spawned four books and numerous articles (Savickas, 1994a). This longitudinal rigor, combined with the model's life span incorporations, contribute valuable insights into how career interests form, and potentially reform, throughout MOC's lives.

Super's theories have also served to stimulate the work of subsequent researchers and practitioners (Brown & Bimrose, 2000; Peavy, 1998; Savickas, 1997). This is primarily due to the ambitious nature of the questions he raised, chiefly, within a vocational context: 1) What do people do? 2) Why do they do it? Within this context, the interrelationships he described served to broaden a deeper understanding of potential individual career choices and their associated psychodynamics. As such, the individualized schema that Super delineated in order to explain a person's career life span and life space was broad in scope, and acknowledged that multiple life roles existed.

Life span and life space (commonly called the “life-career rainbow”) was one such schema that had great vocational research effect (Appendix E). The chart depicts the life experience of a typical career seeker through two dimensions: life span (or various life stages) and life space (or various life roles). In the life span, various segmentations by age range are provided:

- Growth – birth to 14 – involves the early establishment of self-concept, attitudes, needs and general orientation to the work world.
- Exploration – 15-24 – involves taking classes of interest, participating in hobbies, and tentatively “trying on” roles for suitability with familial, peer-group, and societal norms.
- Establishment – 25-44 – involves establishing entry-level skills and stabilization in the work world through demonstrations of effectiveness and competence.
- Maintenance – 45-64 – involves ongoing career adjustments to maximize position and value in the selected vocation.
- Disengagement – 65+ – involves preparation for retirement, commencement of generational transfer, reduced output.

In each of these stages, the individual makes decisions that affect future courses of action and assessments (and reassessments) of past events (Super, 1985). The individual’s ability to recognize what is currently required in roles is called the life span’s “role salience.” This role salience is characterized by prospective judgments of future developmental roles, as well as the current cognitive and affective psychosocial abilities required. The specific cognitive and affective abilities of the individual to meet the requirements during a given life span are described by Super as their “career maturity” – a variable greatly moderated by existing psychological, and sociological characteristics inherent in MOC (Super, 1990).

Predominantly, Super’s strength as a researcher was in clearly depicting the relational nature of a holistic career track, and how it was essentially developmental. This contrasted greatly with the previous more static trait and factor models espoused by Parson and Holland

(Brown, 2002a). His grasp of how careers represented an evolving and longitudinal process was influential due to its depth of research and significant vocational counseling implications. Additionally, his focus on the evolution of vocational development across an entire lifespan, with its various life roles, was clarified through the schematization of a complex interaction (Appendix E) (Brown, 2002a). Utilizing this, as MOC seek to enter community college paramedical programs, particular attention to these interactions could prove valuable, especially since disruptions to their “Superian” growth and exploration stages could alter their long-term opportunities (Leong, 2014).

The other dimension in Super’s model is life space. In life space, accommodation is made for the fact that individuals must occupy multiple roles throughout a lifetime, not just occupational ones (Super, 1996). The model (Appendix E) depicts six different roles described as “child”, “student”, “leisureite”, “citizen”, “worker”, and “homemaker.” Interestingly, the shaded portion of the arc for each role indicates how intensive that role is at any given time. This depiction attempts to show how nothing remains constant over a life span, and that life space responsibilities vary according to requisite needs. This constant change is also reflective of Super’s assertion that individuals assume two or three key roles – out of a potential six – and then subjugate the others to peripheral positions. Sometimes this is done out of necessity, and other times out of preference, but it always retains the capacity to impact career success. Additionally, the model allows for interactivity between these different roles, reflecting the complexities encountered across different life stages (Brown, 2002b). With familial, social, and cultural life spaces constantly affecting MOC in community college, using the model potentially provides vocational choice explication.

Overlaying these communal considerations are the overarching individuated effects of

psychology and situational determinants such as low SES (Super, et al., 1963). Collectively, these factors could greatly attract or deter someone from quality academic and vocational decisions. Using this environmental foundation, the theory seeks to promote the applicability of the “roadmap” to identify where individuals are: life span and life space-wise. At each stage, it provides an evaluative basis for maturity assessment. A great deal of this evaluation is oriented at interpreting the individual’s self-concept (defined as objective and subjective views of internal values) in hopes of finding an optimal fit between what they aspire to be, and what a position can offer (Super, 1963). In Super’s theory, as in the related Lofquist and Dawis 1991 work, satisfaction with an occupation is tied mainly to that fit – the main differentiator being occupational focus.

### *Research*

Quantitative and qualitative support for much of what constitutes life span and life space theory is found in relatively contemporary studies. Hackett and Lent (1992) and Osipow and Fitzgerald (1996) found agreement with the tenets of progressive development over time, and the occupational fitness (or weakening) of self-concept. This was consistent with other studies that generally supported Super’s tenet of life placement within the life span, life space, and its relationships with career efficacy (Blustein, 1997; Herr, 1997; Savickas, 1997). As commonly found, these effects were moderated and guided by personal and situational determinants.

Specifically, in Hackett and Lent (1992), through a combination of quantitative methods and qualitative analysis, self-concept as a “vocationally-propelling” impetus was shown to have a positive correlation with career success. Harkening back to Bandura’s previous work (1977a) on self-efficacy, Hackett and Lent (1992) likewise established a strong link between positive

measures of self-concept, and previous successful attempts at relevant vocational tasks (a potential argument for community college internships). These successes also demonstrated the importance of enhancing and developing early vocational identities – an important component of Super’s elaborated self-concept hypotheses (Super, 1980). Although Hackett and Lent’s 1992 studies were exclusively performed at Arizona State University and Ohio State University, both institutions independently corroborated the same vocational identity findings.

In Osipow and Fitzgerald (1996), a review of available studies – including those incorporating career maturity – showed support for Super’s theory anent achieving desired vocational positions, and managing the amount of life spaces occupied. As students incrementally held more roles (child, parent, worker, homemaker, etc.) their career development and vocational achievements were predictably hampered. While not definitive in all cases, the net effect of internequine conflicts between concurrent roles proved a hampering influence (Super, 1996). This made achieving career goals more difficult, a factor potentially more salient to lower SES Latino and African American men who often have to work (Osipow & Fitzgerald, 1996).

### *Critique/MOC Factors*

Critique of Super’s theory is centered on a number of considerations that inhabit socio-demographic factors. Economically-centered MOC studies that focus on the influential career exploration phase – a potential arbiter of underrepresentation – are largely absent (Fouad & Arbona, 1994; Fouad & Bingham, 1995; Leong, 2014). This represents a significant lacuna because lower-income individuals have been consistently shown to exhibit lower career aspirations than their higher-income peers (Sinha, 1990). In this study, Sinha suggested that

economically disadvantaged individuals felt more controlled by external forces, and thus more subject to fatalistic aspirations that engendered lower outcome expectations. This type of financially-focused study on underrepresented groups is not strongly covered by Super or his adherents.

The lack of diverse racial and ethnic applications of Super's theory to MOC also represents a missed opportunity to delineate and potentially explain relevant phenomena. For example, knowing whether MOC experience specifically unique life spans of exploration and establishment, or whether their challenges in life spaces as students, workers, or children contribute more to their underrepresentation, could prove useful (Harper & Harris III, 2010; Saenz & Ponjuan, 2008; 2012; Strayhorn, 2008). Throughout this effort, improving understanding anent how community college environments affect them, and the inverse, would help describe their idiocentric paramedical experiences. Likewise, qualitative exploration of their particular academic environments could yield new foundations for vocational choice-making models that are capable of serving community college administrators (Mortimer, et al., 1996).

Part of the research paucity in this area is related to how the Superian life span, life space model is more of a vocational placement tool than an investigatory framework (Brown, 1990). Many of its elements are subjectively derived. For example, the specificity of shifting life space definitions such as leisurite, citizen, worker, etc. inherently weakens its generalizability. Super's 1994 decision to parse pensioners out of the leisurite category in his article "A Life Span, Life Space Perspective on Convergence" somewhat reflects this concern.

The life span assumptions are also threatened by longevity medicine that potentially extends productive working lives. Combined with globalized economic activity, this dynamic

can spur iterative recycling back to previous steps of growth, exploration, and establishment: a realization that Super (1994) attempted to incorporate within his idea of “mini-cycles.” The evolving research on these mini-cycles has helped explain why the late life spans of maintenance and disengagement have been relatively understudied versus “younger” phases (Brown, 1988).

Before mini-cycles were incorporated, potential research participants were assumed to unidirectionally transit through these late life phases, making a related expansion of knowledge in these periods less valuable. However, greater contemporary recursiveness between, and within, mini-cycles and their corresponding “maxi-cycles,” have created a more promising area for late life research (Super, 1994).

A last critique is the lack of Superian research regarding the impact of globalized economies and their ability to longitudinally disrupt the associated life span and life space phases (Savickas, 2013). With many of the fundamental economic and technological changes that have occurred since the 1990s, revisiting the model’s components within a new more globalized schema is long overdue. Incorporation of these factors could prove useful in MOC and community college studies since a strong characteristic of modern globalization is an increasing displacement of manual for cognitive work. With community colleges providing a valuable repository for new cognition, this vocational displacement could be ameliorated with programs such as paramedicine.

### Bandurian-Based Learning Theory

Lent, Brown, and Hackett’s Social Cognitive Career Theory

#### *Essential Concepts*

Similar to Super’s research, Lent, Brown, and Hackett’s social cognitive career theory

(SCCT) (1994; 2000; 2002) represents a distillation of previous works from diverse researchers such as Barak (1981), Eccles, (1987), Krumboltz, Mitchell, and Jones (1976) and Schunk (1989). Distinctly, though, it is based on Albert Bandura's (1986; 1997) work that initially elaborated self-efficacy and later its derivative, social cognitive theory. Bandura (1997) found that self-efficacy was primarily related to four proximal factors: success-related performance feedback, vicarious learning, social modeling, and significant reductions of negative emotions.

Many of these have been explored in the extant literature, examples being Rendón (1994) that adapted social modeling to the personalization found in validation theory, and Krumboltz, Mitchell, and Jones (1979) that expanded social modeling into vocational psychology. However, for MOC in community colleges, the significance of Lent, Brown, and Hackett's (2000) theory resides within its widespread use within underrepresented group research. As an adjunct, its detailed application within women's studies – a potential guide to understanding self-compromised masculinity in MOC – also holds great utility.

Lent, Brown, and Hackett (2000) were able to make valuable research contributions through two key approaches. The first was to adopt a constructivist viewpoint that described race and gender as a socio-structural variable, one that was proximally mediated by psychological and sociological factors, and key to describing observed behavior. The second was to leverage Bandura's previous self-efficacy work (1997) to answer three questions:

1. How do individuals develop vocational interests?
2. How do individuals actualize their vocational choices?
3. What factors govern their choice-making heuristics?

The putative findings that helped answer these questions formed the core of the model, much of it derived from longitudinal qualitative research (Betz & Hackett, 1986; Hackett & Betz,



1995; Hackett & Lent, 1992; Lent & Hackett, 1987). Additional derivations were sourced from related quantitative studies such as Lent and Savickas (1994), Multon, Brown and Lent (1991), Sadri and Robertson (1993), and Stajkovic and Luthans (1998).

Drawing specifically from Bandura's self-efficacy findings, Lent, Brown, and Hackett (2000), were influenced by the triadic factors that described student self-regulation. In Bandura's model for student self-regulation, the triadic factors were:

1. Student behavioral characteristics (e.g., predispositive personality, attitude, social awareness)
2. Environmental characteristics (e.g., contextual cultural and societal norms)
3. Personal characteristics (e.g., gender, ethnicity, health status).

Lent, Brown, and Hackett (2002) adapted these assumptions to fit the needs of career-choice studies by focusing on the dynamics that specifically governed vocational processes. Unlike earlier works by Krumboltz and Nichols (1990) that focused on Bandura's social learning theory and its greater reliance on career-seeker passivity, SCCT described an arc of influence that adopted a more agentic view. It assumed that individuals were self-organizing, expressed proactivity, engaged in self-reflection, and regulated themselves as required (Lent, Brown, and Hackett, 2002). This perspective adopted a more complex reciprocal relationship between an individual and their environment; an environment that they affected, and were in turn affected by.

Unlike Lofquist and Dawis' (1991) trait and factor model that expressed vocational-seeking behavior as a function of the interaction between a person and their environment, in SCCT, individual behavior was in itself a factor in the interactive outcome. Focusing on the two variables (self-efficacy and outcome expectations) – both capable of affecting subsequent vocational interests, goals, and actions – SCCT utilized their influence to describe an inductive

reciprocal relationship. In this relationship, both self-efficacy (which answered should I attempt this?) and outcome expectations (which answered what will happen if I attempt this?) regulated SCCT's social mechanisms (Appendix F).

Generally, the higher an individual's self-efficacy and outcome expectations, the more ambitious their occupational interests, goals, and actions became – inversely, the lower, the smaller their aspirations (Lent, Brown, & Hackett, 2000). Particularly for self-efficacy, Lent and his colleagues relied on numerous studies in the 1980s that emphasized a positive ability to promote career success (Campbell & Hackett, 1986; Hackett & Betz, 1995; Hackett & Campbell, 1987). Concordantly, Lent, Brown, and Hackett (1994; 2000) advanced vocational understanding by finding that self-efficacy and outcome expectations were moderated by:

- Previous learning experiences (positive/negative)
- Distal contextual influences (e.g., skill development opportunities, cultural socialization processes, and the range of potential academic-career role models)
- Proximal contextual influences (e.g., emotional and financial support, job availability, and socio-structural barriers)
- Personal characteristics – (e.g., predispositions, gender, race, ethnicity, and health status)

Collectively, these factors constituted an attempt to describe the vocational choice outcomes experienced by individuals. More importantly, the model depicted a self-reinforcing mechanism whereby positive – or negative – feedback was provided in order to refine future behavior. Specifically, for MOC, this model provided a heuristic through which to describe the complexities of their vocational interests, goals, and actions (Brown, 2002b).

Correspondingly, the contributing precedents to self-efficacy and outcome expectations could be studied in order to potentially understand MOC motivations anent their career interests and choices. In Lent, Brown, and Hackett (1994; 2000), these motivations were further refined

into four meta-analytic propositions that helped guide the vocational application of its tenets, namely:

Proposition 1 – career interests are strongly correlated to self-efficacy and outcome expectations (both being key factors for MOC)

Proposition 2 – experiencing positive accomplishments in specific career interests generates a growing sense of self-efficacy (a focus of Bandura’s prior social cognitive work)

Proposition 3 – self-efficacy and outcome expectations primarily affect career choices through their ability to generate vocational interest (a causal intimation), and,

Proposition 4 – perceptions of past performance are key markers for success in future performance (academic and vocational) through behavioral regulation.

It is this last proposition (4) that could cause MOC to circumscribe and compromise their career choices as described by Gottfredson (1981; 1996). Of course this assumes that they would get an opportunity to attempt performance and that the resulting perceptions (theirs and others) would be accurate.

Concerning career choices, it should be specifically noted that Lent, Brown, and Hackett’s works (1994; 2000; 2002) did not distinguish between a student’s choice of an academic course of study, and the career itself. Acknowledging this duality, I chose to focus more on the active choice of paramedicine as a course of study, while recognizing that similar dynamics governed the actual career choice.

### *Research*

Qualitative and quantitative support for SCCT’s various components has been relatively generous. A host of literary attention has been focused on self-efficacy –particularly regarding gender and race-based variables (Hackett & Lent, 1992; Lent, Brown, & Hackett, 1994; Locke & Latham, 1990; Swanson & Gore, 2000). Studies of self-efficacy anent female vocational

interests and choice have been especially prevalent. Although MOC fail to share all social characteristics presented in gynocentric studies, examination still reveals concurrent environmental experiences that can inform.

Hackett and Betz (1981) focused on Bandura's concept of self-efficacy and how it might potentially influence female career choice and development – a potential “window” into MOC and their experiences. Through reliance on qualitative methods, they revealed that Bandura's four sources of self-efficacy were essentially distorted for females. For example, in women, social persuasion and live modeling predominantly promoted gender-specific roles and differential encouragement towards certain academic disciplines (e.g., nursing versus science).

Interestingly, women who were in primarily female-dominated professions reported higher levels of self-efficacy and inversely lower when situated in male-dominated fields. This finding suggests that the impact of early gender socializations could likewise potentially influence MOC vocational experiences (Hackett & Betz, 1995). Additional evidence of this effect on women in other androcentric professions (e.g., mathematics, medicine, information technology) was noted as they consistently assessed their job performance downward versus men, while women in gynocentric professions did not (Eccles, 1987).

Lapan, Boggs, and Morrill (1989), through similar qualitative research, also found similar biases in female self-efficacy. This dynamic was especially consistent when focusing on science and technology professions. However, the longer that females persisted in male-dominated fields, the lower the measured differential effects on self-efficacy. These findings seem to suggest a potential malleability in female self-efficacy perceptions, which if better understood, could prove useful to community college administrators designing paramedical programs, whether for women or MOC. This evidence of individuated psychological variability also

presents a research opportunity as MOC might exhibit different characteristics than their male peers in regards to their awareness and interest in paramedicine.

The basic tenets of SCCT's career interests and career goals were specifically explored in African American college students by Gainer and Lent (1998). Focused on math, this study combined SCCT (Lent, Brown, & Hackett, 1994; 2000) and racial identity theory (Helms & Piper, 1994), in order to determine if the career interests and choices of first-year African American college students were influenced by self-efficacy and/or racial identity. Their goal was to measure self-efficacy by encompassing outcome expectations, sources of self-efficacy, career interests, and career choice intentions. Additionally, racial identity was measured by incorporating racial identity attitudes and career choice intentions.

Examining the data, the SCCT model (Appendix F) generally provided an accurate evaluation of what the students were likely to answer and their overall math intentions given their measured self-efficacy. However, racial identity did not register significant correlative value (.02) in regards to career choice or interest. Interestingly, self-efficacy and outcome expectations (two core components of SCCT) did predict the levels of career interest and choice intention as well as the strength of racial identity measures. Inversely, though, racial identity measures did not predict self-efficacy or outcome expectations. More work is clearly needed in order to better understand this racial identity component and its potential effects. Nevertheless, for prospective MOC research in allied health – particularly paramedicine – these findings could be useful when designing vocation-specific programs.

Shifting attention to Latina/o focused studies, Fouad and Smith (1996), provided similar support for SCCT's predictive heuristics anent career interest and choice. Their specific focus was on Propositions 1, 3, and 4 of Lent, Brown, and Hackett (1994; 2000). As previously

detailed: Proposition 1 is that career interests are strongly correlated to self-efficacy and outcome expectations (key MOC factors); Proposition 3 is that self-efficacy and outcome expectations primarily affect career choices through their ability to generate vocational interest; and Proposition 4 is that perceptions of past performance are key markers for success in future performance (academic and vocational) through behavior regulation.

Their math and science study was focused on a predominately Latina/o middle school that was situated in a challenging social environment: 85-95% of students were low SES, with 85% qualifying for the federal free lunch program – a common environment for MOC (Harper & Harris III, 2010; Saenz & Ponjuan, 2012; Strayhorn, 2008). For purposes of the study, focus was placed on math and science content with the goal of examining the relationships between self-efficacy, outcome expectations, and career interests.

Their findings suggested corroboration of the aforementioned self-efficacy propositions as proposed by Lent, Brown, and Hackett (1994; 2000). The strongest correlations revealed that self-efficacy had both a direct relationship with career interests and an indirect, but significant, relationship with outcome expectations. Career goals and actions were also found to be greatly correlated with career interests, outcome expectations, and self-efficacy – in descending order. These findings reinforced the applicability of SCCT in environments from which MOC may source (U.S. Census, 2013) and their potential behavioral determinants.

### *Critique/MOC Factors*

While SCCT provides a framework for the study of career interest and choice, it ignores or diminishes certain factors (Lent & Brown, 1996). Specifically, by emphasizing the singular determinants within the model, it effectively homogenizes across career fields. That

characteristic creates an assumption that career fields are imbued with uniformity. By extension, this assumes that self-efficacy and outcome expectations will behave similarly across different vocations. Throughout the literature, specificity regarding indigenous career studies is rare. There is a dearth of research dedicated to specific vocations such as emergency medicine. Since paramedicine represents a potential gateway occupation into hospitals and other allied health professions, the lack of SCCT-specific vocational applications constitutes a material weakness.

Further elaborating another deficit, Harper (2010) believes that Bandura (1997) – a foundational source for SCCT – effectively approaches MOC research from a deficit orientation. Not singling out Bandura, Harper (2010) also critiques: cultural capital and social capital theories (Bourdieu, 1986; 1987); stereotype threat theory (Steele, 1997); attribution theory (Weiner, 1985); campus ecology theory (Strange & Banning, 2001); critical race theory (Solórzano and Yosso, 2002); and college student retention theories (Swail, Redd, & Perna, 2003; Tinto, 1993).

To clarify, Harper does not invalidate all this research, but instead seeks to refocus its attention on an anti-deficit orientation for MOC. His suggestion is that these explicatory frameworks should be reconfigured to focus on how MOC succeed, instead of how they fail (Harper, 2010). Thus, his criticism, while not invalidating SCCT, does express a desire to reorient its working mechanisms towards achievement amidst obstacles.

Another relevant omission of the model is age, or specifically life stage (Brown, 2002; Hackett & Lent, 1992). Unlike Super's (1996) theory, life stage is not employed with a chronological assumption. With numerous MOC adult learners returning to community colleges, this model might not adequately explain their self-efficacy and outcome expectations (Britner & Pajares, 2006; Schunk & Meece, 2006). These two specific studies found that self-efficacious feelings had a larger positive effect on young students during their adolescent years, and

inversely a larger negative effect when missing during this period. As students matured and developed a stronger self-concept, as previously described by Gottfredson (1981; 1996), the effects (positive and negative) lessened. This may hint as to the required timing for intervention in MOC populations if policy makers wish to effect meaningful change.

Also of concern – as explicated by Gottfredson’s (1981; 1996) work – is that even if individuals felt efficacious and expected positive outcomes, that alone did not guarantee vocational attraction, choice, or subsequent success. Jobs that overly compromise sex type or prestige (especially in MOC) may simply not be attractive, even if the individuals harbor great personal self-efficacy (Saenz and Ponjuan, 2008). Absent a suite of attractive options that are closely linked to the “ideal position” that they seek, some opportunities will simply be compromised away. Essentially, the perceived qualitative components of the position still matter, regardless of the levels of self-efficacy and related outcome expectations.

Finally, the theory’s extrapolation from an academic to an occupational environment is not well delineated (Brown, 2002a). Assumptions across environments are often made that research findings have not corroborated. Thus, MOC outcome expectations and self-efficacy – beyond their paramedical training – is not well understood, but nonetheless important. This is critical because in SCCT, work aptitudes and values are channeled through individual self-efficacy and their resulting workplace expectations. If MOC perceive that paramedicine will not be a welcoming environment or a good avenue for advancement, that anticipation can effectively constrict their career selection process. Therefore, it is these workplace expectations that can greatly affect the entrance of MOC into paramedicine, and other allied health fields.



## Summary of Theories

These theories, emerging from multifactorial qualitative and quantitative analyses, represent the bulwark of dominant models for individual behavior anent vocational psychology (Leung, 2008; Osipow, 1990). As previously detailed, constant evolutions have contributed to the refinements and new trajectories that the research has engaged. In most cases, culturally-specific and ethnic/race-based studies have not been the explicit focus of these models. Unsurprisingly, most theories of occupational choice were developed to explain a more Eurocentric perspective, primarily borne of imbalanced and mendacious racial power relationships (Bell, 1992; Leong, 2014).

Therefore, the need for caution when applying them to non-Eurocentric populations is well merited. The theories' inherent biases should not wholly discredit them, because although social science research can be overly contextual and myopic, it can also provide explanations for these distorted insights. Through a recognition of these distortions, reexamination may determine that MOC – and other identities – have unique or common characteristics that affect their attraction to, or repulsion from, certain vocations.

Additionally, in a complex knowledge economy where information can often parallel the importance of physical assets, specific cognitive vocations such as paramedicine should be examined for psychosocial characteristics (EMS Report, 2008). Given the intersection of MOC underrepresentation in community college programs, and the need to identify what incentivizes them to express an interest in and select emergency medicine, this research holds valuable relevance. Increasingly, emergency medicine represents the type of knowledge work that provides an access point to other potentially rewarding health care careers, and an opportunity to enter other professions such as registered nurse, physician's assistant, and emergency room

administrator (EMS Report, 2008).

Since both of these vocational factors (MOC and community college paramedicine) are relatively understudied, much is unknown regarding the qualitative factors that regulate choice (McCarthy & Pickelsimer, 2003). Other than a few articles that are focused on the technical qualities of paramedical work in general, little has been contributed anent underrepresented groups (Rake & Nja, 2009; Regehr, Goldberg, & Hughes, 2002). Thus, through an enhanced experiential focus on a specific career field and the MOC who serve within it, key insights can emerge that are capable of ameliorating underrepresentation, improving service, and widening economic opportunity (Saha, et al., 1999). Moreover, with a focused study in this area, community colleges could then access this knowledge to improve their paramedical recruiting.

As an ancillary benefit, a study on community college paramedicine could also create the potential for more first generation students (Sullivan Commission, 2004). These opportunities could then be leveraged to help MOC access a high-growth vocation, improve patient care, and create more access to culturally-sensitive care (Hamilton & Marco, 2003; Helm, Grabarek, & Reveal, 2002; Saha, et al., 1999; Selassie, McCarthy & Pickelsimer, 2003; Sullivan Commission, 2004). Perhaps most importantly, exposure to more culturally-sensitive care could greatly benefit White EMTs through observed live modeling and increased contact with more diverse colleagues (Sullivan Commission, 2004; Whitla et al., 2003).

## Chapter Summary

Chapter 2 represented a review and synthesis of the extant literature and research studies relevant to vocational choice for MOC, namely, Holland's theory of career choice, Dawis and Lofquists' theory of work adjustment and person-environment correspondence, Gottfredson's

theory of circumscription and compromise, Super's life span and life space theory, and Lent, Brown, and Hackett's social cognitive career theory. With the goal of expanding understanding in these areas, Chapter 3 elaborates an appropriate theoretical framework that is capable of addressing the study's research objectives.

CHAPTER 3  
RESEARCH METHODOLOGY

Chapter Overview

This chapter is designed to present a methodology that is capable of addressing the study's research questions, namely: 1) How do men of color (MOC) in community colleges define and make meaning of their initial awareness and interest in paramedicine as a potential career choice? and 2) How do MOC in community colleges define and make meaning of their active choice of paramedicine as a course of study? These questions, contextualized within community college emergency medical programs, were investigated using qualitative phenomenological methods to capture the richness of the participants' lived experiences. Specifically, the focus was on their perceptions anent their paramedical journeys and how they made meaning of the pathways they encountered

Improving understanding in these specific areas represented a conscious decision on my part to focus on these early nascent stages of vocational choice when capturing their lived experiences. Within these timeframes, learning about early phenomenological experiences – as delineated by SCCT – could be used to improve our understanding of how and why MOC come to enter paramedical programs. Ideally, it was hoped that access to the meanings that they derived from these experiences could be used to inform MOC recruiting practices by community college administrators.

In this chapter's organization, the following elements will be presented: 1) rationale for a phenomenological research design, 2) site selection, 3) participant recruitment, 4) sampling, 5) data collection procedures, 6) individual interviewing choice, design, and format, 7) demographic questionnaire, 8) classroom observation, 9) informed consent notification, 10)

theoretical framework, 11) data analysis plan and methodology, 12) trustworthiness and credibility, and 13) chapter summary.

### Rationale for a Phenomenological Research Design

One of the primary goals of this study was to describe how MOC experientially gained their paramedical awareness, interest, and proactive choice of its course of study. To achieve this end, accessing their lived experiences was essential. In order to meet this requirement, a qualitative phenomenological research design was employed to access their rich experiential descriptions and the associated idiocentric perceptions.

Qualitative research, specifically when using a phenomenological approach, yields rich descriptions and idiocentric perspectives that can maximally identify the men's lived experiences (Creswell, 2007, Merriam, 2009; Moustakas, 1994). Through investigative access to these experiences and their perceived meanings, data are obtained that are capable of revealing valuable constructivist ontologies (Marshall & Rossman, 2014; Maxwell, 2005).

Furthermore, Creswell (2007, pg. 57), states that qualitative phenomenological research "describes the meaning for several individuals of their lived experiences of a concept or a phenomenon." Its fundamental goal is to arrive at a description of the nature of the particular phenomenon. This research type is employed when exploration is required for a specific problem, population, or to illuminate the silenced "voices" of a particular group (Creswell, 2007; 2009).

Based on a naturalistic and humanistic paradigm, phenomenological research is designed to explore the patterns and meanings as revealed by its participants (Merriam, 2009). Ontologically, it is evolved from a belief in multiple interpretations of reality and that the

participants, as a whole, create the basis for an understanding of the phenomena encountered. When that phenomena is composed of individuated opinions, perceptions, and lived experiences, phenomenological research is required (Creswell, 2007). Since my investigation was focused upon these issues, within a community college paramedical context, a phenomenological methodology was utilized.

Although there are other forms of qualitative research (e.g., ethnography, grounded theory, case study), the goals of this study combined with the characteristics of the investigation (e.g., low researcher background with the topic, sample size, nature of the research questions), prescribed the use of phenomenology. This decision fulfilled the study's purposes as well as providing a basis for an exploration of the understudied area of MOC and paramedicine.

#### Characteristics of Phenomenological Research

Phenomenology has two main branches, Husserlian (utilizing transcendental description) and Heideggerian (utilizing researcher interpretation). In this study I used Moustakas' (1994) interpretation of Husserlian descriptive phenomenological research. Moustakas' phenomenological method is composed of four key components. First is epoche, or the setting aside of personal experiences and biases – as much as possible – to allow potentially new perspectives to emerge from the study (Creswell, 2014; Shaw et al., 2014). Also known as bracketing, it is engaged to blunt researcher bias so that an understanding of the participant's idiocentric perspectives can emerge. Through this process, the participants' experiences are paramount and the researcher attempts to view them through their eyes. To achieve this end, researchers must subjugate their innate biases and preconceptions in order to allow an empathetic view of the recorded phenomena. This view is enabled through a process of disciplined data

collection, examination, and the clustering of meanings as received.

Next is phenomenological reduction (also known as eidetic reduction), which involves the iterative review of interview transcripts looking for narrative statements or sentences that can provide insights into potentially experienced phenomena (Moustakas, 1994). At first, every statement and quote is given equal measure through a process known as horizontalization. In this stage, every participant statement is given equal importance with nothing reflexively removed (Creswell, 2007, Moustakas, 1994). This is to deter the exercise of any preconceived assessments or judgments. After this step, duplicate statements or singular statements that have no relationship to the topic are removed from the “horizon,” thus forming the basis for preliminary clusters and meaning units (Moustakas, 1994).

These clusters and meaning units are then examined to develop preliminary textural descriptions that seek to create a detailed account of what the participants actually experienced, sans researcher interpretation or bias (Moustakas, 1994). This is an iterative process that requires immersion, and re-immersion, in the data to delineate the various depictions and descriptions that are provided by the participants.

This process is then followed by structural description (also called imaginative variation), which takes these textural descriptions and attempts to form a depiction of the structures, contexts, and settings that potentially influenced how the participants experienced their relevant phenomena (Creswell, 2007). Involving the varying of frames of reference, employing polarities and reversals, and approaching the phenomenon from divergent perspectives, it expands the scope of inspection (Moustakas, 1994). The aim is to discover the underlying and precipitating factors accounting for the experiences.

It is from this immersive variation and clustering of these textural and structural

descriptions that the researcher then attempts to create an amalgamated description of the essential invariant structure, or essence. Integrating the various textures and structures that are derived from the men's perceptions of their lived experiences is key to revealing this essence, or invariant experience (Moustakas, 1994). This invariant is primarily focused on the participants' shared experiences and seeks to enable an understanding of the underlying phenomena. Hays and Singh (2012) and Creswell (2007) describe this understanding as being composed of the distillation of the participants' lived experiences into their invariant narratives, or themes. Through these processes, the researcher can then begin to reveal a basis for describing and understanding the related phenomena encountered by the participants.

### Site Selection

Purposeful selection is considered by Creswell (2014) to "best help the researcher understand the problem and the research question" (p. 189). This technique best serves a researcher's needs when focused attention is required on a specific population and the distinct problems they face. In this study, my decision to exclusively examine MOC community college students aptly fit this criterion, especially as elaborated by the problem statement and research questions. Moreover, since community colleges train the majority of EMT professionals (69%), the study was situated in those environments (EMS Report, 2008). All of the colleges were located in heavily populated metropolitan areas. Thus, all represented environments in which MOC would be most likely to study paramedicine.

These community colleges were constituents of multi-satellite campuses that serviced a wide array of careers and vocations. The three community colleges (denoted as CCA, CCB, and CCC) offered programs that spanned from introductory Emergency Medical Technician (EMT-



B) certificate programs to advanced Paramedic Associate degrees. An inherent selection objective was the opportunity to engage with community colleges having high potential for MOC enrollments, and rich opportunities for them to partake of a wide range of paramedical experiences.

These desired experiences included – but were not limited to – internship opportunities (also known as “ride-alongs”), hospital rotations, cadaver training, emergency response management, and rigorous classroom curricula – the latter being evidenced by a review of accreditation documentation. Independent of this process, through previous contact with two of the programs, I visited their training facilities and saw the modern equipment and teaching materials they utilized.

In further detail, CCA is in a large community college district in Texas, that is accredited by the Southern Association of Colleges and Schools Commission on Colleges, and enrolls approximately 51,000 students. Enrollment for the paramedical program is limited to approximately 275 students per year, with a waiting list utilized as required. Since 1998, the program has been nationally accredited by the Commission on Accreditation of Allied Health Education Programs – one of seven in the state of Texas. Accredited institutions are an important qualitative component in EMS because their students are 1.5 times more likely to pass certifying examinations than non-accredited institutions (EMS Report, 2008). CCA pass rates on the NREMT exams (required of all prospective EMTs) were approximately 80%, which placed it among the top 5% of schools in Texas and the top 10% of schools across the nation.

CCB is in a large community college district in Texas, accredited by the Southern Association of Colleges and Schools Commission on Colleges and enrolls approximately 72,000 students. Enrollment for the paramedical program is limited to approximately 400 students per

year, with a waiting list utilized as required. Since 1994, the program has been nationally accredited by the Commission on Accreditation of Allied Health Education Programs in conjunction with the Committee on Accreditation for Educational Programs for the EMS Profession. Pass rates on the NREMT exams were approximately 74%, which placed it in the top 15% of schools in Texas and the top 17% of schools across the nation.

CCC is in a large community college district in Texas, accredited by the Southern Association of Colleges and Schools Commission on Colleges and enrolls approximately 58,000 students. Enrollment for the paramedical program is limited to approximately 375 students per year, with a waiting list utilized as required. Since 2012, the program has been nationally accredited by the Commission on Accreditation of Allied Health Education Programs in conjunction with the Committee on Accreditation for Educational Programs for the EMS Profession. Pass rates on the NREMT exams were approximately 77%, which placed it in the top 15% of schools in Texas and the top 18% of schools across the nation.

Table 1

*Demographic Breakdowns for Each Campus*

College	Female %	Male %	African American %	White %	Asian %	Latino %	Native American %	Other %
CCA	57.9	42.1	17.9	40.8	5.9	30.5	.40	4.5
CCB	57.3	42.7	24.8	24.9	8.0	37.1	.5	4.7
CCC	58.1	41.9	7.9	25.4	61.2	.2	.1	5.2

In order to provide a basis for demographic review, the following matrix represents the three respective student breakdowns for each campus, by gender, then ethnicity. All three employed a mix of faculty that brought academic and practical professional experience to the classroom. In addition to their course administration and preparation of students for certifying

exams, the faculty represented a valuable networking conduit to the industry. This was realized through their combination of formal and informal industry contacts that were capable of facilitating student placements.

In terms of comparability, CCB and CCC had greater ethnic and racial diversity as well as an overall larger student population. They each had an urban downtown location but CCA's was approximately half the size of CCB's, and a third the size of CCC, some of that partially attributable to its newness and diminished mass transit options. They each had multiple suburban locations with CCA and CCC hosting a higher percentage in that category when compared to CCB. Situated within large metropolitan areas, all could contingently transfer credits to nearby four-year schools – although in paramedicine that would not normally be required. Their governance models (by county district) were similar, with all three having seven-member boards. However, due to their existing differences, an opportunity existed to reveal some environmental contrasts. From a data collection perspective, these combinations of institutional similarities and differences enabled valuable data collection opportunities.

The value of selecting these three urban community college districts also resided in their proximal representations of institutions that would most likely attract MOC. For example, rural community college students frequently lack, or begin to experience, impaired options when selecting a paramedical career. However, due to these three colleges' endemic geographical qualities, they were well suited to the study's aims. Administering a high-quality paramedical program is expensive. Top urban programs collaborate with hospitals and the local medical infrastructure to make internships and residencies available. Smaller rural programs often lack the scale required to foster programs at a high level. Thus, given my study's requirements for these representative, larger urban environments, these three community colleges were selected.

## Participant Recruitment

In this qualitative phenomenological study, it was imperative that the participants had experiences that directly related to their paramedical pathway, especially in regards to awareness, interest, and choice. The selection criteria were: 1) the student identified as male, 2) the student identified as either Latino or African American, and 3) the student was currently enrolled in a paramedical program offered at one of the three community colleges. In order to prevent discriminatory exclusion from the study, students were solely responsible for determining if they qualified for inclusion under the first two criteria. The last criterion was corroborated with community college faculty and/or program administrators.

Prior to active recruitment, IRBs had to be approved – first at UNT – then separately at each individual community college district. Obtaining an approved UNT IRB was a necessary precondition because all three community college IRB applications required its inclusion. At all four institutions, IRB submissions and approvals were required under the terms of customary human subject research protections and protocols. However, due to their relatively low participant intrusiveness and risk, all were filed and qualified under an expedited review process.

Once all four IRBs were approved, all three community colleges were asked to email all of the students currently enrolled in their emergency medical programs. This email was used to communicate the overall goals and methods of the study and to ask research participants to email me directly if they wished to volunteer. The departments sent the soliciting email to avoid any contact with the student lists and myself, which could affect FERPA (Family Educational Rights and Privacy Act) compliance.

Emailing all three colleges reached approximately 1050 students, with the respondents fully informed as to the general research goals, required time, and confidentiality provisions. If

they elected to participate, they received a follow-up email that contained their study consent agreement (Appendix H) and general information about what to expect on their interview date. This initiated the process of scheduling their individual interviews either on campus, or at a location of their choice. In keeping with best research practices and ethical considerations, no participant data was collected until they signed the aforementioned consent form (Creswell, 2014). Additionally, their identities were kept confidential with all their data encrypted while at rest and in motion. In support of this decision, all of the participant's names were assigned pseudonyms that were used to anonymize their identities throughout the study.

To support effective study governance, I maintained a Microsoft Excel 2016 worksheet to manage the interview scheduling and the subsequent list of compiled audio recordings. Additionally, a methodological journal that documented my evolving impressions and the resulting adjustments to the study's research questions was maintained. This practice was to acknowledge that as the work advanced, learning increased, thus interview refinements and adjustments were desirable. These practices were engaged to promote effective management of the study. Effective study management of scheduling and documentation requirements, per Creswell (2014), serves to increase the trustworthiness of results and its potential re-performance capabilities.

As a nominal gesture of appreciation, the participants were offered a \$20 Amazon gift certificate and breakfast/lunch/dinner as appropriate. To ensure reasonable student perceptions of remuneration, breakfast, lunch, and dinner costs did not exceed \$6, \$8, and \$12, respectively. Data collection was budgeted to encompass seven months.

## Sampling

In keeping with the study's qualitative goals, purposeful sampling was utilized. In order to gain knowledge about specific populations, purposeful sampling is considered by Creswell (2014) and Merriam (2009) to optimally address specific study requirements. It enables access to the populations that hold relevance with the study's purpose and research questions. Additionally, it facilitates an understanding of the phenomenological experiences that the men undertook along their vocational pathways.

To lessen the effect of researcher bias, the entire paramedical student population was emailed by the community college administrators the selection criteria (Appendix I), and invited to apply if they felt that they met all three conditions. This approach was augmented with personal solicitations in EMT classrooms, a process that was greatly facilitated by faculty. Participation by those students who met all three selection criteria represented a valuable opportunity to reflectively discuss how they experientially gained paramedical awareness, interest, and proactive commitment to its course of study. Through this process, the constructivist lived meanings they derived from these experiences could then be examined and clustered for potential thematic elements and categorizations.

#### Data Collection Procedures

To obtain the necessary data, this qualitative study focused on the experiences of MOC and the meanings that they derived from them. Thus, individual interviewing, in conjunction with an online demographic questionnaire, formed the core of the data capture. Additionally, prior to any interviewing, I observed two paramedical classes at each community college in order to augment my understanding of the environments experienced, and to improve my understanding of the related pedagogies. The observations were primarily undertaken to orient

my understanding of paramedical training. In the following section, I provide details of the specific methodologies I employed and elaborate their relevance to the preceding research questions.

### Individual Interviewing Choice

Individual interviewing for data capture was selected due to its effectiveness at accessing the subjective feelings and psychosocial constructions present in participants' lives (Eisner, 1991; Marshall & Rossman, 1999). This form of data capture allowed me to potentially access the "other person's perspective" (Patton, 2002, p. 341). Additionally, the ability to effectively reciprocate with reflective questions empowered the process, thus reducing misunderstanding and increasing study ken (Marshall & Rossman, 1999). Due to the relatively small participant size (23), individual interviewing was practicable while still enhancing the study's trustworthiness and credibility (Merriam, 2009).

### Individual Interview Design

In order to allow participants to liberally describe their particular idiocentric perceptions, semi-structured, open-ended questioning techniques were employed. This allowed for the capture of rich, personal, first-person narratives associated with their career pathway experiences. Borg and Gall (1983) described semi-structured interviewing as "being reasonably objective while still permitting a more thorough understanding of the respondents' opinions and the reasons behind them" (p. 442). Due to these qualities, I determined that semi-structured interviewing represented the best opportunity to capture the verbatim descriptions provided by the men.

The interviews lasted 45-90 minutes and consisted of two distinct parts: 1) open conversational exchanges that sought to set the participant at ease and establish rapport through existing commonalities (Bogdan & Biklen, 2007), and 2) specific questions that sought to access the participant's meanings associated with the experience of being a Latino or African American male who had become aware of, interested in, and actively chose paramedical studies. In the latter, answers were followed up with requests for qualitative descriptions of what the experiences were like and what meanings they derived from them.

Although a specific set of interview questions were documented (Appendix J), the goal of the study was to allow for freeform exploration of topics and ideas as participants raised them. These then served as the nexus for iterative inquiry of the experiential quality of their pathways. This allowance for expansiveness, when properly managed, is a source of strength in qualitative phenomenological studies (Merriam, 2009).

For each participant, the dually-recorded audio was later transcribed, verbatim, in order to capture the interview details and make them available for subsequent review. Since phenomenology relies on the vivid first-person account of what is being experienced, the data was not redacted or corrected for grammar. Interviews took place on the student's college campus, face-to-face, unless they greatly benefited from an alternate location or a telephone interview.

To protect participant confidentiality, the digital files were encrypted and will be stored for 24 months in a locked office within a password-protected desktop at the University of North Texas. Likewise, paper media will be locked in the same office. After 24 months, digital files and paper media will be erased/destroyed in accordance with best practices as defined by the UNT document retention protocols.



Charmaz (2006), Glaser and Strauss (1967) and Lincoln and Guba (2000), defined that saturation (or duplication) occurred when no new insights, themes, or codes were being captured, and that adding more participants would fail to add incremental insights. In keeping with this delimiter, I stopped at 23 participants (9 Latinos and 14 African American men).

No explicit minimum participation percentages by group (Latino versus African American male) were enforced. At all times, participant confidentiality was preserved through the use of pseudonyms (23 most popular male baby names in 2014) in lieu of actual names. Any participant responses that potentially identified the respondents were judgmentally redacted from the transcript and kept in a separate encrypted/password-protected Microsoft 2016 Word document.

#### Individual Interview Format

The format for interviewing included a semi-structured heuristic, which recognized that unexpected tangents derived from the participants' answers could dynamically improve the line of inquiry. Utilizing this strength of qualitative research, flexibility and expanded exploration of the answers received was practiced in order to access the participants' lived experiences (Merriam, 2009). Inquiries subject to the study's research questions were guided by the inherent phenomenological qualities of social cognitive career theory (SCCT). Therefore, they were centered on the participants' perceptions of career awareness, interest, and course of study choice, with a focus on their concomitant effects on self-efficacy and outcome expectations. Throughout the process, I sought to explore the constructivist meanings that MOC derived from their vocational experiences and the associated epistemological and ontological viewpoints they revealed (Merriam, 2009).

As detailed later in the member checking section, randomly selected participants were

chosen for reflective follow-up interviewing to access their thoughts on the codes, themes and conclusions reached. This process was designed to determine if new perspectives and information could be obtained as participants reviewed the study's preliminary findings. Carefully executing this process in order to not attenuate their previous contributions, the process led to valuable new insights. In six distinct instances, the iterative methodology yielded new participant-derived perspectives that were incorporated into conclusions anent familial and cultural effects.

### Demographic Questionnaire

As previously noted, a demographic questionnaire (Appendix J) was administered prior to the indicated interview date in order to efficiently capture generic student information (e.g., age, type of degree sought, ethnicity/race, etc.). In addition to promoting study efficiency, another key goal was to focus the actual individual interviews on specific, non-demographic questions. Responses in the questionnaire, like all interview data, were kept confidential using pseudonyms and encryption prior to storage in a password-protected file location. The questionnaire was delivered via Qualtrix, a security-designed online web tool used to collect survey information.

### Classroom Observation

As previously mentioned, the demographic questionnaire and individual interviewing was preceded by six classroom observations, two at each campus. My observational purpose was to provide a preliminary orientation of what constituted paramedical pedagogy. This was sought to better understand the in-class components so that when the men described them, they would be

easier to capture accurately. Observations were made of paramedical students in general, and not explicitly of those who participated in the study.

### Informed Consent Notification

Prior to the presentation of the demographic questionnaire and its associated interview, participants were provided an informed consent agreement (Appendix H). This detailed their rights as participants including – but not limited to – confidentiality, the right to decline answering any and or all questions, and choosing to cease participation, at any time, for any reason, without explanation or repercussion. These protections were offered to encourage participation and help ensure honest and forthright responses, free of any incriminating concerns. The size of the participant pool (23), combined with the established confidentiality protocol, was likewise designed to promote participant openness and confidence.

Moreover, as part of the consent notification, potential participants were informed that their interviews would be digitally recorded, transcribed, examined, and clustered for patterns across interviewees. It was further explained that this procedure was executed to enhance verisimilitude and facilitate the study's phenomenological methodologies. These processes are necessary to establish the guidelines that help ensure trustworthiness and credibility in qualitative research (Merriam, 2009).

## Theoretical Framework

Much criticism has been levied at the dearth of vocational choice models, which if better diversified, could improve the focus of research efforts – both culturally and ethnically (Brooks, 1990; Cheatham, 1990; Isaacson & Brown, 2000; Osipow & Littlejohn, 1995). In a rapidly diversifying U.S. demography, where differences exist due to country of origin, discrimination, racism, language, and historical background – disruptions to existing vocational models should be expected. Thus, careful thought must be invested when choosing a theoretical construct. This is especially true for MOC studies, which can vary greatly across different environments (Harper & Harris III, 2010).

Thus, factoring in the various strengths and weaknesses of the dominant models of vocational attraction and choice – as previously elaborated in the Review of Literature (Chapter 2) – social cognitive career theory (SCCT) was chosen. A review of the extant literature suggested that it offered the best combination of applicatory and explicatory potential, as well as being congruent with a phenomenological approach to the men’s experiences. SCCT’s framework outlines the critical vocational choice factors and decision points where MOC would potentially experience significant life events. Thus, these theoretically-derived elements of choice and decision were utilized to provide strategic points of meaning in the participants lives. Since this study was focused on capturing the meanings that the men derived from these junctures, SCCT was a complementary aid to the phenomenological study heuristic.

In SCCT, although Harper (2010) presented a mild critique of Bandura’s (1986) deficit orientation that he found inherent in social cognitive theory, Lent, Brown, Hackett’s (1994; 2000; 2002) core tenets were ably framed within anti-deficit orthodoxies. Utilizing them, I hoped to access the relevant elements that explained how MOC experientially gained

paramedical awareness, interest, and proactive commitment to its course of study. Additionally, the study's goal of capturing phenomenologically-significant descriptions of lived experiences, benefited from the SCCT framework to focus the investigation.

Merriam (2009) described a study's theoretical framework as "the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs your research" (p. 66). When examining MOC entering paramedical programs, SCCT's prior application to historically marginalized groups served as a valuable nexus from which to examine this study's problem statement, and concordant research questions. An *a priori* reliance on this theoretical framework was in fact crucial to the creation of the study's very research questions. These questions, constructed around the relevant MOC forces of vocational attraction, interest, and active choice of paramedical studies, effectively formed the core of the study.

Thus, the theoretical framework was inextricably linked to the study's goals through its recursive and inductive relationships between self-efficacy, outcome expectations, and active choice – and the subsequent career interests, goals, and actions it engendered (Lent, Brown, & Hackett, 2002). This linkage enabled the examination and clustering of its experiential effects on vocational self-efficacy and outcome expectations. Driven primarily by positive – or negative – performance feedbacks, it drove the iterative nature of the research design and by default its associated research questions (Lent, Brown, & Hackett, 2002).

In answering the research questions – 1) How do men of color (MOC) in community colleges define and make meaning of their initial awareness and interest in paramedicine as a potential career choice? and 2) How do MOC in community colleges define and make meaning of their active choice of paramedicine as a course of study? – SCCT was also used to evaluate the key qualitative vocational determinants. Due to its person/environment integration of three

key phases of the vocational choice process (awareness, interest, and choice), the model provided an effective guide and grounding for this phenomenological study (Lent, Brown, & Hackett, 1994; 2000).

To further elaborate, the integrated phases were defined as, 1 – the experience of career awareness and interest formation, 2 – the experience of career interest exploration, and 3 – the experience of actually choosing a course of study. In the model (Appendix F), the full socio-structural complexity of career attraction and choice is depicted to help structure the study with a disciplined approach. The reflexive relationship between career interests, goals, and actions, reveals the reciprocal interaction between these elements, as well as the preceding synoptic understanding of the individual's learning experiences (Lent, Brown, & Hackett, 1994; 2000). In the model, these experiences are then used by individuals to influence their self-efficacy and outcome expectations, both of which are critical to a student's willingness to explore, show interest in, and select a vocational track (Betz & Hackett, 1986; Lent, Brown, & Hackett, 2002). Through an examination of the men's constructed experiences and derived meanings, a deeper understanding was sought to serve the study's purposes.

Although no adoption of a theoretical framework is inherently free of bias or unwarranted expectations, SCCT provided an efficacious foundation for underrepresented group studies. In accordance with the tenets of Merriam (2009) and Creswell (2014), the theory provided many valuable components that helped focus the study. Utilizing its socio-phenomenological approach to career-seeking facilitated the execution of the research design and its subsequent critical data examination and clustering of meanings. Through a rich qualitative description of the often-complex vocational choice relationships and dependencies, the process of reviewing and clustering the specific meanings was enabled.

Moreover, by reviewing its previous applications in other underrepresented group studies – an area of weakness in other models – a competent basis for the framing of this study’s findings and synthesized conclusions was made possible (Lent, Larkin, & Brown, 1989). This was partially achieved by comparing previous underrepresented group findings and conclusions with my study to enable a review of the potential commonalities and differences. Comparability to previous similar studies also effectively contextualized and expanded on established sociological and psychological inter-dynamics through selective comparison of similar environments. Thus, conscious adherence to SCCT’s phenomenological architecture (distal and proximal factors coupled with career self-efficacy and outcome expectations) helped impose heuristic discipline anent these dynamics, and avoided unmerited and inapt overgeneralizations.

Absent this guidance, the data captured and clustered in the study could have been easily misinterpreted due to its lack of grounding in previous research findings. Instead of merely describing phenomena, use of SCCT provided the basis for effective contextualization of participant meanings within a collective narrative. Without this more expansive framing of the data captured, weaker isolated individualistic assumptions could have been made. Thus, use of the model underscores the importance of asking why and how questions, instead of merely when and what. This enables the addressment of richer constructivist meanings that undergird broader sociological and psychological perspectives (Merriam, 2009). It was through these broader concepts that an improved understanding of the particular elements of MOC anent paramedical choice could be effected.

### Data Analysis Plan

The data analysis plan was designed to accurately describe the inductive characteristics of

the men's paramedical experiences anent vocational awareness, interest, and choice. Access to the lived experiences of the men and how they interpreted these events in relation to their perceived meanings was desired. Realizing this goal was facilitated through the use of the theoretical framework (SCCT), which complemented the desire to access crucial experiential descriptions at key stages of the vocational pathway. SCCT was the catalyst for data capture through its guiding influence on the research questions, interview questions, and its strategic focus on career decisionmaking.

During data examination and clustering, I attempted to capture the men's accounts and their requisite meanings exactly as they were presented, without filtering them through my own biases. As part of my bracketing effort – also known as *epoche* – it was important that the participants' voices and perspectives be heard absent my own idiocentric feelings. Thus, the data analysis plan was consistently focused on how MOC made sense of and interpreted their own experiences in relation to the study's research questions. Its methodology organized the men's perspectives into a suitable foundation for the horizontalization methods, and textural and structural descriptions that were employed to capture the essence of their lived experience.

### Data Analysis Methodology

#### Horizontalization

Horizontalization was enabled by capturing all of the participant data as it was received. Through the exercise of *epoche*, all of the data were initially given equal weight and value. Receptivity to new perceptions and viewpoints was maintained with each additional piece of interview data dutifully recorded and transcribed. During actual interviews, contemporaneous elaboration from participants was encouraged in order to obtain rich descriptions of experiences



and how they made them feel. This was practiced to enable a fuller understanding of how the men experienced their particular vocational pathways and how it affected their lived experiences.

### Phenomenological Reduction, Textural Description, and Structural Description

Building on the horizontalization process, phenomenological reduction (also known as eidetic reduction) was then employed by reviewing the completed transcripts and formally eliminating any phrases and comments that did not relate to the study topics, specifically, those of vocational awareness, interest, and choice. Additionally, any data that was duplicated elsewhere was likewise removed. Transcriptions were read, and re-read, to begin the process of gaining a nascent awareness of any related coalesced narratives. This process was designed to organize and facilitate the examination of the men's accounts of their idiocentric experiences. The goal was to emphasize the significant phrases and sentences that could potentially condense into broader narratives and metanarratives.

From this reductive process, clusters of meaning emerged that began to describe what the men's experienced phenomena were like. These clusters of meaning were further distilled into varying descriptions of the nature of that lived experience, which are known as textural descriptions. These textural descriptions were then combined with concurrent structural descriptions of their perceptions that utilized a process of imaginative variation. In imaginative variation, active contemplation of the various structures, contexts, and settings that could potentially describe the men's experiences was enabled (Creswell, 2007). This process was undertaken to variably consider the different contextual environments that the men inhabited and their corresponding experiential perceptions. The goal was to "dimensionalize" their lived experiences so that they could be adequately represented in the study.

## Essence

In concert with a phenomenological methodology, the lived experiences and the relevant environmental factors were then synthesized to elaborate a common essence, or invariant experience, which was derived from the participants' study data. These syntheses, or metanarratives, resulted in new insights into the phenomena that MOC experienced as they made meaning of their vocational pathways. As stated in Patton (2002, pg. 54), this process answers the question, "what is the essence of experience of these phenomena for those who experience it?" Having this information facilitated an understanding of the essence of what it meant for MOC to undergo awareness, interest, and active choice of paramedical studies. Specifically – through the elaboration of essence – it was possible to gain a deeper understanding of the men's viewpoints, and the attributed interpretations they had of their paramedical pathways.

## Coding Facilitators

Coding can be enabled through the use of manual and software-assisted tools (Merriam, 2009). In this study, manual coding involved the deliberate capture and review of audio recordings and transcriptions, while software-assisted procedures were enabled with digital tools. These tools were used to help identify and organize the collected data. Both goals of identification and organization were well served by the tools that were employed.

The software that was utilized was ATLAS.ti. It was used to facilitate examination and the clustering of meanings in key areas that, absent the software, would have been less efficiently organized. The ability to upload interview transcripts, memos, and notes provided a platform for further data examination that complemented the manual review. It is important to note that software tools such as ATLAS.ti cannot replace the judgment of a thoughtful researcher, or

provide a basis for new knowledge by autonomously organizing the participants' data (Creswell, 2014). However, as a research tool it did facilitate the confirmation and refinement of previously documented codes and themes, thus revealing relationships that were not immediately apparent.

Through this conjoining of manual and software-supported efforts, a higher quality study methodology was effected. To help ensure this quality, all manually-derived or software-assisted codes and themes were fully documented and reciprocally compared to the research questions and the associated theoretical framework (SCCT). Additionally, any findings supported by the codes and themes fully incorporated student quotations and profiles to help support the underlying conclusions.

### Trustworthiness and Credibility

Two characteristics of qualitative research that help establish its inherent value are trustworthiness and credibility. Trustworthiness addresses the concern for rigor and thoroughness in the research design, its effective execution, and subsequent examination and clustering of meanings (Merriam, 2009). Credibility reflects a confidence that the phenomenological depictions of the participants' worldviews and perspectives are genuine and accurately captured by the researcher. Both are critical to establishing transferability, dependability, and confirmability of the research (Lincoln & Guba, 1985). Thus, safeguarding trustworthiness (Davies & Dodd, 2002; Mishler, 2000; Seale, 1999; Stenbacka, 2001) and credibility (Hippos, 1993; Lincoln & Guba, 1985) was of paramount importance.

Consistent with their transcendental roots, phenomenological studies require that the researchers neutrally receive the participant data without bias. Trustworthiness and credibility is enhanced through a verbatim capture and clustering of the data into meanings and themes that

are devoid of the researcher's assumptions. This process of bracketing is essential to accurate data capture and the subsequent textural and structural descriptions that form the relevant narratives, and metanarratives. In this study, I utilized bracketing to lessen as much as possible my personal biases anent the interview data.

### Assurance of Trustworthiness and Credibility

To provide trustworthiness and credibility, I employed three main methods: member checking, peer review, and reflection of my potential biases. Member checking involved canvassing participant feedback – during and after data collection – to help ensure the accuracy of my data capture and meaning clusters (Lincoln & Guba, 1985; Merriam, 2009). It served to lessen the probability that I had failed to accurately capture the men's experiences or misquoted them.

Peer review involved soliciting feedback from colleagues with topic familiarity to help validate the research design, methods, descriptions, meaning clusters, and conclusions (Creswell & Miller, 2000; Merriam, 2009). This process provided a review by an experienced community college researcher who had daily contact with MOC and could validate some of their descriptions and experiences. Additionally, the researcher could review my research methods to ensure that bias was not compromising my goal of adhering to phenomenological heuristics when capturing and describing the men's lived experiences.

Research reflexivity was a reflective exercise on my part through formal documentation of my life experiences and their inherent biases. Reflecting on these biases that were engendered through a lifetime of experiences and interpretations, allowed me to more effectively "bracket" them within the context of the study (Merriam, 2009; Watt, 2007). The journaling of this

reflective assessment is contained in Appendix K.

In addition to member checking, peer review, and personal reflection, I sought to enhance my relatability to the students by establishing rapport with them prior to interviewing. In order to put them at ease, and make them feel more comfortable, I socially bonded with them over our shared experiences as students. I related how I had begun my teaching career at a community college and my fond memories of being there. Additionally, I commented on the friendly and accommodating actions that their paramedical department had undertaken to aid my study – likewise thanking them for their willingness to share their vocational pathway experiences.

### Member Checking Methodology

Member checking is designed to address trustworthiness and credibility by dislocating the validation of the study's findings and conclusions away from the exclusive domain of the researcher (Creswell & Miller, 2000; Merriam, 2009). In this study, the member checkers' review process gave them a voice as to the accuracy of the transcription capture anent their experiences and the authenticity of the narratives and metanarratives that were elaborated. Augmenting this process, the seven randomly selected member checkers were also provided the study's underlying textural and structural descriptions that helped create its conclusions and recommendations. They were asked to review all of this study documentation, so that afterwards, a 15-minute follow-up interview (via telephone) could be administered. The call was used to capture their overall reflective impressions anent the study's authenticity and genuineness. Furthermore, this process allowed them to potentially add to their original interview data in order to further "dimensionalize" their lived vocational pathways.

## Peer Review Methodology

Peer review involved having experienced individuals – disassociated with the study – examine the research design, data collection (interviews and observation logs), and concordant documentation of the textural and structural descriptions. As the primary peer reviewer, I chose an Associate Vice President of Academic Affairs and Student Success at a prominent community college in Texas (disassociated from the study). Her school had a paramedical program but it was not a study location. She was chosen because she had successfully conducted community college research on underrepresented populations, provided valuable topicality through the contemporaneity of her work, and enhanced the study with her experience and background. Additionally, the community college district in which she resided enrolled many African American men and Latinos from which to draw relevancy and applicability. After she was emailed the study’s methodologies and findings, she replied with the following:

As a peer reviewer, I would say that your findings are consistent with men of color’s experience regarding awareness, exploration, and active selection of a major. Your work paints a vivid picture of the college choice experience and how this experience can be impacted. As a past community college student, I can also say that the participants’ words are accurate. As a higher education professional and practitioner, your findings provide me with ways to better serve this population as well as possible recruitment strategies.

As secondary peer reviewers, I also selected two respective emergency medical coordinators at CCA and CCB. They were selected for their combined 21 years of experience in paramedical coordination and management, as well as their lifelong contact with MOC in paramedicine. Although not as experienced at formal research methodologies and protocols, they nonetheless contributed valuable industry-based perspectives on the data that was recorded.

## Researcher Reflexivity Detail

Moustakas (1994) adds a further step, namely, that researchers also write about their own

experiences and the context and situations that have influenced them. This researcher reflexivity involves the acknowledgement that no individual is completely free of bias (Creswell, 2014; Watt, 2007). Within qualitative research, this is particularly relevant due to the need to accurately assess and communicate researcher backgrounds, assumptions, values, beliefs, and biases that can influence the study (Creswell & Miller, 2000; Watt, 2007). Since qualitative research transforms the researcher into the instrument that is used to collect the necessary data, reflexivity is of paramount importance (Creswell, 2014; Merriam, 2009). This voluntary self-disclosure of biases and worldviews is then made available to inform readers, and to help me bracket my potential predilections. To facilitate this process, I formally document this reflexivity in Appendix K.

### Chapter Summary

Chapter 3 described the study's methodology through an elaboration of: 1) the participant recruitment, 2) data collection procedures, 3) research questions, 4) individual interviewing, 5) observation goals, and 6) data analysis methodology. In Chapter 4, I present the findings that were derived from the data collection, examination, and meaning clusters through the research methodology. Through these findings, I hope to reveal the experienced viewpoints and life perspectives that these MOC perceive and the meanings they attach to them in their emergency medical pathways.

## CHAPTER 4

### FINDINGS

#### Chapter Overview

The purpose of this investigation was to provide a description of how men of color (MOC) in community college paramedical programs experientially gained an awareness, interest, and proactive commitment to its course of study. This chapter contains findings anent the vocational pathway experiences of 23 MOC paramedical students in three Texas community college programs. Two key research questions guided the study: 1) How do MOC in community colleges define and make meaning of their initial awareness and interest in paramedicine as a potential career choice? and 2) How do MOC in community colleges define and make meaning of their active choice of paramedicine as a course of study?

Using the research questions to orient the data collection, three metanarratives arose as the interview transcripts were examined using a phenomenological research methodology. Through the bracketing of my biases to allow the participants' lived experiences to emerge, the data was eidetically reduced, and then examined through textural and structural descriptive processes. Out of this methodology arose the metanarratives, or invariant essence, which most closely described what it was like for MOC to experience their paramedical pathways. Thus, the men's "voices" were the foundation of all the observations and conclusions that were drawn.

Organizationally, this chapter contains five main sections. Each section is consistently referenced back to the three metanarratives that describe different aspects of the men's invariant essence as revealed by their interview data. In the first section, the study's three metanarratives that detail their needs for: 1) external sources of information, 2) ongoing support, and 3) external validation are elaborated. In the second section, I present the results of the men's demographic



questionnaire. In the third section, focusing on the men's navigational and social capital, I address the four underlying narratives (media influences, institutional influences, student career organizations, and mentor influences) that support the metanarrative of needing external sources of information. In the fourth section, I elaborate the two narratives (mentor influences and familial influences) that validate the metanarrative of needing ongoing support. Lastly, in the fifth section, the two narratives (raising ethnic/racial social standing and altruistic social desires) are presented that support the metanarrative of the need for external social validation.

This chapter culminates in Figure 1, which details the study's different metanarratives, and supporting narratives, as they depict the relevant interrelationships clustered around the men's study data. Reviewing this depiction of the men's perceptions of their vocational pathways provides an effective guide and working basis for the study's summary, discussion, conclusions, and implications that are presented in Chapter 5.

### Metanarratives in the Study

In this study, the men's descriptions of their experiences revealed three metanarratives of a need for: 1) external information, 2) ongoing support, and 3) external validation. These invariants, or universal experiences were consistently referenced by the men in their accounts of what it meant to progress through a paramedical pathway as a Latino or African American male. In support of these metanarratives, seven narratives emerged from the men's experiential descriptions, namely: 1) media influences, 2) institutional influences, 3) student career organizations, 4) mentor influences, 5) familial influences, 6) raising ethnic and/or racial social standing, and 7) altruistic social desires. Thus, a more detailed description of each metanarrative, and its corresponding narratives, is presented in order to help elaborate the

essence of the men's experiences.

#### Need for External Information

The first metanarrative, or invariant, was the need for external information. It was consistently supported by the themes of media influences, institutional influences, student career organizations, and mentor influences. Found within the initial awareness and interest in a paramedical pathway, it closely followed SCCT's instigating mechanisms. Often, these requirements spawned from a paucity of access to vocational information in their homes and neighborhoods. The participants clearly related through their experiential descriptions that they were materially reliant on external information sources to achieve a coherent cogent understanding of paramedicine. Michael succinctly described this as "I started from zero, I knew absolutely nothing when I started." Repeatedly, the need for outside individuals and entities to create an information nexus that was capable of servicing their vocational needs was found in the data. At times, these unmet needs were evident in the number of times their discovery of paramedicine was described as "random" or "lucky."

In cases where external information sources were available, and able to guide them, the mediums varied greatly. Although internal vocational information was occasionally available from family members in emergency response positions, it often came from television shows, recruiting institutions, student groups, and outside mentors. These sources, often dislocated from their local environments, served as proxy vocational awareness programs to help inform and guide their interests. Explaining this dynamic, one study participant (Jacob) described that many of the White paramedics were "legacy" (second and third generation emergency responders), and he was not. Elaborating, he said, "we don't have fathers and grandfathers who were paramedics,

we're not legacy.” Daniel added that he felt this was the reason that MOC were not informed, much less recruited, into emergency medical programs.

### Need for Ongoing Support

The metanarrative of continuous mentor and familial support recurred in the men's descriptions through how they were successful in becoming aware of paramedicine, and their concordant decision to pursue it as a course of study. Their described life experiences emphasized a need to have this support from early paramedical awareness, through nascent interest, and finally into a firm academic commitment. In their accounts, this support took many forms – sometimes vocationally-specific, other times more emotionally-oriented, but always normatively crucial. The men's narrative accounts often described how this reinforcement increased their positive self-efficacy and outcome expectations. Michael described how absent this active support network, “I would have not been able to do this, they gave me strength, and the will to go on.”

To the extent that actual institutions such as schools or professional groups could provide suitable mentors, that support was helpful. But the network of mentors that were sourced from informal institutions, such as friends and acquaintances, was equally influential. The men consistently described the bracing influence of family as significant. Family support, whether vocationally-specific or emotionally-oriented, was accounted for by the men as one of the strongest vocational factors. Nowhere was this more evident than in the accounts of Lucas and Liam who ascribed all of their vocational success to their families' support and belief in them. They both credited their families with “giving me the strength” to pursue paramedical studies.

Thus, the utilization of mentor and family support to facilitate their SCCT vocational

stages (career awareness, interest, and choice) was described by the men as a key success component. Jacob attributed his self-confidence and vocational success to his aunt who was a pediatrician in Latin America. She was a constant source of support that he credited with guiding him towards a health care career. He remarked “without her, I would be sacking groceries somewhere, she’s always been there for me.” The participants’ perceptions of ongoing, unwavering support from others were consistently described as a significant reason they were able to successfully transition from high school to their paramedical program.

#### Need for External Validation

Finally, the men described various experiences that depicted a need to validate themselves externally. One of these manifestations was found in their desire to elevate the social standing of their ethnicity or race. Noah captured this feeling when he remarked “I want others to see me as capable and competent so people will feel that I, and others like me, belong.” This desire was consistently coupled with an adjunct desire to altruistically serve society. The participants often communicated that they felt an inherent need to convince society of their competence, and capacity to serve. For many, these innate desires represented a motivating force when deciding to pursue paramedical studies. However, other participants, described them as a feeling of “extra weight” and “additional pressure,” which they felt others did not have to bear.

The words that the men used to describe these phenomena supported a transactional and compensatory ethic. Numerous expressions such as, “owe,” “pay back,” “pay forward,” “prove to others,” “serve others,” and, “show we can,” described an expressed need to receive validation from other parties. Variably perceived by the men, it was nonetheless described as significant in

their decision to choose paramedicine and persist through hardships. James effectively described his need for validation when he commented that “to me, this is about proving to people that we <African Americans> belong in medicine and that we are not all gangbangers.”

### Demographic Questionnaire - Participant Responses

In order to provide additional background information when reviewing the men’s data, I created a matrix that reflects the demographic answers that were received from the participants. Through the use of pseudonyms (23 most popular male baby names in 2014) to protect their identities, the examination and clustering of textural and structural descriptions was facilitated.

Table 2

#### *Participant Demographics*

Name	Veteran	Degree Sought	Ethnicity/Race	Age	Hours Worked Weekly	Sibs	Career Aspiration
Noah	No	EMT-P	African American	19	16	3	Paramedic
Liam	Yes	EMT-B	African American	27	24	2	Paramedic
Mason	No	EMT-B	African American	19	30	0	Paramedic
Jacob	Yes	EMP-P	Latino	22	0	4	Registered Nurse
William	No	EMP-P	African American	18	0	1	Physician’s Assistant
Ethan	Yes	EMT-I	Latino	23	0	2	Paramedic
Michael	Yes	EMT-P	Latino	22	30	2	Cardiac Tech
Alexander	No	EMT-B	Latino	18	0	1	Paramedic
James	Yes	EMT-P	African American	25	16	2	Paramedic
Daniel	Yes	EMT-B	African American	25	24	3	Paramedic
Elijah	No	EMT-P	African American	21	30	2	Paramedic
Benjamin	No	EMT-P	Latino	19	8	3	Paramedic
Logan	No	EMT-P	Latino	18	0	3	Paramedic
Aiden	No	EMT-I	Latino	20	16	1	Paramedic

*(table continues)*

Name	Veteran	Degree Sought	Ethnicity/Race	Age	Hours Worked Weekly	Sibs	Career Aspiration
Jayden	No	EMT-P	African American	19	24	1	EMS Coordinator
Matthew	Yes	EMT-P	Latino	22	16	2	Paramedic
Jackson	No	EMT-P	African American	23	40	2	Physical Therapist
David	No	EMT-P	African American	22	24	5	Paramedic
Lucas	No	EMT-P	Latino	18	8	2	LVN - Pediatrics
Joseph	No	EMT-P	African American	25	32	0	Paramedic
Anthony	No	EMT-B	African American	23	40	0	Paramedic
Andrew	Yes	EMT-B	African American	24	40	2	Respiratory Tech
Samuel	Yes	EMT-B	African American	25	40	1	Registered Nurse

#### Narratives Supporting External Sources of Information

In the men's experiential descriptions, external sources of information were required to access an initial awareness and interest in paramedicine. Awareness and interest in paramedicine, as described by the interviewees, were closely tied to Lent, Brown, and Hackett's (1994; 2000) theoretical framework. Sometimes the participants were indirectly informed through media consumption, or directly through mentors, or institutionally via student career organizations. Other times, they were exposed to different career options through random haphazard events, which while tenuous, still served to instigate their nascent interest in the vocation.

In this study, the men primarily relied on four sources of external information, namely, media influences, institutional influences, student career organizations, and mentor influences. To facilitate an organized review, the specific findings anent these supporting narratives, and their support of the relevant metanarrative are detailed below.

## Media Influences

### *Popular Entertainment*

Many men related stories – especially in their youth – of acquiring an awareness, and subsequent interest in paramedicine through popular media (television, film, Internet, and social media). Television shows such as *House*, *Chicago Fire*, and *ER*, while not exclusively vocationally deterministic, did contribute greatly to their initial knowledge set (however flawed) about the profession and its characteristics. Motion pictures like *Ladder 49* and *Backdraft* were also frequently mentioned, with the latter even existing as a framed movie poster in two of the participants' homes, and mentioned by four men as the reason they initially explored emergency medical services (EMS). At least six mentioned that social media had at least a moderate impact on their career knowledge acquisition and foresaw its role growing in the future.

Elijah – who regularly watched *ER* trauma shows – said he was moved to say aloud, “hey, that’s cool” while watching one during his formative years. Another, William, said that he regularly “watched the medical shows” and imagined himself “in their shoes.” It was not unusual for the participants to identify with a specific character that was depicted in a program. They described a strength and conviction of association with the character, which they felt was instrumental in their paramedical interest formation.

Eight participants regularly watched a reality-based EMS show set in New Orleans (*Nightwatch*). Samuel described how he learned from the show by comparing his independent assessments of the actual patient conditions to the real-time diagnoses.

I watch it <*Nightwatch*> religiously because it’s the most real TV show out there, and there’s a black paramedic...in season two, he earned his paramedic badge...I follow these guys on Instagram <social media app> so when I go to New Orleans in April I plan to look all of them up...I follow along with the show and practice diagnosing the problems and see if they do the same thing...it’s like you’re testing yourself, it’s a game of memory, okay what do I do?...I record the episodes so I can go back and watch them

over and over...if I get something wrong, I see if I missed something...so then I can go, okay, this is why they went with oxygen.

This account revealed the potential for popular media to act as an educational resource for rudimentary skills that could be academically honed later. Samuel also related that he used these shows to practice his in-class content. It was additionally noted that he specifically mentioned that *Nightwatch* had an African American paramedic, even noticing that his initial badging on the show was different than at the end when he had earned his paramedic certification. He would later go on to say that when he visited New Orleans in April, he sought out this African American paramedic and introduced himself.

Continuing the trend of using popular entertainment to educate, Jayden said he would watch the *Discovery Health* channel for hours. When asked how much this influenced him, he said:

A lot, I would always watch the health channel, *Discovery Health*, watching as they would bring in these trauma patients and how they would treat them...also how patients would come in with mysterious symptoms and <then> have them solved.

One paramedical student, Joseph, expressed an almost religious fervor around the television show *Chicago Fire*. The program had made a significant impact, especially anent his ability to explore and become interested in emergency response from a disassociated state.

I watched tons of *Chicago Fire* during that period <his youth>...I used to get very excited, VERY EXCITED, about the way the tones sounded, the way they were going into a fire, doing things, and I was on the edge of my seat every show...I got excited because I had no idea of what it was going to be like so that was my first insight into how it was going to be...I had never been to a fire station before...so I didn't know the tones or what the sirens meant...my whole idea revolved around *Chicago Fire*.

A few participants either socially projected themselves into emergency responder roles, or had relatives who did it for them, as they watched television together. This often took the



form of identifying with certain characters or romanticizing their own potential experiences when they would become licensed paramedics. Elijah expressed this form of social modeling as:

I'm sure you've heard of it, *Chicago Fire*, a lot of people like that show...my mom is really interested. Any time she sees the show she's like, look, that's going to be you one day. There's this movie called *Ladder 49*, that's a really good one. I think I saw that my junior year. And from there on, I said, man, this is what I want to do...I watched *Untold Emergency Stories*, they always showed the ambulance first, before they got to the ER <emergency room>, and I was always more interested in the ambulance...

This derivation of future desired events from fictional current ones was described by many of the men as a source of aspirational capital, often described as necessary due to an absence of aspirant role models. Correspondingly, it enabled the men to aspire to a paramedical career despite perceived current obstacles.

Joint watching of medical dramas with family was not uncommon as one participant (William) said he regularly watched *Grey's Anatomy* with his mother, and another (Jacob) had an uncle who recommended *Boston EMT*, remarking, "it was a show we often watched together." Even older shows were mentioned as Noah related, "I would come home from school and watch *MASH* with my dad, it was cool." Another participant (Logan) expressed the same sentiment about the 1970's medical drama *Emergency*. Both related being attracted to the medical elements of the shows. More importantly, these experiences were credited by the men with sparking their nascent interest in emergency medicine.

### *Internet Use*

Another source of informational awareness was the Internet. Many related a reliance on it for initial impressions of what EMS would be like through a review of relevant websites and online institutional information. Matthew said, "when I left the military, I looked up information about paramedics on the Web, it was my only source at the time." Additionally, it was found

that video sites such as YouTube frequently hosted EMS channels that gave the men useful visual content. This was later used to assess the desirability of a paramedical career. Michael related that since he had been in paramedical school, he had often looked up various skills to practice for class.

I end up spending a lot of nights “YouTubing” assessment and procedures...*EMS World* and *Emergency Medic* have good channels...I find them very useful.

Comments such as these described information sources that served students not only while exploring paramedicine, but also during their academic development. Many men said that they used YouTube to augment their medical training. Access to phone applications was also mentioned as useful although less developed. Michael described his phone as “indispensable to my studies.” The open nature of these websites and apps was also perceived by the men as useful, especially since they often lacked EMS backgrounds and relevant social capital. Some of the participants described this deficiency as lacking individuals in their lives who came from relevant health care positions. Absent these, they felt more reliant on the Internet, open access websites, and phone applications for information.

To a lesser degree, podcasts such as *Impact Paramedical Institute* were also mentioned, although they did not play an overriding role in vocational exploration. While the quality of some of these information sources – text, audio, and video – was subsequently assessed by the men as overly-simplistic or blatantly incorrect, they expressed gratitude that they existed at all. They related that the media did not have to be perfect to hold vocational value. Noah, relating his experience with *Wikipedia*, said, “I know it’s not perfect, but it’s a good place to start.”

### Institutional Influences

Many men referenced their dependence on external institutions to help them learn about

career options. Since many of their home environments lacked sufficient career guidance, the men described a need for direct involvement from high schools, paramedical departments, and community colleges to learn about paramedicine.

### *High School*

Generally, the high school environment was not described as a strong source of career information, or skills. High school advising was not particularly held in high regard by the men. For example, Daniel described his discovery of paramedicine as “stumbling across it and lucky, my counselor never mentioned it.” All but four of the men said that they did not receive significant vocational guidance in high school. The men consistently related experiences that were devoid of strategic career-seeking activities. A common refrain was that the main source of career recruitment at their high school was the military. “Military recruiting was huge at my high school, but I never saw paramedics” was expressed by William.

In contrast to this perspective, Jacob said that, in his case, he doubted the potential effectiveness of any high school guidance. He said, “I didn’t know then that I would be doing this. If you had told me then <in high school>, that I would be doing this now, I would have been, uh, okay?” Mostly this was attributed by them to a lack of maturity. Benjamin regretfully said, “unfortunately, I didn’t really take advantage of career counseling there <in high school>.”

Many of the men related a strategic lack of anticipation or focus on their future circumstances. Daniel when remembering his high school years reported that “looking back, I feel that I could have gotten better grades if I had applied myself more.” James stated, “I was so focused on this girl and the relationship, when I should have been focused on school and possible careers.”

On a different tangent, Noah commented that he was so focused on a physical therapy career (through a sports scholarship) that he did not seriously consider any alternative vocational choices. He described it as:

In high school, career fairs were held but because of my scholarship offers, I was already settled on four-year schools. Then when I was in college, companies and organizations came and recruited but I already knew I was going to physical therapy school, so I did not participate.

This constriction of future opportunities was regretted by many participants because they said it closed them off to potential new areas of interest. They did not fully appreciate that their circumstances would change and require this vocational knowledge.

Often, the omission of emergency medicine as a viable career option was perceived by the men as being caused by the influence of other avenues of school and work. Eight participants remarked that institutions focused on other higher education pathways, effectively excluding paramedicine. For example, Benjamin cited the influences that he felt as he neared high school graduation.

There was nothing <about paramedicine> at my high school...all the talk was about college, "I'm going to get my business degree, I'm going to become a teacher, I'm going to go into the Army, Navy, Air Force, etc."...nothing was ever, "I'm going to become a paramedic."

This was often related by many participants who felt that emergency medicine was not stressed enough at their high schools, with even community colleges failing to highlight their paramedical programs on campus. "They seemed to stress nursing and business more," was heard from Alexander. James commented, "with all of the guest speakers at our high school, no one talked about medicine, whatsoever." This dearth of medical career information was found to be quite common in these men's high school experiences, with only five relating direct exposure to medical careers.

### *Paramedical Departments*

Another participant (Jayden) related that EMS recruitment often simplistically involved paramedical departments hosting career fairs and inviting minority groups to attend. While that was appreciated, he felt that recruitment within minority neighborhoods would have been more effective.

You have to go to where African Americans are and that's what they don't do...that's the number one problem, they don't recruit where African Americans are...they don't go to minority high schools...these schools need introductory EMT programs, none of the high schools I knew had them...so it's all about where you grew up...

Jayden specifically mentioned that “you can hand out as many flyers as you want, but community interaction is key.” Many participants felt that visibility in minority communities was deficient. Aiden said, “I don't see paramedic recruiting billboards in my <Latino> neighborhood, they should put them there.” He, and others, related that early life contact with emergency medical departments would have greatly raised their awareness. Repeating this thought as a mantra, William simply said “information, information, information” when asked how to increase MOC participation. This, he felt, represented an overall lack of career information in lower-income communities. Joseph continued this theme:

When you do community outreach, you've got to go to the African American neighborhoods, at least some of them...shake some hands and go meet someone...get out in the “hood” and show them you care, people <recruiters> are afraid to go down there...go where they <MOC> are...don't have job fairs at large suburban sports arenas, they <MOC> won't be coming...don't try to attract them to you, go to them...

Another (David), reflecting the need for recruiter ethnic and racial concordance, related that they should try to reflect the predominant ethnicity or race of the high schools that they visit.

If you send people that don't look like them, you can send them all day long, it won't work. To recruit African Americans and Latinos, you have to send people that look like them. It makes a huge difference.

This aspirational desire to see “someone like them” was a common refrain from multiple participants. William expressed its importance as, “what many MOC lack today is someone who can show them what they can do and become with their lives.”

### *Community Colleges*

Community colleges were mentioned by 15 participants as a key to the achievement of their career goals. Their affordability and opportunity were often mentioned as the only reason they could attend college at all. In some cases, the community college environment was appreciated as a chance to grow both professionally and personally. Matthew commented:

I went to a four-year school and started taking classes to become a nurse. However, financially, I just wasn't there, so I was unable to attend the university anymore, but I still wanted to continue classes. So I started at the community college because of its strong nursing and EMS program, I really liked medicine...one of the things I also really liked was constantly learning, so I wanted to continue going to school. My goal is EMT first, then paramedic, then registered nurse, then later onto the nursing PhD.

He would later go on to describe the importance of his community college as a “launching pad” for his future medical career goals. In his case, those long-term goals extended beyond the institution into post-graduate education, a goal only achievable at a four-year university. However, Matthew acknowledged that his initial aspirations were made possible by his local community college.

### *Sports*

A few men (five) identified sports as an institutional barrier in high school. They felt that too much importance was placed on physical training and sports success. This feeling was not expressed as hating sports, but simply a feeling that athletics occupied too large a role during formative high school years. Daniel described it as:

There is nothing wrong with sports, but students should know there are more options. If you are talented at basketball or football, by all means, go play, get your scholarship and that's one less thing your parents have to worry about. But if you are playing sports, you still need to have something <an alternate career> to fall back on. Too many believe that when football ends, you have to settle for whatever.

Thus, many felt that institutional over-focus on athletics exacerbated paramedical underrepresentation by failing to communicate alternatives. When one former football player (Jackson) was asked if the coach having the players meet the game day paramedics would be a good idea, he enthusiastically said, "yes, oh yes!" The need to balance the physical demands of sports with the more cognitive traits of paramedicine was seen by them as a key to improving underrepresentation.

### *Workplace and Home*

As far as institutions, the workplace and home were seen by 13 participants as potential barriers to interest during high school. Andrew described it as:

Since I'm working, I don't want to say I don't have time. I just have to... <long pause>...I feel more focused when I'm at school, I do all my studying at school and when I'm at home I don't feel like studying.

These demands associated with making a living, combined with the distractions of being around family and home-based chores, represented a difference between themselves and conventional four-year "on-campus" students. Constrained study time and dispersed focus were mentioned by many as a barrier to vocational study commitment.

### *Student Career Organizations*

Some MOC referenced external (or internal), student organizations that introduced them to different vocational tracks. In some cases, although the introduction was not directly related

to allied health fields, the mere act of thinking about different careers was described as beneficial. The men recounted on numerous occasions that “thinking about the future” was key to forming and actualizing their career goals.

### *Emergency Response and Student Organizations*

Often, the men’s first direct awareness that emergency medicine even existed came from groups associated with emergency response or allied health professions. Examples provided by the men included tours of fire stations, hospitals, and emergency rooms. Indirectly, many participants related hearing ambulance sirens and emergency response vehicles, but few made a direct career association based on these experiences alone. Thus, the reliance they had on various career organizations to introduce them to paramedicine was authentic, if not always fully realized.

As an example of direct intervention, James recounted, “before I was in HOSA <Health Occupations Students of America>, I did not know what I wanted to do, I was just wasting time.” This desire to avoid wasting time was acutely present in older participants who felt that they had previously taken unproductive tangents prior to finding paramedicine. “I wasted so much time, now I regret it,” was heard from Joseph when recounting his earlier vocational experiences. Regardless of age, the nature of the key influences exerted by these organizations could be subdivided into three key areas.

- Requirements assessment: First, they obtained from these organizations valuable guidance regarding an assessment of what was required, academically and emotionally, to enter allied health fields. Aiden described it as “providing a path that you needed to follow and knowing what was important.” In the literature, this is frequently referred to as navigational



capital (Yosso, 2005). Absent this capital, students may lack an awareness of what exactly they need to do to achieve their academic and career goals. For example, James described the navigational effect of organizational mentors on students by relating the following, “mentors in the Academy for Sciences and Health Professions directed us <the students> towards courses that would help them enter the careers they wanted.”

This was a common description of organizational practices that increased navigational capital. Two African American participants (William and Jayden) explicitly mentioned Black Men of Distinction (social and civic mentoring fellowship of African-American men) as influential in teaching them how to apply and get into college. Another Latino participant mentioned the Federal TRiO program (educational opportunity outreach program designed to support students from disadvantaged backgrounds) as another organization that provided valuable advice focused on first-generation college students. Without this guidance, many participants felt that they would have been vocationally lost and not ended up in paramedicine. Benjamin described his organization’s impact in the following manner:

I was in Health Occupations <high school career group> from freshman all the way to my senior year, so I was doing hospital rotations in high school. After that, I loved medicine. So, I was going to pursue it, regardless, and I’m still pursuing medicine.

Absent these organizations, the men’s social circles often lacked the individuals with the requisite social capital to dispel incorrect vocational myths. Liam recounted how he once heard a friend say “you have to go to medical school for 12 years to work in a hospital.” Thus, through the ability of these organizations to provide access to actual health care environments, these myths were dispelled and accurate guidance was made available.

- Beneficial environments: Second, environmentally, these organizations gave the men a chance to interact with like-minded students who were focused on improving their career

prospects. Elijah described it as, “I was surrounded by people who were serious about their future and that rubbed off on me.” That positive contact with self-assured and goal-oriented individuals gave the men an opportunity to access higher levels of self-efficacy and positive outcome expectations, as delineated by the SCCT framework.

Through this contact, the men felt that first-generation college student challenges could be lessened. Samuel related an example of this in his life.

I’m a first-generation college student...in high school I joined ROTC, which was associated with a fire academy and EMT program. That program gave me a chance to visit fire stations, do clinicals <ride-alongs>, and meet actual paramedics...the program even gave me a chance to earn my EMT-Basic when I was a senior. This contact was very important.

However, most study participants lacked access to experiential programs such as this. Samuel expressed being appreciative of this opportunity and its rarity, since others had more limited access to the actual vocation.

- Access to mentors: Finally, in many cases, the organizations provided access to mentors – within and without – that could act as ongoing career contacts. Their long-term presence was described by the men as valuable and greatly appreciated. When 13 participants asked if they could contact one of these individuals “right now,” 11 participants answered affirmatively. This ability to have someone who could help guide their careers and even act as a source of possible employment was described by many as a “huge benefit” of career organizations.

Even when the contact to these individuals was described as short term, it still retained influence. One participant (Anthony) who was in a high school health class described a specific opportunity that led to his nascent interest in emergency medicine and mentor contact.

As part of health class, I was in clinical rotations in high school. That involved doing different rotations around a hospital, following doctors, nurses, and technicians

throughout different departments like ER, labor and delivery, and orthopedic surgery. One of the respiratory technicians there kind of took me under his wing. After he did that, I knew I wanted to do something in medicine.

The other four men who were exposed to experiential clinical opportunities like Anthony's also related their interest in medicine as sourcing from similar experience. Their student groups were able to enable social contact between the participants and medical professionals that benefited both parties. The relevant mentor contacts were described by the men as raising their self-confidence so they could "see themselves" as medical professionals.

### *Random Discovery*

When MOC lacked coherent school-group contact with medicine, the sources of their paramedical interest were more diffuse and sometimes random. Occasionally, the sources of contact were completely disassociated from medicine. The men described vocational encounters while delivering pizzas or simply being close to a fire station. Approximately nine men described their awareness of paramedicine as coming about randomly, sporadically, or by "stumbling" across it. Samuel related his version of a chance encounter.

I went by a station with the daycare I was working at the time. They had a station right by them and the kids wanted to go. I think they <firefighters and paramedics> hyped up the job for me. I didn't go in, I came to the door and I could just see in and I don't know, it piqued an interest in me. I saw the apparatuses they had, and I was interested. So, I did some research, started testing myself on civil service exams...so today I'm studying to become a paramedic.

Another participant (Michael) unexpectedly discovered paramedicine through a junior year project in high school. In a communications course, the students were asked to prepare a mock resume for a career field. He randomly chose paramedicine.

On the resume, I made the dude a paramedic...I did research so I could prepare the resume correctly...I ended up doing more research on it for my own purposes...initially, I thought it was all firefighter-based and fire did not interest me...that project, though,

informed me otherwise...

One African American participant (Mason) also reflected this haphazard characteristic in his account of how he found paramedicine. “I was looking and I really want to call it luck that I found this career...a career that I could love.” Many of the men expressed that their discovery of paramedicine over-relied on word-of-mouth and chance. Elijah remarked “I never would have heard about paramedicine if I had relied only on school.”

### Mentor Influences

Mentors were described by all of the men as important. They served as guides as the men explored their vocational interests and provided valuable navigational capital. In two instances, the mentors were active paramedics. In both these cases, they were encountered while the participants were volunteering at local fire stations or private EMS services. Other mentors who were not explicitly in medical fields, were still depicted as valuable by the men.

Correspondingly, Elijah commented that he got his start in paramedicine through a mentor only tangentially connected to health care.

My mentor worked for <large pharmaceutical> and I ended up working for them...we clicked because she knew my cousin through Houston Inroads <a minority serving career organization>...we have been lifelong friends to this day...we just connected...her network of people was <long pause> let’s just say, she hangs around the right people, yet she came from a low-income environment...anytime I make a career move, I get with her.

This depiction of modeling someone with a similar background who had experienced success was mentioned by other men as well. It was not unusual to hear the men relate similar experiences where they saw a mentor – or mentors – in a more successful position, and sought to emulate them. They related emotions of inspiration and an easing of decision-making anxiety, especially when the participants experienced mentor encouragement and praise. A good

example of this was Jackson, who worked as an EMT-Basic while pursuing his paramedical license.

If I have any kind of problem, whether professional or personal, those <my paramedical mentors> are the people I can always go to and they lift me up and give me perspective. Like now, going through school, I tend to beat myself down a lot and stress out about tests and homework. Going to them <my paramedical mentors> they ease my concern, they tell me that I know this stuff...They convince me that I'm not as dumb as I think.

Another (Jacob), echoing this sentiment, mentioned "I've had a wide range of support...and multiple people have helped me." This team approach to mentoring students was also described by other men as a feeling of having a team to "lean on" when they encountered difficulties.

#### *Race-Concordant Mentors*

Participants perceived that mentors of the same background, race, or ethnicity were especially valuable. The MOC described themselves as "drawn" to them. When exploring different career options, the participants felt that they would receive high-quality advice from them. For example, when deciding what types of careers were available and of interest, William said:

Mentors like him <same race> would explain every option and tell them, "hey, this is how I got here, you can do the same thing"...I've seen the reaction of people when someone gives them some half-ass information and then <in contrast> someone else gives them everything, they pour out everything, because they really want them to understand, this is a possibility for you.

Many men (10) echoed William's comments because their mentors were perceived as honest and trustworthy when it came to receiving reliable authentic information. Their experiences were described as positive and immensely helpful when aspiring to become a paramedic.

Not limited to male mentors, Mason described a female counselor in the *Compton Junior Posse* program (an organization providing inner-city youth with after-school alternatives) who he met in junior high. She talked to him about his college choices, potential careers, and his future in general. This was the first time he had experienced any career-related instruction, and she continued to hold an influential role in his life. When he was asked, “could you call her right now on your cellphone and ask her something?” he quickly replied “yes, that would be no problem.” Another Latino participant (Benjamin) was moved by the time and trouble that his ESL (English as a Second Language) teacher exerted to help him as a newly-arrived immigrant.

My ESL teacher was always helping me out...when I arrived in the United States I was 12 years old and in 8<sup>th</sup> grade. I had ESL with her in my 9<sup>th</sup> and 10<sup>th</sup> grade. She was always helping me out. And even when I was in my junior and senior year, she was always there helping me out, making sure I was studying hard, applying for scholarships, making sure I was going to the right college. I feel that if I had not had her, I would not have gone to college because after high school, I didn't know what was next. I didn't know where to go. She would constantly tell me, “hey this scholarship is coming out.” I always felt like she was always there. She wanted the best for me. It felt great...she was like a second mom.

This paramedical student fully credited his mentor with putting him on a pathway that led to him being the first health care provider in his family. The navigational capital she provided was key because his circumstances did not foster these opportunities. Benjamin added that his parents were likewise grateful for her guidance and mentorship because “they couldn't help me with this.”

James, through a mentor who was a colorectal surgeon, received an opportunity to visit a hospital and watch him perform medical procedures. Being there immersed the participant in a world of medicine that was previously unknown to him. He related that this resulted in personal growth that was attributable to a realization that “real people did this kind of work.” As the SCCT framework suggests, this type of experiential interaction materially affects career interest

and choice. His description of how this unfolded was almost a direct representation of this phenomenon.

He was a colorectal surgeon, so I was in the ER. I was in surgery suites, watching procedures being done, so, just being in the hospital, I loved it, absolutely loved it...after this, I knew I wanted to be close to medicine, I wanted to get as close to medicine as possible, without having to go to medical school.

This kind of direct contact and experience with the medical profession engendered great interest and many participants described it as having a transformational effect. Ethan remarked that going on a clinical run “made me see my future differently.”

### Narratives Supporting Ongoing Support Needs

Ongoing support needs were a constant experiential perception that the men referenced throughout their interview data. As a metanarrative, it encompassed an important position in the men’s lives as they sought to become paramedics. In this study, the need for ongoing support was buttressed with two consistent narratives, mentors and families. As Lent, Brown, and Hackett (1994) and Bronfenbrenner (1979) also found, strong sources of support are found within mentors and families. To delineate these two supporting narratives, detailed study data is presented by areas of influence.

### Mentor Influences

When it came to choosing paramedicine as a course of study, many of the men actively sought out mentors, while others simply came across them haphazardly. Although many of the participants attributed the encounters and subsequent guidance solely to good fortune, a closer examination revealed shared backgrounds and institutional programs that helped foster useful relationships.

### *Shared Military Backgrounds*

A good example of this phenomenon was a participant (Matthew) who was a military veteran. Although his mentor was not in paramedicine, he was still very impactful. The mentor sourced from a military setting where individuals worked together in cohesive units and were exposed to danger, thus indirectly resembling emergency response. The mentor's contribution was described as:

My lieutenant at the academy helped me through it...he was reassuring, he said, "hey man you can do this...other people came through, you'll be alright"...this was useful, especially when you don't believe in yourself...that's the big thing...other people believing in you, when you don't have faith in yourself...

With the mentoring lieutenant coming from a shared military background, his approach and support greatly influenced the participant's decision to study paramedicine. His words were useful, but also relatable contextually. Matthew described this evocation of military camaraderie from his mentor as a useful enhancement to his mentorship skills. He added that this was primarily because of his support reference coming from a shared organizational culture.

### *Teachers as Mentors*

Another participant (Elijah) recounted how he was originally going to be a nurse. However, through classroom contact he grew close to a teacher mentor who helped him "sort out his thoughts" and influenced his decisionmaking.

There was this one teacher I had. He was an anatomy and physiology professor. I was in his office one day and he asked me why I wanted to become a nurse. I told him because I want to help people. His response to that was, "yeah, but there's many ways to help people, why this one?" That kind of made me think. I really looked up to him, and he really made me think.

The challenge presented by Elijah's mentor somewhat paralleled the experiences of others who were not told what to do, but instead encouraged to introspectively look within



themselves. Liam described a similar incident with a biology teacher where she asked him, “think hard about your future, what do you want to become?” This caused him to reflexively reassess his life and begin a beneficial mentor/mentee relationship with her. Vocationally, these interactions were perceived as valuable by the men prior to committing time to a specific course of study.

### *Diverse Approaches*

When talking to the study participants, the mentorship approaches they experienced were diverse in origin and practice. Even after they had selected a paramedical course of study, not all mentors were necessarily outwardly supportive or pleasant. One mentor was described as someone who pushed the participant and compelled him to do things he was not comfortable with. When asked how his mentor interacted with him, William said:

He kind of forced me to do things that I didn't want to do. And in the end, being young – because you're a kid – you would later say, oh, I get it now. There's a lot of things you don't account for because you don't understand things until after you've gotten past being a teenager.

In contrast, another mentor – who was a pastor – had a somewhat different approach.

While Mason was struggling with the stress of paramedical training, his pastor would just listen and quietly provide counsel.

Our training has been intense and there has been a lot of knowledge to absorb in a short period of time. As a result, I've gotten closer to my pastor. He listens and takes me out to dinner and we talk. He is there for me 100% of the time. He is just a phone text away. He tells me scriptures to help guide me.

These varying mentorship styles were consistent with the literature, which recognized that skilled mentors adapt their styles to what the mentees require (Jacobi, 1991). Another participant (James) described this adaptability simply as someone who knows when to say “hey,

you got this, take your time...you can do this.” Having someone believe in them, when they did not believe in themselves was described as crucial by the men. It gave them the self-efficacy that they later used to persist through difficult times and reminded them to not underestimate their abilities. The importance of this support was highlighted by the fact that all participants in the study – save for one – said that they tended to underestimate their abilities.

### *Disrupted Families*

The presence of disrupted families often prescribed a distinguished role for mentors. Many men related that absent these mentors, they would have lacked the confidence to select paramedical studies. The men lacking father figures were particularly prone to mentioning a non-family mentor as influential in establishing their masculinity. William described it as, “learning how to become a man.” He added that he was lucky to have two such mentors in his life.

My track coach and *Young Life* <non-denominational Christian guidance organization> leader, to me both of those men were like fathers to me because my father was not around...they basically told me everything I needed to do, right and wrong...they were supportive of me...they took care of me, I stayed with them in their homes at times...<when asked if he could call them right now and ask them for advice, he said>...Oh yeah, I could call either one of them right now and they’d pick up the phone...

This type of relationship was not seen as lasting a semester, or even through college, instead it was viewed as lifelong. When mentors served as surrogate fathers, the participants’ descriptions of affection and loyalty to these paternal figures were vivid. The unconditional support these students felt from these mentors was mentioned by some of the men as the key reason they wanted to serve society. Samuel described it as “giving back or paying it forward.”

For some men, the mentor was crucial to their selection of paramedical studies because they had already been through the training. Elijah said he turned to his mentor when deciding to enter paramedical training because “he had been through the program and he was a paramedic.”

He added:

When I was working as an EMT-Basic with my field training officer, he was the acting paramedic. Fairly soon, he noticed that many of the procedures he did, I already had learned on my own. Seeing this, when an opportunity came up to enroll in paramedical training, he told me “don’t mess up, do this, you can do this, you’re good.” His comment made a big difference to me.

This feeling of others having already forged a pathway through their career track alleviated their concerns when selecting paramedical studies. Ethan related this feeling as, “others have done it, so I can too.” This vicarious confidence, borne of “following in the footsteps” of their mentors was shown to be an effective attraction to the vocation itself.

### Familial Influences

Consistent with the tenets of most psychosocial literature, few individuals have the same scale of decisional impact as close family (Hackett & Lent, 1992; Phinney, Dennis, & Chuateco, 2005). Families, environmentally and on a micro-sociological basis, affect the lives of all who are within their social space. This does not diminish the importance of outside mentors, but merely acknowledges that family can have a quantity and quality of contact that is capable of affecting crucial life stages. Correspondingly, the relevant literature strongly supports the importance of family in shaping academic pathways (Bean, 1982; Hahs-Vaughn, 2004; Perna, 2000).

### *Familial Reinforcement*

The participants described their active choice of paramedicine as being greatly influenced by positive familial reinforcement. Somewhat consistent with Skinner's (1963) work in operant conditioning, the men acknowledged that parental approval and support was influential and greatly reinforced their vocational choice. Benjamin echoed this by describing how his parents helped guide his decision-making process, "they've always wanted me to make decisions based on educated thoughts...and they've helped me a lot." Even though most MOC had parents who lacked a background in medicine, they did not describe it as an overwhelming handicap. Receiving positive support from family was still considered rewarding and worthwhile.

Benjamin added:

People who helped me out were definitely my parents. Even though they didn't have the industry knowledge, they were there no matter what. They told me to follow my heart.

Another (Ethan) expressed it as, "I know they'll be there, whether I fail or succeed, they'll always be there for me." That degree of stability and security was repeatedly described as crucial to their decision to study paramedicine. Andrew mentioned his upbringing as crucial to this confidence, "my parents instilled in me that I had to work hard, never quit...now I see why some of my friends that lacked that support failed...I know that it helped me." Another African American participant (Jackson) succinctly summarized his sentiments as, "to me, family is everything." When asked how he could commit to the difficult work of becoming a paramedic, he added, "watching my dad work hard and the determination of my mom made it easy for me."

### *Family Closeness*

Five Latinos explicitly mentioned the familial closeness that they felt was endemic in Hispanic communities. It was clearly articulated as an important vocational and life-related

necessity that increased their quality of life. Alexander described it as “our family has always been very close, we’ve always been there for each other.” This feeling included extended family that encompassed cousins, nephews, nieces, and in-laws. Similarly, an African American student (Joseph) expressed his confidence that familial support for his paramedical decision would be ongoing.

My family, my immediate family, my mother, father, and sister, have been very supportive throughout all this. In fact, for me to decide to go to paramedical school, I consulted with my mother before. She’s always been supportive of whatever tasks I pursue. And it’s not just my mother and father that support me, my aunt and uncle have always been supportive. When I first decided to do this, they pulled me aside and said, “if you need anything, we’re always here to help. Always feel like you have someone to talk to. Talk to us before you go anywhere else.”

This reliance on family for support was a constant across both Latinos and African American men. Their pursuit of paramedicine was closely linked through the study data to their familial closeness and its benefits.

### *Performance Pressures*

The men consistently stated that if they failed in their paramedical studies, they would disappoint their loved ones. This was true even if their families did not explicitly express this sentiment. One participant (Michael) said, “it can be stressful because you don’t want to let those people down.” Anthony, when asked who he would disappoint most, echoed a similar refrain.

Foremost, my wife because of her great sacrifice...then my parents...they ask have you learned anything, and keep up with me, push me to work hard to be top of the class...she <my mother> has that expectation for me to be the top, which I understand...

Both African American and Latino, exhibited a great determination to avoid deviating from their chosen studies and disappointing their families. They wanted to “stay the course” and

complete their studies, exhibiting confidence that they could. Lent, Brown, and Hackett (1996) elaborated this efficacious effect of positive outcome expectations as a driving force in choosing a career course of study and persisting through negative events. Jacob, reflecting this desire to avoid disappointing his family, described it as:

If I was to fail, I would let down my grandparents, my biological parents and stepparent...they have high expectations of me...I think I would let down all of my immediate family...no matter the cost, I have to make it <success> happen...I hear a lot of tough stuff about the paramedic exam, my friend's brother had to take it three times before he passed it. But you know, I'm going to pass it. If not the first time, I'll just keep going until I pass...I'm perfectly competent so my only obstacle is my own laziness.

Often, during interviews, it was common to hear the men use words like “looking up to them,” “wanting to please them,” “making them proud,” to describe their inherent desires to not disappoint those who had invested time in them.

Ethan recounted, “with me being the oldest, my younger brother really looks up to me, I'm definitely aware of it.” Another (David), “I'm the oldest of six children, so everyone kind of looks up to me as a guide of where they should be, or want to be.” This additional “weight” of providing guidance to younger siblings in effect delineated a multi-generational responsibility. From one perspective, they felt that they needed to meet parental expectations, while from another, they also needed to be worthy social models for younger siblings. However, when asked, none of them expressed a reluctance to accept this role.

This desire on the part of MOC to avoid disappointing younger generations, and not just immediate family, has been detected in other relevant studies (Engberg & Allen, 2011; Wood, 2001; Workman, 2015). This generativity was described by the men as reflecting a responsibility towards future generations that required them (the participants) to succeed.

## *Immigrant Experiences*

The immigrant experience and its participant-described familial hardships and dislocations was noted in nine Latino men. Sentiments of wanting to uphold family decisions to emigrate from their native country, leaving behind their family and friends, was a driving force in choosing a course of study that somehow justified their sacrifice. Aiden said:

My family has always been very supportive of me. Whenever I moved here, I was thinking, you know my dad and mom, they left their country, their friends, and their parents. They did this so I could have a better future. I wasn't about to become a bum...If they had not immigrated, I wouldn't have any of these opportunities.

Another participant (Benjamin) suggested that his immigrant family's commitment to his early education, and their display of deep personal sacrifice, reflected their desire to have him go to college.

When I was younger, just a child in school, my mom would actually help me with my studies. I remember I was in third grade working with division and multiplication tables and my mom would make me do them until I learned them. Even though she wasn't born here and she wasn't able to help me a lot since she couldn't speak English, she helped me. My dad helped me too. When I was in high school, my parents, anything I said I wanted to do, they would say "you know what, you want to do it, we'll help you out with it." They would wake up at 6 o'clock in the morning to take me across the other side of town to get my paramedical training.

One relatively new immigrant to the United States (Jacob) related a psychosocial connection to the hardships of the immigrant experience and his feeling of an obligation to select a vocation that would make his parents proud.

My mom always said "You don't want to end up dumb like I did, you don't want to end up like your dad and I, doing work for minimum wage. That's why we brought you here, so you could succeed. That's why we left everything behind for you." Those little talks helped me a lot. They showed me that they cared what career I was choosing and wanted the best for me.

This immigrant experience imprinted in these men a desire to choose a career that their families could value. Many of them spoke glowingly of hearing their parents, and siblings, brag

about their choice of a health care career. Jacob said it made him proud and validated his decision. Another (Logan) added that this feeling of pride from making his parents happy “would never go away.” This was heightened by the fact that he was in college, while his grandfather only had the opportunity to finish fifth grade, and his father the ninth. This feeling of advancing the family’s interests through the study of paramedicine was common. Their strong constructivist testimony empowered and assured them that they had made the right choice.

### *Stepparents*

Extending beyond strict biology, many men mentioned that they had strong relationships with stepparents. One participant (Logan) related how much he particularly appreciated and was drawn towards his stepfather. He expressed this sentiment because his stepfather was willing to help him financially with his chosen career. The importance of this was deeply emphasized.

I’ve known my stepfather since I was like four years old, so I just call him my dad ...when my mom and <biological> dad divorced, I decided to stay with my stepfather because he told me “if you need me to help you out, you don’t have to pay for rent.” He also paid for my phone saying, “I’ll help you until you’re done with schooling.” This meant a great deal to me.

Often, participants exhibited great loyalty to those family members who helped them economically as they pursued their careers. Six participants expressed gratitude for parents that helped them pay for a car. The provision of money for lodging and books was mentioned by nine men as key to their formal academic choice-making. Thus, this form of economic capital was highly valued and clearly influenced them as they approached a career choice decision. Once the students committed, the risk of potentially disappointing these benefactors also incentivized them further to succeed.



Complementarily, other participants emphasized the outsized importance of non-economic support from stepparents as well. Knowing that they were visible and proud of their achievements was motivating. Feeling appreciation and being loved by them “just like one of his own” represented a great motivating force. Mason when asked if non-economic support from his stepfather was important in his vocational pathway, quickly said, “I absolutely think so, just the fact that he told me that he was proud of me meant a lot.” Anthony related that his stepmother’s unconditional support “kicked me into a higher gear.”

### *Positive Impact Potential*

Many MOC were extremely grateful to be in positions to have a positive impact on their families. Their choice of paramedicine was reinforced by their family’s strong show of support and pride. One high school dropout, and first-time college student, (William) described it this way:

I am the first one in my family to go to college...everyone tells me how proud they are of me...people ask me how school is going, and if I failed, I would not only feel like I let them down, but my whole family as well.

This additional burden of not failing, while widely acknowledged, was not described by the participants as permanently deterring their career pathways. They consistently provided language such as “make them proud” and “honor their sacrifices,” which demonstrated that the benefits of success exceeded the costs of possible failure.

### *Economic Pressures*

When selecting paramedical studies, economic pressures were never far from the men’s minds. Although paramedical studies – when compared to four-year programs – were more

affordable, the ancillary costs often proved substantial. The need to support themselves, and sometimes their parents, siblings – and occasionally spouses and children – was an ever-present consideration.

Expressing this concern, Liam said, “I want to become independent so that I’m not a burden on my mother and father.” Fear of economic inadequacy was described by Mason as “I feel that I have to be successful, because no one is going to take care of me as I get older, so I have to find something that I can take care of myself with.” Another aspect to economic disruption was the often-physical nature of their parents’ work and its inherent injury potential. In some cases, the family’s economic status, and by extension the men’s academic pathways, could be disrupted. Alexander recounted:

The year 2014 was kind of an obstacle for me. I graduated in 2013, then when I was in my first semester my dad got injured. He told the landlord that he was going to miss some payments because he got injured at work. We ended up needing \$10,000 in three months to finish paying off what we owed. At that time, it was really stressful because I was going back to school and I really couldn’t because I had to help out with the house and the bills. It was a hard time for me and my family because we could’ve lost the house. If so, we would’ve been out on the street.

Persevering through a setback such as this elucidated a common determination and drive exhibited by many of these men. With Latinos and African Americans having fewer workplace protections like adequate health insurance to treat and speed recovery, this scenario was not unusual. This has been found particularly true in MOC environments since Doty, Beutal, Rasmussen, and Collins (2015) found that 34% of Latinos aged 19-64 lacked any health insurance. Although African Americans fared better with 18% in the same age range, neither group compared to the White (non-Hispanic) rate of 10% noninsurance.

### *Proxy Familial Ties*

When seeking to understand the experiences of MOC who chose paramedical studies, proxy familial ties associated with the vocation itself were described as “strong.” Emergency paramedical groups manifested this strongly. Many participants expressed a “brotherhood” where individuals looked out for each other and “had each other’s back.” For Anthony, it meant, “people you can trust, people you can learn from.” As additional evidence, one participant (Logan) quickly pointed out that his “father’s coworkers (paramedics) once helped him paint his <father’s> house.” Logan said it was common for his father and his paramedical coworkers “to a hang out and just talk.”

As in a military model of unitary purpose, I encountered in almost all the men a desire to be a part of this kind of extended family. One participant (Andrew), when asked if he thought of himself as joining a brotherhood quickly said, “yes, definitely a brotherhood, I volunteered at a fire station as an EMT for a month and there was definitely a brotherhood there.” Moreover, he said “just watching the interaction between the emergency responders, you could tell there was a connection between them...this is definitely a brotherhood kind of thing.” Matthew, describing the impact of seeing his firefighter/paramedic uncle interact with others at his fire station recalled the following:

When I would visit my uncle at work, those guys had each other’s back 100%. I’ve known instances when my uncle would have something unrelated to work, a couple of guys would come over and help him...so yes, like the military, you know somebody’s got your back 100% for whatever you need, and that’s another reason I picked it <paramedicine>.

Supporting the emotional effect of joining this kind of proxy family, Lucas described his paramedical class as “tight knit” with almost everyone comfortable saying “hey, can you show up early and help me with something?” Liam depicted a form of horizontal academic support

that was available from his colleagues. When asked what he did when he ran into trouble with his studies, Liam said:

I would just go to some of my rookie friends and tell them “hey, can you help me out, quiz me, whatever,” and they were more than happy to help me out...<when asked if he would consider going to the instructor first instead, replied>...no, I’d go to my peers first...

This peer-based camaraderie extended into cross-racial and cross-ethnic support. When Anthony was asked if this mutual support and respect was race-dependent, quickly said, “no, you respect the man next to you, because you have to depend on each other.” Joseph added that “you had to be able to rely on the person next to you, and they on you, regardless of race.” These men related that this aspect of their work was vocationally incentivizing and one of the reasons they were pursuing emergency medicine.

### *Military Backgrounds*

Extending this camaraderie, family with military backgrounds represented a particularly strong source of vocational guidance towards paramedicine. One participant (Ethan) reported that his curiosity in medicine came from a cousin who was a helicopter flight medic in the Air Force. Tragically, when he (the cousin) was killed in an accident, it left a strong vocational imprint on Ethan. “His willingness to sacrifice his life for his country made an impression on me, it made me think about giving back,” he readily admitted.

Another participant (Samuel) related a strong desire to serve that was first manifested through his older brother’s service in the Marines.

From freshman year to senior it was just my thing to become a United States Marine. My brother joined, and whenever I saw that he joined and it worked out well for him, I did too. So throughout high school it was, Marine Corp, Marine Corp, Marine Corp – that was on my mind. And that is exactly what happened. My brother told me, “yeah just come in and do it for four years, then if it’s not for you, get out and go to college”...I

loved it, I loved it so much I served nine and a half years. Although I served as a mechanic, one day I participated in a mass casualty exercise, and that's when I knew I wanted to be a paramedic.

Although the military incited some of the participants towards paramedical training, only one (James) formally transitioned from EMT-Basic (the level combat medics generally attain) to paramedical training. Articulation of military medical training into the more formal civilian certifications is traditionally an underutilized source of future paramedics (EMS Report, 2008).

At times, the descriptions of their academic relationships exhibited self-described “brotherly” qualities. David said that even though they were still just students and not out in the field, “I feel like we all have the same goals and are willing to help each other.” He added that he regularly worked with others to study for tests and prepare. When asked if he felt as if he was joining something bigger than himself Matthew said, “I definitely think so, it does seem like there is like a brotherhood, when you get in there you're going to need friends to back you up and support you.” He added that he felt that this was an occupation that was going to be “difficult to do by yourself, and you would need others to be successful.”

### Narratives Supporting External Validation Needs

External validation needs were consistently referenced by the men through their study data. Desires to be perceived as worthy and deserving of societal and peer respect was a predominant invariant essence that they communicated. Expressed via different means such as wanting to prove that they were capable during skills assessments, national testing, and patient perceptions represented a few of their overriding concerns. Additionally, this validating need was expressed through altruistic feeling towards society and public service. Wanting to prove themselves and become a valuable asset to public health in many ways validated their decision to

pursue emergency medicine. In further detail, both narratives (raising ethnic/racial social standing and altruistic social desires) that support the broader metanarrative of external validation are presented.

### Raising Ethnic/Racial Social Standing

Choosing paramedicine to potentially elevate their ethnic and racial social standing was reflected in many African American and Latino males' study data. This was manifested in accounts that expressed a desire to have society assess their race or ethnicity – and its contributions – more highly. The participants' emotional needs to perform above average to prevent stereotypical misperceptions was a strong motivator, especially when considering paramedical studies. Mason said, "I don't want to be another statistic, minimum wage job, getting a girl pregnant, etc." James expressed that "your work reflects you as a person, so I have to do the best job that I can." They were particularly sensitive to assumptions about their native intelligence and capability to do the work. This sensitivity drove them to not just passively choose, but seek to excel in emergency medicine.

### *Ethnic and Racial Inequality*

Noah described his perception of unequal ethnic and racial social standing as a feeling he sometimes had during academic conversations. In conversations with colleagues, he felt that he needed to use accurate precise language to avoid being stereotyped. Moreover, when asked if he was sometimes treated by patients as somehow less than intelligent during clinicals, remarked, "yes, all the time...you can hear it in their voices or you can see it on their faces."

Another African American participant (Jackson) who graduated with a bachelor's degree in math – prior to selecting paramedicine – related numerous instances where he felt the university professors thought he was “slow” or needed special attention. He related one specific instance experienced during his undergraduate studies.

Math had always come easy to me. But during one calculus class, the professor announced that this week's topic was fairly difficult, but not to worry. He would take it section by section and make sure everyone had the time they needed to learn the complex concepts. He continued, “so if anyone needs me to slow down or stop, just say so, okay?”...the whole time he was on my side of the class, talking almost directly to me, with weird body language...later during a break, my friend said “it looked like he was talking to you.” This caused me to tell him <professor> in private, “you know others are coming to me for help, right?”

Another participant who identified as Latino (Jacob) perceived similar dynamics when attending a class where the instructor used similar voice and body language markers. He related that, “when addressing me, he spoke a little louder, drew his words out, kind of tilted his head at me and made his eyes a little wider, as if saying, “are you getting this?”

Although many felt that they were reevaluated once the quality of their academic work was known, it was still disconcerting to receive this initial treatment. To what extent this behavior degraded the men's self-efficacy and academic outcome expectations was variably described by them as ranging from “having no effect” or “getting inside my head a bit.” Jayden's response to this prejudicial treatment manifested itself in him wanting to climb as high as possible in the emergency response hierarchy. He said, “I'm going to promote as high as I can because that's my duty as an African American. There's not that many...there need to be more minorities.” Jayden believed that within EMS, he needed to ascend as high as possible. He clearly expressed the need to push upwards to combat possible prejudice.

Jacob, when asked if he had directly experienced prejudice or racism, replied, “for the most part, no,” but added:

However, I hear things, and it just helps motivate me to make them see me in a better light, better than the negative light that they may see me in...so for instance, if they see me as a dumb guy, I want to have them call on me first for help...if they see me as lazy, I want to outwork them. So, in a way, it makes me better.

Jacob was adamant about not wanting to appear as if he was lagging or failing to be a leader. He described this desire as important to “who he was, and what he stood for.”

### *Performance Pressures*

When selecting a paramedical academic course of study, the generational implications of ethnicity and race were felt by the men. Ten men felt that their minority status carried additional social responsibility. This additional responsibility was experienced in relation to those who came before them, and those who would follow. Elijah commented:

There’s an eight-year-old boy out there that I don’t even know, who’s going to attempt this later...he’s depending on my efforts at getting to a certain level to make it easier for him...it’s a little extra weight that others don’t carry.

When Liam was asked if his path was made easier by the African American paramedics that came before him, he quickly replied, “oh yeah!” Correspondingly, many men related that if their performance in the paramedical program was exceptional, it could conversely benefit future generations.

This feeling of influence that motivated their paramedical choice extended into existing impressions of them by family members. Approximately 18 men mentioned that they were cognizant of the example they were setting for other family members. Benjamin expressed it as:

I’ve got nieces and nephews, so anytime someone is looking up to you, and you don’t have success, or you don’t make it through, then when they <family members> go through something similar in life, it could indirectly affect them and knock them off their path.

Jacob – echoing the same familial pressure – felt that after he chose paramedical studies,



failing was an overriding concern. He described it in terms of not wanting to academically disappoint himself, his family, and even society in general.

There is a great amount of pressure, I am struggling. I say this to be very honest with you. I'm getting 75s and low 80s, and that to me is annoying because I feel that I can do a lot better than that. I feel like I could dedicate a lot more time to be more productive and you know, just better at my craft. But, yeah, I'm very driven by wanting to be a very competent paramedic. And so far, even though my grades are technically passing, and I'm planning on passing the national registry exam, that doesn't mean that I know everything. Me, I want to know everything. I don't want there to be a patient out there in this city that has a situation, or medical emergency that I'm not completely comfortable with...I want to know as much as I can, to help as many people as I can.

While this was viewed as a potential driver and impetus towards higher academic achievement, it was also thought of as emotionally corrosive. Noah went as far as to describe this as "frightening because my performance can lead to the death of another human being." This remark was consistent with various considerations that were commonly found in the extant literature anent pressure felt by underrepresented groups (Steele, 1997).

In addition to these potentially deleterious effects, fear of having their performance misperceived due to ethnicity or race was also seen by the participants as an unjust double standard. This double standard was described as not just experiential, but also generational, as it was passed along by parents and elders. James said that his mother repeatedly told him, "if you want to be successful, you're going to have to be twice as good, I know it's not fair, but that's how it goes." Another participant (David) related that his family told him:

You've got to exceed the expectation, not just meet it. Fifteen minutes early is required to be on time. If you're on time, you're late. You have to give 110% every single day.

This need to validate themselves externally, versus sourcing from internal psychological processes extended into family, colleagues, and others who they felt were monitoring their performance. Mason remarked:

I mean, so far, I've passed all of my exams, so I want to say I'm feeling confident, but at

the same time I'm nervous, I'm on the edge of not knowing what to expect. Like earlier, you asked me if I feel a lot of pressure, I feel plenty of pressure.

This pressure, as depicted by Mason and other participants demonstrated a reciprocal and inductive relationship between performance attainments, and its effects on self-efficacy and outcome expectations. In support, the men described a feeling of relief when they experienced success. Elijah succinctly expressed this.

Sitting back and watching hands-on skills and telling yourself, if you try this, you're going to mess up, you're going to embarrass yourself...But when you do it, you get more confident about it...later you are like, "I can do this!"

Daniel, despite insisting that he supported his choice of emergency medicine, commented that he felt that society – for historical reasons – did not perceive minority paramedics as equal. He ascribed much of what he experienced during clinicals (ride-alongs) to this expectation of inequality.

The society we live in has already built up this stigma that we as minorities are second fiddle...it's not a knock on anyone, it's just the truth...a lot of people don't really want to face the truth...they don't want to look at what's real and what's not...that's something that's inevitable.

This concern was reflected in the complex descriptions of their experiential feelings anent the paramedical uniforms. The positive emotions that the uniforms generated were reflected in their use of words such as "proud," "privileged," "professional," "important," "trusted," when describing their feelings. The majority of the men (13) proactively said that uniforms could socially raise their ethnic or racial standing.

### *Paramedical Uniforms*

Many of the men were actively motivated towards paramedical studies by this phenomenon. When relating whether being a paramedic in uniform could raise their social

status, 19 of the men felt it could. The uniform's social power even extended into the purchase of coffee and lunches by complete strangers when they were on clinical runs. Other times it occurred when entering restaurants or clubs, as it did for one uniformed participant (Joseph) who was admitted ahead of others. James commented that "a lot of people just feel the need to come up to me and thank me for my service." He added:

On clinical runs, my partner and I will be out for lunch or getting coffee and people come up to pay our meal. They say they appreciate what we do for them. It makes you feel valued and respected.

Noah, agreeing with this societal aggrandizement added:

Going in full uniform into a McDonalds, people are going to look at you differently than a guy walking in with shorts and a T-shirt and some sandals... It's the standard for them <paramedics>. Whether they are paramedics, military, firefighters, or law enforcement, they are held to a different standard...they just are, they're out there in society to help.

However, complexity related to uniforms was also expressed as they experienced feelings of not being sure if it was respect for them, or merely the uniform. While from one perspective it made them feel appreciated and venerated, at least four individuals said it reflected respect for the uniform, and not them. Joseph described his feelings anent the uniform in this manner.

That's the reason when I'm in stores, I'll keep my uniform on. I don't like doing it, but I do it so I'm not looked at as a threat. With the EMS badge on my chest, I'm not a scary black male that someone is threatened by. It's unreal.

As an adjunct to the socially-elevating discussion of uniforms, some expressed that it was tied to the job title. Benjamin remarked that societal elevation was not invested in the individual (himself), but in the job title. When asked if society would think more of him just because of his position – and not just him – he quickly answered, "yes, they're going to, whether you want them to or not, just because of the job title." When probed on his mention of job title, he explicitly repeated "job title, not me as a person."

## *Stereotype Pressures*

Environmental factors also affected how the men saw their likelihood of being typecast or prejudged once they were paramedics. The experience they had in one city, versus another, affected their thoughts about the attitudes that different groups could hold. One Latino participant (Alexander) described a particularly negative incident:

I have never felt stereotyped here <diverse city>. I think it's because we are in <diverse city>, and there are many Latinos. I rarely feel stereotyped here, however outside of here it's different. I took a trip to Florida this summer and we stopped in Alabama. I guess I felt pretty stereotyped there. We went to a restaurant and me and my family got out. They <mockers> were trying to speak Spanish to us as if we didn't speak English. I, myself, don't even speak Spanish. But I have never felt stereotyped here <diverse city>.

This individual said he was genuinely bothered by this experience and doubted that he would like to work as a paramedic in a less diverse environment. While he did not regret his choice of paramedicine (this incident pre-dated his vocational decision), it did cause him to become reflective about it. Regardless, he went forward with his vocational choice.

Reflecting on why this integration is important, and clearly influencing his choice, another participant (Jacob) said that the social standing of all Latinos could be collectively raised because of the career's inherent characteristics. He explained that this was possible through visibly competent care and the ability to provide culturally-sensitive service.

Bilingual paramedics are very, very, very useful. Let's say the patient speaks English but they're on the floor and they can't breathe or speak. But the people around him who are perfectly competent and saw it happen only speak Spanish, then if would be very useful.

This form of cultural currency could be referenced back to previous research, which found that increased diversity in medical providers could create better health outcomes (Hamilton & Marco, 2003; Helm, Grabarek, & Reveal, 2002; Saha, et al., 1999; Selassie, McCarthy & Pickelsimer, 2003; Sullivan Commission, 2004). Moreover, Logan said that language aside, another valuable component that diverse paramedics could bring is

“understanding, an understanding that the patient’s train of thought can be a little bit different from yours.” This was described by him as not something to be feared or avoided, but an opportunity for all paramedics to grow their cultural knowledge.

### *Social Elevation*

Some men expressed a definite attraction towards paramedicine because it allowed them to act as a role model and influence other minority youths. Benjamin felt that creating positive health outcomes could foster vocational desire in underrepresented men. Seeing how paramedics could raise their social standing through emergency medicine could make them want to experience this too. He described a situational opportunity that demonstrated this:

I know that sometimes there might be places where you feel that you’re looked down upon...other people may look down on you because you are Hispanic or Latino, or any type of minority. But if you were to see someone of your race come into your home and save a life, they <Hispanic youth> might say, “maybe I can do that too”...you could then get more Hispanics and Latinos into this workforce <EMS>. Also, if it was not a Hispanic home, other races might be more positive about Latinos.

When Benjamin was inversely asked if Latino social standing could drop if Latinos became paramedics, but lost patients, he said it depended on the family’s inherent biases. Essentially, he related that if a pre-existing negative bias existed, a negative paramedical event with a Latino paramedic would exacerbate their prejudice. However, if the affected individuals were fair-minded, this would not be true.

Still, many men expressed a fear that if they and a White partner were on a run, patient’s families could potentially favor the White paramedic over them – a fear realized by some of the MOC who had been on actual clinical runs. Undeterred, though, William quickly said he would serve the patient, “even if they were a member of the Ku Klux Klan,” with another describing it as “performing his duty, to the best of his ability regardless.”

### *Career Advancement*

Lastly, the men realized that the potential for other positions in medicine such as registered nurse, emergency medical coordinator, and physician's assistant could correlate with higher social standing. Seven were interested in pursuing being physician's assistants, with one even applying to relevant medical schools during his paramedical studies. He felt that completing his paramedical training would greatly aid his future pursuits regardless of acceptance or rejection. Two men (Andrew and Michael) wanted to explore allied health fields related to pulmonary and cardiac treatments. Many related a desire to pursue specialized nursing fields as a byproduct of paramedical studies, although Jacob proudly exclaimed "as a paramedic, you can do more than a nurse...there are things we can do that a nurse cannot."

Another individual (Lucas) wanted to be an LVN and work in pediatrics. Eight of the men mentioned that they saw themselves as "street doctors" a non-derogatory term they enjoyed. William proudly related that during a paramedical clinical to an African American home, the residents exclaimed "I didn't know that Negroes could be paramedics." This resulted in a personally-rewarding series of questions from the children about how one could become a paramedic. This was perceived as a proud moment in the participant's course of study that he said reaffirmed his vocational choice.

### *Feelings of Pride and Respect*

Societal pride and respect was a consistent theme in the men's motivation for pursuing emergency medicine. Reflecting the effect of this pride, Samuel said, "my father tells all of his friends that his son is going to be a paramedic and help people." Another participant (Joseph) repeating this theme described his initial respect-based attraction to the field.

In hospital visits, the professionalism that the people I saw had, I saw how professional they were with patients, helping them...I saw this and wanted to be on a higher pedestal like them...patients having respect for them...

Joseph added that while on clinical runs, he observed that, “while patients did not necessarily tell him they looked up to him, you could see it in their eyes.” This desire and envy of those who had this type of respect was a driving force in validating their field of study. Experiencing this, elevated the participants’ self-esteem and gave them a sense of purpose and conviction not unfamiliar to researchers who have studied SCCT’s self-efficacy and interest mechanisms. Further extending the effect of these experiences, it could have the complementary effect of potentially counteracting existing negative stereotypes and help diversify the career field.

#### Altruistic Service Desires

A strong drive to serve society was a strong consistent behavioral marker in the participants. The decision to select paramedicine as a course of study was often directly tied to a desire to “help people.” That desire spanned across the inherent perils of serving the public in potentially dangerous situations. James described this as a desirable element of the vocation because “you get a chance to risk it all to save lives.” This was particularly true in students who wanted to become paramedic/firefighters or were veterans, though most participants expressed a willingness to risk their lives if necessary. The potential danger of being around fires, active roadways, and other emergency response environments did not deter them. Andrew, when asked about the danger, readily said, “I could not imagine myself doing anything else...this is by far to me the best job.”

### *Serving Society Ethic*

It was noted by some that paramedic/firefighters were more vulnerable to peril because they were tied to the patient. While firefighters responded to the dangers of fire and smoke and other perilous environments, paramedics did this too while also being committed to their patient's medical condition. One African American participant (Samuel) when he related his paramedical decision to his mother heard her say:

“Isn't being a Black man in America dangerous enough already?” I replied, “Mom, everyone has to die one day, at least this way I'll die helping someone else.”

Other times, the drive to serve society was tied to specific groups. Seven participants said that having African American and Latino paramedics could improve service to patients of similar backgrounds. A Latino participant (Lucas) who had gone on clinical runs referenced this when asked if Latino patients gravitated to him. He quickly answered, “all the time...they want someone who looks like them, who understands them.” This form of concordance was not portrayed by the participants as White paramedics being ineffective, but instead that ethnic and racial concordance was generally preferred by minority patients. This study finding was consistent with Grabarek and Reveal (2002). For example, when Joseph was asked if he felt that his ethnicity or race presented an advantage during clinicals, he said:

To be honest, I think it allows me to be able to communicate more effectively with the patient...sometimes on the scene there is an African American patient around a lot of Caucasians and that makes them feel uncomfortable...<however> when the patient has someone across from them that looks like them, they are able to communicate more effectively...there's been many times with African American patients that instead of looking at the certified paramedics, they look at me and talk to me...

Many related that ethnic and race-related care was important because for many low-income minority patients, they could not afford doctors. David remarked, “for many, we are the



only doctors they'll ever see.” Another participant (Benjamin), described the experiential reality encountered during clinical runs in poor neighborhoods.

Over there <minority neighborhoods>, those people don't have doctors. You are their doctor. You are their medical resource. If they feel something, they call 911, they don't have a doctor to call. They don't have a nurse hotline to call.

This dynamic was especially prevalent with elderly home-bound patients. While paramedicine could not replace their need for a primary care physician or a hospital, the participants still felt that they were important health care contributors, especially in guiding wellness decisions. Noah added an overarching public safety component, describing it as “sometimes we have to go into homes and help educate people about how to take care of themselves.” Most of the men described a feeling of pride in becoming an important health care asset in their communities.

Andrew saw the ability to help others as a highlight that created a kind of adrenaline rush, one capable of compelling him to choose paramedicine. In essence, the ability to assist others was its own reward.

I just think it's awesome that you have the capability to save someone's life. To walk up on the scene towards people who are totally helpless and treat their loved one...and you know exactly what to do to help, and to try and get them back, or to make them better, or to alleviate their pain.

He, and others, often mentioned how they pitied friends and associates who lacked an opportunity to experience this emotion. Whether their friends were closing business deals or making important sales, these paramedical students doubted that the experiences were commensurate. Noah simply described it as “I remember the first time that I got someone back on a CPR <during clinicals>...there is no feeling like that in the world.”

At least eight men said that this service to society extended into the area of calling out other paramedics if they were not serving the public ethically. James, although just beginning his paramedical career, described it as:

I am talking about paramedics who are working legally, but not ethically...they may be getting the job done but perhaps ignoring the patient's emotion and stress...the things that you should take care of. And that's where it's going to be hard...going up to a work peer and telling them "you need to do a better job"...You have to look at the bigger picture, and it is about serving the public not necessarily making friends with your coworkers.

This level of loyalty to the public was also described by other participants as not necessarily being an impetus to "turn someone in" but instead a confrontation of someone if they ignored holistic patient care.

Occasionally, the men would describe their familial influence towards societal service as sourcing from religious and faith-based origins. Being raised in church environments engendered in them a feeling of needing to give others some of the "blessings they had received." Alexander expressed this feeling as:

I have both parents so I've always had them here for me. I was raised in a church environment, a family. They always told me to give a helping hand when you see somebody in trouble. Myself, I'm like that, if I see somebody on the side of the highway with a flat tire I'll go help them. Or if they're trying to push their car to the gas station, I'll go help them, anything I can do help anybody.

This concept of church as an extended family – one worth belonging to – echoed the previous descriptions anent emergency medicine having characteristics of a brotherhood or extended family.

### *Influence of 9/11*

Another individual (Matthew) said that his altruistic desire to study paramedicine was spurred by the historical events of 9/11. When the terrorist attacks occurred in his hometown of

New York, it had the following effect:

I was 10 when 9/11 happened. I was hurt, I was pissed off, I was upset...I wanted to join the military which caused me to later enter ROTC...as I got older and a little more level-headed and I wasn't just governed by my emotions, or my anger for people or events, I ended up realizing that I loved people...I wanted to have a more direct impact here at home, <so> I wanted to be a paramedic and help people and save lives.

While this individual represented only one of three participants who specifically attributed their emergency medical choice to the attacks, all of the men were familiar with the event. Exhibiting this, Benjamin quickly referenced the number of emergency responders who died that day (411), while yet another (Samuel) described watching the event on television at a young age and grasping the bravery of the individuals who responded. Andrew encountered his impact more in a history class where his teacher showed a 9/11 documentary. When asked if he felt exposure to that content made him want to become a paramedic, he said:

I definitely think so. It basically made me respect them a lot more in regards to what they do, and made me want to contribute as well. If these guys are out there putting their lives in danger, helping other people, I kind of want to do that too.

Another socially altruistic desire to enter paramedicine was described by David as wanting to become a productive contributor who was ably independent, and capable of self-improvement.

When I was telling him <his father> what I wanted to do as a job, I just told him that I wanted to be a functioning contributing member of society. You know, just to make the world a better place one way or another. I feel like that's everybody's duty.

That level of commitment towards wanting to become a contributor instead of merely a consumer was common in the men, and a strong attractive force. Thus, the men indicated that often the draw of paramedicine was directly tied to this ability to "give back" to society and its recompensatory feelings.

### *Effects of Immigration*

Immigrant Latinos were especially prone to characterize this societal service as an obligation to partake in partial recompense for their immigrant experience. Benjamin related, “I want to serve the people and the nation, because they helped make all of this <his life> possible.” Alexander felt he “owed this country something” for how they had helped his family. This form of social validation was tied to this perception of a debt that immigrants owed to the country that had “taken them in.”

### *Inherent Characteristics*

Yet another source of vocational choice for emergency medicine was stated in terms of its inherent qualities that were not easily duplicated. Joseph, when asked what he felt would be most rewarding about being a paramedic said, “you get to ride in an ambulance with loud sirens and lights...you get to help people out...then at the end of the day, you get to go home feeling good about yourself.” Approximately 15 of the participants said that they would be miserable or unhappy working at a desk. Two others (Noah and Jackson) added that paramedical studies were fun because they were like learning how to solve a puzzle.

## Summary of Findings

Chapter 4 elaborated the study’s main findings that were centrally focused on exploring the experiences of MOC and their pathways towards a paramedical program. In many instances, this study’s findings corroborated many of the extant literature’s contributions anent mentorship, family support, and overriding sociological mechanisms that regulated race and ethnic perceptions.

Overall, three metanarratives, or invariants, were synthesized from the men's experiential descriptions that revealed clusters of need for: 1) external career information, 2) ongoing support, and 3) external sources of validation. Supporting these were seven narratives, or meaning units, that were evident in the data: 1) media influences, 2) institutional influences, 3) student career organizations, 4) mentor influences, 5) familial influences, 6) raising ethnic and/or racial social standing, and 7) altruistic social desires. In most cases, the relationships between these themes and metanarratives were iterative and reciprocal, with the positive and negative effects felt by many participants.

In order to provide a graphical representation of the metanarratives and their underlying narratives, as described by the participants in Chapter 4, Figure 1 depicts a compiled summary. In Chapter 5, the study's overall summary, discussion, conclusions, implications and recommendations for practice are presented.

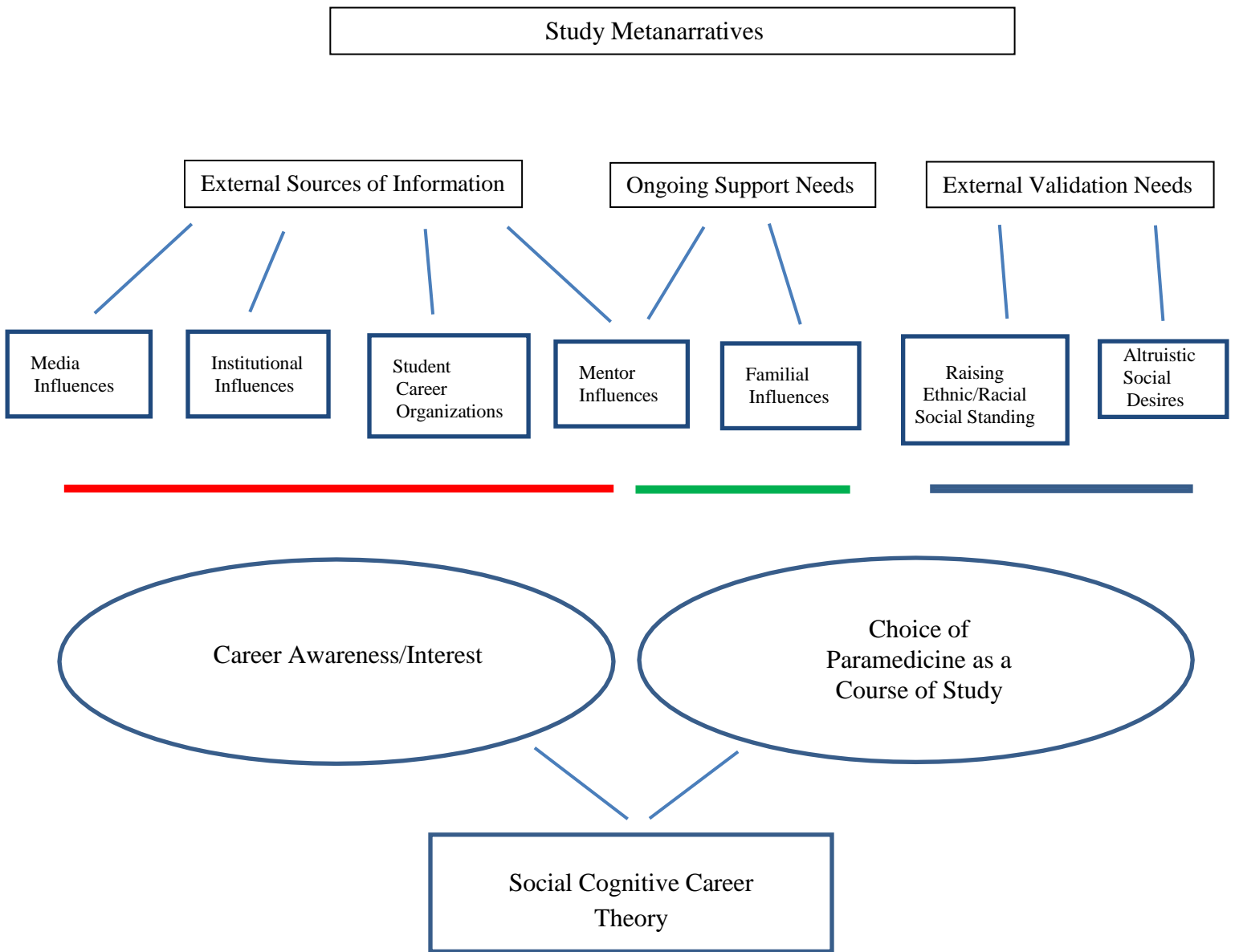


Figure 1. Summary of metanarrative findings.

## CHAPTER 5

### SUMMARY, DISCUSSION, ESSENCE, CONCLUSION, AND IMPLICATIONS

This study investigated the vocational pathways of Latino and African American men to gain a better experiential understanding of how they gained awareness, interest, and commitment to paramedical studies. A qualitative phenomenological research methodology was employed at three different community colleges (across three large community college districts) to examine the idiocentric vocational perceptions of 23 men of color (MOC). Fourteen of the study participants identified as African American with the balance identifying as Latino. All of them were at least 18 years old. Semi-structured digitally-recorded interviews were utilized, which enabled the creation of the transcripts that were subsequently examined and clustered for meanings. Prior to interviewing, observations were performed at each of the three campuses during typical emergency medical classes, the goal being to orient myself as to typical paramedical course content and pedagogy.

#### Summary of Study

The purpose of this study was to describe how MOC in community college paramedical programs experienced their awareness, interest, and ultimate choice of paramedicine as a course of study. Correspondingly, two main research questions guided this investigation:

- 1) How do MOC in community colleges define and make meaning of their initial awareness and interest in paramedicine as a potential career choice?
- 2) How do MOC in community colleges define and make meaning of their active choice of paramedicine as a course of study?

The study data was analyzed using Lent, Brown, and Hackett's (1994; 2000) social cognitive career theory (SCCT). This theoretical framework – itself derived from Albert Bandura's (1977b; 1986) work on social learning and social cognitive theory – provided a basis

for data examination and the clustering of meanings. SCCT posits that vocational interests, goals, and actions are moderated by an individual's self-efficacy and outcome expectations. These iterative relationships are then capable of providing a basis for understanding the motivations that lead to career interest and choice.

Study findings suggested that the participants' experiential descriptions clustered into three main metanarratives: 1) external career information, 2) ongoing support, and 3) external validation. These perceptions formed the core of their invariant experience. These were further derived from seven key themes or narratives, namely: 1) media influences, 2) institutional influences, 3) student career organizations, 4) mentor influences, 5) familial influences, 6) raising ethnic and racial social standing, and 7) altruistic social desires. Collectively, they helped describe the key catalysts for career interest and choice that the men experienced. Thus, a discussion of how these key study elements formed the integrated basis of the participants' experiences, along with potential implications for community colleges is presented.

## Discussion

Phenomenological studies in higher education can inform our understanding of the students' lived experiences and the meanings they assign to them. For community colleges, this is especially relevant since they serve diverse students who vary greatly as to their ultimate career goals and associated pathways. Although some research has been dedicated to understanding the experiential pathways of students as they seek certain vocations (Leung, 2008; Osipow, 1990), very little has been appropriated to community college emergency medical programs and men of color (MOC). This focus is imperative because it is driven by a need for higher quality health care and enhanced service to an increasingly diverse patient demography



(Emergency Medical Technicians and Paramedics, 2006; EMS Report, 2008; Hunter, 2001). To address this lacuna, I delineate this study's various phenomenologically-derived metanarratives, and the underlying narratives, that describe how MOC perceive and make sense of their paramedical pathways.

#### Need for External Sources of Vocational Information

Through an iterative review of the men's interview data, textural and structural descriptions indicated an essential need for external sources of vocational information. The numerous references to outside parties and institutions that provided clusters of meaning around external information were common. Through phenomenological epoche (bracketing), horizonization of the data, eidetic reduction, and textural and structural descriptions, relevant clusters of meaning were revealed that described the metanarratives. The metanarrative was supported by four main narratives or themes, namely, media influences, institutional influences, student career organizations, and mentor influences. Thus, all of these supported and contributed to an understanding of the men's vocational meaning making experiences.

#### *Media Influences*

Popular television shows and films created access to constructed identities (Erikson, 1968) that the participants could explore, sometimes even resulting in idolization. The on-screen presence of African American or Latino paramedics imparted a particularly strong psychological imprint on the men. For example, Daniel related that "I noticed in <the film> *Ladder 49*, that the black responders were not in leadership positions." He added, "yeah, they'll have a black firefighter or paramedic, but he's never the one in charge." Samuel when asked if he noticed if

African Americans were depicted in shows like *Chicago Fire* quickly answered “yes, it’s hard not to.”

The men described instances of vicarious learning through observation, and even imitation, which served as a valuable source of self-efficacy and positive outcome expectations. Both of these elements were consistent with SCCT’s framework. Through these conceptual mechanisms, television shows and films acted as proximal influences that could generate proxy learning experiences – a dynamic not normally associated with distal environments (Lent, Brown, and Hackett, 1994). Although contact with actual paramedical content and emergency medical environments often tempered their initial misperceptions, new vocational pathways were nonetheless actualized. Joseph described it as “even though I quickly realized it <paramedicine> was not like the movies, I still learned something.”

In this study, the participants related that Internet and social media also provided access to critical information that greatly facilitated their awareness and interest. Mason described the Internet as “crucial” to gaining an early understanding of the vocation. Reliance on Internet searching and data gathering was frequently described by them as “critical” to gaining a nascent paramedical awareness. Both Michael and Matthew related that the ability to source the Web for paramedical information was vital to gaining an early vocational awareness. Exposure to community college and industry-specific paramedical knowledge in the form of videos, texts, and podcasts was relied upon by a majority of the men to found and augment their understanding. Lucas described this exposure to YouTube videos as “really important during skills assessments.”

The nature of modern smartphone technology with its high portability and deep data-search capabilities made it an important, if not always accurate, source of information.

Unfortunately, the extant literature reflected a dearth of smartphone and digital device coverage. Closely related, social media – due to its recent post-2007 proliferation – was also not prevalent in recent vocational research (Lindbeck & Fodrey, 2009). In this study, social media’s extensive ability to network students together, and also to paramedical organizations, provided yet another source of vocational awareness and interest. Liam described its influence as “able to connect me to people like me, who are also wanting to become paramedics.”

### *Institutional Influences*

In support of previous research, institutional influences were found to be particularly effective at generating interest and recruiting MOC. When organizations coupled their presence with experiential learning opportunities (Bowman, 1995; Roderick, Coca, & Nagaoka, 2011), the participants described great feelings of interest. The act of emergency responders and hospital personnel coming onto high school campuses generated great awareness and interest. Logan described his contact with paramedics at a high school career day event as “life changing.” Alexander related that a similar experience was useful because “it taught him what being a paramedic was all about.” In opportunities such as these, institutional industry contact incited great interest in the men.

As was true in industry, community college visits also generated great vocational awareness and interest, although ironically, they often failed to promote paramedicine as a career option. Promotion of nursing, two-year technology, and business programs predominated, an observation that was also noted when discussing high school counseling. William remarked that in high school he seemingly heard about every career, but, paramedicine. Aside from community colleges, the ability of MOC to fully explore paramedicine was sometimes

superseded by a perceived overemphasis on high school athletics and well-funded military recruiting. This study's findings suggested that many MOC considered these practices vocationally deleterious. David, who had been on a football scholarship track before getting injured, felt that athletics hurt the ability of students to consider all options. He added, "it's not that there's anything wrong with football, it's just that people take it too seriously." Others expressed similar opinions, primarily because of the constricting of vocational choices, which they felt sports and the military fostered.

However, perhaps the greatest recruiting hindrance mentioned by the men was the failure of institutions to adequately reach out to them in their own neighborhoods. Exacerbating the problem, the events that paramedical institutions hosted often lacked a sense of racial and cultural concordance on the part of recruiting personnel. Many participants felt that the recruiters failed to appreciate their life and academic challenges. Daniel related that when the visiting paramedics "don't look like you, it is difficult to see yourself as successful." This was a common refrain from many of the men who came into contact with recruiting personnel.

### *Student Career Organizations*

The study's findings also corroborated the extant literature's recognition of the vocational effects of student career organizations (Britner & Pajares, 2006; Palmer, Davis, Moore, & Hilton, 2010; Roderick, Coca, & Nagaoka, 2011). Often their influence was materially felt through their ability to disrupt the status quo and create efficacious career-based environments. This capacity of career organizations to promote vocational exploration was significant because the men's surroundings often lacked this focus. Liam specifically related that "prior to my contact with HOSA <*Health Occupations Students of America*>, I was not around people who talked about

medicine.” Andrew added that “my cousin was in it HOSA and I followed him into it...initially I didn’t want it to do it...however, once I was in it, I really liked it...it changed my life.”

Specifically exploiting this attractive characteristic, health-related career organizations were particularly effective at engendering an early interest in paramedicine. Throughout the study, the effects of these early outreach efforts towards potential paramedics greatly facilitated recruiting efforts – a well-elaborated dynamic in Blanchard, Haywood, and Scott (2003), and Hamilton and Marco (2003). Hosting these men at various functions, combined with off-campus experiential opportunities, helped to inform them of the different skillsets required, and how to acquire them. Anthony described his visit to a local fire station and its three paramedics as “finally understanding that I could do this.” Just as important, meeting actual medical professionals helped the men adopt new health care identities, especially when combined with internship opportunities. James mentioned that meeting these individuals helped him to “visualize himself in a medical career.” These opportunities to “try on” various medical identities were a cornerstone of Erikson’s (1968) work, and likewise influential in the participants’ vocational pathways.

### *Mentor Influences*

The ability of mentors to generate vocational awareness and interest was found abundantly throughout the study. In concert with the supporting literature (Fouad, 1995; Jacobi, 1991; Lent & Hackett, 1994), the men related that mentors were extremely effective at initiating career interests. Whether the men were socially modeling their behavior to “follow in their footsteps,” or merely valuing their counsel, their influence was described as substantial. The navigational capital they provided gave the men an understanding of the prerequisites and

ongoing commitments that emergency medicine would require. Elijah related that his mentor was the key reason he became interested in and pursued a medical career. Consistent with findings anent career student organizations, mentors could vocationally enrich the men's environments and create career-specific opportunities that would normally be absent. In many ways, these efforts were more valuable than mere career information or guidance.

Mentors could encourage and inspire self-efficacy in the participants, a key component of career exploration that was espoused by Lent, Brown, and Hackett (1994). In this study, self-efficacy was found to be particularly strong when the mentors were racially or ethnically concordant. If the participants began to doubt their abilities, these mentors could restore their confidence and help re-facilitate their career pathways – a strong precursor to effective persistence (Rendón, 2002; Tinto, 1998; 2006). Both David and Jacob described instances in which their mentors said, “you can do this, I know you can do this” and it made a big difference.

Teachers were often their most valuable, and available, mentors. Their vocational knowledge was an impactful source of mentorship in environments that frequently lacked career search orthodoxies. Matthew described a vocational experience where if it had not been for his teacher, “I would have been lost, not knowing what to do.” The influence of teachers was strong due to their contact frequency, and their attributed authority within the students' lives. This perception that teachers, and other allied mentors, were “looking out for my interests,” gave the students a sense of purpose and affiliation – a source of support also found in Harper (2006), and Rendón (1994; 2002). Through this advocacy, many individuals – especially first-generation college students – could explore and grow their paramedical interest even when they lacked relevant vocational backgrounds.

## Need for Ongoing Support

When examining and clustering their experiential data, the shared phenomena of needing ongoing support was closely tied to mentors and family. The influence of mentors and family was described through significant phrases that related thematically to career awareness, interest, and active commitment to paramedicine. An example was provided by Ethan, who described his family and mentor support as “the reason I am here today.” Thus, a review of the men’s descriptions of how these two factors (mentors and family) influenced the participants is elaborated to highlight the experiential quality of having this kind of support.

## *Mentor Influences*

Study findings reinforced that mentors, especially ones that shared participants’ backgrounds, provided useful navigational and aspirational capital. This capital was then used by the men to reach a firm decision to pursue paramedicine based on their perceived self-efficacy and positive outcome expectations. Participants with mentors who shared previous military service, or simply co-served in emergency response positions, were particularly likely to bond socially. Ethan described a Navy mentor as “not only my career mentor, but also my best friend, I owe him so much.” Notably, teachers’ opinions were authoritative, with their vocational advice quite capable of influencing the men towards – or away from – a health care field.

In contrast to existing studies such as Cochran and Coles (2012), Roderick, Coca, and Nogoaka (2011), Zemsky and Oedel (1983), school counselors (as mentors) were not found to be particularly significant in this study. Men described having access to school counseling, but felt that they were either too immature to effectively utilize it, or simply failed to understand its crucial role. Many participants felt that school counselors did not have emergency medical

careers foremost on their minds during the advisement cycle. Samuel related that “when I went to see her, she was pretty much business degree, business degree, business degree.” Commonly described by the men were experiences that heavily weighted the benefits of other community college programs and four-year schools.

MOC described their ability to rely on their mentors as a crucial source of support. Jacob related that “knowing I could call on him made all the difference in the world.” The participants’ abilities to call on them for advice, vocational or life-related, was perceived as a strong contributor to their academic choice-making. In support, William added, “he taught me what it meant to be a man.”

The men perceived that the mentors approached their responsibilities in different ways. However, diverse mentoring approaches had similar positive outcomes. Some of the mentors were forceful and challenged the men to reach beyond their perceived abilities, while others were quiet listeners who only expressed introspective, reflective counsel – a demeanor that soothed many of the participants’ academic anxieties. James recounted that his grandfather was a quiet stabilizing force when he (James) was considering becoming a paramedic. He described how his grandfather “just listened and told me to ask lots of questions, don’t be afraid to ask questions...his advice really helped.”

In agreement with the SCCT framework elaborated by Lent, Brown, and Hackett (1994; 2000), the men’s descriptions of effective mentors represented a source of proximal input that accentuated the participants’ strengths, while diminishing the drawbacks of often-limited vocational environments. This interplay served to make their commitment to a difficult course of study more feasible since the men did not feel socially isolated, or unsupported. Matthew shared that, “he <the mentor> always made me feel like he had my back, no matter what.”



Although the support took many forms – emotional, navigational, cultural, and sometimes quasi-parental – the fact that the mentors were usually not family increased their social impact. It was through these voluntary chosen relationships that the mentees perceived strong social connections.

### *Familial Influences*

The study's findings were closely correlated with much of the relevant literature on beneficial family contact (Hackett & Lent, 1992; Phinney, Dennis, & Chuateco, 2005). Families were consistently described by the men as providing an emotional and psychosocial stability that facilitated their career decision-making processes. The higher the quantity and quality of that contact, the more it was described as ameliorating the men's vocational choice anxieties.

Families with medical backgrounds, while obviously beneficial, were not required to elicit positive interactions. Medical field disconnectedness in family members was not described as lessening their potential vocational choice impact. Often, the overriding factor was the example that parents, and others, exhibited via their sacrificial life choices. Expressing these feelings, Jayden remarked that “my mother is my hero, she's done so much for me...I just want to make her proud.” Observing these role models emboldened the men to pursue challenging paramedical studies, and to mimic their parents' perseverance – a form of social modeling that Bandura (1977b) also described. Benjamin expressed it as “seeing my parents work so hard, so I could study, drove me forward.” In this study, recent immigration enhanced these vocational effects in both Latinos and African Americans. Logan, Jayden, and Aiden collectively related that the hardship stories of their immigrant parents vocationally inspired them.

Contributing to the existing literature, this study's participants revealed a strong familial bonding within emergency medicine. As a vocation, it exhibited a kind of proxy familial influence that was reflected in a work-related esprit de corps or "brotherhood," a factor that the men felt was significant enough to affect choice. Alexander explicitly said "I'll tell you what, the reason I got into this, was to work with men like these." These depictions of strong social bonds were constantly encountered in the study data. Elder and Clipp (1988) referenced the strengthening of social bonds in dangerous military environments. However, while this work, and others such as Hawdon (2008) elaborated a social binding within certain contexts, neither addressed paramedicine's academic or work-related environments.

During interviews, men of varying backgrounds described experiences that involved coalescing into common-purpose units that effectively lessened their differences – if only temporarily. Anthony reflected this when he remarked that "when we're on a <clinical> run, we're like one...we're like a family." The attraction to this sense of cohesion and belonging was often specifically mentioned as a desirable vocational trait. Jacob described his core motivation for feeling attraction to paramedicine as "you're all in it together, and everyone watches out for each other." Particularly attractive was its ability to engender a reciprocal, mutual respect that was highly valued by the men.

#### Need for External Validation

Consistently, clusters of meaning were noticed anent the study participants' perceptions of a need to validate themselves and their performances against a socially-constructed expectation. This was manifested in desires to lessen stereotype risk in their exhibited behavior and speech as described by Steele (1997). Jackson reflected this concern with this remark,

“when I become a paramedic, patients will be looking to see if I know my stuff...I need to know my stuff.” These feelings of needing validation were also exhibited in their desires to not disappoint their elders while providing inspiration for those who were younger. Michael exemplified this when describing how he “needed to not let his parents down, while also making his two brothers proud.”

Experiential depictions of these feelings extended into their desires to serve society altruistically, and also provided a basis for the textural and structural descriptions that were derived. Their descriptions of this service was tied to external validation because it was frequently found within the context of presenting themselves as valuable and worthy due to that service. Aiden captured this as “wanting to be a valuable contributor...someone who people could look up to.” To enable a better understanding of their validation needs, a review of these influences and how they contributed to their overall phenomenological experiences is presented.

### *Raising Ethnic and Racial Social Standing*

The study’s findings closely affirmed the extant literature’s depiction of stereotype risk as a significant social variable (Steele, 1997). Cognitive, high precision decisionmaking – in time-constrained medical environments – demands high quality reasoning (EMS Report, 2008). Potential societal misperceptions that the MOC were not “intelligent enough” to execute these functions predominated in many of the participants’ interview data. Jacob described his fear of this misperception as “if I screw up, I want it to be because of me, not because of what I am.” The anticipated perceptions from their current peers and future patients concerned them. Ethan summarized these feeling as “no one wants to be perceived as slow.”

Although these men were still paramedical students, they often spoke of how society would perceive them and their post-college employment. Andrew described this feeling as “wondering if I will be accepted as their doctor.” Reflexively, the need to promote as high as possible, often into more prestigious medical positions, was a driving force in their career advancement desires. This force appeared to validate them against some “acceptable” social standard, a dynamic consistently found in the extant literature (Harper, 2010; Helms & Piper, 1994; Saenz & Ponjuan, 2012).

It was in this vocational desire to disprove these societal misperceptions that Yosso’s (2005) resistant capital formation was most evident. In this study, the participants frequently mentioned a need to validate themselves against societal bias through effective skills demonstrations. Alexander described it as “I need to show them <patients> that I can do the job, that I’m one of the best.” This need drove them to paramedicine instead of less challenging studies. A sense of social responsibility, at large, and towards specific minority groups, served to drive their motivations and academic endeavors. Jayden remarked that he needed to “pay it forward...and help others who would come after me.” These responsibilities extended further into the pressures they experienced when seeking to avoid disappointing parents, siblings, and other significant people. Thus, many of their actions were ostensibly designed to attain, or maintain, external validation from others. This need to validate their personal self-worth and abilities through proactive action was likewise noted by Noguera (2003), and Saenz and Ponjuan (2012).

Validation could take many forms. Respect accorded the men via their performances on national certifying exams was one such example. Another was found in the higher societal esteem and respect that they experienced when in uniform, a phenomenon well supported by

Singer and Singer (1985). Alexander remarked that “wearing the uniform communicates that you are worthy of respect.” This desire for increased respect was additionally extended into areas of life and death where they saw themselves as potentially saving White lives, an outcome they hoped would lower negative stereotypes. Throughout the data, men stressed that improving the social perception of their race or ethnicity was important. Daniel emphasized that “if we go into a White home, and save someone, it has to make a difference in how they see us.” This ability to positively impact the actual health outcomes of White patients was commonly seen as a vehicle for perceptual improvement, thus an additional source of validation.

As an adjunct desire, bilingualism and its attendant service benefits were also perceived as an opportunity to demonstrate cultural worth within emergency contexts. Latino paramedical students often considered their bilingualism to be an important component that helped validate their self-worth. Being able to “speak for two people” was seen as enhancing their value to others and a source of collegial respect. This collegial respect was additionally motivating because it provided validation of their employment and social worth. Lucas described this sentiment as “feeling like I was truly valuable to the team.”

Lastly, in defiance of what many of the participants felt society expected of them, their choice of paramedicine was sometimes made to access higher-order medical professions. Advancing into positions such as physician’s assistant, registered nurse, and emergency medical coordinator was perceived as an opportunity to not only benefit economically, but also counter ethnic and racial stereotypes. James succinctly described this as “we <African Americans> have to climb and be the best, or we’re not good enough.”

### *Altruistic Social Desires*

In concert with much of the existing literature on emergency responders and their core career motivations (Biros, Adams, & Cone, 2003; Blanchard, Haywood, & Scott, 2003; Regehr, Goldberg, & Hughes, 2002), service to society was a key vocational incentive. Many of the participants described their choice of paramedicine as chiefly one of public service. Elijah described this as “basically, I’m in this to help people, that’s all.” Dangerous environments, often containing fire, smoke, passing cars, and unstable domestic violence situations, did not deter them from providing what they felt was a societal good.

Due to the patient diversity encountered on paramedical runs, many of the participants felt a need to represent their racial or ethnic group to alleviate some of the potential multi-cultural anxieties. Williams described it as “realizing that minority patients may come from a different mindset than your own.” Having awareness of their ability to represent diverse groups, their service to society was seen as enhancing their social value in racially-sensitive environments – a component of improved patient service that was also delineated by Hamilton and Marco (2003), Helm, Grabarek, and Reveal (2002), and Saha, et al. (1999). This belief espoused a mindset that patient care was improved when race and ethnic-concordant health care was available. When diverse service providers were accessible, the men perceived that efficacious utility was increased as well as cultural modeling for White paramedics.

Another form of service identity was related to the participants’ own neighborhoods. After participating in clinical ride-alongs, some of them felt that minority neighborhoods would not receive the same level of health care if it was delivered exclusively by White paramedics – a health care finding likewise echoed by Hamilton & Marco (2003). Joseph described this feeling as “I worry about these neighborhoods, and whether others will care about them the same way I

do.” This ability of MOC to serve distinct community needs was perceived as a binding force towards paramedical choice. Thus, as a key choice determinant, it was found to be an altruistic component that spanned across various vocational categories (Saha, et al., 1999).

In this study, the men’s self-described “adrenaline rush” when helping those who found themselves in precarious situations was also a driving force towards paramedicine, especially in veterans. The opportunity to save lives and experience appreciation from the impacted families was a strong psychological reward, a recompense that was capable of engendering great vocational attraction. Aiden described this as “walking up on the scene, knowing exactly what to do, and helping their loved ones, that’s why I love it <paramedicine>.” This perceived benefit generated great loyalty to the public and the vocation, an allegiance that often exceeded what was offered to colleagues, or themselves. This selflessness was also expressed as a desire to “pass along” what they had received to others who were in direr situations. For some, this help reminded them of the previous assistance they had received in their youth. Aiden related that “many people have helped me get where I am today,” which caused him to express a desire to likewise help others.

Many described a service desire that originated after the terrorist attacks of 9/11. With most participants at impressionable ages when these occurred, the desire for public service was often traceable to their immediate or delayed reactions to the event. The fact that many 9/11 emergency responders were willing to risk their lives to help others, increased the men’s vocational attraction. In some MOC, this desire was oriented towards feelings of validation for the emergency responders who perished that day. Liam described it as “I want to be worthy of their sacrifice.” The strength of this desire proved to be a key choice determinant for many who enrolled in paramedical training, not unlike a similar post-9/11 rise in military enrollments

(Regehr, Goldberg, & Hughes, 2002). This altruistic drive on the part of MOC to serve society, along with its potential for increased vocational recruiting, was consistent with other study findings.

### Essence of the Paramedical Pathway Experience for MOC

This study sought to capture the essence and meaning of what it meant for a Latino or African American man to experience their paramedical pathway. From an examination of the experiential first-person accounts of the participants and their perceptions, their paramedical pathways were not easy. The rich descriptions of their paramedical successes and struggles provided the basis for the textural and structural descriptions that were elaborated from their data. Often, their vocational pathways were filled with struggle and sacrifice. Aiden related that even though his family helped him out, he had to “work full-time to make it.” Even accessing information to begin a journey towards emergency medicine was often hampered by environmental factors. Andrew echoed this sentiment by saying, “when I began, I knew no one and nothing.”

A lack of individuals in the medical profession from which to draw social and navigational capital hampered their ability to learn about the vocation. Jacob remarked that, “I was so lost at first, I’m glad I found someone <mentor> to guide me through it all.” Media was often described as influential due to this lacuna. It helped inform them at least at a rudimentary level about emergency response positions. Though, even with media as a resource, many men felt that “chance” and “luck” played a role in their ability to discover paramedicine as a viable course of study.

If they were successful at gaining an awareness, the majority of the men reported that



ongoing support was essential to their ability to continue their journey towards paramedicine. The lack of consistent familial and mentoring underpinnings was described by them as a credible threat to them reaching their goals. William described it as, “if it wasn’t for my family and my mentor, I never would have gotten this far.” In addition to providing an orienting dynamic in their lives, just knowing that someone was available and cared for their well-being was a source of aspirational capital in itself. Jacob remarked, “my family has done so much for me...they just keep me going.” Lucas added that “knowing someone is behind you makes a big difference.”

Lastly, a strong motivating force in their vocational lives was their descriptive accounts of wanting to elevate their race or ethnicity, while altruistically serving society. Almost all of the men (17), made reference to these elements somewhere in their interview data. Through their opportunity to enter emergency medicine, they gave accounts of how important it was to excel and demonstrate their competence. Liam and Lucas, were respectively adamant about how they wanted to be “the best in their class” and “show we belong.” This importance was variably experienced by some as a fear of disappointing others, while others took it as a driving force towards excellence. It was in this drive to serve that many described their altruistic feelings towards public service. Their service to society was perceived by them as a chance to help others, and in turn receive societal respect that was often missing in their lives. Joseph described this emotion as one of “feeling the love from people because you cared for them.” Mason added, “when you’re on a <clinical> run, people respect you...they look up to you.” Comments such as these belied the potential of paramedicine to be more than just a vocation, instead elevating to what Elijah deemed “a calling.”

## Theoretical Framework

Social cognitive career theory (SCCT) attempts to describe how individuals obtain career interests and then execute a vocational choice via a diverse series of iterative inputs (Lent, Brown, & Hackett, 1994; 2000). Dominant among these inputs are the self-efficacy and outcome expectations that their learning experiences propagate. In turn, these learning experiences are fostered by the individual's proximal and distal influences combined with their positive, and negative, performance attainments (Appendix F). The SCCT framework, itself derived from Bandura's previous works (1977a; 1977b; 1986), explores similar psychological influences but contextualizes them within a career-seeking domain.

SCCT elaborates how an individual's exposure to experiential learning opportunities and rich background affordances (e.g., social, mentoring, and familial) effectuates a wide variety of potential career options. Disruptions of these contextual supports, or their absence, reciprocally limits and circumscribes a person's potential career optimizations as described by Gottfredson (1996). Thus, the unhindered operation of the framework's key mechanisms creates an efficacious choice-making heuristic, one capable of enabling the participant's career aspirations.

In this study, which was focused on MOC who had already committed to studying paramedicine, many of SCCT's key tenets were found in the participants' pathways. As in the framework, the vocational interest and choice actions taken had strong correlations with their environmental career information and guidance. Throughout the study, media, institutions, student career organizations, and mentors were crucial to the dissemination of vocation-specific strategies that could instigate choice. This ongoing support, coupled with familial influences, was likewise important. It helped augment and magnify the men's interest and goal-setting commitments.

Those same support mechanisms, combined with desires to elevate societal perceptions of their race and ethnicity, also helped the participants validate their paramedical choice. An adjunct desire, partially spawned by these perceptions, was a strong desire to altruistically serve society. Helping to incite SCCT's vocational interest and choice actions, these factors also helped define the paramedical pathways they would follow during their academic studies. Thus, collectively, the importance of critical access to career information and SCCT's key instigating elements was found throughout the study and in the men's descriptions of the associated phenomena.

Likewise, the integrated self-efficacy and outcome expectations that inducted these career interests and choices were dependent on the men's performances and their environmental influences, both distal and proximal. While the distal influences were often institutional or organizational, the proximal influences were primarily driven by family, mentors, and cultural environments. Although SCCT does not hierarchically order distal and proximal influences, in this study, proximal effects were especially impactful. However, the strong reciprocity exhibited between the two (distal and proximal) in the participants' descriptions of their pathways greatly complicated this observation.

Thus, it was in the illumination – versus the explication – of SCCT's reciprocal complexity that the study augmented a deeper vocational understanding. An individual's reasons and motivations for studying a career, and through those choices, an enduring vocation, are complex. Concordantly, the participants' clusters of meaning associated with this process suggest that overly-constricted examination of external information and familial influence are inadequate to fully depict vocational choice-making.

## SCCT and Media

For example, media have been traditionally thought of as external sources of influence (Dolinsky, 2010). However, increasingly, the pervasive effect of social media – a relatively recent derivative of digital communications – may defy simplistic classification. While many participants perceived their ability to communicate with paramedical professionals as a proximal vocational aid, a few saw it as little more than enhanced web content. Per the men’s descriptions, the defining difference sourced from whether the participants were unilaterally or bilaterally engaged with the medium.

If the men used social media to engage others, and potentially contribute themselves, they perceived it as bilateral and proximal to their immediate experience. However, unilateral utilization – while nonetheless described as useful – was often perceived as enhancing existing content, thus imparting a more distal influence. This was accurately captured by a comment from Mason when he said that he used his phone “to look stuff up, but that’s pretty much it.” Based on the men’s experiential descriptions, the flexible capabilities of social media did not only play a role in how they utilized it, but also in how they perceived its vocational locus. Regardless, social media contextualized within the men’s ubiquitous use of smartphone applications (apps), on-demand videos, and evolving virtual reality software, has potentially altered the landscape of vocational search, and shifted perceptions (Lindbeck & Fodrey, 2009).

## SCCT and Familial Influence

Similarly, the traditional defining characteristics of family – as promulgated by SCCT – may also exhibit complexities that are embedded in the vocation itself. In this study, the nature of emergency medicine – often originating in military and emergency response environments –

was found to contain proxy familial components. In these paramedical contexts, the concept of “family” could carry intra-vocational meanings that extra-vocationally did not exist – or held less relevance. Six of the men directly used the word “brotherhood” to describe paramedicine. Nine described emergency responders as a “family” and ascribed attractive qualities to this vocational distinction. The nature of paramedical work contains many binding elements that many vocations lack, among them shared danger, high inter-group reliance, uniforms, and potentially life-and-death decisions. These elements were consistently described by the men as socially bonding. The participants related that individuals had to become reliant on each other to achieve their objectives and safeguard each other. Without this reliance, they felt that the very mission of safeguarding public health was endangered.

#### SCCT and Uniforms

A part of that mission also involved the use of uniforms. Their uniforms were a consistent source of pride and identity, especially when seen by patients. The visible bonds they created served to unite the men under a common purpose, specifically, public service. Mason and Lucas both related that when they wore the uniform they felt special, “people respect you and value your contribution” was their sociological perception. Singer and Singer (1985) related similar dynamics when examining other uniformed career fields. Their findings corroborated the impressions communicated by this study’s participants that psychologically, uniforms engendered feelings of belongingness and pride.

#### SCCT and Altruism

Lastly, the altruistic nature of paramedical service carries a familial connotation because

regardless of background, they are expected to serve all of the public. William's depiction of this debt extended to serving members of hate groups "because it was his duty." Other men mirrored this obligation through their commitment to providing high quality service to everyone, regardless of race or ethnicity. This collective responsibility meant that on any given run, paramedics might help someone "like them, or completely different." Being dedicated to both was consistently described the men as intrinsic to paramedical service. Thus a collective of individuals committed to this level of societal service innately described shared values that bonded them as a "family." This effect was frequently mentioned by them as drawing them closer together, psychologically within themselves, and sociologically with their colleagues.

Therefore, due to this phenomena, a broader definition of "family" and its affirming interactions could be recognized. Since many of the men referenced these familial characteristics, a deeper sociological accounting of this dynamic could be incorporated into SCCT, and any other models that specify familial environments. In vocations such as paramedicine, a failure to do so discounts an important component of what it means to paramedically serve together. This public service, in careers such as paramedicine, firefighting, and the military, carries the potential for this consideration, but was not mentioned by the participants as widely known prior to their vocational integration.

### SCCT and Social Environments

As a prospective guide for this incorporation of enhanced media and proxy familial components, Bronfenbrenner (1979) (Figure 2) alluded to the various influences imparted on individuals by their differing social environments.

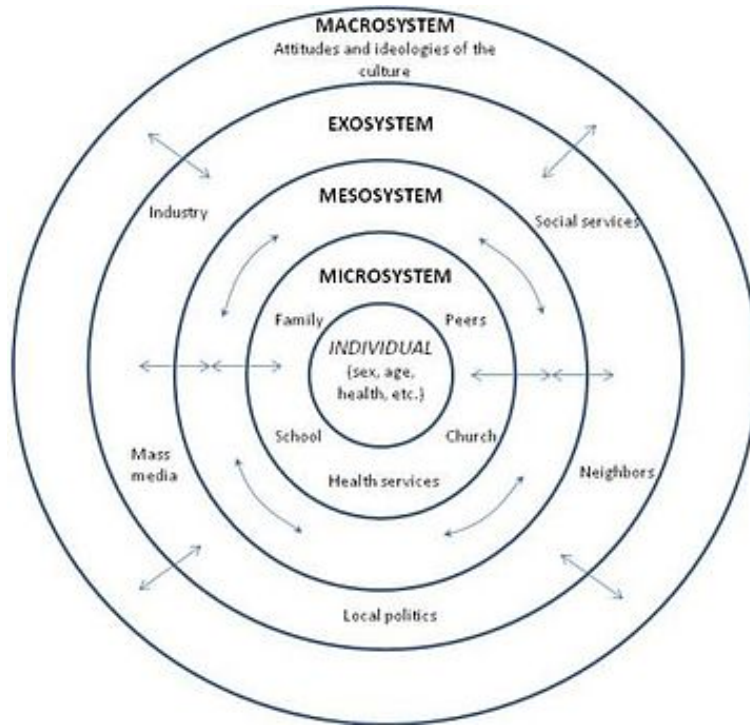


Figure 2. Socio-ecological model (Bronfenbrenner, 1979).

Incorporating these stratified influences – specifically adjusting for the evolving definitions of digital relationships and socially-constructed families – could advance SCCT’s utility. Static, traditional definitions of mass media and familial influence were not described by the men in this study. Therefore, their idiocentric perceptions indicate that SCCT and other vocational frameworks should likewise reflect these complexities.

### Summary of SCCT

In summary, the SCCT framework proved to be a useful guide through which to examine and cluster the study’s data. The main explanatory mechanisms proved valuable when exploring the correlations between career awareness, interest, and course of study choice. The participants consistently demonstrated the validity of many of the framework’s key determinants in their descriptions of their vocational pathways.

However, the study also demonstrated potentially complex interactions involving media influences and proxy familial bonding. Media should not be dismissed as a vocational recruiting tool by community colleges, especially when expressed through the bilateral and broadcast capabilities that the Internet has enabled. The complete suite of awareness that television, film, radio, and the Internet engenders must be considered when recruiting underrepresented groups. Failing to do so removes from consideration potential recruits that may come from low-information environments, and lack a firm vocational grounding.

Moreover, recognizing the pervasive effects of psychosocially-derived families in paramedicine should also be considered. The military has long used it to recruit by engendering feelings of “oneness” and “belonging” to great effect. Community colleges – and the vocation itself – should recognize this binding attraction and use it to reach MOC who might not otherwise consider the vocation. This effort could have the dual benefit of helping diversify health care, while also offering new opportunities to previously underrepresented groups.

These effects when combined with the men’s meta-narratives of requiring external information, ongoing support, and external validation, reinforced the need for caution when evaluating vocational relationships. Many subtle sociological and psychological determinants influence career decisionmaking. Fortunately, the SCCT framework is flexible enough to allow for socially-constructed variants within these factors.

## Conclusion

Four major conclusions were drawn from my study. First, through the men’s descriptions of their paramedical journeys, the study corroborated the extant literature’s emphasis on the importance of institutions, student organizations, mentors, and families in the men’s lives.



Throughout their paramedical pathways, these support architectures were crucial as they gained awareness, explored, and proactively committed to paramedical studies.

Second, the men described a material reliance on external sources of career information to effectuate a vocational pathway. This was facilitated by a host of different influences, among them: media, institutions, student career organizations, and mentors. Often, these resources combined in various ways to impact the men's lives. However, failing to have at least one at their disposal, made acquiring an awareness and interest in paramedicine relatively difficult.

Third, the participants' descriptions of their feelings and perceptions exhibited a need for ongoing support to augment their self-efficacy and positive outcome expectations. In order to facilitate a vocational interest – one that was capable of inducing firm career choice – this support was essential. Generally sourcing from close mentors and family members, this reliance was a critical success factor, before, and during their emergency medical pathways.

Lastly, clusters of meaning were found anent the men's descriptions of their desires to elevate their race or ethnicity. Within individual vocational pathways, this longing for external validation was greatly motivating and influenced their vocational choice-making commitments. Expressed through a desire to socially elevate society's perceptions of their race or ethnicity, paramedicine was seen as a vehicle for that elevation. Additionally, effective competent health care, delivered within emergency medical contexts, was perceived as a pathway to higher medical positions. Achieving these higher positions was interpreted by them as important to society's perceptions of MOC and their medical competency. Complementarily, they exhibited strong altruistic social tendencies that reinforced their need to acquire external validation. Their descriptions of helping others and serving the community were consistently framed within a narrative of proving themselves to patients and peers. Thus, their desires to elevate their racial

and ethnic standing not only served as an effective motivator towards paramedicine, but also within it, as they sought to prove themselves.

### Implications

The findings in this study had numerous implications. First, the clusters of meaning provided by the men suggested that community college paramedical programs should recognize the potentially low-information environments from which MOC may source. The men's interview data, when texturally and structurally analyzed, often described backgrounds that lacked access to relevant vocational information. David related that "when I started, I had so much to learn, it was overwhelming." The men's accounts of how they learned about paramedicine, suggested that conventional means of information delivery such as job fairs and newspaper ads may fail to connect with MOC. Daniel described how frustrated he was when "the firefighter and paramedic job fair was clear across town...I had no way to get there." Their awareness and interest was accessed more often through the Internet, mentors, and experiential opportunities. Based on the men's vocational experiences, non-intrusive outreach efforts may fail to register awareness, much less interest in low-information communities. Thus, alternate means of communicating with them such as digital media, phone apps, and the Internet should be explored.

This study also demonstrated the important role of ongoing support from family and mentors, both described as crucial to the development of interest and proactive paramedical choice. Their depictions of interactions with these individuals were consistently described as vital to their vocational pathways, especially when inevitable academic and life struggles ensued. The mentors' continuous support in those instances was often described by the men as the

difference between progressing towards an emergency medical career, or failing to achieve their aspirations. In agreement, Matthew described his family as “the reason I’m here today...I’d be nowhere without them.” Supporting these familial and mentoring relationships, or better yet, fostering them should be a priority within MOC student populations. The expansive definition that many of the men gave for “family” accommodated that creative possibility for community colleges, especially with fellow first responders.

Students in this study revealed through their use of language such as “live up to,” “prove them wrong,” and “show them,” that wanting external validation was important. Instead of psychologically-isolated assessments of their own performance, their experiences – when examined through textural and structural descriptions – revealed clusters of meaning anent their desire for societal respect. Consistently, this was related through paramedical service. Paramedical service was perceived by them as a conduit for this respect. Michael remarked that “paramedics are respected in the community because of what they do...they save lives.” Closely related within the data was the desire to “serve your fellow man” that permeated much of the rich descriptions the study wrought. Jacob described it as “helping the helpless.” MOC consistently elaborated a need to serve that was based on a desire to achieve societal respect and to altruistically serve – both of these representing emotional expressions that community colleges could factor into their recruiting policies.

### Recommendations for Practice

Practice-related planning and execution within the domain of paramedical underrepresentation would greatly benefit from a deliberate review of the extant research. Unfortunately, the paucity of community college studies dedicated to emergency medicine

complicates this process. To assist in this effort, practitioners could review this study, and others such as NAEMT (2014) and NHTSA (1996; 2000a; 2000b) to begin the process of developing a strategic plan to address MOC recruiting. Through this approach, a cogent community college-based framework could be implemented that offers a good chance at amelioration. Thus, a few ideas grounded in this study's findings are presented.

### Returning Veterans

One strategy, strongly supported by the clusters of meaning related to the men's life experiences is to actively recruit prior military medics, and other military disciplines, into emergency medicine. Often their return to civilian life can require adjustments that emergency medicine can help facilitate (Ahern et al., 2015). Matthew echoed this when mentioning that "being around paramedics reminded me of the Army...people working together as a team...it felt familiar." Moreover, recruiting individuals from socially-constructed families such as the military could prove easier than from civilian populations. Much of their previous military service is already well-suited to altruistic public service. This socialized background, coupled with the existing overrepresentation of MOC in the Air Force, Army, and Navy, provides a fertile area for paramedical recruiting. Jacob related that "now that I think about it, many people I knew in the Air Force would have been happy as paramedics." To achieve this increased enrollment, offering more scholarships, grants, and other financial considerations would help community colleges grow and diversify their emergency medical programs. Often combining this assistance with existing veteran's benefits enables them to integrate more successfully.

Another improvement area resides within greater curricular coordination between community colleges and military medical programs. Returning medical veterans frequently have

low levels of academic articulation with existing community college programs – especially on national certifying exams. James described his experience of transitioning from military medic to civilian paramedic as “really tough, I knew the basic stuff, but I was not ready for the national exam.” Improved coordination could make a transition to paramedical training more attractive, thereby increasing recruiting. Through these efforts, valuable access to health care careers would be enabled while also serving the needs for camaraderie and proxy “families” that many veterans previously enjoyed.

### Digital Recruiting

To address the need that participants expressed for more information, community college paramedical recruiting could diversify into different forms of social media and Internet-related outreach initiatives. Strategic presence in the digital platforms that MOC engage during their career search would facilitate more effective interactions. Lucas recounted that “since the college didn’t have a dedicated paramedical Twitter account, we <the paramedical students> created our own.” During this study’s follow-up discussions with community college administrators, it was noted that physical media recruiting was seldom complemented with digital resources. Thus, relevant downloadable phone apps were needed to extend institutional recruiting beyond physical and existing digital media. Alexander related that “it would be nice if the department cut down on email and just had a phone app.”

Embedding career information on those apps, and combining it with depictions of what is academically and vocationally required, could greatly facilitate MOC awareness – and that of other groups as well. Given modern social relationships with digital content, this study’s findings suggest that many men would consider this a proximal source of experiential contact,

especially when coupled with exigent social media and emerging virtual reality opportunities. David summarized this feeling with the statement, “me, I basically live on my phone.”

### Proxy Familial Recruiting

Based on the descriptions provided anent the importance of proxy familial relationships, more awareness of these “brotherhood” opportunities should be communicated. These community college awareness campaigns should also place more emphasis on the particular familial qualities of paramedical service. Enhanced focus could be placed on the nature of this service within a coordinated team that “looks out for each other” and coordinates their efforts to help society. Liam mentioned that his favorite part of becoming a paramedic was “getting to join a close-knit team...one that has each other’s back.” Based on discussions with community college administrators, this vocational “brotherhood” is generally under-communicated in their recruiting efforts. Promoting this binding dynamic within emergency response could help improve the men’s contextual knowledge of the vocation within internal sociological environments.

Similarly, more emphasis should be placed on the related societal respect that comes from this type of work. Aiden recalled how much pride he felt when, on his second clinical, someone at a McDonalds told him “thank you for all you do, God bless you.” Communicating this kind of societal respect would more closely reflect the men’s accounts of experiencing a feeling of “brotherhood” and “family.” As an adjunct policy, promoting the consideration that is accorded to those who wear paramedical uniforms, and the public’s veneration of emergency responders, could also be an inherent recruiting strategy. William described this uniform-derived benefit as “people see that you’re a professional and someone they can trust.” Through these

dual efforts, MOC could access better information about paramedicine's binding social characteristics and its relationship to community-based recognition and respect.

### Neighborhood-Based Recruiting

Finally, altering community college recruiting to encompass more minority-based outreach could help lessen underrepresentation. Local neighborhood billboards, media ads, and in-person visits could help answer applicants' questions, which would correspondingly enable their vocational awareness. In this study, many of the participants related a lack of active recruiting efforts in their neighborhoods. James said he could not remember one billboard or ad from his youth that promoted paramedicine. David was also unable to remember an instance of neighborhood outreach via physical or digital media. As was commonly expressed by various men, their only contact with emergency medical services was through passive observation versus active consideration as a career choice.

This disconnectedness also made it difficult for the men to see paramedics that shared their ethnic or racial backgrounds. Concordantly, the men's related experiences suggest that selecting ethnically and racially concordant recruiters would be important. Jackson said that when he saw his first African American paramedic, he was "so pumped <excited>, because instantly I knew I could do this." Inculcating this kind of excitement in other MOC who were contemplating paramedicine was consistently described by the men as crucial. Recounting this emotion, David remarked, "first you have to get their attention, convince them they can do this." Due to this feeling, connecting more of these recruits to existing MOC in the vocation was described by the participants as an important first step to diversification efforts.

In these various initiatives, success is crucial. Failure threatens to create a separation between health care providers and patients that is socially undesirable (Hamilton & Marco, 2003). As patients fail to see MOC in these positions, assumptions and biases can accrete that contribute to flawed misperceptions. Patients can come to believe that MOC are not good medical service providers, or worse yet, MOC can come to believe it themselves – a well-documented component of internalized racism (Speight, 2007). Unchecked, these misperceptions can grow and create a discordance that threatens the quality of health care and the ability to foster respect-based relationships.

#### Implications for Future Research

Although this work advanced a greater understanding of the qualitative perceptions of MOC in paramedical studies, more areas should be addressed. First, since this investigation contained a strong survivor bias, it would be helpful to expand the work into the experiences of men who dropped out, or never enrolled. To address the former, an improved understanding of what factors caused the students to cease their studies could potentially reveal program deficiencies. Focusing on the latter would require an examination further back into the high school and junior high pathways to ascertain why MOC failed to even consider a paramedical career. Both would complement this study and serve to increase our understanding of the psychosocial factors that affect MOC vocational choice-making. With this knowledge, community college administrators could then design initiatives that are capable of improving recruiting and retention.

Second, this study's geographic concentration would benefit greatly from an expansion beyond its boundaries. Examining academic environments where MOC are better represented,



such as the northeastern United States, could offer valuable recruiting heuristics (EMS Report, 2008). Complementing this with a review of smaller, rural community college programs would also provide a valuable contrast to this investigation's strong urban bias. Any geographic differences encountered could then be used to improve existing knowledge of the underrepresentation problem.

Third, although not the focus of this study, qualitative examination of what happens to MOC after they enter paramedicine would be invaluable. Failing to examine what experiences and perceptions the men acquired during their actual employment represents a significant research lacuna. Enhanced knowledge in this area could prove beneficial to recruiting efforts. Furthermore, studying MOC after they entered paramedicine would improve our understanding of what constitutes a successful career outcome. In many ways, this satisfaction heralds the broader holistic reasons that MOC should seek to enter this vocation in the first place.

Lastly, although immensely important, but purposely bypassed by this study, female recruitment is a vital and valuable research subject. The paramedical underrepresentation of women (regardless of race or ethnicity) is exceeded only by Native Americans (EMS Report, 2008; Richards & Lowe, 2003). As a vocation, ignoring over half of the population for this delivery of crucial emergency medical services represents a flawed utilization of talent. The increasingly diverse patient demography demands a higher-quality attempt to recruit more women into the vocation. Many of the same demographic and health care outcomes threatened by a lack of MOC, are also imperiled by this gender imbalance (Russ-Eft, Dickison, & Levine, 2008).

Therefore, understanding the reasons why women are potentially dissuaded from pursuing a paramedical course of study would be a valuable contribution to the extant literature.

Although in this investigation, the focus was placed on Latino and African American males, demographic and health care quality issues demand broader participation. Ideally, this increased recruiting would encompass women of all races and ethnicities to optimize benefits.

### Closing

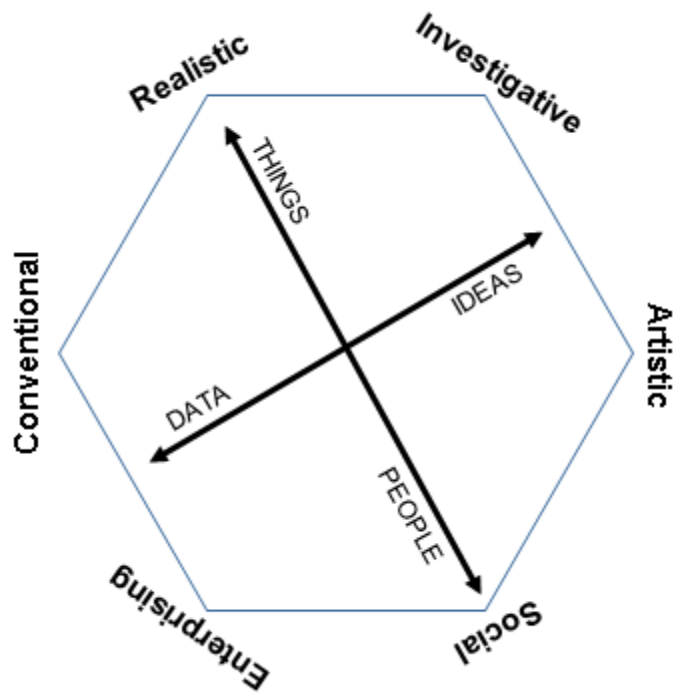
Community colleges should be on the strategic forefront of expanding MOC participation in paramedical programs. By design, they have been strategically placed to deliver the majority of paramedics into emergency medicine (Boyd, 1983). Demographically, the United States' health care system needs to address an improvement in its health care delivery, especially within constricted economic environments. As aging Americans demand more and better health care, the role of paramedicine will continue to grow. This need will become particularly acute as individuals attempt to extend their home-based independence in order to defer their need for a long-term health care facility (EMS Report, 2008). Through community outreach and the delivery of in-home medical monitoring, paramedics could help facilitate this desired outcome (Smedley, Butler, & Bristow, 2004).

Diversifying the existing supply of emergency medical providers addresses these services on two key fronts. First, quantitatively, the number of available paramedics would greatly increase if this underutilized talent was employed. The anticipated shortage of emergency responders could be alleviated if the system could recruit from a larger labor pool. Second, research has shown that all patients, not just MOC, benefit from increased exposure to diverse health care providers (Saha, et al., 1999). Consistently, the utilization of diverse providers improves medical outcomes. This has been found true for patients, and for White paramedics through experiential social interactions (EMS Report, 2008). Thus, for these two reasons,

attracting more MOC into the vocation is critical. It is crucial if paramedicine is to continue its historic contributions to public health.

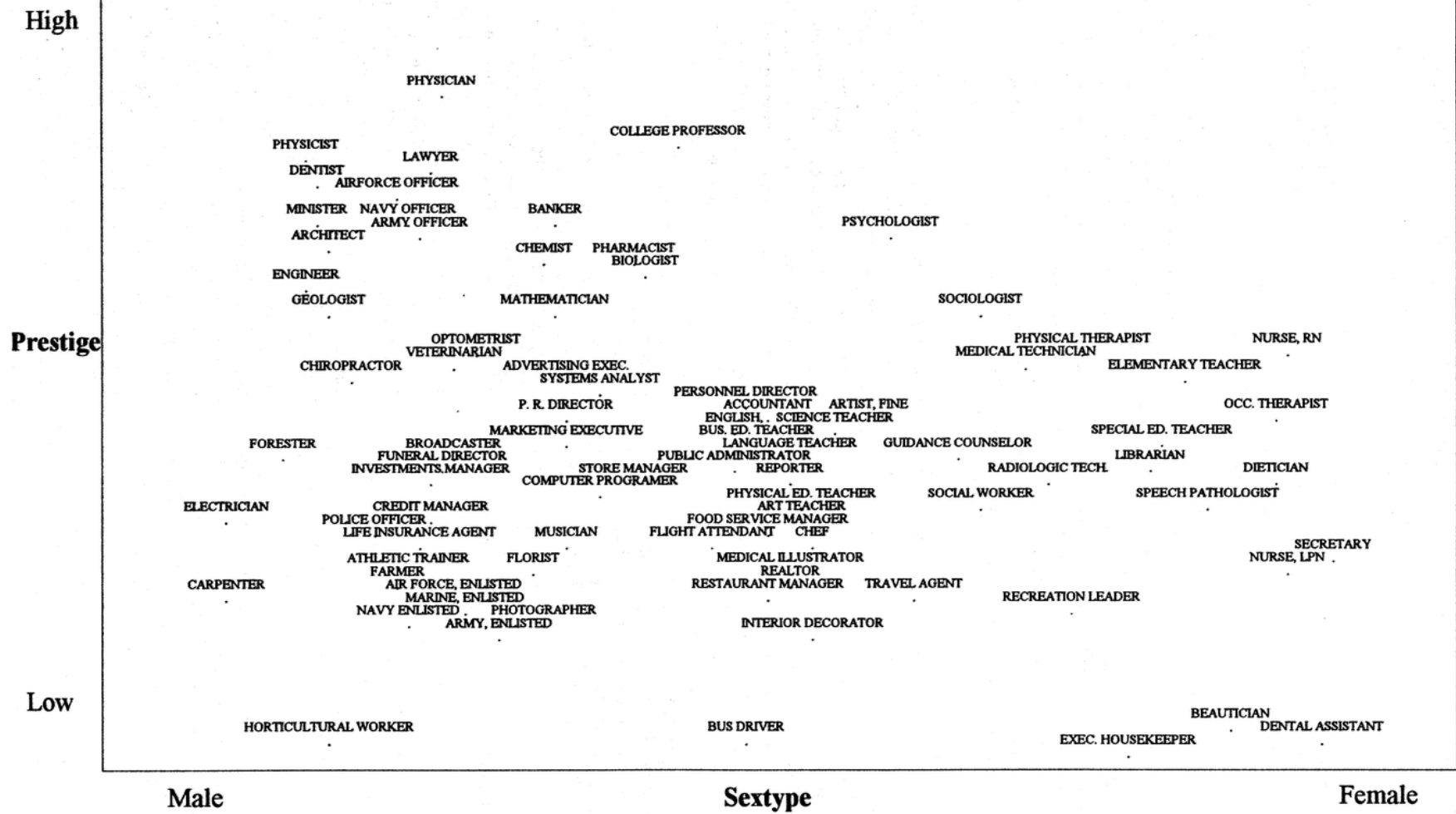
This phenomenological study sought to describe the vocational pathway experiences of MOC. Improving our understanding of their experiences is crucial to addressing their paramedical underrepresentation. Through the voices of the men in this study, it is obvious that much latent talent is available. In its contribution to the sparse literature anent MOC in paramedicine, this investigation showed that the will and character to redefine the vocation is available. The students in this study demonstrated a willingness to partake in this redefinition, and future patients will receive better health care because of it. The combined talents of diverse individuals, from varying walks of life, will make this health care success possible. Thus, the main remaining obstacle is the ability of community colleges and the emergency medical community to fully realize this promise.

APPENDIX A  
HOLLAND'S PERSONALITY TYPES



APPENDIX B

GOTTFREDSON'S PRESTIGE/SEX TYPE CHART

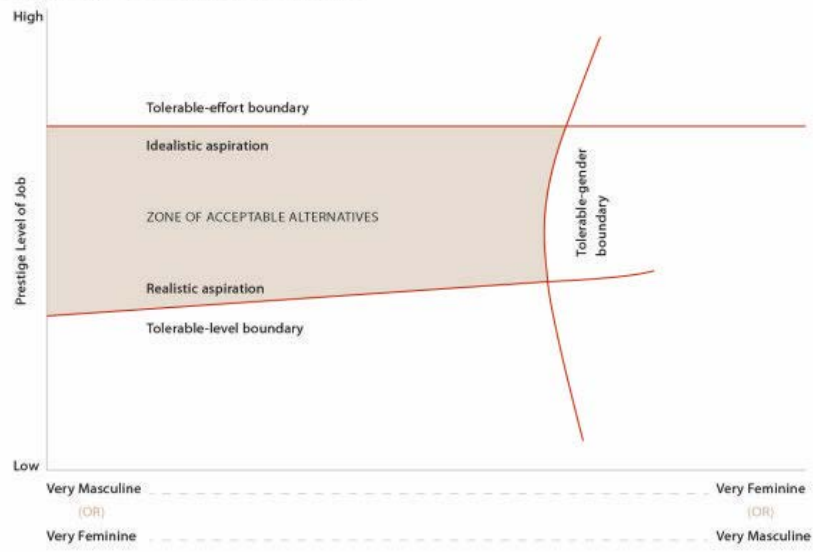


APPENDIX C

GOTTFREDSON'S CIRCUMSCRIPTON/COMPROMISE CHART



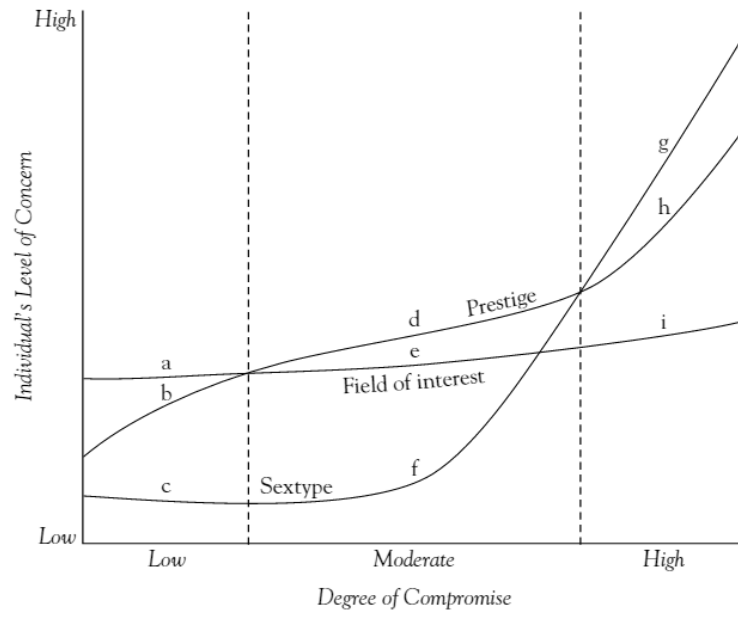
Gottfredson's theory of circumscription and compromise



APPENDIX D

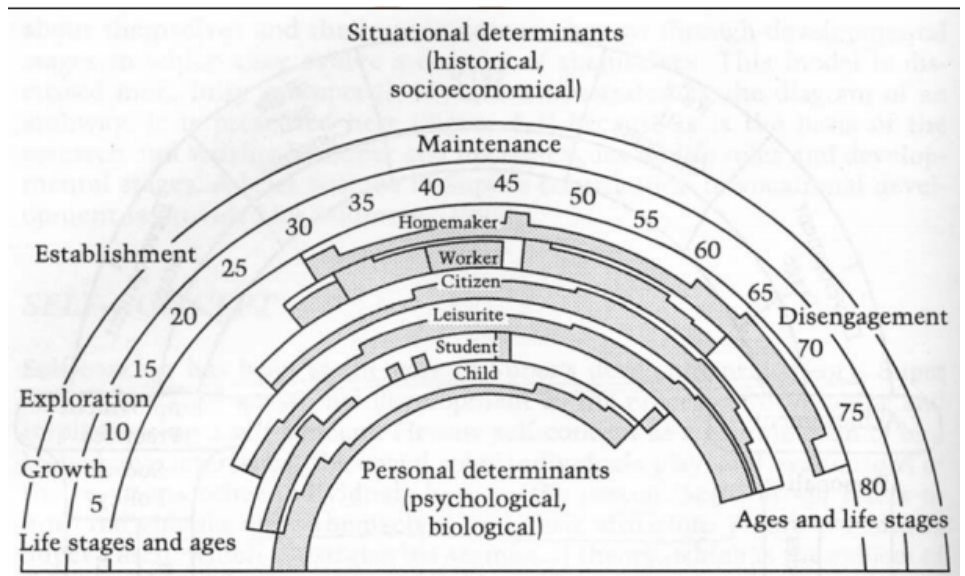
GOTTFREDSON'S DEGREES OF COMPROMISE/SOCIAL SPACE CHART

FIGURE 4.4. Concern Over Degrees of Compromise



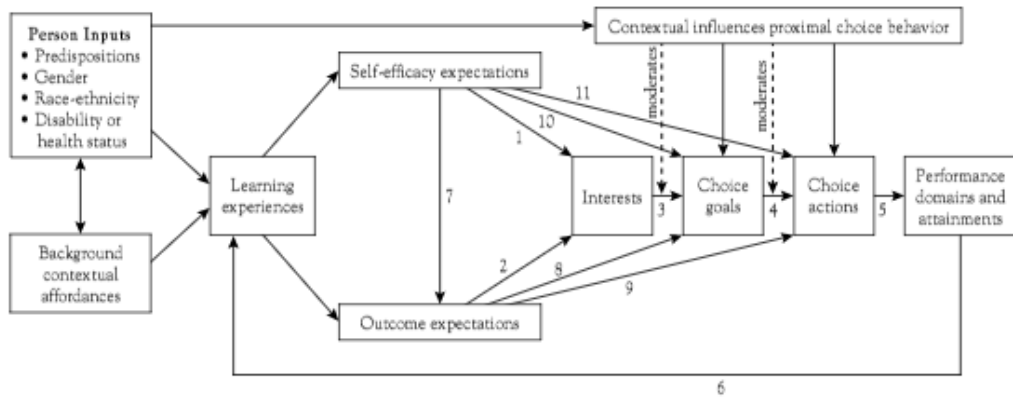
APPENDIX E

SUPER'S LIFE SPAN/LIFE SPACE CHART



APPENDIX F

LENT, BROWN, AND HACKETT'S SOCIAL COGNITIVE CAREER THEORY CHART

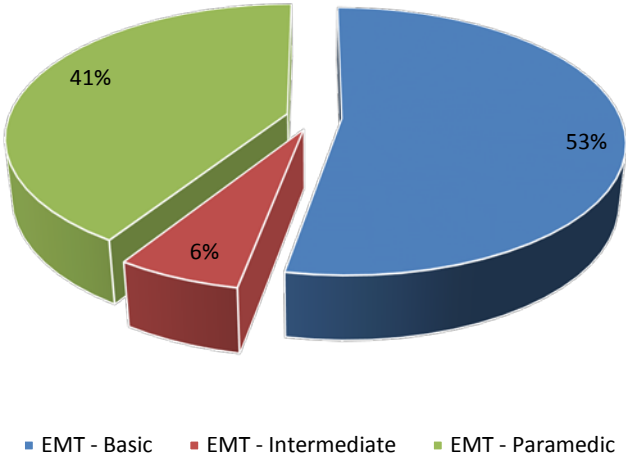


APPENDIX G

EMTS BY CERTIFICATION LEVEL IN 2014



250,000 EMTs by certification level (2014)



APPENDIX H  
INFORMED CONSENT AGREEMENT

**Please read this consent agreement carefully before you decide whether to participate in the study.**

**Purpose of the research study:** The purpose of this study is to describe how MOC in community college paramedical programs experienced their awareness of, interest in, and ultimate choice of paramedicine as a course of study. As such, it is focused on the various stages of their academic careers and their overall impact on student decisionmaking. Through a better understanding, I hope to guide and inform future institutional community college decisions regarding MOC recruiting for paramedical programs.

**What you will do in the study:** I am seeking participants to help me isolate the factors that attracted, informed, and led to them choosing a paramedical course of study. Towards this end, participants will be asked to answer various questions in a private setting with the researcher. During the interview, you can skip any question(s) that make(s) you uncomfortable and you can stop the interview at any time, free of any repercussions.

**Time required:** The study will require approximately 45 to 60 minutes of your time.

**Risks:** One potential risk of participation in this study is a loss of confidentiality regarding your interview responses. To minimize this risk, data will be encrypted, coded, and stripped of any personally-identifying information that would link the data file back to you. Only I will have the means of identifying an individual in the data set.

**Benefits:** There are no specific individual benefits for participating in this research study. However, this study will help the researcher understand the contributing factors that led to awareness, interest, and active choice of paramedical studies.

**Confidentiality:** The information that you provide during the study will be handled confidentially. Your information will be assigned a code number. The list connecting your name to this code will be kept in a locked/encrypted file. When the study is complete and the data have been analyzed, this list will be destroyed 24 months after the last interview. Your name will not be used in any report. All examinations and conclusions will be across all institutions that were studied. All materials will be destroyed five years after the data are collected.

**Voluntary participation:** Your participation in the study is completely voluntary. Additionally, you can withdraw your contribution before, during, or after your interview.

**Right to withdraw from the study:** You have the right to anonymously withdraw from the study at any time without penalty. An audio recording will be created explicitly to enable the typing of a transcript. Afterwards, your audio recording will be destroyed.

**How to withdraw from the study:** If you want to withdraw from the study, tell the

interviewer to stop the interview. There is no penalty for withdrawing. If you would like to withdraw after your materials have been submitted, please contact Jose Lineros ([jose.lineros@unt.edu](mailto:jose.lineros@unt.edu)). If you wish to contact someone other than the chief investigator (Jose Lineros), please feel free to contact Dr. Barrett Taylor ([barrett.taylor@unt.edu](mailto:barrett.taylor@unt.edu)) at the University of North Texas.

**Payment:** As a small token of appreciation for your time, you will receive a \$20 Amazon gift certificate and breakfast/lunch/dinner (as applicable) for participating in this study.

**If you have any questions about the study, contact:**

Jose Lineros at [jose.lineros@unt.edu](mailto:jose.lineros@unt.edu)

**If you have any questions about your rights in the study, contact:**

Jose Lineros at [jose.lineros@unt.edu](mailto:jose.lineros@unt.edu)

**Agreement:**

I agree to participate in the research study described above.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_

**You will receive a copy of this form for your records.**

APPENDIX I

RECRUITMENT EMAIL/PERSONAL SOLICITATION FOR STUDENTS

Dear Potential Study Participant,

I am contacting you on behalf of a research project at The University of North Texas Higher Education Program for a study entitled: AN INVESTIGATION OF PARAMEDICAL VOCATIONAL CHOICE FOR MEN OF COLOR IN TEXAS COMMUNITY COLLEGES. The purpose of this study is to describe how MOC in community college paramedical programs experienced their awareness of, interest in, and ultimate choice of paramedicine as a course of study.

If you are a Latino or African American male paramedical student, I would like to invite you to participate in an interview for this study. It is expected that the individual interview will last between 45-60 minutes and take place on campus, or at another location of your choosing. A breakfast (if between 8 am and 11 am), or lunch (if between 11 am and 2 pm) or dinner (if after 2 pm) will be provided. Additionally, to express appreciation for your time, a \$20 Amazon gift certificate will be remitted to you after your interview. Approximately two weeks after the individual interview, you will be provided a copy of the interview transcription for review. Typically, this review takes approximately 15-20 minutes.

Attached is a copy of the interview questions. I am also attaching a copy of the participant informed consent agreement for you to review. You will have time to review this beforehand and ask any questions prior to deciding if you wish to participate in the research. If you decide to participate, please email [jose.lineros@unt.edu](mailto:jose.lineros@unt.edu). You can sign the informed consent agreement in the presence of the researcher. There, you will be provided a copy of that same informed consent agreement for your records.

Please note your participation in this research is completely voluntary and you may decline participation entirely or with respect to any specific question(s). Your decision to

participate or to withdraw from the study will have no effect on your grade or standing in your current course, or any other current or future course you may enroll in. The interview questions will focus on how you became aware of paramedicine, how you explored what it was about, and why you ultimately chose to study it.

If you have any questions about the study, please contact the researcher (Jose Lineros) by telephone (xxx) xxx-xxxx, or by email [jose.lineros@unt.edu](mailto:jose.lineros@unt.edu) at any time. Alternatively, you may also contact your program director at the phone number and/or email below. If you have any unanswered questions regarding your rights as a research subject, you may also contact the UNT Institutional Review Board office at 940-565-4643.

Thank you very much for your time and consideration.

Jose Lineros

University of North Texas

Program Directors:

Redacted to preserve anonymity

APPENDIX J  
INTERVIEW PROTOCOL/QUESTIONS



## Interview Protocol

### **Before you begin:**

Check the proper functioning of all recording equipment prior to the interview. At the beginning of the session I will:

- Introduce myself to the participant and thank him for taking the time to participate. Establish rapport by commenting on our common status as students, how I began teaching at a community college, and how great my interaction with of the paramedical instructors/staff has been.
- If an in-person interview is being conducted, ask the interviewee to read/sign the informed consent agreement. If a telephone interview is being conducted, read highlighted sections of the consent form to the interviewee, wait for signed image to be texted/emailed.
- If an in-person interview is being conducted, obtain signatures for two copies of the consent form and provide interviewee with one copy of consent form for his or her records. If a telephone interview is being conducted, ask the interviewee to print and sign one copy of the consent form that was sent to them via e-mail, and mail the signed copy to me at the address provided in the e-mail message. Also, you may offer to send them hard copies of the form via U.S. mail, along with a self-addressed, stamped envelope in which they may return a signed copy of the consent form.

*Thank you for agreeing to participate. Typically, these interviews last between 45-60 minutes.*

- Explain the process of recording the interview.

*To facilitate my note-taking, I would like to digitally record our conversation today. Only I will have access to the audio recordings. They will be stored in a secure/encrypted file until they are transcribed and then destroyed 24 months from the interview date.*

*The purpose of this interview is for me to learn about you and your educational and career choices. If I ask you anything that you do not feel comfortable answering, please feel free to tell me that you do not want to answer that question. If you wish to omit any question, or cease participation in the interview, just let me know. All decisions you make will be kept confidential. Do you have any questions for me before we begin?*

- Begin recording.
- Ask participant to state “I agree” if they understand and agree to everything on the consent form.

**Research Questions, Demographic Questionnaire, and Individual Interview Questions**  
**Identified by Research Question(s) (RQ)**

Interviewee (anonymized name):

Date of interview:

**Student Awareness, Interest, and Choice of Paramedical Studies**

**Below are the research questions and the cross-referenced interview questions.**

1. How do (men of color) MOC in community colleges define and make meaning of their initial awareness and interest in paramedicine as a potential career choice?
2. How do MOC in community colleges define and make meaning of their active choice of paramedicine as a course of study?

**Demographic Questionnaire**

General background information not directly tied to specific RQs

- a. Are you a veteran of the U.S. Armed Forces?
- b. What type of degree(s)/certificate(s) are you attempting to earn?
- c. What is the ethnic/racial group that best describes you?
- d. In what year were you born?
- e. Do you work, if so, how many hours and where?
- f. Do you have any siblings, if so, how many?
- g. What is your career aspiration?

**Student Paramedical Awareness (Learning Experiences / Interests) – participants were encouraged to reflect, elaborate, and augment their answers as necessary.**

When and how did you first gain an awareness of paramedicine? RQ1

Did you have any previous contact with paramedics prior to you gaining awareness of paramedicine? How do you feel this hurt/helped you? RQ1

Were there any individuals/institutions/programs that helped you gain paramedical awareness? If so, what was the nature of that help? How did the assistance make you feel? RQ1

What were your first impressions of what the paramedicine required (e.g., education/skills/personal attributes?). How did they make you feel? RQ1

**Student Paramedical Interest (Learning Experiences/Choice Goals) – participants were encouraged to reflect, elaborate, and augment their answers as necessary.**

What mediums did you use that increased your interest in paramedical careers after your initial awareness? RQ1

As you explored and gained knowledge, what were your impressions of paramedicine, how did they change? RQ1

Did you feel it was masculine / feminine / or gender neutral?, How do you feel others see the profession? RQ1/RQ2

Were there any individuals/institutions/programs that helped you with this gain interest? If so, what did they do to guide and inform you? How did this make you feel? RQ1

What, if anything, hindered your ability to gain a better understanding of paramedical opportunities? RQ1

Did your previous schools help you learn and explore different career options such as paramedicine? If so, how? RQ1

Did you, or someone you know, (e.g., family, friends, acquaintances) have significant contact with paramedicine prior to you entering the program, if so, did this influence your career track? RQ1

Did any popular media (books/TV/radio/movies/Inet/newspapers/other) contribute to your awareness of paramedicine? If so, how did they help/hinder you? RQ1

**Student Active Paramedical Course of Study Choice (Choice Actions) – participants were encouraged to reflect, elaborate, and augment their answers as necessary.**

What was the defining moment, (if there was one) that validated you as a potential paramedical student? In your mind, what made a paramedical degree possible? What represented enablers/obstacles to this? RQ2

Did you feel that your ethnicity/race/background afforded you any specific advantages/disadvantages as a paramedical student? RQ2

Did any popular media (books/TV/radio/movies/newspapers/Inet/other) contribute to your definitive selection of a paramedical course of study? RQ2

What, if anything, do you remember about 9-11? Did it influence your decision in any way?

**Student Self-Efficacy / Outcome Expectations – participants were encouraged to reflect, elaborate, and augment their answers as necessary.**

Have you ever been told you were smart and capable?, not smart/capable? How did this make you feel? RQ2

Do you network with student peers in your program, how/when/why? RQ2

Does your family demonstrate active support for your studies, if so, how? RQ2

Do you know anyone of your race/ethnicity who is a paramedic that you could turn to for advice? Anyone else who could mentor you? RQ1/RQ2

Have you had any internship opportunities (ride-alongs, etc.)? How did they make you feel? RQ2

Have you, or someone you know, ever experienced racial or ethnic prejudice in your life that made you feel uncomfortable? If so, can you describe it? Would saving the life of a White patient change anything? (more/less/same level of prejudice) RQ1/RQ2

If you are having academic trouble in a course, where do you turn to first (faculty/peers/family/friends/other), and why? RQ2

Do you think you would be attracted to a desk job? Why/Why not? RQ2

If you were to fail to achieve your current career goals, who do you think you would disappoint the most? (yourself, family, friends). If you failed, would you feel like your race/ethnicity was somehow diminished? RQ1/RQ2

## **Closing**

Would you be willing to share the contact information of significant individuals who have positively influenced your educational journey in paramedicine so we can potentially ask them to participate in a future study? If yes, how could we best reach them? (non-specific parting question, longitudinal framing)

Would you be willing to participate in a follow-up interview to tell us your thoughts about the preliminary findings from this study? (non-specific parting question, longitudinal framing)

APPENDIX K  
RESEARCHER REFLEXIVITY JOURNAL

Preliminarily, my reflective thoughts revolve primarily around my status as a voluntary Cuban migrant and the effects this experience has imparted. When my parents and I immigrated to the United States, we were economically disadvantaged. Education was a portal for me to improve our economic situation and was highly stressed in my home. Thus, I share with many Latinos a desire to improve myself through higher education, and have greatly enjoyed its diversifying opportunities anent people, ideas, and institutions. Prior to my contact with universities, I seldom interacted with different nationalities, ethnicities, races, and socio-political viewpoints. This contact with others made me question my own life assumptions. Additionally, it made me contemplate the opportunities afforded me, versus others in the United States.

Of most relevance to MOC vocational studies, I also began to expand my career-related knowledge through the active exercise of my own self-efficacy and outcome expectations. This was made possible by a generous assortment of mentors that have believed in my abilities and helped me do the same. Due to this support, many opportunities were made available to me that I have attributed to them and the higher education environments they enabled. It was these environments that have helped me extend and grow my vocational pathways.

Through these academic experiences, I recognized that many other immigrant (and non-immigrant) groups have benefited, and that my affinity for this self-improvement model was innate – perhaps to a fault. I want to believe that all immigrant groups can benefit and experience growth from what college offers – psychologically, sociologically, and through innate contact. From my perspective, engagement with higher education provides students with networked opportunities that cannot be easily replicated in other social environments. To the extent that this affects my beliefs, I am at least conscious of its potential influence.

An area of relative weakness – where I have less social relevance with other Latinos – involves involuntary immigration. My background has provided little experience with this phenomenon beyond social contact with friends. Counterbalancing this deficit, I am exposed to different underrepresented students through my faculty advising of UNT’s Association of Latino Professionals in Finance and Accounting (ALPFA). That participation has helped me “dimensionalize” my understanding of their specific successes and struggles. Preliminarily, based on my contact with other Latinas/os, I suspect their experiences have been somewhat more negative than my own. They readily relate more social, economic, and institutional barriers than I have experienced. To the extent that this dynamic makes their experiences less specifically relatable to me, I accept and choose to manage this difference as a researcher.

As is the case with many Latinos, my life experiences have contained micro-aggressions that I suspect are a normal – if not an everyday – part of sourcing from a minority culture. Unlike many Latinos, I have not experienced overt unadulterated racism or prejudice. However, generic, homogeneous, assumptions about Cubans and Hispanic groups in general are a common phenomenon experienced by myself, and others. I have encountered much ignorance anent the complexity and diversity that is inherent in Cuban culture, in much the same way that American tourists inversely experience it overseas. In spite of this, although at most institutions I would qualify under the conventional label of underrepresented Latino, I feel my life experiences have contained sufficient elements of insider and outsider perspectives to aid my study. Able to relate to majority and Latino culture, I have consistently moved fluidly between them, aided by my bilingualism and biculturalism. I feel this duality, rather than representing a weakness, affords me a valuable perspective within Latino studies.

Although less familiar with the involuntary migration experience of African Americans,

my role as a senior IT lecturer in the UNT College of Business has provided awareness of their successes and challenges – within and without the classroom. I have interacted with African American students, colleagues, and friends, which has informed – but not replicated – the ethnocentric experiences they encounter daily. Through this contact, and my studies in higher education, I have attempted to understand the African American lived experience at my institution, and through this effort become particularly sensitive to the academic struggles some experience. This sensitivity – heightened by my higher education studies – has manifested itself in the form of enhanced mentorship and intrusive counseling that the extant literature supports as beneficial – both for mentees and mentors (Smith, 2008b, Strayhorn, 2008). Additionally, I have enjoyed frequent contact with the UNT National Association of Black Accountants student group that has served as a source of education to me about their particular successes and struggles. To the extent that this contact biases my work, I retain an awareness of its presence and potential impacts on my ability to receive participant data, sans preconceptions, and allow their lived experiences to inform the study. Due to this, I am particularly sensitive to my need to bracket these feelings so I can examine and access their clusters of meaning without bias.

In spite of this contact, my contextualized specific knowledge of the African American experience is at best tenuous, although some of my Cuban ancestry is obviously mixed-race. Cuba's society, being more racially integrated, accommodates more social mobility on matters of ethnicity and race. This frequently manifests itself in more interracial marriages and cultural cross-integration. Nonetheless, Cuba's negative experience with slavery – a common experience throughout the Americas – and its ability to caustically affect cultural and psychosocial attitudes has not left me unaffected. I believe amelioration of its sociological and psychological effects is enabled through education. In support of this, I have striven to expose myself to the history of



African Americans, and recent African immigrants through a University of California, Berkeley online civil rights Massive Open Online Course (MOOC). This course, along with specific coverage by my higher education doctoral program, has broadened my understanding. In spite of this, in African American studies I still consider myself an outsider and an evolving nascent learner. Through this study, and additional life experiences, I hope to increase my knowledge as a researcher and student.

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