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Insights From Narrative Reflections Of First Year Medical Students On Their Professional Formation

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INSIGHTS FROM NARRATIVE REFLECTIONS OF FIRST YEAR MEDICAL
STUDENTS ON THEIR PROFESSIONAL FORMATION

A Dissertation Presented

by

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ABSTRACT

First year medical school enrollment is projected to reach 21,349 by the 2018 school year, reflecting a 30 percent increase compared to 2002 enrollment numbers (Erikson, Whatley, & Tilton, 2014). (Association of American Medical Colleges, 2014). In 2006, the Association of American Medical Colleges (AAMC) recommended this increase in enrollment in response to concerns about a physician shortage. Unfortunately, the increase in the number of medical students enrolling in medical school may be good for society, but it may not be good for the health of medical students. A commentary in the journal, *Academic Medicine,* was titled, "Medical Student Distress: A Call to Action" (Dyrbye & Shanafelt, 2011). There is concern that the structure of medical education may contribute to the lack of wellbeing in medical students beginning in their first year of medical school.

This is an issue of great importance to society as medical students are experiencing distress at a time when more physicians are needed. Medical schools are working to better understand the process of professional identity formation of medical students. The experiences in medical school contribute, both in positive and negative ways to the socialization and creation of a new identity for medical students.

The overall purpose of this study is to explore and analyze the narrative reflections of first year medical students as a rich source of data on the construction of their professional identity formation as a physician. This was a qualitative research study using narrative inquiry. In order to gain a deeper understanding of how first year experiences of medical students influence their professional identity formation, I explored and analyzed 205 reflections of first year medical students from a northeast medical school as a rich source of data on the construction of their professional identity as a physician.

Four themes emerged as important to medical students during their first year of medical school from their narrative reflections: balance, mental health, hidden curriculum and professionalism. The four themes reveal that first year medical students experience varying levels of stress during their first year of medical school. This mirrors the results of a study done more than eighty years ago. Now and then, medical students expressed similar concerns. (Strecker, Appel, Palmer, & Braceland, 1937) asked fourth year medical students questions about their wellness, phrased as neurotic or nervous symptoms. Sixty percent of the students believed their symptoms appeared when they started studying medicine.

These findings support the concerns of the American Association of Medical Colleges (AAMC). In 2016, AAMC held a Leadership Forum in Washington, DC to address what they called a public health crisis. There was significant concern about the wellbeing of those in academic medicine.

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CHAPTER I

INTRODUCTION

First year medical school enrollment is projected to reach 21,349 by the 2018 school year, reflecting a 30 percent increase compared to 2002 enrollment numbers (Erikson et al., 2014). In 2006, the AAMC recommended this increase in enrollment in response to concerns about a physician shortage. Unfortunately, the increase in the number of medical students enrolling in medical school may be good for society, but it may not be good for the health of medical students. A commentary in the journal, *Academic Medicine,* was titled, "Medical Student Distress: A Call to Action" (Dyrbye & Shanafelt, 2011). One type of distress prevalent in medical students is burnout. Burnout is defined as a measure of professional distress with three domains: emotional exhaustion, depersonalization, and low sense of personal accomplishment. Emotional exhaustion is characterized by feeling emotionally depleted by one's work; depersonalization, by treating people as if they are impersonal objects; and low personal achievement, by feeling that one's work is inconsequential (Maslach, 1976). Burnout is associated with suicidal ideation and unprofessional behavior including lack of empathy (Dyrbye et al., 2010). It is well documented in the literature that the values that students bring to the profession of medicine are diminished during the process of becoming a physician (Chen, Lew, Hershman, & Orlander, 2007; Hojat et al., 2009; Rabow, Remen, Parmelee, & Inui, 2010a).

One line of addressing these sorts of concerns about medical students lies in the recently started dialogue in the literature on the professional identity formation of

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medical students. Professional identity formation is defined as the "foundational process one experiences during the transformation from lay person to physician" (Holden, Buck, Clark Szauter, & Trumble, 2012, p. 246). Professional formation is defined as "the moral and professional development of students, the integration of their individual maturation and growth in clinical competency, and their ability to stay true to their values which are both personal and core values of the profession" (Rabow et al., 2010a, p. 311). (Wong & Trollope-Kumar, 2014) conceptualize professional identity formation as "the process by which an individual self-defines as a member of that profession based on the acquisition of the requisite knowledge, skills, attitudes, values and behaviors" (p. 490). This is considered to be a dynamic and evolving process (Scanlon, 2011).

The goal of professional identity formation is to support students as they acquire skills, perspectives, behaviors, and a set of personal values, which will allow them to navigate complex and risky situations (T S Inui et al., 2009). In this study, I will explore how first year medical students describe their experience as they begin to construct their professional identity.

Significance of Research

There have been many nationally driven and locally implemented curricular reforms to promote the teaching of medical professionalism (Cruess, Cruess, Boudreau, Snell, & Steinert, 2014; Wilson, Cowin, Johnson, & Young, 2013). Yet many schools continue to seek new and better ways to communicate the importance of professionalism to medical students, given the concern with medical students leaving medical school with less empathy (Spiro, 1992) and with a decline in idealism from first to second year

(Morley, Roseamelia, Smith, & Villarreal, 2013).The transformation from layperson to medical professional begins before matriculation (Cruess, Cruess, Boudreau, Snell, & Steinert, 2015) and continues with exposure to formal, informal, and the hidden curricula throughout the medical students' development. Medical education seeks to transform students into medical professionals by supporting their acquisition of the identity of a physician (Cruess et al., 2014). The implicit goal of teaching professionalism in medical school is to support the development of professional identity formation (Cruess et al., 2014). However, little is known about the beginning of the transformation process, what experiences students find meaningful and/or troublesome (Cox, Irby, Stern, & Papadakis, 2006). It is now being suggested that medical schools design educational programs that intentionally guide professional identity formation (Cruess et al., 2014) and that it is the role of medicine's educational institutions to explicitly teach professionalism (Frost & Regehr, 2013). By better understanding medical students' experiences during the first year of medical school, this study may contribute to a better understanding of how to design educational experiences to promote professional identity development and formation during the first year of medical school.

Some medical students experience difficulty as they merge their previous identities into the professional identity of a physician (Cruess et al., 2014; Monrouxe, 2010). Few studies have explored the experiences of medical students in relationship to the development of professional identity formation (Monrouxe, 2010). In my study I intend to gain an understanding of how the experiences of first year medical students influences their professional identity formation. Cruess et al. (2014) state, "The essential

components of socialization in medicine must be better understood if we are to actively intervene to develop educational programs to support professional identity formation" (p. 4).

Research Statement

In order to gain a deeper understanding of how first year experiences of medical students influence their professional identity formation, in this study, I explored and analyzed the reflections of first year medical students as a rich source of data on the construction of their professional identity as a physician. The reflections are based on the final assignment for a first year course called, "Professionalism, Communication and Reflection" (PCR). As I learn about what experiences medical students identify as important, I endeavor to learn about and to understand how these experiences influence their professional identity formation.

Research Questions

The primary research question for this study is: What emerges as important for medical students in the construction of the professional identity formation during the first year of medical school?

Research Design

This study engaged in qualitative research using narrative inquiry. At the end of the first year course called, "Professionalism, Communication and Reflection" (PCR), students are required to write a final reflection to a prompt, asking them to reflect on their experiences as a first year medical student. Glesne (2006) states that qualitative researchers "seek to understand and interpret how the various participants in a social

setting construct the world around them" (p. 4). I analyzed these reflections using analysis of narrative (Saldaña, 2009). In this study, I learned about the medical students lived experiences during their first year of medical school and what meanings they assign to their process of developing a professional identity.

CHAPTER II

LITERATURE REVIEW

This research study addresses the need to better understand the professional

identity formation of medical students beginning in the first year of medical school. In

order to better understand the process of professional identity formation, this literature

review addresses the areas of socialization, professionalism, and identity formation. The

wellbeing of students during medical school will also be explored as it relates to identity

formation.

Socialization

There are many theories of socialization and across many academic disciplines.

For this dissertaion, I explored socialization as it relates to medical students in their

journey to become physicians.

In 1957, Merton, Reader, and Kendall wrote a landmark study of the sociological

development of physicians. They defined socialization as a process during which students

acquire the values and attitudes, the interests, skills, and knowledge, current in the groups

of which they are, or seek to become, a member. They stated that the task of medical

education is to "shape the novice into the effective practitioner of medicine, to give him

(sic) the best available knowledge and skills, and to provide him with a professional

identity so that he comes to think, act and feel like a physician" (Merton et al., 1957, p.

5). Professional socialization requires constant matching of professional demands with

one's own priorities and personal resources (Niemi, Vainiomaki, & Murto-Kangas,

2003). Medical schools are where future physicians learn how to think, act and identify

themselves with the values of the profession (Cruess, Cruess, & Steinert, 2009; Hafferty & Hafler, 2011). The experiences in medical training fuel the socialization of medical students (Hafferty & Hafler, 2011).

The socialization rituals in medical school begin by structurally separating medical students from their previous environments with long hours of classes and studying. This allows for the development of a new identity through both informal and tacit modes of socialization. During the first weeks of medical school, students are exposed to the formal, published curriculum, as well as the informal and hidden curriculum of medical school, all informing their development as physicians. The formal curriculum includes a combination of the basic science study in the classroom and clinical skill development in the hospital or outpatient setting. The informal curriculum is the interpersonal experiences students have with teachers, peers and patients. "Learning through observations of and interactions with role models is part of the informal curriculum" (Bernard, Malone, Kman, Caterino, & Khandelwal, 2011, p. 1). The hidden curriculum also impacts a student's process of socialization. The hidden curriculum refers to cultural mores (Hafferty & Hafler, 2011) that convey powerful messages about what is important and valued in the profession (Hafferty & Franks, 1994). "The hidden curriculum is defined as the organizational structure and culture that influences learning. This includes customs, norms and rituals of the day-to-day activities such as rounding" (Bernard et al., 2011, p. 1). Students are strongly influenced by observing medical professionals in action, learning about professionalism from what is said in the formal curriculum, to what is done in the informal and hidden curriculums (Thomas S. Inui,

2003). The hidden curriculum can disrupt the teachings of the formal curriculum, and can contribute to the erosion of medical student's personal code of ethics (Satterwhite, 2000).

Professional culture may be communicated to new members of a profession in four ways: structures, narrative scripts, mimesis and habituation (Vaidyanathan, 2015). At a structural level, behaviors demonstrated by educators are protected by established hierarchies. This includes unprofessional behaviors, which junior faculty and students feel too vulnerable to challenge. Narrative scripts are prevalent in medical school often beginning during orientation. During this time, messages are delivered to students about "their privileged status and new identities" (Vaidyanathan, 2015, p. 161). Professional cultures in medicine are sustained through the tacit process of minesis or imitation. As a way to navigate the uncertainty and anxiety common in medical school, vulnerable medical students imitate the behaviors of successful role models. This may begin during the first year when new students are overwhelmed or during subsequent years when students are learning hospital culture. Vaidyanathan, (2015) defines habituation as the technical and social norms that are reinforced with regular practice and become second nature with time. This includes sustainable patterned ways of thinking and acting. Years of research has documented a decline in medical students' empathy towards patients and an increase in cynicism (Hojat et al., 2009; Spiro, 1992). One reason may be medical students' repeated exposure to derogatory comments about patients by residents and physicians (Vaidyanathan, 2015). Parsons, Kinsman, Bosk, Sankar, and Ubel (2001) documented that medical students' exposure to these comments increases stress and reflects a powerful socialization force during medical training.

Hafferty (2001) frames medical education as resocialization. He defines resocialization as an active process "where certain aspects of one's prior self are '*replaced*' by new ways of thinking, acting and valuing" (p. 63). Resocialization is most effective when the individual is repeatedly and purposely stressed as medical students sometimes are during training. Stress plays a significant role in the medical education of medical students and influences their resocialization. He views this as an active process of replacing one's prior self with new ways of thinking and acting, all leading to "learning to become and be an insider as a professional" (Hafferty, 2001, p. 65).

Professionalism

The concept of medical professionalism can be traced back to when physicians formed a guild, around the fifth century BC. This guild created the Hippocratic Oath (Sox, 2007) which is recited, in many variations from the original, by most medical students at their graduation from medical school. This oath is considered the earliest description of medical professionalism (DeAngelis, 2015). In 1847, the American Medical Association was formed as the first professional medical organization in the world. At their first meeting they adopted the first code of professional medical ethics and established standards for education, training and conduct. One of the standards in the document states,

> There is no profession, from the members of which greater purity of character, and a higher standard of moral excellence are required, than the medical; and to attain such eminence, is a duty every physician owes alike to his profession and his patients. It is due to the latter without it he cannot command their respect and

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confidence, and to both, because no scientific attainments can compensate for the

want of correct moral principles. (History of AMA Ethics, 2015, p. 14)

Professional codes of conduct are considered "tangible expressions of

professionalism" (Cruess & Cruess, 2009, p. 1532) that are what physicians "admire in

colleagues and strive for in themselves (Cruess & Cruess, 2009, p. 1532). Historically,

the definition of professionalism has responded to both political and societal changes

(Cruess & Cruess, 2009). Individuals in a profession share a body of knowledge and

technical skills and are bound together by a shared commitment (Kirk, 2007).

As late as the 1970's, professionalism was rarely referred to in the medical

literature (DeAngelis, 2015). In 1999, the "Medical Professionalism Project" was

launched by the European Federation of Internal Medicine, American College of

Physicians Foundation and the American Board of Internal Medicine Foundation. The

purpose was to develop a charter with a set of principles to which all medical

professionals can and should aspire (Kirk, 2007; Medical Professionalism in the New

Millennium, 2002). The three fundamental principles outlined in the "Charter on Medical

Professionalism" are patient welfare, patient autonomy, and social justice. The charter

also includes 10 general professional responsibilities. They are a commitment to:

professional competence, honesty with patients, patient confidentiality, maintaining

appropriate relations with patients, improving quality of care, improving access to care, a

just distribution of finite resources, scientific knowledge, maintaining trust by managing

conflicts of interest, and professional responsibilities.

In 2012, for certification purposes, the American Board of Medical Specialties adopted the following definition of professionalism:

> Medical professionalism is a belief system about how best to organize and deliver health care, which calls on group members to jointly declare ('profess") what the public and individual patients can expect regarding shared competency standards and ethical values and to implement trustworthy means to ensure that all medical professionals live up to these promises. (Hafferty, Papadakis, Sullivan, & Wynia, 2012, p. 2)

The May 12, 2015 issue of *The Journal of the American Medical Association* was dedicated to the theme of professionalism and governance (Bauchner & Fontanarosa, 2015). The purpose of this issue was to explore the governing structure of the medical profession and the professionalism of physicians as well as the role of medical education in fostering professionalism. The issue of teaching professionalism in medical school has been of concern for many years (Swick, Szenas, Danoff, & Whitcomb, 1999). "Developing competence in professionalism is a core expectation for a physician learner, no different from developing competence in medical knowledge" (Kirch, Gusic, & Ast, 2015, p. 1797). By1999, almost 90 percent of medical schools reported offering some form of instruction related to professionalism (Swick et al., 1999). This ranged from a white coat ceremony, where first year students receive a white coat symbolizing their induction into the profession, to courses on professionalism during the first two years of medical school (DeAngelis, 2015). Beginning in the early 2000's, an initiative by the AAMC stated that professionalism was a core competency and their accreditation

guidelines required that professionalism be taught and then the effort evaluated (Coulehan, 2005). Medical schools are now required by the Liaison Committee on Medical Education (LCME) to maintain a learning environment that cultivates the development of professionalism among medical students (Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the M.D., 2015). Undergraduate medical education is responsible for laying the foundation for a lifelong commitment to professionalism. As part of this effort, many medical schools have adopted, "Tenets of Professionalism" to help students understand the identified expectations for all in the medical community. The tenets of professionalism at the medical school studied include: altruism, social responsibility, duty and service, excellence and scholarship, honor and integrity, respect, humility, accountability and responsibility, compassion and empathy and cultural competence

At a recent meeting of 19 medical education thought leaders, discussing medical student education, many thought it was not feasible to teach professionalism in a curriculum (DeAngelis, 2015). This might be due to the lack of agreement on the definition of the term (DeAngelis, 2015). The difficulty with a specific definition of professionalism may be that the practice of medicine is intensely personal for some physicians (Harris, 2014). Similar to physicians coming to a consensus on the meaning of professionalism, medical students have the same difficulty. As an example of this difficulty, each class at Vanderbilt University School of Medicine composes its own version of the Hippocratic Oath to take at graduation. This may be a reflection of the individual professional identity formation process of each student.

Professional Identity Formation

      The aim of professional education is to impart specialized knowledge and a professional identity to the student. Students enter professional schools to become a professional in their chosen career. When medical students enter school, they only have a superficial understanding of the values of the medical profession. According to (Rabow et al., 2010a) for physicians, becoming a physician or professional formation is " the moral and professional development of students, the integration of their individual maturation with growth in clinical competency, and their ability to stay true to values which are both personal and core values of the profession" (p. 311). They go on to say that the "goal of professional identity formation is to tether or anchor students to personal principals and the core values of the profession and help them navigate through the inevitable conflicts that arise in training and practice" (p. 311). Through this process of professional formation the learners are given "the opportunity to recognize, explore, articulate, prioritize and share their authentic values and value conflicts within a supportive professional community" (Rabow et al., 2010a, p. 310). (Wilson et al., 2013) offered similar ideas and defined professional identity as "the integration of personal values, morals and norms of the profession" (p. 4). Professional identities, dynamic in nature, are "assembled" and "disassembled," socially defined and influenced, and intertwined with one's self-concept and one's multiple personal identities (Holden et al., 2015, p. 762). As suggested, professional formation is an active process (Cruess et al., 2014; Rabow et al., 2010a).

Studies have shown that one of the first steps of a medical student's personal transformation process from layperson to physician is the application process. Experiences prior to medical school establish a "preprofessionalism" foundation for the aspiring physician that needs to be communicated to the admissions office (Kirch et al., 2015, p. 1797). Medical students are often called upon to create a personal statement as part of their application to justify their belonging and acceptance to the medical profession (Hafferty & Franks, 1994). In this personal statement, applicants "establish their 'preprofessionalism' foundation for competence" (Kirch et al., 2015, p. 1797). In a recent Twitter Chat with the U.S. News Education, one of the suggestions for medical school applicants was, "Remember everything you do to enhance your application will make you a stronger doctor in the end" (MedSchoolTips, 2015).

In addition to applicants writing a personal statement as part of the admissions process, admissions officers consider the nine core personal competencies endorsed by the AAMC Committee on Admissions, that related to the development of a professional identity for medical school admission offices to use as part of their decision making process. These are: ethical responsibility to self and others; reliability and dependability; service orientation; social skills; capacity for improvement; resilience and adaptability; cultural competence; oral communication and teamwork (Koenig, Parrish, Terregino, Williams, Dunleavy, & Volsch, 2013).

Once enrolled, medical school, students are asked to reexamine their values, biases and prejudices in depth (Rabow et al., 2010a) and may lose some of their empathy (Spiro, 1992) and idealism (Kirch et al., 2015). Values that inspired students to seek a

career as a physician may be challenged or lost during the formation process. The metaphor of "immunizing" students against the loss of their values and beliefs is well known in medical schools (Coulehan & Williams, 2001). Thus it raises questions about the goal for medical school education. The literature related to professional identity development also talks about the impact of the hidden curriculum. Other tendencies associated with exposure to the hidden curriculum include detachment from patients, loss of reflection and becoming rote in patient interactions and acceptance of hierarchy (Kirch et al., 2015). In order for physicians to be humane and effective healers, their medical education must explicitly nourish motivation and virtue (Coulehan, 2005). Other theorists reveal how the stress medical students experience may create the need for a professional mask for their "divided life" (Rabow, Remen, Parmelee, & Inui, 2010b, p. 312). In other words, they may have one set of values for their work life and another for their personal life.

When physicians distance themselves from their core personal values, their relationship with and care of the patient may suffer. Depersonalization, burnout and poor patient care are linked to medical error and limited clinician self awareness (Shanafelt, Bradley, Wipf, & Black, 2002).

Wellbeing

(Smith, 2018) in her book on medical school training states, "A positive state of well-being is characterized by overall contentment and balance in one's life." (p. 11). Hafferty (2003) states that today's students believe that altruism has been succeeded by a new set of core values emphasizing balance and lifestyle. They believe that, "you have to

care for yourself before you can care for others" (Hafferty, 2003, p. 147), which is unlike past generations of physicians. However, it does not appear that medical students are successful in taking care of themselves and are less likely than the general population to seek professional help (   ).

The structure of medical education may contribute to the disruption of positive health habits in medical students (Ball & Bax, 2002). Ball and Bax (2002) found that medical students' ability to use positive coping strategies for stress such as exercise and socialization decrease and the coping strategy of alcohol use greatly increases due to the rapid changes medical students experience during the beginning of medical school. Twenty percent of students in their study were in the range of being at risk for problematic drinking. Students in their study also reported "becoming significantly more depressed and dissatisfied with their lives during the course of the first semester" (Ball & Bax, 2002, p. 913). At the end of the first year, students remained significantly more dissatisfied than when they began medical school. Students tend to fill the amount of time available with studying and social occasions generally involve alcohol. Ball and Bax (2002) conclude that medical schools need to help students learn to give their own well-being priority.

Dyrbye et al. (2015) studied the wellbeing of medical students and their help seeking behaviors at six medical schools. Using validated instruments, they measured burnout, symptoms of depression, quality of life, and explored help seeking behaviors, perceived stigma, personal experiences and attitudes toward seeking mental health treatment. The results indicate that medical students with burnout infrequently, only three

out of ten students, seek help for an emotional/mental health problems. Students reporting burnout also had higher perceived stigma scores and greater fears of discrimination and breaches of confidentiality by supervisors. Dyrbye et al., (2015) suggest that medical students have the same cultural and social fears of stigma as many Americans regarding mental health care and that may explain part of the reason students do not seek support. However, almost half of the students in the study believe they would be rejected for a residency spot if the director knew they had an emotional/mental health issue. Over 10 percent of the participants witnessed fewer opportunities being given to students with emotional/mental health problems and 16 percent of students observed supervisors breaching students' confidentiality regarding emotional problems. This study indicates that students would be substantially less likely (27% to 44%) than the general population to seek professional help if they developed a serious emotional problem.

A study at seven United States medical schools measured the relationship between burnout and professional conduct (Dyrbye et al., 2010). In this study, rates for burnout, depression, quality of life, engagement in unprofessional conduct (academic cheating or dishonest clinical behaviors), understanding of appropriate relationships with industry and attitudes regarding physicians' responsibility to society were measured using standardized instruments. These instruments had been used extensively in other studies with medical students and residents. The results indicate that students with burnout were significantly more likely to participate in unprofessional conduct than those without burnout. The most commonly reported unprofessional behavior was reporting a clinical examination finding as normal when it had been inadvertently omitted. The students were

also less likely to want to provide care for the medically underserved and held less altruistic views regarding physicians' responsibility to society. Students with depression or who had a low quality of life rating did not have a similar association with unprofessional conduct or responsibility to society; however, they believed it was acceptable to engage in relationships with industry that are contrary to the AMA policy statement. This might include accepting financial or in-kind support that might influence a physician's recommendation to a patient (American Medical Association, 2011).

Tartas, Walkiewicz, Budziński, Majkowicz, Wōjcikiewicz, & Zdun-Ryżewska (2016) assessed the coping skills of medical students beginning at admissions and followed the same students into their careers as physicians. They found that students who take action and deal directly with a problem would be the most likely to resist burnout. However, these physicians were the least satisfied with their career and were thought to have a low level of competence. This study suggests the importance of identifying the coping strategies of medical students early in medical school, both to support medical student wellness and career development.

Little is known about the medical school experience of underrepresented medical students. Dyrbye et al. (2007) surveyed medical students at five medical schools using validated instruments to assess burnout, depression and quality of life. The students were asked if their race adversely affected their medical school experience. Close to half of all medical students reported burnout and depressive symptoms. Mental quality of life scores were lower for students than the age-matched general population. More non-minority students reported burnout than minority students; however, minority students were more

likely to report that their race/ethnicity adversely affected their medical school experience. The reasons given for their adverse experiences included racial discrimination and prejudice, feelings of isolation and different cultural expectations.

Przedworski et al. (2015) surveyed 4,732 first year medical students from 49 medical schools. Using published scales, the authors compared the risk of depression, anxiety, self-rated health and social stressors of medical students identifying as sexual minorities and heterosexuals. The researchers found that first year "sexual minority students were at significantly greater risk of depression and anxiety as well as low self-rated health, compared with their heterosexual peers" (Przedworski et al., 2015, p. 655). In addition, sexual minority students were significantly more likely to report experiencing harassment, insults and social isolation.

A recent article in the *Journal of the American Medical Association* discussed a medical school class at Penn State College of Medicine. In this class, medical students drew comics of their experiences in medical school. The class began in 2009, with 66 students in each year's class. The imagery of all the classes was examined and it was determined that 47 percent came from the horror genre. The images "depicted themselves as sleep-deprived zombies walking through barren postapocalyptic landscapes" (George & Green, 2015, p. 2345). In the comics in which the physicians were depicted as monsters, the students portrayed themselves as victims of mistreatment. The authors state that the comics offer strong evidence that something more should be done to support students to develop into the physicians they want to become.

Summary

The literature review reported on studies related to the need to better understand the professional identity formation of medical students beginning in the first year of medical school. In order to better understand the process of professional identity formation, it appears that medical schools are working to better understand the process of professional identity formation of medical students. This review looked specifically at studies that address socialization, professionalism, professional identity formation and well being. Understanding these issues is of great importance to society as medical students are experiencing distress and other challenges at a time when more physicians are needed. Students come to medical school with core values and when they distance themselves from them, their patients may suffer. Medical school is stressful. Research indicates that students' wellbeing is at risk during medical school and that they are reluctant to seek support. One study found the decline in mood and satisfaction with life began during the first semester of medical school. Another study found that medical students with burnout were more likely to participate in unprofessional conduct.

One of the gaps in the literature is how the experiences in medical school contribute, both in positive and negative ways, to the socialization and creation of a new identity for medical students. Teaching students what it means to be professional is now a licensing requirement for medical schools. The current dilemma is how to teach professionalism during the process of identity formation. In order to teach professionalism, we must first understand the components that influence identity

formation, beginning in the first year of medical school, and then support students as they

learn to merge their previous identities into their professional identity.

CHAPTER III

METHODOLOGY

Research Questions

At the end of the first year, medical students have been exposed to the formal, informal and hidden curriculums. They have spent many hours in the classroom and started their training in patient care. They have begun the professional transformation process from layperson to physician, learning how to think and act like a physician. The primary research question for this study is: What emerges as important for medical students in the construction of their professional identity formation during the first year of medical school. I used grounded theory (Corbin, 2008) for this study. As the data was coded, additional research questions emerged along with related questions from the data and memos.

First year medical students at a medical school in the Northeast, US take a course called "Professionalism, Communication and Reflection" (PCR). The final assignment is to write a reflection to a prompt. The students are asked to reflect back over their first year of medical school. The prompt for this assignment is as follows:

> *Reflect on your experiences thus far as a first year medical student and your*
>
> *experiences in PCR. Before you start writing, consider the competencies PCR is*
>
> *supposed to foster: professionalism; leadership and collaboration; cultural*
>
> *awareness; sensitivity to diversity; and attunement to the needs of patients and*
>
> *their families. Consider also the values driving the PCR curriculum: reflectivity*
>
> *and self-awareness; personal wellness and self-care; rigorous ethical standards;*

and unabashed curiosity.

Write one more time about your experience this year with an eye toward these competencies and values. You need not cover every domain. There may have been areas of notable growth or struggle for you that merit particular attention. It might make sense to end your reflection with comments about the direction you think or hope your growth will take you over the rest of medical school. Your mentor may have ideas about specific issues about which you may want to address.

The overall purpose of this study was to explore and analyze the narrative reflections to this prompt of first year medical students as a rich source of data on the construction of their professional identity as a physician. As I learned about what experiences medical students identify as important, I developed deeper understanding how these experiences influence their professional identity formation.

Research Design

To address this research question I engaged in qualitative research methodology using narrative inquiry. Qualitative research seeks to understand the multiple perspectives of participants and how they construct the world around them. "Narrative inquiry is a way of understanding experience…. stories lived and told" (Clandinin & Connelly, 2000, p. 20). This type of research "builds on people's natural impulse to tell stories about past events and personal experiences" (Schram, 2006, p. 104). The life history approach of narrative inquiry will be used for this study. This approach focuses on the stories people tell as "insiders within a particular setting" (Savin-Baden & Major, 2012, p. 233). This is

often used for research in educational settings with narratives with a discursive presentation. "It is an approach in which the researcher does not just describe situations but tries to explain them, to see the world through the eyes of the people involved in particular events" (Savin-Baden & Major, 2012, p. 233).

Data Analysis Procedures

I read each reflection several times, which allowed me to get to know the subtleties of the data and wrote analytic memos to explore possible categories and themes. For the first cycle of the analytical process, I used narrative coding. "Narrative coding is appropriate for exploring intrapersonal and interpersonal participant experiences and actions to understand the human condition through story, which is justified in and of itself as a legitimate way of knowing" (Saldaña, 2009, p. 109). Most students responded to the prompt, reflecting on one or more of the presented topics. A few of the students used the assignment as an opportunity to reflect on an issue they encountered and considered important during their first year. Some wrote short notes to their teacher.

I created a codebook of phrases and organized them into categories, concepts and themes. As I created the codebook, I wrote memos, which were used for the second cycle of coding. For the second cycle of the analytical process, I used Focused Coding. "Focused Coding searches for the most frequent or significant codes" (240) Saldana to develop major categories or themes from the data. I reflected on the memos and read through the codebook to determine the themes. Medical students described their own

unique experiences of medical school; however, they had many common experiences. Four themes emerged: balance, mental health, hidden curriculum and professionalism.

Poetic transcription was also used to present some of the data from this study. In poetic transcription, "The writer aspires to get at the essence of what's said, the emotions expressed, and the rhythm of speaking" (Glesne, 2006, p. 200).

Research Setting and Population

This research study took place in a medical school affiliated with a University in the United States. This school admits approximately 114 students in each medical school class.each year.

Data Collection

This data belongs to the Professionalism, Communication and Reflection (PCR) course director. He granted me permission to use these reflections. The course is a requirement for all first year medical students. PCR is a year-long course that meets once a week. Students meet with a faculty preceptors to discuss themes that include professionalism, developing self-awarenes and personal wellness, developing healthy approaches to emotional challenges, improving understanding of culture and diversity, examining social and economic forces in medicine and improving communication with patients (Rosen, 2018). The last assignment of the year for this course is to write a narrative reflection in response to the prompt cited above. The narrative reflections for the study were written in May 2010 and May 2011. The total number of narratives is 114, from May 2010 and May 2011. The reflections were de-identified. Unless there is some

indication in the narrative, gender, age, race, ethnic group, nationality and any other

identifying characteristics were not available nor addressed in this study.

Validity of Interpretation

The use of validity in qualitative research has been a topic of considerable debate

(Denzin & Lincoln, 2011; Savin-Baden & Major, 2012). Some researchers believe the

use of validity is more appropriate in quantitative rather than qualitative research where

the researcher is the instrument (Savin-Baden & Major, 2012). However, validity is also

seen as a strength of qualitative research (Creswell, 2003) and is used to determine

whether the findings are accurate and the methods used ensure the soundness and

goodness of the research. (Lincoln & Guba, 1985). Validity is increased by research

procedures that are credible, transferable, dependable, and confirmable (Lincoln & Guba,

1985). I used the following techniques to ensure the accuracy of my study:

Peer Debriefing – I reviewed the results with medical students and a staff member who

meet regularly with students at the medical school the students attend.

Reflexivity – A major threat to any study can be the researcher. One way to minimize the

effects of researcher bias is reflexivity. The researcher needs to reflect, examine and

explore their subjectivity through all stages of the study. The "researcher is both integral

and integrated into the research" (Savin-Baden & Major, 2012, p. 76). Personal

reflections reveal biases, separating the researcher's inner thoughts and feelings from the

participants (Glesne, 1999). This helps the researcher consider their position and

influence during the study, and how they may have imposed meaning on the research

process. As the study progressed, I wrote reflections to capture my thoughts about the

study and my reactions to the data. This helped me understand how my personal biography might be influencing the study (Creswell, 2003).

Dense Description of Findings – I included quotes from participants to support my findings. Many examples from the data give the reader the opportunity to evaluate the research (Glesne, 1999). The use of the participants' own words allows for "rich and thick" (Glesne, 1999, p. 32) description.

Compare Findings to Literature – I compared concepts from the literature to those in the data (Corbin, 2008).

Poetic Transcription – Poetic transcription is the poetic rendering of the participants' words to create a poem (Glesne, 2006). The purpose of poetic transcription is to "get at the essence of what's said, the emotions expressed, and the rhythm of speaking" (Glesne, 1999 p. 183).

Ethical Considerations

Medical students are very concerned about confidentiality. Each narrative will be de-identified. Information from the narratives was presented in themes and not associated with any one narrative (Glesne, 2006) . IRB add

Delimitations

This study took place in a medical school affiliated with a university in the US. The data is from two, first year classes that completed a final reflection in a yearlong course focusing on professionalism, communication and reflection. As the researcher, I did not have control over the prompt. As such, it may not generalize to other schools.

Limitations

The faculty, the curriculum, and the social dynamics of each class differ from class to class within an institution and from school to school. These differences in both the formal, informal and hidden curriculums influence an individual medical student's experience. The medical students may also choose not to write about important aspects of their first year experiences when responding to the quote. There are a few narratives missing from each class. The reason is unknown. Although it is a required component for the class and to continue on with medical school, at the time of collection, the reflections were not available. Possible explanations are that the student for some reason was not completing the first year of medical school or that they had an extension on this assignment.

Subjective I

I worked at a college of medicine as the Director of Student Success for almost five years. In order to best serve the students, I met individually with each first year medical student at the beginning of their first year. At this time we discussed their academic strengths and concerns, their health and wellbeing, and their hopes and fears about attending medical school as well as any other issues that could impact their academic success. After my first meeting with students, I met with them at their request or when a student was identified as experiencing academic difficulty. Some of the issues we discussed related to the changes they were experiencing during their first year of medical school. Therefore, throughout the study, it was important for me to write memos, so as not to make any assumptions about the contents of the narratives.

CHAPTER IV

FINDINGS AND DISCUSSION

To explore what emerges as important for medical students in the construction of their professional identity formation during the first year of medical school, I read narrative reflections from first year medical students. The reflections were the final assignment from the class, PCR. There were a total of 210 reflections from the two classes.

I read each reflection several times, which allowed me to get to know the subtleties of the data and wrote analytic memos to explore possible categories and themes. Most students responded to the prompt, reflecting on one or more of the presented topics. A few of the students used the assignment as an opportunity to reflect on an issue they encountered and considered important during their first year. Some wrote short notes to their teacher. For the first cycle of the analytical process, I used narrative coding. Medical students described their own unique experiences of medical school; however, they had many common experiences. Most students responded to the prompt, reflecting on one or more of the presented topics in the prompt. I created a codebook of phrases and organized them into categories, concepts and themes. For the second cycle of the analytical process, I used Focused Coding. I reflected on the memos and read through the codebook to determine the themes. Four themes emerged: balance, mental health, hidden curriculum and professionalism.

Theme 1 - Balance

The topic most medical students chose to include in response to the prompt was balance in their lives and experience. They wrote about a spectrum of balance issues, from the importance of balance to how they achieved it, pursued it or lacked it during their first year in medical school. Some reflected about their initial goal of balance at the beginning of medical school. Others had the belief that it was possible to do well in medical school and maintain self-care. "At the beginning of school, I had a goal – I didn't want to let medical school take over my life and prevent me from doing things that keep me sane." Another student reflected, "I highlighted one goal for my first year: balance. All things considered, I think I did pretty well, although there were moments when I was somewhat out of balance, leaning too far to one side or the other."

Some students expressed the ability to have a balanced life from the beginning of medical school. "I am not the prototypical diligent student. I take afternoons off to go play in the sun when I should probably be studying, but I've come to think of my personal time away from school as requisite for my wellbeing."

Students wrote about methods for maintaining balance. This included exercise and socialization. Several students wrote about training for a marathon. "For me, nothing compares to a good workout or a run to relieve stress. I cherish my personal wellbeing, and I am happy that I have identified what it is that I must do in order to maintain my own wellness."

In regard to personal wellness, I have tried to maintain more of a balance with

school and other outside activities by training for the marathon at the end of this

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month. Training has been going well and it has forced me to prioritize my

schedule both for school and myself (running time).

Running was the key to stress relief for one student. "My first successful stress-relieving,

self-care activity was running." For others a walk is the preferred choice. "My walk home

is my perhaps one of my favorite parts of the day (especially recently with the warm

weather). It is my time to decompress and enjoy what nature has to offer."

Students reported different ways of socializing to support their balance. Taste

Buddies, a student club, was mentioned as a way to conquer the isolation that can happen

during medical school.

In staying sane, as I've mentioned before, two things are distinctly helpful. The

first is exercise in the form of walking, yoga, or Pilates. This I managed to keep

up for the entire year. The other is cooking healthy meals and meeting once a

month to share recipes and cook with other people in Taste Buddies.

Alcohol was described as a positive part of weekly socializing for this student.

I had dinner with my friends every Friday to relax and share what we did during

the week. I drank alcohol in parties if no exams or classes are scheduled in

following days. It was my first time to drink alcohol in my life, and I began to

learn using it as a tool for socializing.

Balance for this student meant not participating in social activities. They left open the

possibility for change in future years.

I think this year has been sort of a selfish one for me. I've done very little with

our class in terms of participation, taking on public responsibilities or even much

social interaction outside of the classroom. Part of me regrets that – the sticking close to home and trying to just manage to keep my head above water – but another part of me feels like it was sort of necessary and that I'm at a point in my life where I'm not interested in the alcohol induced social interaction that our class seems fond of. I always struggle with this balance of 'going out' because it's what people do and doing what makes me happy – which often times is the less social option. I'm not sure what I even hope to happen in this regard over the next few years. I guess only time will tell.

Several students' reflections included statements about having a balanced life prior to medical school and the importance of maintaining balance during medical school. Some students were able to find the balance they once had, even if it took some time to learn how to incorporate medical school into their lives.

Before starting medical school, I fancied myself well-versed in the art of self care. I ate well, engaged in many creative and artistic activities, had a balanced social life, and engaged in regular exercise. It's funny, how quickly I "triaged" my daily habits and needs……… I've found balance, but it takes effort.

For others, who thought they had mastered the skill of finding balance, balance was elusive. "I have noticed this past year that I have trouble keeping a balance between my life and school. I thought this would be a great strength of mine …... This is probably what will continue to be my biggest challenge in the future."

Balancing medical school with self-care was a learned skill.

The most prominent change that has occurred for me this semester is that I have

learned how to relax more and feel less guilty about not studying constantly.

During the first semester and throughout most of A&D [Attacks & Defenses],

although I did not admit it to myself, I was living with the constant fear of failure.

Looking back, I clearly was trying to prove to myself that I was capable and

"worthy" of becoming a physician. I believe that I was living in a state of shock -

I simply could not believe that this school believed that I had what it took to live

up to the social and intellectual demands of the career. I rarely did anything

outside of school except for running in the morning before class, as I felt guilty

for taking any time off. Although I haven't completely changed my studying

habits, I have really been working on not beating myself up over maintaining a

little more balance in my life. I have truly become more comfortable with myself

as a learner while working on my personal wellness.

Several students reflected on the role of relationships in supporting them in maintaining

balance. "In terms of personal wellness and self-care I think that medical school does not

really leave enough time for such trivialities! In all seriousness my family has been very

grounding for me and long term I am hoping to exercise more often, to de-stress more,

etc."

I have really been able to strike a balance in my life, and I have learned how to

prioritize. I also make sure that I find time to work out, watch TV and play with

the dogs every day. On the weekends I balance my time so I can actually spend

some of it with my fiancé. And I go back to Boston to see my family and friends

at least once a month, honoring class isn't nearly as important to me as honoring

my life. My balance keeps me happy and lets this all work. Without it, I know I

would be miserable and probably on the edge of dropping out.

Another student described the key to successful balance as keeping one's priorities in

order.

I feel I have found my rhythm in medical school this semester. I view each day as

it comes and find myself never feeling stressed, regardless of the difficulty of the

material presented to me. I have allotted more time for my physical wellbeing and

have once again started to run quite frequently. Athena and I seem to have even

more time for each other which is the greatest blessing of all. I continue to keep

my priorities in the order I wanted them in prior to entering medical school and

they are as follows: God, family, everything else.

Not all students believe balance was possible during medical school.

I started this year with an apprehension that many of my classmates also seemed

to express, stemming from the uncertainty of what I had gotten myself into; was I

smart enough, how would I manage my studies and my life outside of school, and

where should I turn for support.

Despite balance being a work in progress and requiring sacrifices, some were able to

successfully maintain a life outside of medical school. "Of course, there was a constant

struggle with time allocation, and my balancing of time will be a continual work in

progress. But overall, I felt successful in that regard." One student stated that part of the

formula for balance for them was confidence in knowing that medicine was the correct career choice.

I must admit that from HSF on I have worked even harder than I imagined I would and have made many sacrifices in my non-academic life. I definitely have less time for myself than I would like and have felt burned out at times, but I think I am coping well. I think I have found a balance that works for me that allows me to succeed in school while avoiding total burn out. No one would put up with this punishment if they weren't confident that medicine is the best and most rewarding career for him or her.

Balance came late in the year for certain students. "I was trying to find a balance between enjoying my life in medical school and studying; I think I can proudly say that I have finally found that balance. It came a little late in the year, but it finally did come." Other students wrote about how they coped and stayed positive despite the ups and downs of medical school.

Despite the challenges of the workload and intense social environment, I have always been able to keep a good perspective. I have always been able to say that I loved what I was learning, and was happy to be here. I feel blessed. I feel strong. More than anything, I am excited for what is yet to come.

A few students saw the challenges of the first year as an opportunity to see their strengths and feel positive about their accomplishments.

As difficult as it was at times (and certainly still can be), I have learned that I am strong, resilient, and independent. This is not to say medical school always brings

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out the best side of me – because I do not believe it always does with the long hours and stress – however, the challenges and accomplishments of this year have enabled me to self reflect and feel proud of who I am and what I am doing.

It has been one massive rollercoaster for me this year. Each course brings new highs and lows as I think I am beginning to understand something and five more things get piled on making me feel like I am suffocating. It's amazing how medical school really strips you down and spits you out, and I'm still not used to this process even after it keeps happening to me in different ways with every course. Even though I am finishing this year with a bit of a limp, I think overall the experience has made me stronger, wiser and more in tune with my own wellness and connection to myself spiritually and physically.

For most of the year, some students struggled. "One thing that I continue to struggle with as this first year comes to a close is balance. Balance in many respects, such as balance within my academics. Finding balance between my academic life and personal life also continues to be a challenge."

I have had ups and downs and ups and downs over and over again. My life screams emotional wreck and baggage while my brain screams for academic and medical school focus. Funny enough, I thought I was a balanced man that could deal with studying and extracurricular activities very well. I would have bet all I have to prove I knew how to handle most of life's curves. I was woefully wrong more than half the time. But, that's a good thing, because now my balance and

mentality has changed. I continue to learn how to handle my life in such a way as to avoid mistakes of the past and build on a better future. Wellness and happiness are states of mind which I strive to be in constantly and just like everything else in medical school, they don't come easily.

There were students who described not finding balance during their first year of medical school. For these students, school was an all-consuming endeavor. "I do feel like medical school has taken over my life, I haven't let it change me, but when I talk to family and friends outside of medical school I feel like there is nothing else significant going on in my life." Certain students believed the struggle influenced them emotionally. "The near constant feeling of having not done enough with the hours of the day is very, very unpleasant. Someday I must learn to strike a balance between work and life that doesn't leave me permanently restive, or worse, cranky." This lack of balance created a sense of failure. "Even when I rationalize it with the fact that time is not limitless, I still end up feeling like I am failing at some aspect of my life." One student wrote that everyone knew medical school was going to be challenge.

> Everyone tells you that medical school is grueling and relentless, like trying to drink out of a gushing fire hydrant. Some people even tell you that it will be hard to give up so much of your life and that your relationships may struggle. I was prepared for all this and felt like I could handle it, but no one could have prepared me for the emotional stress of it. There is more to balance and self-care than just taking care of yourself physically.

The lack of balance influenced the physical and emotional health of students. "I have witnessed so many classmates sacrifice their personal health (both mental and physical) for 'good grades' this year. I'm sure this is why many people are in a constant state of unhappiness."

> A few times, it actually got to the point where I felt physically ill from the monotony of the daily grind: wake up, go to class, come home, study, go to bed. The occasional days I gave myself off were simply not enough to recharge, and the prospect of returning to the seemingly endless cycle of quietly studying, alone, with no significant or long-term interaction with others was almost too much to bear at times.

At the end of the first year, the lack of balance in many students' lives motivated them to think about how they would address this issue differently next year.

> One area I hope to be able to work on more is my own personal self care and awareness. Since the beginning of this journey I have felt like I have lost a big part of who I was and replaced it with who I am supposed to be. With year one behind me, I hope to regain some of the qualities and parts of who I was by living a more balanced life from now on.

One student shared what they had come to understand about finding balance.

> In the fall, I struggled with adjusting both academically and socially to medical school. Although finding a balance between time for myself, my family, my friends, and my studies proves to be a constant struggle, I have begun to realize that academic and/or professional commitments will fill the time that I allot to

them, and that it is up to me to define those boundaries and take responsibility for my decision.

This student's goal is to be the person they were prior to medical school. They reflected on their plans to accomplish their goal.

The class work has been difficult, but I have found it more difficult to balance school with my personal life. Over the next few years my goals are to try to be the person that I was before entering medical school and not let the negativity and stress change me too much. I need to work more on balancing the demands of school with the things outside of school that keep me happy and sane.

Several students wrote about how they had been negatively affected by the first year of medical school.

When I left for break, I felt a sort of emptiness in my soul. I had abandoned art, reading for fun, trying new things, and spending enough time with friends. I was living in the present, but the present I had created was not sustainable. I was tired, and I felt sad. When I came back in January, I made a decision to change the way I wanted to be present. I would largely say that my adaptation has been a positive one, but it has also been forced to be so rapid that despite being able to recognize the changes along the way I don't think I have had the opportunity to really process most of them. I can see already that it is a slippery slope to always adapt to the situation I am in and to wait to process the adaptation until I have spare time.

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Despite writing about a difficult first year, this student remains committed to continuing in medical school. With the support from a counselor, this student believes it is possible to achieve a balanced life.

   If I can be honest here, I really did not achieve much of personal growth this year. Besides school, there not much else that I can do. How am I supposed to be able to grow in other aspect of my life? My spirituality is untaken care of. My physical being has taken less priority to school work. My emotional being? Forget about it. I do not have time for those. Every day is serious business. I wake up, go to school, go home, make meals, study, sleep, rinse and repeat. On weekends, I study from sun up till the sun is down. Sometimes I wonder if this is all to life. To put it in a statement, my quality of life was better before medical school. However, I do not think I want to drop out from medical school. I want to be a physician but I need to figure out how to make my life more bearable. I think my work with a counselor at the counseling service will help me to achieve this more balanced life.

Students shared many perspectives about balance. Balance appeared to be on the minds and of critical importance to many medical students. Some students came to medical school with the belief and goal that they would be able to maintain the balance they had prior to medical school. Knowing the demands they were about to face as a medical student, balance was identified for them as essential prior to the beginning of medical school. Several methods were described to either maintain or achieve balance. Examples included: exercise, including training for a marathon, time with family,

socialization with friends from home and school and isolation. Dyrbye et al. (2006) found married medical students had lower stress than non-married medical students. The medical students that were interviewed, it was determined that emotional support was provided.

Keeping their balance throughout the school year was a major challenge for some students, one that was not possible for all students. Balance was a work in progress; for others, a learn-as-you-go endeavor. A few students wrote about coping and staying positive during rough times, seeing challenges as opportunities to see one's strengths. There were students who believed they had been negatively affected by medical school, changed, and had the goal of becoming the person they had been prior to becoming a medical student. There were also students who believed balance was not possible, but remained committed to becoming a physician. Some students chose to limit their socializing. (Vitaliano et al., 1998) found that first year medical students disengage progressively during the first year of medical school as opposed to using other positive coping strategies. These reflections describe a journey of the first year and the hopes and dreams of the years to come.

Theme 2 - Mental Health

Students reflected on mental health in medical school. "Stress. Holy crap, stress. I most definitely had an honest view of medical school coming in but nothing could have prepared me for the amount of stress I have felt on a daily basis. It's been difficult both physically and emotionally." Another student described feelings of burnout.

I do have to admit though that I am experiencing a good amount of burnout. I'm

finding it increasingly difficult to sit down and study. I feel tired all of the time.

Instead of being productive, I find excuses, other things that need to get done.

One student expressed feeling judged for her struggles during medical school.

I had 'friends' tell me I was lazy and ask me why I couldn't just change things to

make school better for me when I tried to tell them I was really struggling. Wow,

even as I write this I am terrified that I will be judged for this. Meanwhile,

someone writing about diabetes would not be judged… It is a crazy world we live

in!

Others reported about both their struggles and those of classmates. Students described

classmates working to the point of exhaustion. Although tempted by higher grades, some

students chose balance, due to their understanding of the consequences of burnout.

After almost a year of school, I have seen several classmates, including some

friends, burn out and almost break down. Some people have developed serious

anxiety problems and have required psychotherapy. I think that I've done well

averaging in the high 80s and low 90s in my courses. I think I could do a little

better to push over that 93 percent mark, but I'm worried I could end up like some

of my friends. I am not willing to make that sacrifice, especially when I know that

my clinical work will be more important in the future.

Medical students described a kind of exhaustion new to them that was influencing their

personal lives.

I was exhausted. I was actually more exhausted than I had ever thought possible. It was not just tired, but emotionally and mentally exhausted. Burned out is probably the best term. I was doing extremely well in class, but not taking care of myself. I found struggles in other areas. It was a gentle reminder that I was human. That is, perhaps, the most important piece of knowledge that I have gained in medical school.

Feeling a lack of support was mentioned in some reflections.

I struggled most with my ability to balance school work with my personal life: taking care of myself, maintaining relationships, and relieving stress. Attempting to manage my chronic depression has turned out to be harder than I expected. I waited too long to seek outside support. I expressed a need for a change in the support system at my meeting with the advancement committee, but I don't think it was well received.

Embedded in some medical students' reflections on balance were thoughts on mental health. However, mental health was written about enough for it to emerge as a separate theme from the data. Medical students reflected on both their struggles with mental health and those of their fellow medical students. They seemed to be caught off guard by the amount of stress they experienced. They thought they knew what to expect, but in retrospect, believed that nothing could have prepared them. They described the experience being difficult emotionally, physically and feeling mentally exhausted. They were unpleasantly surprised that they did not receive support from their fellow students. Lack of seeking professional help due to fear of repercussions was also written about in

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the reflections. In general, none of this was a surprise as these concerns are discussed in the literature.

Theme 3 - Hidden Curriculum

A few students wrote specifically about the influence of the hidden curriculum on health and well-being. They described an unhealthy code of secrecy that kept medical students from asking for help.

While it is pungently obvious that I respect the medical world and its traditions, even this first year of school I have felt the 'hidden curriculum' affect my life more so than I would have liked. The hidden parts of medical school being, always seem like you have your life together and only tell a select few individuals if it is going awry, only take a risk if it will not make you look unintelligent in front of your peers, and the whole chain of command system from medical student to attending physician. These permeating themes in our first year class have influenced me more than I would have liked, and while I have many great and wonderful friends in the first year class..... I can see these effects on them as well. Simply put, I think that medical school is an anti-intellectual endeavor.

One student remarked that they believed that the medical school culture contributed to the lack of "good" doctors.

I really didn't know what I was getting myself into in terms of both academics and socially (the rumors of being surrounded by the prototypical medical student personality). And after a whole year of this, I can honestly say that a) the rumors are true (and perhaps even understated)I feel that I've become more frustrated and

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pessimistic, if anything Although everyone—physicians, lecturers, mentors, course directors—encourage a healthy lifestyle, the hypocrisy behind this is engrained into academic medicine). When I began medical school and people asked how things were going, I would mention that I now understand why there are so few 'good' doctors—the medical school culture generally doesn't encourage their development (and even forces them out: good 'people-people' who are sane generally realize the poisonous environment that medical school breeds.

Students wrote about becoming aware, early in medical school, of the medical school culture. "There have been many points during this first year when I felt like I was an imposter, and wondered when someone was going to figure out that I really didn't belong here." Even with picture I.D. badges securely pinned to their clothes, some feared being tossed out after giving the wrong answer to a question. "In beginning of medical school I felt like an outsider who had somehow 'snuck-in' and would be quickly identified by faculty as unworthy of an MD."

The hidden curriculum was referenced in the theme of mental health. However, it was written about enough for it to emerge as a separate theme in the data. The students reflecting on the hidden curriculum stated they became aware of the culture of medicine early in the first year. They wrote about feeling stressed in the context of the hidden curriculum. The students' perceived that the rules of this culture were to act like you have your life together and don't ask for help. They stated that this rule was reinforced by both

faculty and students. It was the opinion of one student that this culture contributed to the lack of good doctors.

Theme 4 - Professionalism

There were students who wrote about the struggle between professionalism and balance. "Recently I have had the thought that professionalism may be a more difficult ideal to achieve then I originally had envisioned." Some expressed concerns that professionalism may have greater costs than originally anticipated.

I feel that caring for my patients the way I believe I am called to will require a tremendous capital investment; physical, emotional, and spiritual. Recognizing this, I fear complacency and desensitization. I am afraid that at times a balance will be too difficult to maintain and that pressures such as those from family, hospital and government bureaucracy, and most certainly the witnessing of the suffering of others will lead to physical, emotional, and spiritual fatigue and ultimately compromise my ability to be present with my patients and fulfill my personal and professional obligations. Yet, what I feel that I lack at this moment in time is the confidence that I will be able to recognize my altered state of mind during difficult times and refocus my energy in time to avoid coping by withdrawal and causing my patients or their families harm due to lack of attention.

A few students commented on encountering a lack of professionalism

I've also found a stronger undercurrent of sexism here than I expected and some people have said some really passive-aggressive things to me – calling me

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'sweetheart,' telling me I'm too nice to work in fill-in-the-blank field, etc. In each

of these situations I'm proud of how I responded, in that I was able to let the

person know how inappropriate his comments were without flying off the handle.

Other students wrote about something they saw in themselves in regard to

professionalism that they were working on understanding.

And I am concerned that I've developed a twitch in my attitude that is already

causing me to think less compassionately. I don't think I feel burnt out… but I

have still felt, despite my overwhelmingly positive experience, that I've

developed some manners of thought that are upsetting and disturbing and bode

poorly for the future.

These constraints on my time have really brought to the front of my mind where

my priorities lie. I think it was important for me to also do what I enjoy, which is

ensuring that I am able to spend time with my fiancé. While I made this a priority

as well as my research project, and the video I was working on, what I was

learning about in Neural Science fell by the wayside. This has me thinking less, or

not at all, about if I will pass the class and more about if this is unprofessional

behavior.

My walk home is my perhaps one of my favorite parts of the day (especially

recently with the warm weather). It is my time to decompress and enjoy what

nature has to offer. Very commonly on my walk back, I find myself just being

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grateful for being in medical school and pursuing my dream. I always call my family before going to bed at midnight. I have to say that in writing this assignment, I have become much more aware of how starkly different a typical day for me now is from what it used to be when I first started medical school. I have a much firmer grasp of my academic identity and much more confidence in knowing how to arrange my day in such a way that I am as efficient as possible without compromising my emotional and mental well-being.

The medical students reflected on the struggle to remain true to their values, given the stress they were experiencing. The students reflecting on professionalism identified several concerns. They were concerned about a struggle between balance and professionalism. Given the emotional, physical, and spiritual commitment it takes to be a physician, is it truly possible to have balance in one's life and be a good doctor? Will I recognize in myself when I have crossed the line into being complacent or worse? The students witnessed physicians and moments in themselves during their first year that led them to question how they would be able to maintain the ideals and ethics they had when they entered medical school. For these medical students, their professional identity is a work in progress and at a critical point. They are describing the "divided life" (Rabow, Remen et al., 2010, p. 312) and wondered if they would have a set of values for their personal life and another for their professional life. It is at this critical point that medical students need the support of both the formal and informal curricula. Branch (2000) states that medical students need mentoring and community in which to explore and develop their professional identity.

Summary

In this study, balance was clearly on the minds of many medical students. It appeared to be a significant factor in the development of their professional identity formation. It was a value many students deemed important and intended to merge with their new identity as a physician. As identified in the literature, stress seemed to play a role in the formation of the professional identity of some medical students, in both positive and negative ways. From a positive perspective, stress showcased students' resiliency, and the ability to succeed under pressure, a necessary skill for a physician. For other students, stress had a negative influence on their training as a physician and was a potential cause for mental health issues.

The four themes reveal that medical students experience varying levels of stress during the first year of medical school. This mirrors the results of a study done more than 80 years ago. Now and then, medical students express similar concerns. Strecker, Appel, Palmer, and Braceland (1937) asked fourth year medical students questions about their wellness, phrased as neurotic or nervous symptoms. Sixty percent of the students believed their symptoms appeared when they started studying medicine. Descriptions of the symptoms include feeling shunned, discouragement and worrying a great deal. Eighty-six percent of students reported a decline in their normal amount of exercise. One student stated, "A gradual decline of physical vigor. I am certainly not the man I was" (Strecker et al., 1937, p. 1200). One student reported that he recognized his struggle with adjusting to life as a medical student. The study asked about the use of alcohol and 51 percent stated they used alcohol to ease social relations. A question inquired about

consulting professors regarding personal or family problems. One student replied, "I was distressed. I didn't go because I was afraid that he would see my lack of understanding and knowledge and keep me from the profession which I longed for. I gave up a very exact science in which I was good in order to study medicine" (Strecker et al., 1937, p. 1210). The similarity in responses leaves me with the question as to why, with decades of knowledge of the consequences of medical student distress, there has not been systemic change in the way medical students are educated.

Poetic Analysis

This poetic analysis I created from sections of the narratives. The words and rhythm of the poetry speak to the emotions I heard in the narratives of the medical students.

Struggle

My life screams emotional wreck

I thought I was a balanced man

I knew how to handle most of life's curves

I was woefully wrong.

I continue to learn how to handle my life

Wellness and happiness are states of mind

they don't come easily.

Resilience

Despite challenges,

Pursuing my dream,

One massive rollercoaster for me.

Medical school,

really strips you down and spits you out .

Grasp of my academic identity,

the experience has made me stronger,

connection to myself spiritually and physically.

Feel proud of who I am,

I feel blessed.

I am strong.

Hidden Curriculum

The hidden curriculum affected my life,

More so than I would have liked.

After a whole year of this, I can honestly say,

The rumors are true, now I understand,

Why there are so few "good" doctors.

Mental Health

Stress. Holy crap, stress.

Burned out.

I'm terrified that I will be judged for this.

I struggle with my ability to balance

I think I could do a little better.

I'm not willing to make that sacrifice

It's a crazy world we live in.

Professionalism

Professionalism may be more difficult,

 Caring for the patients the way I believe.

 I've developed a twitch in my attitude

 Has me thinking or not at all

 Where my priorities lie.

Chapter V

Conclusion

This is a critical time in our health care system. There is a projected shortfall of physicians by 2025 (Dall, West, Ritashree, & Iacobucci, 2016).The population of physicians is aging and there is a need for students to enter the medical profession. At the same time, there is concern about the quality of health care and the system that educates our physicians. Research indicates that medical students expressed similar concerns about their wellness during training over 80 years. During this time studies have documented the negative consequences of attending medical school including stress, depression, substance use, and suicide. Given this concern, some medical schools have made changes and addressed the wellbeing of medical students. Despite the documented success of some programs, not all medical schools are willing to adopt these changes. The idea that stress is important is deeply ingrained in the culture of medical school training. Some literature states that some stress is necessary for the process of professional identity formation for the medical student to move from a layperson to a physician. The question is of how much remains unanswered. In addition, the culture of medicine frowns on physicians seeking help for mental health issues. It is accepted that stress is part of the job of being a physician. This message is tacitly passed on to residents and medical students.

Change may be slowly coming to medical education, but not without some resistance. Hafferty (2003) noted that medical students had a different perspective on work life balance. He found that medical students believe that balance is an important

core value. Some medical schools concerned about the influence of stress on medical students made curricular changes. Examples of some of these changes include pass/fail grades for the pre-clinical science portion of the curriculum – classes on professionalism and wellness, and learning communities with assigned mentors for students. An example of a medical school that made significant changes is St. Louis University School of Medicine (Slavin, Schindler, & Chibnall, 2014). The school instituted wellness programs and the depression rates in first and second year students went from 27 percent to 11 percent and their Step 1 licensing exam scores improved. The wellness program included pass/fail grades for the pre-clinical courses during the first two years of medical school, decreasing by 10 percent the amount of time in the classroom to give students more free time, expansion of elective courses, the establishment of theme based learning communities and changes to the anatomy course to reduce adverse effects. Medical students also took a short course on how to develop lifelong strategies to cope with stress. Despite the success of these changes, and protest by faculty and students, the associate dean for curriculum, who designed this program, was fired. The school was put on probation by the Liaison Committee for Medical Education (LCME) for problems with other areas of the curriculum. The LCME is the accrediting agency for medical education programs.

Another example is the programmatic changes at Johns Hopkins University School of Medicine (Stewart, Barker, Shochet, & Wright, 2007).When admitted, students are assigned to one of four learning communities that are named after the schools founders. The students in each learning community take courses together for the first two

years. Formal grades are not given, rather students are evaluated with honors, high pass, pass and fail. The students who fail negotiate with faculty to learn the material and pass the course. There is a head faculty member for each community who acts as a career advisor for the students. Faculty members apply to be part of the learning communities and students are part of the selection process. Advisors are assigned to students as their clinical skills instructor and remain as their advisor for all four years of medical school. Within the learning communities, older students act as informal advisors for newer students; for example fourth year students may give clinical advice to third year students or second year students might meet with first year students to give them tips on study skills. For wellness activities, the four learning communities compete against each other in friendly games.

The two major aspects these programs have in common are intentional opportunities for the students to develop meaningful relationships with faculty mentors and advisors and changes in the academic programing. Both of these changes have been shown to have significant effects on medical students during their training. Relationships with faculty during training can lead to the development of compassion and humanism (Haidet & Stein 2006), important during both training and practice. Some of academic changes described in both programs decreased stress and anxiety, which have numerable benefits to both medical students and their patients.

Several of these wellness programs exist individually or combined at other medical schools. Interesting, not all medical students support the concept or aspects of some of the programs. Despite having wellness programs, some schools have trouble

with attendance at their events. One reason may be the increasing competition for residencies. Medical students want every possible advantage given the time and money spent on medical school. There are medical students who believe the traditional grading system, using a grade point average, provides an advantage for them, if they are able to do well. The 2017 Main Residency Match was the largest in history, according to National Resident Matching Program, the organization who runs the Match ("National Resident Matching Program, Results and Data: 2017 Main Residency Match," 2017). There were 35,969 medical students and previous graduates, competing for 31,757 residency positions. This was the largest number of residency positions ever offered in the Match, but still not adequate for the number of students who completed training to be a physician. Given this reality, medical students want a competitive edge and believe that some of the wellness initiatives interfere with supplying this advantage by evening the playing field.

In 2016, the American Association of Medical Colleges (AAMC) held a Leadership Forum in Washington, DC to address what they called a public health crisis (Rappley, 2018). There was significant concern about the wellbeing of those in academic medicine. They defined wellbeing as feeling good and judging life positively by having health, happiness and prosperity. One of the initiatives from that meeting was to launch a website with information and resources on well-being in academic medicine. The Immediate Past Chair of the AAMC introduced the site with this statement, "Our well-being, and the well-being of our teams, ultimately affects the health and well-being of our patients and communities" (Rappley, 2018). One of the concerns they addressed was

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burnout, defined as emotional exhaustion, depersonalization and sense of low personal accomplishment (Dyrbye, 2008). In one of the presentations, it was revealed that greater than 40,000 medical students, 60,000 residents and 49,000 physicians experienced burnout (West, 2015). This is not only a tragedy in terms of the quality of patient care, but also the quality of life for medical students, residents and physicians. It is well documented in the literature that medical students come to medical school with values that are diminished during their training. It has also been found that this begins to take place during the first year of medical school, during the beginning of medical students' professional identity formation (Coulehan & Williams, 2001). Despite many studies documenting distressed medical students and the consequences, little is known about how this influences the development of their professional identity. More information is necessary on how to support medical students beginning in the first year to learn to "think, act, and feel like a physician" (Cruess et al., 2014, p. 2) and how to remedy the decreasing well-being of medical students that also begins during this time.

Medical students, during their professional identity formation, are influenced by the formal, informal and hidden curriculum. Educational interventions to the formal and informal curricula have shown promising results to decrease stress. The challenge is in understanding the influence of the hidden curriculum or the cultural mores of medical education and medicine. It has been suggested that the negativity bias, an evolutionary construct that is reinforced in medical education, is partially responsible for the difficulty in changing the culture (Haizlip, May, Schorling, Williams, & Plews-Ogan, 2012). The negativity bias captures our attention to negative, as opposed to positive, aspects of the

environment. This is reinforced in several explicit ways in medical education. Medical students are trained by physicians to rule out the worst case scenarios first, as a way to avoid making a mistake. Students are also purposely trained in stressful situations and in some cases are taught by intimidation or pimping. Pimping is the act of asking medical students a question under pressure. This negativity bias infiltrates the way one approaches the world; therefore, the way one practices and teaches medicine influences the culture of medicine. Some students believe these practices are helpful, while other students believe they are humiliating and a form of medical student mistreatment.

Future Research

Much of the current research focuses on the consequences of attending medical school. There is a lack of research on the root cause of these issues from the perspective of the medical student, on their lived experience. Additional research needs to be conducted on how these issues influence the professional identity formation of medical students. This study reveals that medical students, from the beginning of medical school, are interested in their wellbeing. From my work in a medical school, I am aware that medical students seek research projects from the first day of medical school. Given the imperative nature of the issue of wellbeing and its influence on the professional identity formation of medical students, I propose that the AAMC offer grants to medical students to do research on this topic. This will provide the opportunity for medical students to ask the questions they believe need to be asked and answered. The results of these studies should contribute to sustainable changes in medical schools and be supported by the Liaison Committee for Medical Education (LCME), the accrediting agency for medical

education programs. Mandating changes for licensing will support the necessary culturally changes in medical schools and eliminate discrepancies in wellness policies between medical schools.

In addition to the research on wellbeing, I also propose a study on the change process of the implementation of wellness initiatives from the AAMC to medical schools. Without a commitment to this concurrent research, I am concerned the interest in the wellness changes will fade. We have seen from the literature that the medical community has known about the influence of medical training on medical students for decades. Some medical schools with concerned faculty and administrators have made changes, but not all have been sustainable. In order for a commitment to change to be possible, there needs to be knowledge of the impediments to change at every level of administration and every level of a physicians' training.

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