WHITE COAT REMEDIATION: UNDERSTANDING MEDICAL STUDENTS’ ACADEMIC REMEDIATION EXPERIENCES

by

Lauren E. Daly

Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Philosophy in Education

Liberty University

2021
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ABSTRACT

The purpose of this transcendental phenomenological study was to understand the lived experience of academic remediation for medical students at an osteopathic medical school. Two theories guided this study: Bronfenbrenner and Ceci’s bioecological theory and Tajfel and Turner’s social identity theory. Research questions focused on understanding the emotional experience of failure within the medical education context, and the subsequent experience of involvement in the academic remediation process. Purposeful sampling was used to identify 10 medical students who did not pass one or more courses in their didactic curricula and underwent academic remediation as a result. The central question guiding this study asked, “How do medical students describe the experience of academic course remediation at an osteopathic medical school?” Data collection included semi-structured interviews, participant journaling, and projective techniques. The data were analyzed in a manner consistent with the transcendental phenomenological methods of bracketing, horizontalization, clustering into themes, textural descriptions, structural descriptions, and textural-structural synthesis, resulting in a description of the essence of the phenomenon. Findings from this study confirm prior research into the burnout newly matriculated student doctors face as a result of the demanding medical school application cycle, and also add new knowledge about the willingness of medical students to view course failure as a useful, formative part of the learning process. Participants shared that remediation means going on an emotional journey that starts with shock or dread, transitions into acute stress, fades into productivity, and tends to resolve with a crescendo of relief if the remediation is passed.

Keywords: medical education, remediation, transcendental phenomenology, bioecological theory, social identity theory, failure, osteopathic
Dedication

Mom, growing up watching you gracefully wield such strength and power in the professional world and such kindness and love at home inspired me more than words could ever express. You may not have known, when you were working full time, earning your master’s, and homeschooling your three children, that I was watching, but I surely was. It is because of your example that I never stopped at the glass ceiling even when the women around me pressed themselves wearily against it and ultimately stopped short of their goals. You instilled in me a belief that women are capable and strong if only they choose to exert themselves and do the work. Our chapter 5 writing weekend at Welk will endure as one of my favorite memories we share. This document would not exist without you. Thank you.

Gramcracker, even though you are not here to witness this, I know you are here in spirit. It was your example of strength learned from your mother before you that made my mother who she is. I wish I could hug you one more time and thank you for the difficulties you endured and overcame and for giving me my mother. I love you. And while I miss our yearly beach trips, I can rest knowing I will see you again one day.

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List of Abbreviations

American Association of Colleges of Osteopathic Medicine (AACOM)
American Association of Colleges of Osteopathic Medicine Application System (AACOMAS)
Association of American Medical Colleges (AAMC)
The Accreditation Council for Graduate Medical Education (ACGME)
American Medical College Application Service (AMCAS)
American Osteopathic Association (AOA)
Central Research Question (CQ)
Commission on Osteopathic College Accreditation (COCA)
College of Medicine (COM)
Doctor of Osteopathic Medicine (DO)
Grade Point Average (GPA)
Institutional Review Board (IRB)
Liaison Committee on Medical Education (LCME)
Medical College Admissions Test (MCAT)
Medical Doctor (MD)
Process, Person, Context, and Time (PPCT Model)
Social Identity Theory (SIT)
Sub-question 1 (SQ1)
Sub-question 2 (SQ2)
Sub-question 3 (SQ3)
CHAPTER ONE: INTRODUCTION

Overview

The purpose of this study was to understand the lived experience of academic remediation for medical students at an osteopathic medical school in the United States. The remediation philosophy between different medical schools varies dramatically, from non-existent to extensively structured reeducation classes specifically run by faculty (Bennion et al., 2018). Well-developed remediation processes increase student retention and program quality, but this aspect of medical education has only recently become a popular topic of discussion again among medical educators (Bennion et al., 2018). Therefore, further exploration into the lived experiences of medical students who have undergone the most common academic course remediation process in an osteopathic medical school is a valuable and timely study. The following sections explain the background, theoretical framework, situation to self, problem and purpose statements, significance of the study, research questions, and definitions needed to make full use of this study.

Background

Remediation is commonly treated as a 5-phase process (see Figure 1). First, the student fails an academic course; second, the student is notified of his or her failure and meets with the appropriate person or people to discuss why; third, the student learns when his or her remediation will be scheduled and is given logistics about the exam (such as length and setting); fourth the student completes the remediation exam. Finally, the student learns whether he or she passed or failed the remediation exam. If the student passed, he or she rejoins the cohort to move forward in the curriculum. If the student failed, he or she is typically held back to repeat that year or is dismissed from the institution (Guerrasio, 2018).
Guerrasio (2018) defined remediation as the process undertaken by “students who require more than the standard curriculum to achieve academic success and sustained professional competency” (p. 1). Similarly, Kalet, Chou, and Ellaway (2017) described remediation as “the act of facilitating a correction for trainees who started out on the journey toward becoming a physician but have moved off course” (p. 1). The term remediation is used almost universally by medical schools to describe the academic process students undergo when they do not successfully pass an academic benchmark in their medical education, or when repeating an academic year (Cleland et al., 2013; Cleland, Cilliers, & van Schalkwyk, 2018; Kalet et al., 2017).

New medical schools in the United States must go through a defined process for initial accreditation, then must continue to abide by set standards to earn reaccreditation periodically (Mowery, 2015). For allopathic medical schools, which grant medical doctor (MD) degrees, the accrediting body is the Liaison Committee on Medical Education (LCME). For osteopathic medical schools, which grant doctor of osteopathic medicine (DO) degrees, the accrediting body is the Commission on Osteopathic College Accreditation (COCA). Although this study focused

![Figure 1. Five phases of a typical remediation.](image-url)
mainly on DO schools, it becomes important to include MD schools in the conversation at certain points because of shared fundamental experiences and average number counts when referring to *U.S. medical students* as a general group, and since remediation is a process observed in both types of institutions. Opinions about the differences between an osteopathic and allopathic curriculum are generally strong, but for the purposes of this study the differences are not considered important.

While medical school accrediting bodies do require the existence of academic support services at each accredited U.S. medical school, the only mention of student remediation in the LCME (2021) accreditation standards simply states “the medical school's curricular governance committee ensures that each medical student is assessed and provided with formal formative feedback early enough during each required course or clerkship to allow sufficient time for remediation” (p. 15). COCA accreditation standards do not specifically mention the topic of student doctor remediation in their handbook at all (COCA, 2019).

This combination of spoken and unspoken expectations results in remediation processes that can and do differ dramatically between medical institutions (Kalet et al., 2017). Of the 97,793 total students enrolled in U.S. medical schools in 2018 (American Association of Colleges of Osteopathic Medicine [AACOM], n.d.; Association of American Medical Colleges [AAMC], n.d.), an estimated 10% of them, or 9,779 students, will require remediation at some point during their medical education (Bennion et al., 2018). If all of these students were to fail their remediation efforts and be dismissed from their programs during year one, it would result in an estimated collective institutional loss of $1,470,011,061.75 in tuition alone, not counting additional program and living fees that would have been incurred by the students during the remaining three years of the program they would miss (AACOM, n.d.; AAMC, n.d.).
On the other hand, if all of these students were to be passed along through their medical education programs via a retest remediation system that lacked guidance and rigor because their home institutions did not want to lose them, the cost in probable malpractice lawsuits and bad press has the potential to far outweigh the original monetary sum. According to research by Studdert, Bismark, Mello, Singh, and Spittal (2016), approximately 1% of all physicians accounted for 32% of malpractice claims paid between 2005 and 2014. If a group of claim-prone physicians account for that large of a percentage of the overall claims, and their knowledge gaps were able to be identified earlier, it should become possible to prevent a high number of claims every year. In this way, it has become vital to hone the skill of differentiating between students who possess the motivation and baseline abilities to be successful in medical school and just need help getting back on track after a misstep from those who do not have these critical attributes and should be dismissed from their programs. The process this difficult decision often hinges on is academic remediation (Bennion et al., 2018).

**Historical Context**

The first U.S. medical school, Perelman School of Medicine, was founded by John Morgan and William Shippen in 1765 at the College of Philadelphia, which would later be renamed the University of Pennsylvania. The program was created in response to excitement from the colonial colleges at the idea of adding legitimacy to the education of a growing U.S. physician workforce during the period when America still consisted of only the original 13 colonies (Fee, 2015). Thus, Nathan Smith Davis founded the American Medical Association (AMA) in 1847 with the intention of unifying the American medical community (Fishbein, 1947).
In early 1942, representatives from the AMA invited officials from the Association of American Medical Colleges (AAMC), founded by representatives from 22 U.S. medical schools, to a meeting to talk about concerting their efforts during resource-scarce war times (Kassebaum, 1992). The result of the strategic meeting was the creation of The Liaison Committee on Medical Education (LCME), which would later go on to assume the responsibility of accrediting allopathic medical schools in the United States and Canada (Kassebaum, 1992).

Considerably little was published about academic remediation before the 2014 AAMC annual meeting, when the planning committee approved and hosted a lively symposium session centered on the subject of remediation practices as a hot topic emerging in medical education circles (Kalet et al., 2017). The symposium started such passionate dialog that subsequent publications resulted (Kalet, Guerrasio, & Chou, 2016; Kalet et al., 2017; Ellaway, Chou, & Kalet, 2018), and the International Association of Medical Science Educators (2017) then chose remediation as its spring 2017 webinar series topic. This push to examine common and best practices in remediation can be linked to recent political shifts in the way health care is distributed and run in the United States. These changes have in turn sparked urgent conversations about updating medical education to match the modern demands of the U.S. health care system, patients, and student doctors (Emanuel, 2017).

**Social Context**

Estimates project that by the year 2033 the United States will lack up to 139,000 medical doctors (AAMC, 2020a), yet ever increasing class sizes are cited as one of the main reasons medical education faculty are too busy to provide the one-on-one time struggling learners need to address their knowledge gaps (Cleland, Knight, Rees, Tracey, & Bond, 2008). Without a standard operating procedure within which faculty can operate to assist struggling students and
guide them through the reeducation process, these students have the potential to flounder through the curriculum with little positive intervention (Yates, 2011).

A lack of formal training in the field of education is also cited as a factor contributing to the inadequate response from medical education faculty to struggling learners (Gibson & Campbell, 2000). A clear understanding of the experiences students have while remediating is a first step toward creating meaningful policies that serve the educational needs of struggling students while also creating a standard framework for faculty to follow without the additional work of creating a brand new system of doing so for each occurrence of academic remediation (Yates & James, 2007).

Theoretical Context

The theoretical framework for this study informed and guided its direction and progress. Brown (2012) described qualitative research as being about people’s stories and stories as being data with a soul. Stories, or qualitative research, are especially reliant on the theoretical framework upon which they are constructed, particularly for the crafting of research questions and the methods employed for data collection. Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory were used to examine the numerous factors surrounding the experience of failure and the subsequent remediation process that medical students experience.

Many theories were meticulously vetted for this study, but bioecological theory and social identity theory were ultimately chosen as the theoretical lenses for this work based on the complexity of the factors involved in the lived experience of academic remediation. Bioecological theory places great emphasis on contextual influences of differing types, including personal responsibility, time, and other individuals involved in the phenomenon. Social identity
theory examines how individuals view and define themselves in relation to others (Ellemers, Spears, & Doosje, 1997). Thus, these theories have aptly facilitated the crafting of research questions with appropriate depth and breadth to capture the collective phenomenon of the remediation experience in a medical school setting. Both theories have also been used in the exploration of medical education previously. Social identity theory served as the theoretical framework for studies on identity formation in both first- and second-year medical students (Burford, 2012; Burford & Rosenthal-Stott, 2017), and third- and fourth-year medical students (Broek, Querido, Wijnen-Meijer, Dijk, & Cate, 2020; Burford, 2012). Bioecological theory appears to be utilized less often in the medical education specific setting, but it was previously used to examine other health professions’ educational practices (Hamwey, Allen, Hay, & Varpio, 2019).

Originally published in 1979 by Bronfenbrenner, ecological theory was composed of four ecological systems termed the micro-, meso-, exo-, and macrosystems. When it became apparent that his original theory was missing a key system, which he identified later as the chronosystem, Bronfenbrenner updated ecological theory in 1989 to include it. After that, he worked with Ceci on the most recent 1994 version, which they renamed bioecological theory. This upgraded version of the theory groups the micro-, meso-, exo-, macro-, and chronosystems into a construct called “context” and adds three additional new constructs. The first, and arguably most important, is time, followed by person, and finally process. All four of these constructs help to categorize and explain the nature of experiences in relation to their location within these different ecosystem constructs.

Social identity theory was proposed by Tajfel and Turner (1979) and consists of three mental processes for evaluating the social standing of both self and others. The first of the three,
social categorization, is the mental process whereby an individual categorizes other individuals (and self) by social categories. A medical student who never needs academic remediation, for example, may label themselves as a successful medical student, while labeling a classmate who does need to remediate as an unsuccessful medical student. The second mental process, social identification, describes when the group with which an individual identifies becomes a part of his or her adopted identity. There is emotional significance associated with this adoption, which can be clearly seen in medical students who struggle. These students frequently experience a sharp decrease in self-esteem upon entering the remediation process and adopt the identity of an academic failure—a common perception by medical students around the topic of remediation (Patel, Tarrant, Bonas, & Shaw, 2015). The third and final mental process is termed social comparison and is the process by which individuals then compare themselves and their group with other groups. In a medical school setting, the in-group is often considered those who do not experience academic struggles leading to the need for remediation, while the out-group is constituted by those who do need to remediate (Tajfel & Turner, 1979).

This study examined medical students’ academic remediation experiences by using the work of Bronfenbrenner and Ceci (1994) and Tajfel and Turner (1979) to view this collective phenomenon through the theoretical lens of bioecological theory and social identity theory. These two frameworks gave shape and meaning to the study and created a lens for coding, organizing, and interpreting findings through interaction with the study participants.

**Situation to Self**

This study is personally important to me because I considered attending medical school. My acceptance into two different programs, one osteopathic and one allopathic, came around the same time that my desire to help shape medical education administratively was fully realized. I
have become, unintentionally, both fascinated and flabbergasted by the U.S. medical education system and have decided to join the efforts already in motion to pursue justice in all its forms for medical students. In an environment where quantitative evidence reigns supreme, there must echo out the personal stories of those the numbers merely attempt to represent. It is my deepest hope that medical educators and administrators will read this document, in addition to a multitude of similar papers, as we all thoughtfully craft and re-craft meaningful and effective student-centered academic remediation processes.

Professionally, I am employed as a learning specialist specifically for health professions students enrolled in a variety of graduate health licensure programs at a West Coast university. My experience meeting with medical students and helping them diagnose and treat instances of poor academic performance has been instrumental in keeping my passion for this subject alive and informed. There is truly no replacement for walking with a student through the searing experience of academic distress in the demanding environment of medical school.

Using a transcendental phenomenological design, I hold a realistic axiological philosophical belief that exploring the phenomenon of academic remediation in medical school is the right thing for medical students and their quality of life. I relied on the participants’ firsthand accounts of their lived experiences and emotions, which I viewed through a participatory activist paradigm (Creswell & Poth, 2018; Tajfel & Turner, 1979). The participatory activist paradigm, also called action research, is an orientation to inquiry that “seeks to create participative communities of inquiry in which qualities of engagement, curiosity and question posing are brought to bear on significant practical issues” (Bradbury, 2015, p. 1). This orientation to inquiry focuses on challenging conventional academic and social wisdom with the goal of improving the lived experiences of community members affected by the issue at hand (Bradbury, 2015).
The combination of a realistic axiological philosophy, which recognizes that research is value laden and that I as the researcher am biased by my worldview, upbringing, and experiences, in conjunction with the participatory activist paradigm, frames this study. I have been described as a “challenger” all my life by the people around me, people from many different and unrelated areas of my life. I was therefore eager to conduct research that challenged existing social and academic norms surrounding academic remediation in a medical school setting for the purpose of adding to the conversation about how we can all seek improvements to that process for our students.

**Problem Statement**

The problem of inefficient and outdated academic remediation processes will negatively impact the United States by contributing to the critical shortage of physicians forecasted to leave the nation short up to 139,000 doctors by the year 2033 (AAMC, 2020a). Although medical school attrition rates in the United States have remained consistent since 1997 (AAMC, n.d.), with between 81.6% and 84.3% of medical students successfully graduating, the world at large has experienced an accelerated rate of change in the last decade. For example, medical knowledge now doubles every 73 days, as opposed to the 50 years it used to take in 1950 (Densen, 2011). With medical education under renewed scrutiny for efficiency and humanity, it is more important than it has ever been before to ensure retention of as many capable medical students as possible.

Remediation is a complex emotional and academic experience for high-achieving students (Bennion et al., 2018), and is executed very differently between different institutions (Kalet et al., 2017). Furthermore, the institutional philosophies guiding the creation and maintenance of a given remediation process have only recently begun to be critically examined.
(Bennion et al., 2018; Cleland et al., 2013). For this reason, there is a gap in the literature exploring the experiences of osteopathic medical students who have undergone academic remediation in a medical school setting.

**Purpose Statement**

The purpose of this transcendental phenomenological study was to understand the lived experience of academic remediation for medical students at an osteopathic medical school in the United States. In this study, remediation was defined as “the act of facilitating a correction for trainees who started out on the journey toward becoming a physician but have moved off course” (Kalet et al., 2017, p. 1). The theories guiding this study are Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory. Bioecological theory’s nested systems model provides a helpful framework to investigate different dimensions of the participants’ lives and allows for clarification about how they are uniquely affected based on proximity, while social identity theory helps to make sense of the feelings high-achieving students experience when they find themselves part of the “out-group” of struggling learners required to undergo academic remediation.

**Significance of the Study**

As the number of men and women who pursue careers in medicine continues to increase (AACOM, n.d.; AAMC; n.d.), the importance of understanding their experiences and making inclusive procedural changes to assist in promoting their success also increases. This study is significant for its potential to add empirical, theoretical, and practical value to the topic of academic remediation during such a volatile time in U.S. health care history (Boulis & Jacobs, 2010).
Empirical Significance

This study contributes to the literature on academic remediation in a medical school setting by exploring the experiences of student doctors who have been through their institution’s remediation process. There is a clear demand for revision and reinvention of the medical education process from key stakeholders (AMA, 2016; Densen, 2011; Emanuel, 2017; Lee, 2021). This includes the American public, whose faith in U.S. health care is at an all-time low (Birkhäuser et al., 2017; Blendon, Benson, & Hero, 2014). Widespread health care reforms enacted by successive U.S. presidents also make subsequent adaptation of medical education challenging (Lee, 2021; Obama, 2016; Rice, Unruh, Ginneken, Rosenau, & Barnes, 2018), making it difficult to accurately shape innovative curricula and policies to meet the needs and requirements of the modern student doctor. Therefore, additional information about the lived experiences of medical students is needed.

Despite these stated difficulties, efforts must be made to graduate more competent physicians than ever in the face of a looming physician shortage that estimates the United States will lack up to 139,000 doctors by the year 2033 (AAMC, 2020a). These procedural revision efforts should include helping struggling medical students successfully remediate academic failures in situations where remediation is appropriate (Bennion et al., 2018). Finally, the financial burden for students who take a leave of absence and never return to finish their medical degree, or for those who are academically dismissed, has the potential to become insurmountable (Eltorai et al., 2018; Maher et al., 2013). These situations also create a financial burden for taxpayers, who contribute more than $15 billion dollars to medical education annually (Eden & Berwick, 2014). Besides the monetary concerns involved, Burkhardt (2015) points out there is an opportunity cost to other students who might have otherwise had the seat left vacant by attrition,
the time and financial costs related to possible litigation, and a likely cost to the reputation and goodwill of the program, its faculty, and remaining students.

This study builds on existing data from previous studies examining the lived experiences of medical students (Patel et al., 2015; Winter, Patel, & Norman, 2017), as well as studies exploring and evaluating various remediation formats and practices (Guerrasio, 2018; Kalet et al., 2016, 2017; Winston, Van Der Vleuten, & Scherpbier, 2013). However, no studies have yet been identified that focus specifically on the lived experiences of medical students who have undergone academic course remediation in a U.S. medical school setting.

**Theoretical Significance**

This study employed Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory in the context of medical students’ experiences with academic remediation in a medical school setting. Based on an extensive review of existing literature, it does not appear that a study like this has been conducted before. This application of two existing theories to a new population expands the body of established knowledge about both theories and adds to the conversation about their respective validity and usefulness.

**Practical Significance**

This study is practically significant for its potential to do the following: reduce the projected physician shortage of 2033 (AAMC, 2020a), reduce the financial burden on both students and taxpayers that results from academic failures during the medical education process (Eden & Berwick, 2014; Maher et al., 2013), help to appropriately shape medical education policies and procedures to better serve the needs of the modern U.S. student doctor (Emanuel, 2017), help to encourage medical institutions to adopt quality remediation practices that support
the creation of highly qualified physicians (Guerrasio, 2018), and give a voice to medical students so they can help shape future curriculum and policy decisions.

**Research Questions**

Four research questions guided this study: one central question and three sub-questions. The research questions are grounded in the theoretical framework of Bronfenbrenner and Ceci’s (1994) bioecological theory and Tafel and Turner’s (1979) social identity theory. The research questions provide a foundation to examine the lived experiences of medical students who have undergone academic remediation. All four research questions are rooted in one of the two guiding theories, with each question focusing on a carefully selected construct within that guiding theory. The first question is grounded in the bioecological theory construct of context, and the second question is rooted in the social identity theory construct of social categorization. The third question is rooted in the bioecological theory construct of person, and the fourth question is rooted in the social identity theory construct of social identification.

**Central Research Question**

How do medical students describe the experience of academic course remediation in an osteopathic medical school?

The first question served as the central question of this study, as it encompasses the central phenomenon that was explored (Moustakas, 1994). This basic question focused the research on the lived experiences of medical students who have undergone academic remediation at an osteopathic medical school and provided a forum for them to voice their experiences after undergoing the process. The “what is it like?” central question is encouraged in phenomenological research for its ability to create rich and layered descriptions from participants (England, 2012). This question is rooted in the bioecological theory construct of context,
established by Bronfenbrenner and Ceci (1994), and is intentionally open-ended in order to encourage personal narrative from participants.

**Sub-question 1**

How do medical students describe themselves and their academic abilities before and during academic remediation?

The first sub-question comes from the social identity theory construct of social categorization (Tajfel & Turner, 1979) and is useful for gathering baseline information about how participants view themselves and their academic abilities in relation to the demands placed on them in a medical school setting.

**Sub-question 2**

How do medical students describe their personal role in the remediation process?

The second sub-question comes from the bioecological theory construct of person (Bronfenbrenner & Ceci, 1994). This question explored the personal role the participants felt they played in the process of academic remediation. Hearing how they perceived their level of responsibility and how much responsibility they believe rests, in turn, with the institution is helpful in framing the experience for future use in the ongoing conversation of best practices. This question was one of the most controversial, as participant responses varied based on personality, morality, and upbringing.

**Sub-question 3**

How do medical students describe themselves after academic remediation?

The third sub-question comes from the social identity theory construct of social identification (Tajfel & Turner, 1979). This question was used to explore where students who have passed remediation and reentered the curriculum see themselves as fitting in amongst their
peers and was meant to inspire responses exploring the mental process employed by medical students who entered medical school on equal academic standing with their peers but potentially see that equality dissipate following the need for remediation. Social identification posits that individuals adopt the identity of the group to whom they categorize themselves as belonging, so students who have experienced membership in both the academically successful group and the academically unsuccessful group could have a complex and interesting relationship with the process of personal social identification.

**Definitions**

1. *Lived Experience* – Phenomenology focuses on recognizing and investigating human experiences as the phenomena being explored (van Manen, 2014).

2. *Persistence* – “The continuance of a student’s progress toward the completion of a doctoral degree” (Bair, 1999, p. 8).

3. *Phenomenology* – A form of inquiry that seeks to understand human experience (Moustakas, 1994).

4. *Remediation* – “The act of facilitating a correction for trainees who started out on the journey toward becoming a physician but have moved off course” (Kalet et al., 2017, p. 1).


**Summary**

The purpose of this transcendental phenomenological study was to understand the lived experience of academic remediation for medical students at an osteopathic medical school in the United States. This study is necessary for its potential to impact the projected physician shortage
of 2033, the annual financial burden on both student and taxpayer that results from academic failure in medical education, and the relevance of training student doctors receive to prepare them for the modern U.S. health care landscape. It is a relevant topic based on an identified gap in the literature specific to medical students’ experiences with academic remediation. The theories guiding this study are Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory. Bioecological theory provides a helpful framework to investigate different dimensions of the participants’ lives, while social identity theory helps to make sense of the feelings high-achieving students experience when they find themselves part of the “out-group” of struggling learners required to undergo academic remediation. Research questions focused on the emotional experience of academic failure within medical education and the subsequent logistical elements of involvement in the remediation process in place at their institution. Chapter Two will review existing research on the topic of academic remediation in a medical school setting and will further demonstrate the gap in existing literature. Special focus will be given to the topic of recent initiatives aimed at revising multiple aspects of medical education in the United States, with discussion of the philosophical underpinnings related to the presence or absence of a remediation option for medical students in a given program.
CHAPTER TWO: LITERATURE REVIEW

Overview

The purpose of this transcendental phenomenological study was to understand the lived experience of academic remediation for medical students at an osteopathic medical school. Existing research on the topic of remediation in a medical school setting focuses on the philosophy of remediation (Bennion et al., 2018), practical strategies for helping struggling medical students (Bonaminio & Guerrasio, 2017; Cleland et al., 2013, 2018; Guerrasio, 2018), tips for sustaining an effective remediation process (Kalet et al., 2016, 2017; Kebaetse et al., 2018; Saxena, O’Sullivan, Teherani, Irby, & Hauer, 2009; Winston et al., 2013), and the psychological distress students encounter when they experience failure and subsequently undergo remediation (Patel et al., 2015; Winter et al., 2017). No existing research found has examined the complete remediation experience of medical students remediating a course failure in an osteopathic medical school setting. Remediation is commonly treated as a 5-phase process:

1. The student fails an academic course.
2. The student is notified of his or her failure and meets with the appropriate person or people to discuss why.
3. The student learns when his or her remediation will be scheduled and is given logistics about the exam such as length and setting.
4. The student completes the remediation exam.
5. If the student passed, he or she rejoins the cohort to move forward in the curriculum. If the student failed, he or she is held back to repeat that year of the program or is dismissed from the institution (Guerrasio, 2018).
This chapter focuses on the two theoretical frameworks that will guide this study, and a systematic review of the existing literature regarding remediation, including the recent push for reform in medical education; financial, social, and personal implications of academic failure; and implications for this study in the current U.S. health care climate.

Theoretical Framework

This section explores the two theoretical frameworks guiding this qualitative study as well as their respective constructs. Aspers and Corte (2019) defined qualitative research as an “iterative process in which improved understanding to the scientific community is achieved by making new significant distinctions resulting from getting closer to the phenomenon studied” (p. 1). Because qualitative research requires gathering varying human experiences and drawing meaning from them in such a way as to capture the common underlying essence of the experience, a theoretical framework is needed through which the data gathered may be interpreted (Creswell & Poth, 2018).

Bioecological Theory

Bronfenbrenner and Ceci’s (1994) bioecological theory serves as the first framework for this study, informing and guiding its direction and progress. Bioecological theory is built on the interactions between four theoretical constructs: process, person, context, and time (PPCT). These four constructs and their interactions are often called the PPCT model, depicted in Figure 2.
Bronfenbrenner and Ceci (1994) created bioecological theory in response to a general challenge issued by psychologist Anastasi (1958) to the behavioral sciences community. Most scholars at the time had been attempting to define the nature-nurture argument in terms of how much of the observable variance seen in human beings could be attributed to heredity. Anastasi instead encouraged her peers to establish how these two factors affected one another and ultimately brought about behavioral differences. The need to “identify the mechanisms through which genotypes are transformed into phenotypes” (Bronfenbrenner & Ceci, 1994, p. 568) captured the attention and effort of Bronfenbrenner and Ceci, leading them to revise Bronfenbrenner’s original ecological systems theory of development into what is now known as bioecological theory. When viewed through the lens of bioecological theory, human development can be observed as the result of complex and often silent interactions between and among different ecological systems, where each level of interaction has a name.
Process, which Bronfenbrenner and Ceci (1994) often termed proximal processes for clarity, refers to interactions between caregivers and the individual. When applying the PPCT model to children, caregivers are most frequently defined as parents, teachers, family, and other highly involved individuals, such as close friends or a consistent babysitter (Bronfenbrenner, 1977). For the purposes of this study, caregivers will most often manifest as parents, friends, and faculty (Badyal & Daniel, 2016; Ringsted et al., 2001), which commonly make up a student’s relational support system. This includes the interactions the individual has with primary stakeholders in their sphere of influence. In the case of academic remediation, faculty and administrators make up the majority of these stakeholders. Bennion et al. (2018) noted that much of the attitude around failure and remediation is dictated by college of medicine (COM) faculty and administrators, thus making my study participants’ perceptions of these stakeholders and their attitudes and roles of considerable importance. Equally as important, process also refers to interactions between the individual and objects, such as textbooks or simulation lab equipment.

Person was the construct addition added between the original ecological theory and the revised bioecological theory published by Bronfenbrenner and Ceci in 1994. Person takes into account the important personal characteristics that influence and impact an individual’s development. Much of an individual’s temperament and personality are decidedly genetic, and this disposition affects both how individuals interact with those around them as well as how those around them react and interact with the individual (Anastasi, 1958; Bronfenbrenner & Ceci, 1994). In other words, Person influences social interactions, which profoundly shape an individual’s beliefs and experiences throughout life. This construct was added to improve the comprehensiveness of the theory as it seeks to categorize varying factors within an experience.
Figure 3. Context, as described by Bronfenbrenner (1977).

Context is the most complex construct (see Figure 3), encompassing the four original ecosystem categories as seen in ecological theory: microsystem, mesosystem, exosystem, and macrosystem (Bronfenbrenner, 1977) and also adds the later addition of the chronosystem. The microsystem is defined as an individual’s immediate environment, such as family, friends, classmates, teachers, and anyone else the individual comes into contact with on a regular basis. The mesosystem encompasses the interactions that occur between two or more individuals within the microsystem, such as in the instance of a parent interacting with a teacher. The exosystem signifies broad societal and environmental happenings which impact the individual’s life in a less direct way. The chronosystem signifies the constant interaction between the individual and each of the other levels. An example is the current push for medical education reform (AMA, 2016),
which will ultimately change the curriculum and medical education process for future student doctors. Finally, the macrosystem reflects far-reaching cultural beliefs and values of the society within which the individual lives. Adoption of cultural values can significantly impact the trajectory of an individual’s life and choices. An example is how a person experiences the current U.S. opioid crisis and the long-term impacts on how that person will view narcotics and addiction in the future (Dasgupta, Beletsky, & Ciccarone, 2018).

*Time*, previously defined more narrowly by ecological theory as the chronosystem, is divided into three levels in the PPCT model (Bronfenbrenner & Ceci, 1994). Micro-time describes what is happening during specified proximal processes, meso-time describes the timeline on which a process occurs in an individual’s environment (days, weeks, years), and macro-time focuses on broader shifts in culture through the lifespan. Time affects each of the other constructs and levels, in both intergenerational and cross generational ways.

Bronfenbrenner and Ceci (1994) described the bidirectional nature of bioecological theory, making the case that the individual affects his or her environment and relationships as much as the environment and relationships affect the individual. This line of thinking is consistent with the revelation of epigenetics as an emerging field of science (Felsenfeld, 2014; Waddington, 1942). Felsenfeld (2014) defined epigenetics as heritable traits that can be associated “not with changes in nucleotide sequence, but with chemical modifications of DNA, or of the structural and regulatory proteins bound to it” (p. 1). Put simply, epigenetics is the study of how environment and choices affect genetic expression. One relevant example of epigenetic regulation can be seen in the dual-functions of “gating” and “stabilizing” accomplished by epigenetic machinery during the process of retaining long-term changes in post-mitotic cells (Guan, Xie, & Ding, 2015).
Of the four constructs which support bioecological theory, this study focuses only on the constructs of person and context. The second sub-question (How do medical students describe their personal role in the remediation process?) employs the lens of the construct person. Context encompasses outside factors and interactions that may contribute to a student’s experience with remediation, making it a fitting construct on which to base the central research question: How do medical students describe the experience of academic course remediation?

While the other constructs of bioecological theory could be applied to this study, they do not directly measure what this research is particularly interested in. The constructs of time and process have the potential to shine light on the logistics and mechanics of the remediation process, but the goal of this study is to explore the participants’ emotional experiences. Additionally, the COM this study is utilizing employs a simple retest system, which means there is not much of a formal process to observe. This in contrast to schools who require tuition-based formal remediation courses for students undergoing remediation.

Social Identity Theory

The second framework that guided this study was Tajfel and Turner’s (1979) social identity theory. Originally called the social identity theory of intergroup relations, social identity theory was founded on the idea that humans employ three sequential mental processes to contextualize and categorize “self” and “other.” These three mental processes are social categorization, social identification, and social comparison, where delineating social categories is important for the creation and sustenance of self-esteem. The authors offered two possible modalities for increasing feelings of self-esteem: enhancing the status of the group to which one belongs (in-group), and by discriminating against groups to which one does not belong (out-
group). Social identity theory was constructed as an integrative theory meant to link cognitive processes and behavioral motivation (Tajfel & Turner, 1979; see Figure 4).

Figure 4. SIT Model, as described by Tajfel and Turner (1979).

From start to finish, individuals pursuing a career as a physician must compete with their peers through every step of their didactic education (first two years of bookwork in medical school) and clinical education (on-the-job training in a hospital or clinic). The widely pervasive judgment and discrimination by medical students against peers who fail a course and undergo remediation can be explained in part by the self-esteem enhancing modality of determining underperformers as members of the out-group, while determining the academically successful self as the in-group (Tajfel & Turner, 1979). This self-preservation mechanism becomes even more poignant when viewed in light of the limited residency positions available to U.S. medical graduates, brought on by the Balanced Budget Act of 1999 (Bazzoli, Lindrooth, Hasnain-Wynia, & Needleman, 2004; Salsberg, Rockey, Rivers, Brotherton, & Jackson, 2008). This government-imposed cap on residency spot funding resulted in a record-breaking number of unmatched U.S. medical school graduates in 2015, where 2,646 successful graduates were unable to match into residency positions (Kozakowski, Fetter, & Bentley, 2015). Without completing a medical residency, U.S. medical graduates are rendered unable to practice medicine. Though Bill 2124,
also called the Resident Physician Shortage Reduction Act, was introduced to the U.S. Congress in April of 2015, it was not enacted (GovTrack, n.d.).

The first of the three mental processes in social identity theory, social categorization, occurs when an individual perceives themselves and others as part of a group, rather than as an individual within that group (Tajfel & Turner, 1979). This categorization is one way in which humans make sense of their social standing and the social standing of others. In a medical school setting, this could present itself in a number of ways. When school begins, students may view themselves and their classmates as all being ranked equally, part of the same medical school cohort. As time passes and individuals begin to earn their class rank, this view of self and other can morph depending on performance.

The second mental process, social identification, occurs as the mental process used to understand who an individual is and how he or she relates to others when involved in social situations. It is this mental process that dictates many actions taken by an individual, as identity of self is seen as being part of a larger group (Tajfel & Turner, 1979). In a medical education setting, this is often seen in first- and second-year students who believe they should be studying as many hours in the day as they can keep their eyes open, because that is how busy medical students are supposed to be (Weurlander et al., 2019). By fulfilling their perceived role in the group, they prove their worthiness to fit in and belong.

Finally, social comparison occurs when individuals determine the set value or social standing of their group in relation to other groups. Self-esteem in medical students is often garnered when a student who is in good academic standing looks down on a student who is not passing and deems the struggling student part of the out-group, thus making the successful student feel better about his or her own academic success as part of the in-group (Tajfel &
Turner, 1979). This is not a unique mental position as it is a common practice for all people, whether done consciously or unconsciously (Tajfel & Turner, 1979).

In a medical school setting, student doctors in training ultimately seek to establish social standing in a variety of ways. Involvement in clubs and associations, research, socioeconomic status, ethnicity, scholarships, and academic standing are all common examples of ways in which students can create for themselves in-group(s) to identify with and enhance their self-image and self-esteem (Tajfel & Turner, 1979). Of the three mental processes that make up social identity theory, this study focused on social categorization and social identification. Social comparison will not be specifically explored because the focus of this study is on individuals and their perceptions of themselves, rather than their perceptions of others.

These two theoretical frameworks, bioecological theory and social identity theory, were utilized to narrow the focus of this research study and will act as a scaffold upon which the results can be categorized for the process of sensemaking. The theoretical significance of this research can be found in the novel way the constructs of these two frameworks are being applied to the setting of medical education. By better understanding the experience of students who undergo academic remediation in medical school, positive changes can be made with clearer guidance.

**Related Literature**

Medical education researchers Kalet et al. (2017) defined remediation as “the act of facilitating a correction for trainees who started out on the journey toward becoming a physician but have moved off course” (p. 1). The term remediation has been used almost universally for decades by medical education to describe the process students undergo when they do not successfully pass an academic benchmark in their program (Cleland et al., 2013, 2018; Kalet et
Although the Commission on Osteopathic College Accreditation (COCA) requires a structured three-phase plan to gain full accreditation as an osteopathic medical school, a 36-month minimum advanced warning of attempted COM creation, and a $36,000 non-refundable application fee to even endeavor to create a new COM, it does not require or verify the existence of an academic remediation process for medical students (COCA, 2019). Additionally, U.S. medical schools are required to abide by the accreditation requirements of other higher education accreditation bodies in their geographic region, but these bodies do not mandate or regulate remediation specifically either. This lack of explicit guidance concerning remediation has led to the creation of academic policies that can differ substantially between institutions (Kalet et al., 2017). The term academic remediation is used loosely to refer to both the process of passing a single course that was previously failed, and the process of repeating an entire year of medical school failed. This study used the term academic remediation to reference the process of moving past a single course failure, not an entire year (see Figure 5).

![Remediation Table]

**Figure 5.** Types of medical education remediation.

Although the term remediation has been an accepted concept for so long that its addition to common medical education jargon is hard to definitively establish, it did not begin to attract widespread attention as a research topic until recent years (Kalet et al., 2017). In 2014, the AAMC annual meeting committee approved and hosted a symposium session centered around...
remediation practices as a topic of discussion emerging in medical education circles (Kalet et al., 2017). The symposium started such a passionate dialogue that subsequent publications resulted (Ellaway et al., 2018; Kalet et al., 2016, 2017), and the International Association of Medical Science Educators (2017) then chose remediation as its Spring 2017 webinar series topic. This push to examine common and best practices in remediation can be linked in part to recent political shifts in the way health care is distributed and run in the United States. These changes have, in turn, sparked urgent conversations about updating medical education to match the modern demands of the U.S. health care system, patients, and student doctors (Emanuel, 2017).

**Becoming a Student Doctor**

There are a set of well-known factors that often cause or contribute to the need for a medical student to undergo academic remediation. Chief among these is the type of prolonged burnout caused by the process of gaining acceptance to medical school and compounded in severity by the demands of completing it (Boni et al., 2018). To understand this, it becomes important to examine the process which students go through during the U.S. medical school application cycle (see Figure 6). A quick Google search for information about gaining acceptance to medical school will result in hundreds of articles with titles like “10 Traits You Need to Be Successful in Medical School” and “How to Make It through the Application Cycle without Losing Your Mind.”

![Figure 6](image_url)  
*Figure 6. Medical school application requirements.*
Contrary to popular belief among budding premedical students starting an undergraduate bachelor’s degree (the first requirement of acceptance to medical school), there is not one clear cut path leading to the highly sought-after acceptance letter. No medical school in the United States requires a specific major of study at the time of this writing, but the majority of schools do have a list of prerequisite courses students must pass in order to be considered for acceptance. These courses are widely regarded as being key indicators of a potential student’s likelihood of succeeding academically in medical school and have changed very little since the early 1980s. These typically include, but are not limited to, two semesters of general chemistry with lab, two semesters of organic chemistry with lab, two semesters of general biology with lab, one or two semesters of physics with lab, calculus, English, behavioral sciences, and sometimes statistics and economics (Fruen, 1983).

Certain medical schools, such as Stanford’s MD program (Stanford Medicine, 2020), state they do not require any specific undergraduate prerequisites for acceptance; however, the average student accepted there has every class listed above and many more science courses (Stanford University, 2015). This is an expanding trend in university marketing that premeds quickly become adjusted to during their application cycle. There is expansive talk on popular websites such as Student Doctor Network about how terms like “recommended”, when found on a medical school admissions page, really mean “required” (Student Doctor Network Forums, 2017). Students on the lower end of the academic performance scale commonly have a moment where they realize they technically qualify to apply to numerous top-tier schools, quickly followed by the sinking realization that they can pay to apply, but their application is unlikely to earn them a secondary application. This is one of many emotional hurdles that contributes to the jading and burning out of applicants.
The Medical College Admissions Test. Next in the process is the Medical College Admissions Test (MCAT), which is a 7.5-hour, standardized, proctored, multiple-choice, computer-based exam divided into four sections: biological and biochemical foundations of living systems; chemical and physical foundations of biological systems; psychological, social, and biological foundations of behavior; and critical analysis and reasoning skills (AAMC, n.d.). The exam has been a part of medical school applications for more than 90 years, and over 85,000 students sit for the exam per year. Students are permitted to take the exam at any time in their academic journey, but they most commonly choose to take it between January and May of the junior year of their undergraduate studies (Kaplan, n.d.). This timing coincides with the standardized application service cycle, which opens for aspiring DOs in late April or early May of each year and closes again the following April. This application window typically affords them enough time to get through the courses in their degree that cover the material tested on the exam.

The Unified Application Cycle. The yearly medical school application cycle marks an extremely stressful time for medical school hopefuls, who are often ill-informed and ill-prepared for the mental, emotional, and physical stress that comes with gathering the necessary components of their applications (Lin et al., 2013). Students spend hours manually filling in the required sections on the unified application system (an online portal), including biographic information, contact information, citizenship information, family information, high schools attended, colleges attended, college transcript details (including the class prefix, number, semester, full title, and grade earned for every college level class ever taken), standardized exam scores and the dates they were taken, six recommendation letters, extracurricular activities, non-healthcare employment, non-healthcare volunteer or community enrichment, healthcare
experience, awards, honors, presentations, publications, scholarships, and a personal statement condensing their life journey and their desire to attend medical school into 5,300 characters or less (AACOM, 2017).

The generally accepted gold standard, or ideal timeline, for premed students entering an application cycle is to (a) immediately enter all of the information they can when the unified application system opens in late April or early May, (b) take their MCAT in May or June, (c) submit for verification (the act of notifying the unified application service that they are ready to have their transcripts verified for accuracy against the official transcripts they were required to send in), (d) receive their MCAT score back in June or July (30 days after taking it), (e) submit their verified and completed application to their chosen schools in June or July, (f) complete and return all secondary applications earned (an additional application of essay questions and required fees issued by each school to which the applicant applies) by July or August, and (g) interview at all schools between September and April (Kaplan, n.d.). However, things can change or go wrong in various ways at any point during this arduous process.

Common examples of applicant frustrations and delays include but are not limited to (a) not enough seats/dates for the MCAT exam when and where needed, (b) electronic recommendation letters not submitted on time by recommenders, (c) errors when entering transcript information that cause an application submitted for verification to be returned to the applicant for correction, and (d) coordinating interviews all over the country while still completing senior-level undergraduate coursework (AACOM, n.d.).

Once applicants have completed all the steps in the year-long cycle, they wait anxiously to hear back from their chosen schools. There are three possible outcomes for each application submitted: acceptance, rejection, or waitlist. The first two options are straightforward, while the
third poses challenges most students do not realize are possible until they live through the situation. For example, a student waitlisted for their first-choice school and accepted at one of their backup schools will need to decide whether to pay the required monetary deposit to hold their seat in that class (typically between $100-$3,000 and often required to be paid within 5–14 business days from the time of acceptance), or hold out for possible acceptance to their first-choice school. Additionally, students can be accepted from the waitlist at any point in time, meaning applicants on the waitlist could potentially receive an unexpected acceptance call during the same week the medical program is set to begin. This is not uncommon, as schools work swiftly to fill open seats from applicants choosing other programs or backing out of their acceptance without warning.

Lin et al. (2013) mused that the premedical experience is unique because the stress of trying to use every minute on learning or achieving for the sake of being able to include it on a future medical school application means no domain in these students’ lives is sacred. Everything from their formal academic record to their hobbies will be evaluated for worthiness. At best, the medical school application cycle is long and demanding. At worst, it is emotionally and mentally devastating. Boni et al. (2018) describe the type of resulting burnout seen in these applicants as “a multifactorial occupational syndrome, characterized by a triad of symptoms involving high levels of emotional exhaustion, depersonalization, or professional cynicism and professional disbelief” (p. 2). Surprisingly, despite this system for applicant selection, students who succeeded and were accepted into medical school commonly voiced trust that the medical education system would teach them what they needed to know to become successful physicians (Schei, Johnsrud, Mildestvedt, Pedersen, & Hjörleifsson, 2018).
**Being a Student Doctor**

Another Google search, this time for information about surviving medical school once accepted, turns up thousands of articles with titles like “What NOT to Do When You First Start Medical School” and “Accepted But Burned Out: Recovering from the Medical School Application Cycle.” There is no shortage of research to support the idea that even the most capable of students are worn out by the process of being accepted to medical school (Boni et al., 2018; Lin et al., 2013; Schei et al., 2018). Once courses begin, contributing factors to failure quickly appear. These include but are not limited to frequent assessment in the form of exams and practicals (Khan et al., 2016), numerous hours of study day after day (Vitaliano, Russo, Carr, & Heerwagen, 1984), difficulty with retention of material (Khan et al., 2016), depression and mental health issues (Moir, Yelder, Sanson, & Chen, 2018), and inefficient time management (Hashim, Hameed, Ayyub, Ali, & Raza, 2014).

Hill, Goicochea, and Merlo (2018) measured the severity of certain stress factors for 987 medical students and found that exposure to human suffering, financial difficulties, family demands, and conflicts in work–life balance were also extremely prevalent and disruptive to the student’s academic progress and success, often leading to failure of an exam or course. As these results demonstrate, comprehension of difficult medical education content is not as common a reason for the need to remediate as outside life pressures. It is those pressures that often interfere with time management and the quantity of quality focus time needed to study effectively, resulting in the need for remediation. While none of these identified stress factors are unique to either gender, many are found with different frequency in male and female students (Hill et al., 2018).

Prior to the late 1990s, attending medical school in the United States and becoming a
doctor were predominantly an accomplishment of White males (Boulis & Jacobs, 2010). In a 1950 Gallup poll of Americans, only 2% of respondents indicated that they would recommend a young woman pursue medical school, while more than a fourth would recommend the career to a young man (Boulis & Jacobs, 2010). The women’s movement of the 1960s then sparked a nationwide conversation about the role of women in the workforce and in education. By 1978, the number of women enrolling in medical schools began to ascend rapidly, changing the dynamic of the once virtually all-male profession (Boulis & Jacobs, 2010).

In 1985 Gallup distributed the same career poll again, but this time roughly 10% of respondents indicated that they would recommend medical school to both male and female students. Since 1998, the number of respondents who would recommend a career in medicine to young women has surpassed the number who would recommend it to a young male (Boulis & Jacobs, 2010). In terms of broader social context for this study, a better understanding of the remediation process and the way that students experience it is needed to revise and improve existing student support models to achieve the goal of increased student success and retention. As health care needs and delivery methods evolve and change, so should medical education.

Generally, students begin to learn about their institution’s academic policies for the first time after starting medical school. In an ideal world, students would choose a medical school based on factors such as their fit with the mission statement, the curricular model, and the academic policies of the institution. Employing this school selection process would require that applicants review these key features of an institution prior to matriculation. However, because of the competitive nature of the application cycle, the overwhelming majority of students applying to medical schools apply to a broad range of COMs with the plan of attending the strongest school that grants them admission. This puts lower-performing students at an even greater
disadvantage, as the schools most likely to accept them are also the schools most likely to have lower quality student support systems in place to assist them.

**Figure 7.** The medical education training progression.

**Remediation Process and Policy**

Remediation is a crucial part of the medical education process (Custers & Cate, 2018). As with any academic training, there are students who do not satisfactorily pass mandatory benchmarks and are, therefore, required to demonstrate appropriate competency before advancing in the curriculum. In medical education, remediation is the process of demonstrating this vital academic competency after experiencing failure (Cleland et al., 2013, 2018; Kalet et al., 2017). There are two main categories of remediation, academic and social. Academic remediation is needed when a student does not demonstrate adequate course knowledge and fails to earn a passing grade on an exam or in a course, depending on school policy. Social remediation provides guidance to students who do not live up to the expected level of professionalism, whether that be in relation to classmates, faculty, or clinical preceptors (Mak-
van der Vossen et al., 2017). These two types of remediation can occur independently of one another, or in conjunction. This study focused on academic remediation of one or more courses without remediating an academic year in its entirety.

A review of the 38 American osteopathic medical schools’ websites at the time of this writing found notable differences in remediation policies between the schools that post their student handbooks openly for public consumption (see Appendix D). Some institutions allow five course failures in one academic year before the student is required to repeat the year, while others allow only two. Other policy differences include how a remediated course is notated on the student’s official transcript, whether a tuition-based remediation course is required before students can retest, and when in the year remediation exams are administered. Medical schools craft policies that inform different remediation paths based on factors such as severity of failure (with high severity often defined as a course grade two or more standard deviations below the mean), number of failures in a certain period of time, and whether or not the student has been reprimanded for social problems or lapses in professionalism in addition to their academic deficiencies (Bennion et al., 2018; Mak-van der Vossen et al., 2017).

**Philosophy of failure.** Medical education researchers Kalet et al. (2017) defined remediation as “the act of facilitating a correction for trainees who started out on the journey toward becoming a physician but have moved off course” (p. 1). Bennion et al. (2018) cited remediation as a near universal problem faced by medical schools, with the need for remediation remaining at a significant 10% of students experiencing an academic failure either in their didactic education, or at some point in their clinical training. The authors went on to assert that remediation resources of some kind are adopted by nearly all medical schools, but that most “err in not having cross-talk between remediation specialists and instructors or curriculum managers
at strategic points throughout students’ developmental process of becoming a physician” (Kalet et al., 2017, p. 1).

One problem with relegating remediation away from the rest of the medical education process is the negative culture it breeds around failure. How medical schools decide whether or not to offer a remediation option, and what the supporting policy will look like for that decision, can be considered a reflection of the school’s general philosophy of failure (Kalet et al., 2017). It is reasonable to view the decision to not offer remediation after a failure as normal if the philosophy is that failure is something that cannot, or should not, be recovered from. Conversely, schools offering a remediation option of any kind assert their philosophical belief that failure is a part of the learning process and is something that can be recovered from. Bennion et al. (2018) pointed out that “remediation as a systematic process has not been overhauled from the traditional view that academic struggles are solely an individual problem which is handed off to remediation personnel” (p. 1), meaning that changes are needed to make remediation an explicit part of the structure of medical education that all students, staff, and faculty talk about and are familiar with. This can result in shared responsibilities for struggling students, rather than being viewed as an “outsider activity” (Bennion et al., 2018, p. 1) with a negative stigma.

Ultimately, the persistent negative stigma attached to the remediation process can cause students to adopt an attitude of aversion toward it, causing those who end up needing it undue harm. When failure is not talked about openly or modeled as an expected part of the learning process, a negative stigma can breed quickly. It is understandably a complex problem. Given that at least 10% of students encounter a course or rotation failure at some point in their medical education journey (Bennion et al., 2018), this leaves 90% of students—the overwhelming majority—who do not. With such a clear delineation between the “in-group” and the “out-group”
it is not hard to comprehend why remediation continues to be largely stigmatized by both students and faculty.

Compounding factors that help to create a medical school culture averse to the need for remediation can also include constant reminders from faculty that medical education is life or death, and a lack of understanding that many medical students struggling to cope with failure (or even just imperfection) and are often doing so for the first time in their academic careers. The students admitted to medical schools each year are arguably some of the brightest and most driven students in existence (Yates, 2012). Unfortunately, a portion of these high-achieving students have underdeveloped stress coping mechanisms (Al-Dubai, Al-Naggar, Alshagga, & Rampal, 2011; Nechita, Nechita, Pirlog, & Rogoveanu, 2014) due to a lack of previous experience with failure and setbacks. This can cause undue stress if students find themselves in an unfamiliar situation of failure and lack the needed coping strategies to rebound from the experience in a timely and healthy manner. There is not very much reset time for these students, as the timeline for medical education is swift and unforgiving. This conundrum is often further compounded with the comorbidity of poor help-seeking behavior on the part of affected students. Guerrasio (2018) found that, even after failing, only 50% of medical students will seek help.

Between the two opposing poles that frame the spectrum of remediation offerings—from no option to remediate to comprehensive assistance through a formal remediation process—lie countless iterations of other processes. There are medical programs that demonstrate evidence of intentional resource allocation into remediation by way of bestowing position titles such as Director of Remediation, and by requiring 3–5-week tuition-based summer remediation courses, such as can be found at the University of Colorado School of Medicine and the University of Kansas School of Medicine, respectively (Bonaminio & Guerrasio, 2017). Finally, and most
commonly, there are schools who operate on a retest system that provides students little to no additional guidance or feedback before administering a pass/fail retest (see Appendix D). If the students pass this retest, they rejoin their cohort and progress through their medical program as originally planned. If the retest is failed, it is commonly grounds for repeating an academic year or even dismissal from the program.

Despite renewed attention on remediation policies, efforts to investigate different models of remediation and of how many students utilize it and how often remain tedious and inefficient. Guerrasio (2018) noted that remediation continues to lack a concrete definition and is far from being universally established. Because of this, the benchmark for needing remediation remains variable from one institution to another and from one program to the next, and little is known about whether the magnitude of learners needing remediation is increasing, decreasing, or remaining the same.

**The History of Medical Education**

The American Medical Association (AMA) was founded in 1847 with stated goals of “scientific advancement, standards for medical education, launching a program of medical ethics, and improved public health” (AMA, n.d.). In 1910, the organization published its first accreditation standards for medical schools, marking the first efforts at unification of medical education standards for MD and DO clinicians. In 1927, the AMA Council on Medical Education and Hospitals published the first list of hospitals approved for residency training. Since its inception and those benchmark accomplishments, the AMA has become a thought leader in the U.S. medical community, leading the charge on everything from denouncing the Trump administration’s desire to define sex as an individual’s classification of male or female based on biological traits recognized at birth to collecting and distributing millions of dollars of
grant monies to schools involved in their medical education reform initiatives (AMA, n.d.).

Until the middle of the 19th century, a conventional U.S. medical education consisted of an extended apprenticeship, typically completed by young White men of high socioeconomic status (Rothstein, 1987). Supporting educational material, what is now called the didactic phase of medical education, was weakly constructed and inefficiently tested. Unlike European medical education, the United States had no unification or regulation of standards for its student doctors during most of the 19th century (Custers & Cate, 2018). By the end of the 19th century, the most elite medical schools required a 3-year curricular training program, but the vast majority of U.S. medical schools still only required two years of training. Abraham Flexner’s (1910) two-by-two medical education format included two years of didactic coursework and 2 years of clinical rotations. This 4-year medical education model remains the most consistently used model by U.S. medical schools to this day, despite vast changes in the makeup and needs of the modern medical student (Emanuel, 2017).

**Recent Attention on Medical Education Revision**

In 2010, the Carnegie Foundation for the Advancement of Teaching called for major reform to medical education (Schei et al., 2018). They went on to state that “factual overload” of students during medical school invites low quality learning strategies, such as rote memorization, that are “inimical to scientific reasoning and inquiry” (p. 5). Schei et al. (2018) found that out of the more than 2,400 medical schools in the world, the majority have “fragmented, outdated, and static curricula that produce ill-equipped graduates, with mismatch of competencies to patient and population needs, poor teamwork, and narrow technical focus without broader contextual understanding” (p. 5). Skochelak (2010) reviewed 15 separate national reports that ultimately summarized the same conclusions about which areas of medical education needed
comprehensive revision. She noted that young physicians are currently trained in a bubble, although it is well documented that they will need the organizational and social skills to work competently in team settings. She went on to explain that they also tend to be trained in the hospital setting, despite outpatient settings continually increasing in popularity. Additionally, today’s medical students have an older median age than those trained in previous years, making their educational needs more andragogical in nature. Finally, it has become imperative that they “understand the business of healthcare and the fiscal implications of their decisions” (Skochelak, 2010, p. 4). As Guerrasio (2018) put it, “There is currently a national movement to improve the quality of patient care, from systems improvements to personalized care and the patient-centered medical home” (p. 10).

The vast majority of U.S. medical schools are not forthcoming about their policies and procedures around academic failure (see Appendix D), which should be understood as an accountability problem between the medical community and the public. For this reason, Kalet et al. (2017) noted that the recent trend of increasing accountability in medical education is both important and timely. Medical schools carry a social obligation to make sure established standards of medical care are being adequately taught and tested in their programs, and that the public trust placed in the medical community is being rightfully earned.

Therefore, in 2013 the AMA launched the Accelerating Change in Medical Education initiative, awarding grants to 11 medical schools across the country (AMA, 2016). By 2016, 21 more schools had joined the initiative, bringing the total to 32. A statement by the AMA (2016) about the initiative asserted that the current 37-member school consortium is “delivering forward-thinking educational experiences to approximately 19,000 medical students—students who will provide care to a potential 33 million patients annually” (p. 1). Information about
whether these sweeping changes and promising leaps forward include plans to establish time and resources specifically allotted to the task of creating well-informed and supported remediation policies and procedures remains unclear.

**The Case for Academic Remediation**

The mean cost for one year of medical education in the United States as of the 2018–2019 academic year was $50,284 (AACOM, n.d.; AAMC, 2020b). For students who must repeat a year of medical school due to academic difficulties, or those who are academically dismissed, the added stress of such a large financial burden can be devastating (Hill et al., 2018). For this reason, it is important to construct an efficient remediation process that not only serves to allow students to pass through to the next level of their education, but also adequately reteaches previously failed skills or content areas before allowing them to move forward.

It is also reasonable to purpose that there exists a moral imperative to support the academic success of students who have sacrificed extensive time, effort, and money to pursue a career of social servitude. Guerrasio (2018) asserted that “while it is easy to teach and mentor the learners who, in truth, would succeed in any environment, the struggling learners differentiate the quality teachers from their peers” (p. 6). This needed support comes in two key forms, faculty support and student support services. Because of the extensive workloads medical education faculty are often maintaining, from research to teaching to committee participation, it is more common to see intervention from the office in charge of student support (Guerrasio, 2018). COCA (2019) does not weigh in directly on the topic of academic remediation in its continuing accreditation standards handbook, and there is just one general mandate for each COM to provide “academic counseling to assist its students in study skills, learning styles, learning resources, and other assistance for academic success” (p. 33).
Additionally, it is not only possible but probable that students who have successfully passed academic remediation will still face discrimination for having needed remediation at all (Go, Klaassen, & Chamberlain, 2012). Program directors making difficult decisions about which students they will allow to match into their residency programs are often dealing with an unreasonable number of applicants per open position. This is due, in part, to the U.S. government’s continued residency position cap (Salsberg et al., 2008). In 2021, the NRMP reported that a record-high 38,106 match applicants fought for only 35,194 positions (National Resident Matching Program, 2021).

The probability that students who have remediated will be admitted into a residency program, let alone for a specialty that earns among the highest average salaries, likely decreases because of their remediation experience (Eltorai et al., 2018). This widespread preference among medical students for specializing (see Appendix E for a list of the current medical specialties) is one of the main reasons primary care physicians have been, and continue to be, in severe shortage (AAMC, 2020a). Primary care is often seen by students as a less-respected, lower paying specialty, and therefore a subpar option (Hackey, Grasso, LaRochelle, & Seaver, 2018; Song, Chopra, & McMahon, 2015).

Although it has been argued that remediation would be unnecessary if medical school admissions departments were efficient in screening and selecting quality candidates (Guerrasio, 2018), this argument has clear utopian roots. Guerrasio (2018) asserted that remediation will always be a vital component of the medical education process, if not to address unanticipated struggles then to address anticipated struggles in applicants who “possessed other characteristics that made them worth the investment” (p. 18). Unforeseen circumstances occur in the lives of even the most intelligent and capable of medical students and dealing with these events takes
time away from their rigorous academics.

There is no successful one-size-fits-all approach to the study of medicine, and as such, some students are statistically likely to struggle with different types of material or life events as they advance through the curriculum (Guerrasio, 2018). When academic supports are available and utilized prior to academic failure of a course, it becomes possible to prevent the need for remediation outside of unforeseeable emergency situations. Even when robust programs are in place to help students succeed, remediation will always be necessary due to unavoidable non-academic distractors (Guerrasio, 2018).

**Legal and personal implications of failure.** The repercussions and implications for experiencing failure during the medical education process differ widely depending on the context and severity of the failure. A student who fails to earn a passing grade for a single course in medical school but succeeds at remediating the course and is permitted to move forward in the curriculum does not incur the same monetary or time debt as a student who remediates an entire academic year—or one who is dismissed entirely (AACOM, n.d.). Well planned, well supported remediation policies and procedures have the opportunity to save faculty, staff, students, and taxpayers time and money. As remediation thought leader Guerrasio (2018) has stated in multiple publications, a systematic and encouraging approach will lead to recognition and willingness on the part of teachers and learners to participate and contribute to the program.

It is also important to note the legal ramifications of taking administrative action against a student who has not met stated academic standards. Conran, Elzie, Knollmann-Ritschel, Domen, and Powell (2018) found that “the decision to dismiss a student where the entire student record has been reviewed, due process provided, and the institution complied with its own policies is usually upheld by the courts in litigation” (p. 1). Their review of seven cases in which student
doctors or residents were dismissed from their academic programs and subsequently pursued legal action points to the importance of intentionality and unification in remediation efforts. Without proper documentation and communication of the observed deficiencies, it is possible for an institution to be found in contempt of the law and unable to pursue what may very well still be appropriate action against advancing an ill-equipped student doctor through the medical education process.

In terms of personal identity, the potential implications for a student who experiences academic remediation and suffers an emotionally traumatizing transition from the academically secure in-group to the academically disadvantaged out-group can be severe. Social identity theory (Tajfel & Turner, 1979) provides a framework for understanding that the loss of good academic standing typically translates to a perceived or real loss of self-esteem and self-worth. If the student had comorbid issues, such as a pervasive belief that they did not belong in medical school to begin with, these are often exacerbated as a result of the failure. If pervasive enough, this can be devastating and detract from a student’s remediation efforts; it could mean the difference between returning to good academic standing or being dismissed from the program. For students in their first 2 years and burned out from the process of gaining acceptance to medical school, this result becomes even more statistically likely (Boni et al., 2018).

**The case for a study on academic remediation.** Perhaps it is not surprising that, in a 52-page document summarizing the accomplishments of the AMA’s consortium of 37 schools working toward accelerated change in medical education, the word remediation appears only once (AMA, 2017). This one mention simply states, “There is not one clear method for student remediation” (AMA, 2017, p. 38). Furthermore, the word “struggling” (commonly used when talking about students who need to remediate) appears only six times, but all six instances are in
the description of the same article mentioning remediation. Otherwise, the overview document is a collection of exciting accolades earned by schools funded by and included in the consortium formed in 2013. While it is undeniably more enjoyable to focus on student and institutional successes rather than the theory and processes involved in remediating academic failures, it is worth considering whether the topic of adequate academic remediation should be higher on the priority list of AMA exploration for all of the reasons previously listed here.

Thought leaders in the area of remediation in medical education have clearly expressed the need for additional research on the topic in their previous publications (Bennion et al., 2018; Hauer, Teherani, Irby, Kerr, & O’Sullivan, 2008; Kalet et al., 2017; Malau-Aduli et al., 2020; Saxena et al., 2009), with Kalet et al. (2017) asserting that “remediating remediation practice in medical education has therefore never been more important or practical” (p. 423). This study examines the lived experiences of academic remediation for medical students at an osteopathic medical school in the United States. This addresses the literature gap of continued efforts to understand the ramifications for students who undergo the remediation process, and can add that description to the existing body of literature on the subject.

Summary

The relatively constant 10% of students who encounter failure at some point during their medical training are counting on the renewed wave of research during this period where the United States is focusing time, energy, and resources on improving numerous aspects of medical education (AMA, 2016; Bennion et al., 2018; Guerrasio, 2018). Medical education is a high-stakes venture for students, for institutions, and for the public. Studies examining remediation have focused largely on the philosophy of remediation (Bennion et al., 2018), practical strategies for helping struggling medical students (Bonaminio & Guerrasio, 2017; Cleland et al., 2013,
2018; Guerrasio, 2018), tips for sustaining an effective remediation process (Kalet et al., 2016, 2017; Kebaetse et al., 2018; Saxena et al., 2009; Winston et al., 2013), and the psychological distress students encounter when they experience failure and subsequently undergo remediation (Patel et al., 2015; Winter et al., 2017). No existing research found has examined the entire experience of medical students remediating a course failure in an osteopathic medical school setting. The purpose of this transcendental phenomenological study is to understand the lived experience of academic remediation for medical students at an osteopathic medical school. Through the stories and experiences of these students, positive changes can be made to the process of rehabilitating students who have drifted off course academically. Virtually all students accepted to medical school are high achievers with enough intelligence, scientific knowledge, and ability to be successful (Yates, 2012). Sometimes they simply need assistance to come back from poor time management or an inefficient study routine. By exploring the experience these students describe after going through remediation as it stands, it becomes possible to create or improve a quality remediation program that identifies student shortcomings and appropriately addresses and remedies their deficiencies to preserve time, money, and resources.
CHAPTER THREE: METHODS

Overview

The academic remediation process in a given medical school is an important topic for
discussion because it directly impacts the school’s retention rate, student satisfaction, and
ultimately, the overall quality of education the students receive (Guerrasio, 2018). This study
explored the lived experiences of medical students who have successfully undergone academic
remediation of a course in an osteopathic medical school setting. The participants described their
personal experiences with the remediation process.

Very few studies have been conducted on the lived experiences of medical students who
have undergone academic remediation (Patel et al., 2015; Winter et al., 2017), and of those that
have been conducted, none found focused explicitly on U.S. osteopathic medical students using a
transcendental phenomenological approach and examining only the didactic years. The purpose
of this transcendental phenomenological study was to understand the lived experiences of
academic remediation for medical students at an osteopathic medical school. The following
sections detail the study’s design, procedures, data analysis, my background as the human
instrument, and methods for increasing the trustworthiness of the findings.

Design

This study explored medical students’ lived experiences of academic remediation in
medical school through a transcendental phenomenological approach to qualitative research. A
qualitative design has been chosen based on its appropriateness for collecting the lived feelings
and experiences (Moustakas, 1994) of students who have undergone the emotionally taxing
process of academic remediation. A quantitative study design could have been chosen to
examine data points and their relationships, such as whether there is a correlation between
medical students’ need for remediation and their subsequent board exam performance, but numbers are not the focus of this study. Because the focus is on stories and lived experiences, a qualitative approach is most appropriate (Neubauer, Witkop, & Varpio, 2019).

A phenomenological design has been identified as the best fit for facilitating my examination of both measurable outcomes, such as failing a course and undergoing remediation, and immeasurable qualities, such as lived experiences and the meaning ascribed to those experiences (Moustakas, 1994). Individual experiences observed and coded thematically can then bring to light common experiences between participants, allowing me to collect sentiments that can help describe the central essence of the phenomenon. Because the accrediting bodies in charge of medical schools in the United States do not specify any requirements in regard to remediation programs, the 143 allopathic and 37 osteopathic medical schools accredited in the United States at the time of this writing differ dramatically (Kalet et al., 2017). A qualitative study examining the lived experiences of students who have undergone academic remediation is a timely inquisition that has the potential to add a human experience component to the decision-making efforts of medical school remediation directors, where the majority of policy decisions made are informed almost exclusively by quantitative data (Neubauer et al., 2019).

I chose a transcendental phenomenological approach to qualitative research because of its focus on rich, textural descriptions, structural descriptions, and the teasing out of an overarching essence shared by the participants who have experienced the phenomenon (Creswell & Poth, 2018; Moustakas, 1994). Because I am actively involved and employed in the medical education community, it was also important for me to bracket my own biases, thoughts, and experiences out of experiences shared with me by my participants. My biases and experiences related to this topic are included in the personal biography section. The act of bracketing out my own inner
dialogue is called *epoche* (Moustakas, 1994). This emptying of my predispositions around this topic opened me up to new ideas and consciousness surrounding the topic of academic remediation in a medical school setting (Moustakas, 1994). Moustakas (1994) explained that a transcendental phenomenology should focus on “the persons who have had the experience and are able to provide a comprehensive description of it” (p. 13). Therefore, a transcendental phenomenology allowed me to keep the spotlight on the stories and experiences of my participants, rather than the biased information I hold from the sidelines of not having experienced academic remediation in medical school myself.

Finally, transcendental phenomenology hinges on the triangulation of multiple types of data collection from each participant in the study to increase credibility (Moustakas, 1994). Data were collected from participants via individual interviews, journal prompts, and projective techniques. During the process of data collection, I turned inward for reflection, keeping my thoughts and feelings about the information I collected in a journal used for bracketing (Moustakas, 1994).

**Research Questions**

The following research questions guided this study:

**Central Research Question (CQ)**

How do medical students describe the experience of academic course remediation?

**Sub-question 1 (SQ1)**

How do medical students describe themselves and their academic abilities before and during academic remediation?

**Sub-question 2 (SQ2)**

How do medical students describe their personal role in the remediation process?
Sub-question 3 (SQ3)

How do medical students describe themselves after academic remediation?

**Setting**

This study utilized a West Coast osteopathic medical school in a sizeable metropolitan area. Class size is 180 students, and the college of osteopathic medicine (COM) employs a systems-based curriculum model. There are no abnormalities in the COM’s leadership or organizational structure as compared to the typical U.S. medical school hierarchy. Further information about the setting of this study is being intentionally withheld to protect the confidentiality of the COM.

The primary motivation in choosing this site was that its policies represent the vast majority of COM remediation policies, based on an extensive review of online COM handbooks, making it a good representation of the phenomenon being investigated (Yin, 2016). Equally as important, the site voted to permit the study, making it a site chosen based on convenience and accessibility. One-on-one interviews were conducted with participants via Zoom video web conferencing due to COVID-19 pandemic restrictions.

**Participants**

The study utilized a purposeful, homogenous, snowball sampling of 10 medical students who successfully completed the remediation process for one or more courses during the two didactic years of their curricula. This number of participants aligns with Creswell and Poth’s (2018) recommended guideline of 5–25 participants. The primary criteria for selecting and soliciting the participants was their experience with the phenomenon of successfully undergoing the academic remediation process after failing one or more courses during their didactic years (Moustakas, 1994). Additional inclusion criteria included active student status and willingness to
sign the consent form. Participants were a mix of male (5) and female (5) students in their second (4), third (5), or fourth (1) year of medical school at the time of their interview. The participants ranged in age from 24–28, seven of the 10 participants spoke English as a first language, and all were unmarried and without dependents. Each participant self-identified as either Caucasian (3), Asian (6), or Caucasian Asian (1).

Table 1

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*Note. DO21, DO22, and DO23 refer to DO students who should graduate in 2021, 2022, or 2023 if they finish in the prescribed 4-year timeline, based on their start year.*

**Procedures**

Before making any sort of contact with participants, I secured Institutional Review Board (IRB) approval from the site university for my study, as well as from my home institution (Appendix A). Following IRB approval, an email template outlining the purpose of the study (Appendix B), the requirements to participate, and the informed consent form (Appendix C)
were sent to all second-, third-, and fourth-year students via a Qualtrics survey link.

Individual interviews were completed via Zoom video web conferencing due to COVID-19 restrictions. The interviews were then transcribed by Otter.ai, after which I personally verified their accuracy by editing them manually. Member checks were conducted by sending a copy of each interviewee’s transcript to the participants, along with a thank you letter and a $10 Amazon gift card for participating once they replied approving their interview transcript as accurate. All study data, including interview audio, transcriptions, and participant personal data, are being kept on a password-protected computer to ensure data safety and participant confidentiality until I am ready to delete it after the 5-year data conservation period ends.

**The Researcher’s Role**

I was a graduate student assistant pursuing a Master of Biomedical Sciences degree and applying to medical schools when I realized I preferred to work in an administrative capacity in medical education rather than actually attend as a student. I gained acceptance into two of the three medical schools to which I applied, one allopathic and one osteopathic, but ultimately declined my acceptances in order to pursue this Doctor of Philosophy in Education in Curriculum and Instruction degree at Liberty University. Over the course of my doctoral studies, and my involvement in the medical education community, I have had the honor of gaining faculty mentors and friends who work in medical schools across the country. These wonderful individuals have supported my study by volunteering their time for conversations about the topic of academic remediation in medical school.

This phenomenological study hinged on me as the human instrument (Lincoln & Guba, 1985), meaning the narrative presented here is written in my voice, and from my perspective. The only notable exception to this is Chapter Four, where my participants’ voices are the focus.
My presentation of the facts and opinions I have gathered during my research on this topic were undoubtedly influenced by my observation of close friends in various medical schools, as well as a previous boyfriend whom I dated for his first two years of medical school. None of them needed to undergo remediation; in fact, several of them finished near the top of their respective classes. However, I was never at the top of my undergraduate or graduate science courses in regard to academic scoring. Therefore, had I attended medical school myself, I have reason to believe I would have needed to remediate at least once. These beliefs and experiences have an impact on my interpretation of the data and are important to note here for that reason.

**Data Collection**

This study employed a transcendental phenomenological approach to qualitative research. Therefore, I collected data from my participants using a demographic survey and individual interviews, journal prompts, and projective techniques so as to collect information about the phenomenon being studied via multiple methods (van Manen, 1990). The phenomenon of interest is medical students who have undergone academic remediation. As the human instrument (Lincoln & Guba, 1985), I described the experiences of students who lived this phenomenon and were willing to share their stories with me.

In order to ensure trustworthiness and credibility within this phenomenology, multiple sources of data were collected and analyzed. Individual interviews, journal prompts, and projective techniques were used with each student in order to collect a variety of data types describing the central phenomenon of remediation.

**Projective Techniques**

Given (2008) noted that projective techniques can “generate additional layers of data that are difficult or impossible to access through conventional discursive means” (p. 2). In order to be
respectful of the busy schedules held by my participants, projective techniques were utilized at the start of each individual interview session as a warm-up exercise. There are numerous different types of projective techniques to select from, based on the needs of a given study (Given, 2008). For the purposes of getting my participants thinking about and verbalizing the remediation process, I utilized personification, bubble drawings, and life graphs. Approximately 15 minutes were set aside at the start of each individual interview for the projective technique exercises.

The thought bubble (Appendix G) was presented to the participants with instructions to fill in what the male and female student doctors are thinking about remediation. A pre-numbered life graph (Appendix L) was then provided, with instructions to fill in the best and worst life events the participant has experienced so far. Finally, the word “Remediation” (Appendix I) was provided with instructions to describe what it might be like if it were a person. Information such as what sort of lifestyle it would live, how it would look physically, and where it might go on vacation provided insight into the participants feelings about the remediation process.

**Interviews**

All interviews were conducted one-on-one via Zoom and were semi-structured and open ended. As Tuttas (2015) noted after using web conferencing to conduct interviews, lines of communication underpin the success or failure of a qualitative study. Each interview was scheduled via email once the participant had signed the informed consent, agreeing to be in the study. An interview protocol then guided each individual interview, ensuring that the format was as uniform as possible in order to allow the focus to be on what the participants shared.

The interview questions asked of each participant during the one-on-one interview were designed to add supporting detail to the study’s central research question and three sub-
questions. Those questions were devised using Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory as frameworks. These two theoretical underpinnings allowed for an examination of the theoretical constructs of person, social identification, and social categorization as they applied to a student’s experience with academic remediation in an osteopathic medical school setting.

Interview Questions (with their related research questions in brackets):

1. How would you describe yourself both in and out of an academic setting? [SQ1]
2. Explain your thoughts and emotions the moment you learned you had been accepted into medical school (place that on your positives graph if you have not already). [SQ1]
3. Explain your thoughts and emotions the moment you learned you needed to remediate (place that on your negative graph if you have not already). [SQ2]
4. Have your feelings or thoughts about medical school or becoming a doctor changed since school began? If yes, explain. [SQ3]
5. What was one positive thing and one negative thing you noticed about yourself during the remediation process? [CQ]
6. Describe your support system during remediation, both inside and outside of the university; describe these individuals and their relationship to you. [SQ2]
7. When do you first remember hearing the word remediation (in relation to medical school), and then understanding what it meant in context? [SQ1]
8. What were your thoughts about remediation before you began medical school? [SQ1]
9. What factors do you believe led you to need remediation? [SQ2]
10. When preparing for your remediation examination(s), describe the specific study methods you employed. [CQ]
11. How did you manage your emotional and mental health while preparing for your remediation examination(s)? [SQ2]

12. Use 2–5 carefully selected adjectives to describe your experience with the remediation process (i.e. productive, scary, enlightening, etc.). [CQ]

13. Explain any benefits that you believe were a direct result of your remediation experience. [SQ3]

14. Explain any disadvantages that you believe were a direct result of your remediation experience. [SQ3]

15. How are you different as a result of your experience remediating? [SQ3]

16. A classmate comes to you and expresses their need for remediation after failing a course, what do you tell them? [CQ]

Each of the interview questions was designed to focus on an aspect of the participants’ lived experience, thus closely following the phenomenology model (Moustakas, 1994). Questions 5, 10, 12, and 16 related directly to the core research question and sought to elicit each participant’s thoughts and feelings about the entirety of the remediation experience. Winter et al. (2017) explored how stress largely originates in the minds of medical students, and how it can impact their medical education experience. These questions dug deeper into the psyche of the participants.

Questions 1, 2, 7, and 8 were used to generate responses to SQ1, which was based on the social identity theory construct of social categorization. These questions contributed to a holistic understanding of this sub-question by helping make sense of the range of emotions the participants experienced and how they reacted to the emotionally charged situation of remediation. The timeline of remediation efforts is also a primary topic of discussion among
medical education administrators (Kalet et al., 2017). Both the duration of the remediation process, as well as when it occurs in an academic year are important factors to hear about from participants.

Questions 3, 6, 9, and 11 were used to answer SQ2 and highlighted the thought process of participants in relation to biases, preconceived notions, and their own role in their education. The questions were based on the construct of person, which is defined as the individual’s role and belief about personal responsibility in a given context. In the context of remediation, it was possible for a participant to place the full extent of responsibility on themselves, the COM, or another person or entity. However, there was a spectrum on which each student fell in terms of how much personal responsibility they took. On this topic, Patel et al. (2015) noted that “the experience of remediation is influenced by the way in which students make sense of failing” (p. 8). These interview questions dug into how each participant personally made sense of his or her academic failure.

Questions 4, 13, 14, and 15 answered SQ3, which investigated how the social identity theory construct of social identification made sense of the participants’ social and academic experiences post-remediation. Participants in this study had all passed their remediation examination(s) as part of the inclusion criteria. Consequently, hearing from them about any differences in thoughts or feelings they noticed as a result of becoming part of the unspoken out-group of struggling students by remediating helped explore if and/or how their personal identity may have been altered.

**Journal Prompts**

Two journal prompts were included as short answer questions at the end of the student demographic survey. Instructions for the prompts requested that participants write a minimum of
200 words in response to the two prompts, though not all did so. Janssens, Bos, Rosmalen, Wichers, and Riese (2018) noted that feasibility and statistics are important to keep in mind when crafting journal prompts; therefore, I sought to use the following prompts as a way to add meaning and significance to the study data.

Journal prompts:

1. Tell me about someone who inspired you to go into medicine (minimum of 200 words).
2. Tell me about how you are paying for medical school (minimum of 200 words).

Data Analysis

Because this was a qualitative transcendental phenomenology, Moustakas’ (1994) data analysis technique of phenomenological reduction was employed when it was time to analyze the data collected. The model of phenomenological reduction is as follows: (a) Bracketing the Topic, (b) Horizontalization, (c) Clustering into Themes, (d) Textural Description of the Experience, (e) Structural Descriptions of the Experience and (f) Textural-Structural Synthesis.

Bracketing the Topic

In order to focus on the results of the research and to keep from confusing my own preexisting experiences and biases with the lived experiences of my participants, I engaged in bracketing of my research topic (Moustakas, 1994). This classic practice allowed for an increased focus on reflection as participant data were collected and analyzed. I accomplished this task via journaling throughout the study, but particularly before and after each instance of data collection.

Horizontalization

Each source of data—Zoom interviews audio transcribed by Otter.ai and imported into NVivo 12, journal prompts from the Qualtrics survey, and the projective technique exercises
completed at the start of the Zoom interview—resulted in artifacts which were evaluated for common themes. The process of horizontalization involved my reading and rereading these transcripts for the sake of both accuracy checking and isolation of themes. Recurring statements made by participants were identified and are discussed in later chapters (Moustakas, 1994). Sets of sentiments that presented together for multiple participants were recognized and presented as an important part of the phenomenon being studied.

**Clustering into Themes**

Statements of significance volunteered by participants were used to identify common themes (Creswell & Poth, 2018; Moustakas, 1994). Frequently used words or phrases can result in the identification of what is commonly referred to as a theme (van Manen, 1990). I made every effort not to limit myself to any provisional codes to help cluster the data into themes.

**Textural Description**

Textural descriptions of the lived experiences of medical students who have undergone academic remediation in medical school focused on describing their experience of the phenomenon as richly as possible. Textural descriptions decidedly describe the *what* of the phenomenon at hand. Once these individual experiences had been examined, a composite description grouped individual sentiments into one comprehensive description of the phenomenon experienced by all participants (Moustakas, 1994).

**Structural Description**

Structural descriptions focus on the *how* of the phenomenon being explored, as well as the pertinent background information that may have framed the participants’ arrival at the current phenomenon (Moustakas, 1994). Details about the participants’ previous experience with academic failure or remediation efforts were explored and included as relevant.
Textural-Structural Synthesis

Finally, textural-structural synthesis provided the framework on which a rich understanding of the phenomenon of academic remediation was built (Moustakas, 1994). The goal of textural-structural synthesis as the final step in phenomenological reduction was to produce a clarified experience of the phenomenon of academic remediation within an osteopathic medical school setting.

Trustworthiness

An intentionally detailed approach was taken during the entirety of the study to ensure that trustworthiness was maximized. Creswell and Poth (2018) outlined the validation strategies that were used in this study, including triangulation, member checking, and enumeration.

Credibility

Credibility of this research rested, in large part, on the participation of my co-researchers as they member checked their interview transcriptions (Creswell & Poth, 2018; Moustakas, 1994), as well as on the triangulation of data. Obtaining all but one of the participants’ approval that their interview transcript was transcribed accurately and correctly conveyed the sentiments they meant to share afforded this study increased credibility.

Dependability and Confirmability

As much information as possible was provided about the context and setting of this study. This requirement was balanced with the specific and reasonable request for confidentiality by the COM which functioned as the host site. An audit trail was developed by including reflective memos, transcripts, and data analysis tables.
Transferability

Transferability of this study is somewhat limited, given that full details about the site and participants cannot be shared. However, the participants’ sentiments about academic failure, as well as their expectations for themselves and their institution in the remediation process, are theoretically transferable.

Triangulation

Triangulation as a form of trustworthiness was accomplished by obtaining a minimum of three different sources of data from participants during the study (Creswell & Poth, 2018; Lincoln & Guba, 1985). Data from the spoken Zoom interviews, written journal prompts, and written projective technique exercises allowed me to conduct triangulation and increased the trustworthiness of this study’s findings.

Member Checking

Member checking allowed participants the chance to review a transcript of their interview dialogue in order to check it for accuracy of intended sentiment (Creswell & Poth, 2018; Moustakas, 1994). The transcription copies the participants received for review provided the chance for each participant to become a co-researcher and contribute thoughts and feedback (Moustakas, 1994).

Ethical Considerations

One of the main underlying motivations for conducting this transcendental phenomenological study was to give medical students a platform to describe their experience with the academic remediation process in their medical school. Participants were further invited to participate as co-researchers in the study as they completed member checking (Creswell & Poth, 2018). The benefits of this study far outweighed any risk for participants, and there were
no known risks posed to participants who agreed to be a part of the study. Ethical considerations were addressed through informed consent, confidentiality measures, data security, and compensation for participation in the study. Following the conclusion of the study, no participants reported experiencing any negative side effects resulting from their participation in this research.

**Informed Consent**

All active first- and second-year medical students enrolled at the COM which hosted this study were contacted by me via email with a description of the study and link to the informed consent Qualtrics survey. This way, participants were able to choose whether or not to be involved in the study without pressure. This method also prevented the need to review a complete list of students’ names who had failed, protecting as much student privacy as possible. After reviewing the inclusion criteria, students either realized they were not qualified to participate or learned they were qualified and chose whether or not they wanted to participate.

**Confidentiality**

To maintain a reasonable amount of confidentiality for both the COM and the participants, participant pseudonyms were utilized. No identifying information included in the study is detailed enough to potentially link participants to their pseudonyms, the school, or the study.

**Data Security**

All forms of data collected during this study continue to be stored in an encrypted folder on a biometric password-protected computer to which only I have access. All files related to this study will be permanently deleted 5 years after publication.
Compensation

The time of a medical student is precious, therefore participants who were willing to sacrifice some of that time to participate in this study were celebrated and thanked. As a small expression of monetary gratitude, each participant who completed all four of the required tasks received a thank you email and a $10 gift card to Amazon.

Summary

The need to better understand the lived experiences of medical students who undergo academic remediation is crucial to this pivotal period of renewed focus on medical education revision. This study adds to the growing body of knowledge about remediation by focusing on a population of students not yet specifically examined in this way. Very few studies have been conducted on the lived experiences of medical students who have undergone academic remediation (Patel et al., 2015; Winter et al., 2017); of those that have been conducted, none have focused explicitly on osteopathic medical students. This study has the potential to reduce the projected physician shortage of 2033, reduce the financial burden on both student and taxpayer that results from course failure in medical education, and help to appropriately shape medical education policies that better serve the needs of the modern U.S. student doctor. Chapter Four will focus on the data analysis process and overall findings of the study. Chapter Five will explore my interpretation of the findings based on relevant literature, including implications of the study and recommendations for future research.
CHAPTER FOUR: FINDINGS

Overview

The purpose of this study was to understand the lived experience of academic remediation for medical students at an osteopathic medical school in the United States; this chapter presents the key findings of the study. A qualitative transcendental phenomenological design was chosen based on its appropriateness for collecting the lived feelings and experiences of students who have undergone the process of academic remediation (Moustakas, 1994). This chapter begins with a profile of each of the 10 medical student participants, then moves into a discussion on the collection of data from each method utilized: journal prompts, projective techniques, and one-on-one, semi-structured interviews. The chapter then contains a discussion on how the data were coded, how those codes led to themes, and how those themes addressed the central and supporting research questions. Finally, the chapter closes with a summary.

Participants

The participants in this study were second-, third-, or fourth-year osteopathic medical students who self-identified as having remediated one or more courses during the two didactic years of their medical curricula at a West Coast osteopathic medical school. Participants were a mix of male (5) and female (5) students in their second (4), third (5), or fourth (1) year of medical school at the time of their interview. The participants ranged from 24–28 years of age, seven of the 10 participants spoke English as a first language, and all were unmarried and without dependents. Each participant self-identified as either Caucasian (3), Asian (6), or Caucasian Asian (1).

The data used to construct a brief profile for each participant came from multiple sources. Quotes from their Zoom interview, demographic data and essay responses from the Qualtrics...
survey, and the life graph sketch they completed at the start of the interview all worked together
to allow me to triangulate my understanding of each individual participant. The following is a
brief profile of each participant with pseudonyms to protect their identities.

Pam

Pam was a 28-year-old unmarried Caucasian female with no dependents whose first
language was English. She was reflective and honest in her descriptions, explaining herself as a
“bibliophile” and “pretty curious” saying “I love Disney, and music. I think I am, like, somebody
who takes the caretaker role a lot. I helped raise my three little siblings.” In an academic setting
she said she wants to be “like a Hermione person” because she enjoys learning and knowing
everything she possibly can. She shared she has a hard time asking for help, both in and out of an
academic setting, and listed her strengths as “listening, empathy, curiosity, and academic
prowess.”

In response to Journal Prompt #1, which asked what inspired her to go into medicine, she
wrote about a family friend with lung cancer who often joined her household for dinner when
Pam was in high school and would share with them about the callousness of her oncologist. Pam
said of it,

While I was listening to her talk about her relationship with her oncologist, I was upset to
hear that someone suffering from one of the most dreaded diseases we face had her
distress compounded by someone who sounded like quite an uncaring provider. In my
mind, because of the responsibility doctors are entrusted with, they have a special duty to
look after the emotional well-being of their patients by embodying the proper personality
for caretaking, and this made me realize that medicine is a field where the characteristics
I sought to use and improve in myself would benefit from a personality like mine.
In Journal Prompt #2, which asked how she was paying for medical school, she wrote,

I'm just taking out the maximum loans. I used up all my savings in paying for the application process and holding fees, so the only money I have to my name is what the government grants me for cost of living until such a time as I've graduated and matched to a program where I can start earning a resident's salary (at which time my money will still technically belong to the loan companies, since it's not mine if I owe it back to someone else). I've tried applying to some scholarships here or there, but it's actually quite hard to find scholarships for which non-undergraduate students are eligible.

In Pam’s life graph, notable low points included her sister’s death and a diagnosis of rheumatoid arthritis. Her high point was acceptance to medical school (see Figure 8).

Figure 8. Pam’s life graph.

Jamie

Jamie was a 26-year-old unmarried Asian male with no dependents whose first language was English. He was bubbly and extroverted in his stories and explanations but described himself as “one of the quieter ones in my class, for sure.” Outside of an academic setting he said
he is “pretty relaxed, optimistic” and that “I try to take it easy as much as I can.” He shared that he enjoys video games in his spare time, “a lot of video games, actually.”

In response to Journal Prompt #1, which asked what inspired him to go into medicine, he cited a physician he shadowed during his gap year:

One of the things I really liked was how he paid attention to the patient's financial and social situations and making sure to truly give comprehensive care to the patient. His emphasis on comprehensive and preventative care inspired me to apply to osteopathic medical schools.

In Journal Prompt #2, which asked how he was paying for medical school, he wrote,

I am paying for medical school through a special deal with my parents. The deal is that, they will pay for my expenses throughout my four years of schooling and that when I start making a true salary (as a resident and beyond), I will pay them back in full. When I can start making an attending's salary, my first priority will be to pay my parents back as soon as possible rather than to go out and buy nice things so I can show them that I truly appreciate what they have done for me and the sacrifices they’ve made to make my time in school less worrisome.

In Jamie’s life graph notable low points included his first ever failed exam in undergraduate organic chemistry, the medical school application process, and the course he failed in medical school that caused him to need remediation. His high points were high school and college graduation, and being accepted into medical school (see Figure 9).
Michael

Michael was a 27-year-old unmarried Asian male with no dependents whose first language was Vietnamese. He was quick and direct with his responses, presenting as confident and self-assured. He described himself generally as being more introverted than extroverted but added that he “can be quite sociable if I choose to. But initiating and conversation has always been a difficult part from my experience.” Outside of medical school he described himself as being family oriented, saying “I'm pretty close to all my sisters and brothers. I'm the youngest of six. My parents came here in ‘91. Yeah, I talk to them almost every other day usually.” When asked how he acts in an academic setting, he said, “Study wise, as a medical student, I don't consider myself a particularly good medical student. I've always kind of been a little bit below average, which now I can accept.”

In response to Journal Prompt #1, which asked what inspired him to go into medicine, he wrote, “The physicians and health care providers that assisted my mom after she had a stroke in 2014.” During our interview he went on to share that he
had an interest in bio engineering too. And back when I was an undergraduate, I was accepted as a straight bio instead of an engineering major. So, I just kind of like, walked that path. Life kind of pushed me into a path, and I tried to experience it.

In Journal Prompt #2, which asked how he was paying for medical school, he answered simply, “Student loans.” In Michael’s life graph he chose not to label the events he graphed other than the negative experience of medical school and remediation (see Figure 10).

Figure 10. Michael’s life graph.

**Jessica**

Jessica was a 29-year-old unmarried Caucasian female with no dependents whose first language was English. She injected passionate emotion into all of her stories and responses, whether positive or negative. She described herself as being an “extroverted introvert” and “just a happy person” outside of an academic setting. On the topic of how she is different in an academic setting she said, “If I could use one word, I just, it's like, struggle bus. I guess it's two words.” She went on to explain that she struggled in elementary school, “like Bs and Cs” before advancing to “maybe above average” in high school. She admitted to a lack of study strategies and a low level of effort as an undergraduate, leading her to take the MCAT exam four times.
In response to Journal Prompt #1 which asked what inspired her to go into medicine, she wrote,

My primary care physician when I was a teenager Dr. K who I shadowed since I was 15 years old. She was such a wonderful woman who treated her patients with such kindness and professionalism. Already having the call to go to medical school, it just solidified the career path I wanted to take.

In Journal Prompt #2, which asked how she was paying for medical school, she answered simply, “Financial Aid.” In Jessica’s life graph, notable low points included an upbringing filled with domestic violence and abuse, homelessness after graduating college and being unable to find work, conditional acceptance to medical school, and her remediation experience. Her high points included moving out of her childhood home to attend college, meeting her boyfriend, and being fully accepted to medical school (see Figure 11).

Figure 11. Jessica’s life graph.

Amanda

Amanda was a 24-year-old unmarried Asian female with no dependents whose first language was English. She spoke introspectively and openly about the growth that came from adverse circumstances in her life which led her to need remediation. She described herself as
being “more extroverted than introverted” and explained that she “wouldn't put energy into something that I wasn't passionate about, because I'm very careful. I'm very particular about like, my time and energy for sure.” She shared, “Part of the battle for me with remediation was like my mind, body and spirit completely were like affecting each other. I had a lot going on, personally, that affected my health, and then my studies.”

In response to Journal Prompt #1 which asked what inspired her to go into medicine, she wrote,

Dr. R is an internal medicine and pediatrics physician with whom I spent three summers. I became a part of her private practice clinic very quickly, and it was an environment in which I felt at home. Seeing her interact with her patients so compassionately and closely instilled a drive in me to be as competent and kind of a doctor as she is.

In Journal Prompt #2, which asked how she was paying for medical school, she answered,

Presently, I have taken out student loans for the very first time in order to pay for medical school. It has definitely been a new obstacle budgeting to provide for myself, and the present pandemic has posed its own challenges on all of our lives. I live alone in a one-bedroom apartment, which may not be the most practical choice in terms of finances, but it is the most practical choice when it comes to my school lifestyle. I tend to study at home and prefer to keep my space in a way that is congruent with this habit.

Amanda’s life graph low points included her mother’s cancer diagnosis, college relationships, a friend passing away, a very toxic relationship, a breakup, and remediation. Her high points included a happy childhood, her first dance solo, her mother being deemed cancer free, graduating high school and college, being accepted to multiple medical schools and choosing the school she attended, passing her remediation, and her present life (see Figure 12).
Scott

Scott was a 24-year-old unmarried Asian male with no dependents whose first language was Telugu. He spoke in a calm, conversational tone, answering questions logically and unceremoniously. His interview was the shortest of all 10 participants. He described himself as being “fairly relaxed” and said he’s “trying to do my own thing, not trying to stress out about things I don't need to worry about at the time.” He said the biggest difference he sees in himself when in an academic setting vs. not is that he tries to be more serious in an academic setting.

In response to Journal Prompt #1, which asked what inspired him to go into medicine, he wrote, “My great grandfather was someone who raised me with my grandparents up until I was 3. He died in front of me in a village in rural India with no access to healthcare due to pneumonia.” In Journal Prompt #2, which asked how he was paying for medical school, he answered, “A combination of loans with some parental assistance. I am also making money in the stock market.” Scott’s life graph was largely unlabeled, but included high points of attending UCLA away from home, graduating college, and getting into medical school. His low point was tearing his ACL (see Figure 13).
Zayda

Zayda was a 26-year-old unmarried Asian female with no dependents whose first language was Tagalog. She unapologetically shared her opinions, both positive and negative, without reservation. When asked to describe herself she said, “The way I look on paper is very different from what I look like, or how I act and conduct myself, in person” and explained that she did not know she wanted to pursue medicine until years after she graduated college. She said, “I was kind of out of the academic groove for a while and like, forgot how to sit and study and forgot how to like go to lecture and go through PowerPoints and that kind of stuff.”

In response to Journal Prompt #1 which asked what inspired her to go into medicine, she wrote about an experience she had while working for the injury prevention program at a children’s hospital. She wrote, “I've always loved working with kids, but Ana stood out to me in particular. She suffered a traumatic brain injury after a car struck her while texting in the crosswalk. Her devastating prognosis motivated me.” In Journal Prompt #2, which asked how she was paying for medical school, she answered,

I am the first in my very large tight-knit family of 25 to graduate from college and the first to pursue a career in medicine. As a first-generation medical student who grew up in
a low socioeconomic community with a family living paycheck-to-paycheck, I didn't think that medical school would be possible for me. I would love to be able to apply for scholarships to help reduce my loan amounts, but unfortunately, a majority of these opportunities have minimum GPA requirements, require "good academic standing," and are merit-based.

Zayda’s life graph included high points of being high school valedictorian, being accepted to her dream college, getting into medical school, and passing Step and Level 1. Her low points were when her 7-year-old brother passed away, remediating, her grandmother’s breast cancer diagnosis, and all things COVID-19 (see Figure 14).

![Figure 14. Zayda’s life graph.](image)

**Alisha**

Alisha was a 26-year-old unmarried Asian-Caucasian female with no dependents whose first language was English. She spoke matter-of-factly about her experiences, offering eloquent insight into how she sees things. When asked to describe herself both in and out of an academic setting, she succinctly stated, “Outside of an academic setting I am comfortable with myself. I'm confident. I'm goofy. I'm considerate, and I'm caring. Inside an academic setting I'm lost. I'm
disappointed. I'm jaded.” Alisha was unique in that she reported needing to remediate because she did not even attempt to study for her first written examination in medical school. She shared,

So I woke up the day of the test, looked at the slides for the first time, and I was like

“well dang. This is going to be a whirlwind.” So I show up to the test and I get the lowest score in the class. I get a 30%--the lowest I've ever done on anything.

In response to Journal Prompt #1, which asked what inspired her to go into medicine, she wrote, “When I worked as a CNA, one patient in particular (who was hard to please) would regularly tell me I would be such a great physician. He definitely inspired me to go into medicine!” In Journal Prompt #2, which asked how she was paying for medical school, she answered simply, “LOANS.” Alisha chose to leave her graph unlabeled apart from the positive experience of remediation (see Figure 15).

![Figure 15. Alisha’s life graph.](image)

**Oscar**

Oscar was a 26-year-old unmarried Asian male with no dependents whose first language was English. He spoke with wisdom beyond his years, having overcome the world to arrive in a mental place of unshakable confidence after conquering suicidal ideations in his first year of
medical school. When asked to describe himself both in and out of an academic setting, he shared,

In an academic setting I'm very focused and very serious. I get along with everyone well, but when I'm in study mode, I'm just in study mode. I don't want to talk about anything unrelated to studies if that's what I'm doing. So I'm very focused solely on that. And what surprises people is, since everyone sees me in the academic setting, they think I'm just very serious, very quiet, because that's how I am in the academic setting. Everyone thinks I'm just a bookworm. But my hobbies, I'm a total adrenaline junkie. I love going to punk rock and heavy metal concerts. I would always go into the mosh pit when concerts were still a thing. I really enjoy martial arts. And I know not everyone agrees with this other hobby nowadays, but I really like going target shooting too. So I like a lot of action in my personal recreational hobbies. And I just like silence and quiet and everything being super organized for academics. So it's kind of like that balance of opposites between my personal professional [sic] life.

In response to Journal Prompt #1, which asked what inspired him to go into medicine, he wrote,

My parents inspired me to go into medicine. I know that this may sound cliché since they are both physicians, but it is the truth. Seeing my parents' abilities to help others in emergencies and seeing their patients' gratitude showed me that medicine is what I want to pursue as a career. We can be at a restaurant or in the mall, and someone will come up to my mom/dad and say, "You are the doctor that saved my life/ gave me an epidural when I had my first child/etc." I want to be able to make a positive impact in others' lives as they have done.
In Journal Prompt #2, which asked how he was paying for medical school, he answered simply, “My parents are fully covering my tuition and housing.” Oscar’s life graph included low points of moving to a new school and developing behavioral problems at age 9, struggling academically in high school, and failing two classes that needed remediation in medical school. His high points were success and friends in his new school at age 12, moving away from home to attend college, being accepted to medical school, passing his remediation exams, and winning positive feedback awards from his medical school (see Figure 16).

**Figure 16.** Oscar’s life graph.

**Cliff**

Cliff was a 26-year-old unmarried Caucasian male with no dependents whose first language was English. He articulately cited his displeasure with the school, staff, faculty, and his remediation experience. When asked to describe himself both in and out of an academic setting he said,

In an academic setting . . . I am highly motivated—when the topic is something I'm actually interested in learning. And I am not quite as motivated when the topic is something I'm forced to learn merely to get my degree. When it's not interesting to me, I
just do the bare minimum to get by. Outside of academics, I'm fun. I'm goofy. I always want to have a good time. I'm very caring. I'm open to new experiences. And I'm very laid back.

In response to Journal Prompt #1, which asked what inspired him to go into medicine, he wrote “Benjamin Franklin.” In Journal Prompt #2, which asked how he was paying for medical school, he answered simply, “Loans.” Cliff’s life graph high points were middle school, his first relationship, acceptance to medical school, and meeting his friend group. Negative experiences listed included high school, college, medical school and remediation (see Figure 17).

Figure 17. Cliff’s life graph.

Results

This section outlines the data collection process from each of the collection methods, the development of subsequent codes, and how the codes led to themes. How those themes addressed the central research question and each of the three sub-questions will then be discussed. Participant quotations and examples are included in order to more deeply explore the lived experiences of the participants and their experiences with academic remediation in medical school.
Data Collection

The data for this study were collected using four different collection methods: two written journal prompts of 200 words or more (see Appendix F), three projective technique exercises, including a thought bubble fill-in (see Appendix G for the prompt and Appendices H for participant responses), personification of the word remediation (see Appendix I for the prompt and Appendix J for participant responses), and a life graph with top positive and negative life events as dictated by each participant (see Appendix L for the prompt and Figures 8–17 for participant responses). Finally, semi-structured, one-on-one interviews were conducted, composed of 16 open-ended interview questions (see Appendix M for questions and Appendix O for an example interview transcript).

Each question was asked word for word in each interview; however, I did add clarifying questions as needed to fully understand the nuances of the experiences being shared. Each interview was conducted and recorded over Zoom, the video conferencing platform, both because of COVID-19 precautions as well as because some participants were away on clinical rotations. I began each interview by reading the participants a prewritten paragraph about my background and how I got into remediation research, then asked what the latest time was the participant could continue the interview until, in case they got talking and lost track of time and needed me to stop them so they were not late for the next event on their calendar.

After that, I screenshared a word document containing the images and instructions needed for each participant to complete the projective technique exercises (see Appendices G, I, and L). The first two exercises, the thought bubble fill-in and personification of the word remediation, utilized typed responses in the Zoom chat. For the final exercise, the life graph, participants drew the basic graph shape as illustrated in Appendix L and filled it in before taking
a picture of it with their phone and emailing it to me after the interview concluded. I ended each interview by letting the participants know I would be emailing them our interview transcript within the next two months for member checking, and that once they replied verifying its accuracy, I would send them their Amazon gift card. Nine out of 10 participants completed member checking after a reminder email. Cliff did not respond to my post-interview emails or complete member checking.

After each interview was finished, I imported the generated Zoom audio file into Otter.ai, which created around a 90% accurate transcription of the interview. Then, I listened back through each interview and made edits to the text where needed to bring the transcript up to 100% accuracy. Next I imported each transcript file into NVivo12, along with each of the other pieces of data for that participant (thought bubble fill-in text, remediation personification text, life graph image, and journal prompt responses from the initial recruitment survey) for coding and theming.

**Coding and Code Development**

After importing each piece of data into NVivo12 I began the process of familiarizing myself with the data through total immersion. I read and reread each participant’s experiences, bracketing out my thoughts and feelings into a journal specifically for that purpose. Yee (2019) stated that the central task of phenomenological research “is to obtain a clear and undistorted description of the ways things appear in our intentional consciousness” (p. 1).

Instead of starting this study with codes already in mind, I reviewed the data collected numerous times, comparing each participant’s answer to each question in batches. This allowed me to immerse myself in the common themes expressed in response to each interview question. The codes and themes were revised over time until I felt they accurately represented the
phenomenon being expressed by the participants. Ways I reviewed the data included using NVivo12 auto-coding to sort all 10 participant transcripts based on 1) sentiment, 2) theme, 3) header style. This last method of coding allowed me to easily view each participant’s answer to each interview question sequentially, allowing for a deeper and more immersive review experience. Following these auto-code methods I then went back through each transcript by hand, using the line-by-line approach suggested by van Manen (2014), and selected notable facts and phrases in accordance with their codes. In this way, the following codes were chosen: preparation methods, communications between school and student, support system, blames school, marred academic record, takes personal responsibility, shift in identity, positive feelings, negative feelings.

**Themes**

After reviewing the full transcript from each interview and creating a participant summary for each student, I went back through the transcript specifically to eliminate fluff. I isolated the core quotations from each participant pertaining to each question and created tables in Microsoft Word and Excel to track the emerging themes. The three themes that became immediately apparent were (a) Process of Remediation, (b) Personal vs. External Responsibility, and (c) Interviewee Journey. Deciding on three subthemes per major theme assisted me in organizing the data meaningfully. When thinking about the literal process of remediation, the preparation methods the student used, the communications between the school and student that each participant received or talked about, and the support system that gave them insights or helped them complete the required steps in the logistical process were each heavily referenced in the interview responses.
When evaluating subthemes for personal vs. external responsibility, whether each participant blamed the school for their failure or took personal responsibility for their lack of success fit together logically with how they spoke about the remediation experience marring their academic record permanently. Finally, interviewee journey captured the broad spectrum of emotions the participants shared, both in their interview question responses, but also in the answers they gave to the projective technique exercises. There were shifts in identity mentioned, as well as distinct positive feelings and negative feelings about various events and points in the remediation process that were important but did not fit elsewhere. Triangulation of all the different sources of data ultimately provided a thick contextual understanding of the remediation experience as a whole.

**Process of remediation.** The first theme to emerge was that of the actual process involved in remediating. This theme consisted of three subthemes: “preparation methods,” “communications between school and student,” and “support system.” These three subthemes described the ways in which students prepared for their examinations; how they received and responded to communications from the school; and the people, places, or things that supported them through the experience.

**Preparation methods.** Participants used a variety of methods when preparing for their remediation exams, but some were more popular among the students than others. The critical role of software programs, like Anki, Boards and Beyond, UWorld, PowerPoint, and 3D anatomy phone apps, came up in eight out of the 10 interviews. As Jessica noted, “So I switched to Anki, which I was not using before, and tried to like just smash through. I'm like, okay, I'm just gonna study everything.” Amanda paired her board exam study and remediation exam studying saying,
I would say boards and beyond and their quizzes, like their practice questions, were some of the main ways that I studied. And then from there, it would just be like practicing, like going over things again, making sure I have things memorized.

Oscar showed resourcefulness and creativity when he shared about his use of PowerPoint saying,

So the first thing I did was I made sure to read through all the slides and PowerPoints that the professors gave. And sometimes in those PowerPoints, they have slides with practice questions in them. So what I did was I took all those individual slides for the practice questions, and made a separate PowerPoint file with all the practice questions. And then after going through my first read, I filled out and I answered all the questions and then next to it I put why the correct answer is right, and why all the other ones are wrong. For each of those questions. And I also did like a separate slide deck where I pulled all the histology images. So I did a lot more question answering than before.

Zayda also had a similar study strategy using course PowerPoints saying, “I literally just went over all of the PowerPoints again. I make a study guide for myself for every exam. And so I went over that, and kind of annotated it with some more details.” Finally, Alisha summed up the general sentiment among participants about these software study aids succinctly when she said, “Yeah Anki pretty much saved me.”

One participant did have an unexpected experience. Jamie shared that he normally uses Anki but found it unhelpful due to the short timeframe he had to study before his remediation exam occurred. He said, “Normally I'm a flashcard person, but because I had two weeks, the interval system didn't make sense. Normally I use Anki, I still use it second year.” Instead, he
said he studied by “reading a lot and kind of going through the slides and quizzing myself as I go through and making multiple passes on this throughout the allotted study period.”

Elsewhere in the data, some of the same participants indicated that, although they had these strategic software options available to them, they still did not have a strong approach to studying directly for their remediation exam. Alisha spoke to this when she was asked how she studied, saying,

So like I said, I didn't. I don't know how I studied for it. I didn't study prior to meeting with the professors. I mostly just looked at slides, like I did in undergrad, looked at slides and memorized it and went into the test and hoped for the best.

Similarly, Michael said, “So the remediation exam was in the middle of my board studying, so I decided to do the GI session first for my boards. So pretty much just two weeks of GI.”

Michael’s studying for a GI remediation exam came in the middle of preparing for his Comprehensive Osteopathic Medical Licensure Exam, adding a layer of complexity to his time management.

Although expressed in a variety of ways and to differing degrees, the underlying sentiment from all 10 participants can be reduced to a noticeable lack of concern about the remediation exam itself. This was expressed by Jessica when I asked her if she felt the remediation exam was a useful tool in retesting her knowledge or if the questions were ones she was able to remember from the original exam she failed. She said,

From what I could remember, there were some. So it seemed like it was like the final and the midterm like smashed together with maybe some, like extra questions that, like, weren't put in there or something like that. It didn't seem like it was too new.
Alisha shared that one of the main reasons she put off studying until just before her exam was set to take place was because she knew she could review the original exam she failed and that she was likely to see those questions again. She said, “I really appreciated that I got to review the test. I really appreciated that.”

When triangulating data by reviewing written responses to the projective technique exercises participants completed at the start of their semi-structured interviews, corroboration of the above findings became evident. Participants filled in the student doctor thought bubble exercise by writing things like “I've already studied so much for the upcoming re-test, but I don't know how to measure my understanding of the concepts to ensure I pass this time” (Pam), “Remediation will cut into my dedicated study period for boards” (Zayda), and “I sure wish I knew what mistakes I made the first time” (Cliff).

*Communications between school and student.* Participants had both positive and negative things to say about the communications they received from school administrators and faculty while journeying through the academic remediation pipeline. Jessica recalled first learning she would need to remediate:

> Oh, man. Uh. So I got the email, in the car with one of my friends from class, we were talking about how horrible the class was. And I was just like, Oh, fuck, like, it just, it was like, the most horrible feeling.

Conversely, Jamie learned he failed when he checked his final course grade online. Of the school’s delayed email notification informing him he would need to remediate he said, “Yeah, so I had been expecting it for quite a while. But I was still defeated, looking at that email, that I had to meet with the disciplinary committee.” Jamie went on to share,
After the disciplinary committee meeting, generally they’ll be like, “okay, thank you.” And then they'll email you with a follow up on what they want you to do. Usually, it's a remediation, I don't know. Like, because they always say like, "oh, depending on like, what we think, you might not remediate." But I've never heard of anybody repeating the year or anything like that for one course? Yeah, I don't think that happens. I'm pretty sure they let everybody remediate. Unless, like, I don't know, you're exceptionally a jerk or something during the meeting.

Jamie’s statements describe a noticeable delay between the time he knew he needed to remediate, the email inviting him in for his disciplinary hearing, attending the hearing, and then receiving the email result of the committee’s deliberation after the hearing about whether he would be permitted to remediate, be held back to repeat the academic year, or be dismissed. This type of experience was echoed by Jessica who explained,

Oh also, they forgot about me. My friend texted me like "Oh, my gosh, are you so scared for June 8??" It was like, right, like, a couple weeks after our semester ended. And I'm like, what are you talking about? She said, you didn't get the email? I'm like, no. So I literally had to email the school and be like, "Hi, um, I need to take things." They're like, “Oh, here. Yeah, here you go.” So they didn't tell me, so then I wasn't even really studying. So I had two weeks to go over both cardio and pulmonary.

Several students voiced the underlying sentiment more directly, such as when Pam said, “I was more hopeful about the role that the school would play in helping us gain confidence.” This feeling of lacking support from the school was noted by Zayda as well:

And I've spoken to the school about this and they were like, “Well, exam reviews don't benefit the majority, so it's a waste of resources. Because the majority don't come to the
exam reviews. So it's a waste of time and a waste of resources,” which I heavily disagree with. Because I'm like, if it benefits ONE student, that should be in the school's interest as well.

But Cliff spoke most passionately of all, saying, “I had that meeting where you go and you sit with all the professors, who are like all wearing suits, and they all yell at you,” indicating a lack of emotional support during a crucial moment in his medical education. He went on to share, “Our school actively discourages people from seeking help. When students do ask for help, the school has nothing useful to tell them. The school does not respond to the issues which I'm talking about.”

When reviewing the projective technique exercise personifying the word remediation, it was interesting to note the way participants thought about remediation. Given that the process is an extension of the way they experience the school, their responses can be viewed as representations of the way they feel about the school. They wrote things like, “A disappointed father/teacher” (Michael), “This very stuck up, snobby person who lives to enforce and follow the rules” (Jessica), “They probably drink black coffee only because other ‘successful’ people drink black coffee, when in reality they would much prefer a sweet and creamy latte instead” (Zayda), and “Fat middle aged man, smoker, hanging out at a deep southern 7/11 parking lot wearing a stained and torn tank top” (Cliff).

**Support systems.** It was common for participants to direct their displeasure with certain elements of the academic remediation process at “the school” as an entity, but to award high praise to individuals within “the school.” In some cases, participants felt they received valuable support from the instructors with whom they worked. Pam spoke about this, saying, “I was doing research with Dr. D during the summer that I was remediating. And I, like, didn't mention it to
her, but even though she didn't know what was going on, she was clearly invested in our learning.” She went on to say,

Dr. F, who obviously ran the course, and was in charge of the remediation, did a couple of Q&A sessions with us to test our knowledge. And that was one of the most helpful things for having some confidence that my new learning techniques were actually functioning properly.

While considering her support system during remediation, Jessica also cited a professor she was engaged in research with at the time saying,

And so I just went to her office and I was just like, I just bawled. I was like, I don't know what to do I'm so scared, and terrified. She was just like, ‘Don't worry, you always have a spot in my lab.’ She just gave me like really good advice. She's just, she was amazing.

Following her positive remarks Jessica made it a point to express that, other than that research faculty interaction, “The faculty weren't very helpful. I mean, they were they were okay. They weren't great.” In all, the 10 participants reported a total of eight positive faculty interactions which they described as being notable parts of their support system during the remediation process. Six additional supportive experiences described by the 10 participants were attributed to staff members from the school counseling department and learning center.

Most of the participants utilized support systems composed mainly of individuals not working for the school, such as the cases in which students leaned on one another for support. This reliance on peer support often occurred when students were trying to cope with the idea of having to undergo remediation. Jessica spoke about this saying,
So like a few of my classmates knew and stuff. I actually ran into one of my friends who did remediate and like, we were just bawling. And a couple classmates were like, “Hey, I'll send you my notes. Like, let me help you.” So that was great.

For Michael, it was important to draw upon close peers to find support as well. He confided, “I did talk to classmates about it. You know, they're sympathetic, they're understanding. And, you know, they—I don't think their opinion of me really changed that much after that. So that was very nice.” Jamie described one particular friend who was there for him when she learned he needed to remediate:

She was really supportive in that she always told me if you need anything, let me know. And additionally also offered to help me with learning the material if I had difficulty with anything the second time around. So she was really helpful.

Scott answered this question plainly, “Mainly just my roommates. Like, if I had any questions, I would just—or like any stuff that I was a little unsure on I just asked them and they tried to help out.”

Other individuals mentioned by participants when they described their support system during the remediation process included Jessica’s boyfriend and mother, Jamie’s mom and sister, and Amanda’s family. But according to some participants, asking for help or support from those around them felt difficult or unnecessary. Jamie mentioned this, saying, “Honestly, I didn't talk too much about it outside the university. I'm the kind of person who doesn't really ask too many questions from staff unless I feel it's pretty important.” Pam echoed this saying, “I do have a hard time asking for help in the school setting.” Amanda said, “I've always had trouble asking for help. I mean, I'm sure you've had tons of medical students from all over tell you that. Like, we're not used to asking for help, or needing to ask for help.” Alisha admitted, “I kept really tight
lipped about it, for pride reasons I guess,” while Cliff had a darker perspective. He explained that his lack of healthy help seeking behavior was not intrinsic but a learned behavior that he picked up during his time at the school. He said, “And it's like, meanwhile, I explicitly do not ask for help at my medical school because I know that I'll be humiliated at the end of it.”

**Personal vs. external responsibilities.** The second major theme that stood out was that of personal vs. external responsibility. This theme consisted of three major subthemes that included “blames school,” “marred academic record,” and “taking personal responsibility.” These subthemes explored the relationship between personal and external responsibility for each participant’s experience. Many students partly blamed the school for their academic shortcomings and felt resentful about the impact to their academic record as they struggled to take responsibility for their performance.

**Blames school.** Some participants seemed to feel as if schools should carry significant responsibility for the poor academic outcomes of their students. In some cases, they felt as if they had not received the appropriate support services. Cliff seemed to feel lost as a part of the program, saying,

> The thing with my experience with med school is I kind of did this all on my own, and I didn't really have any idea what I should be doing. And I kind of had to figure it out. And none of the stuff my professors told me to do was helpful. None of it was accurate. So I pretty much had to learn how to study in med school by just reading comments on the Internet from random people.

Cliff spoke to the lack of appropriate support received from the school. However, a perceived lack of support was not the only problem. Michael suggested the very structure of the program did not lend itself to the success of students:
So, even before the sickness, the sickness was an issue for sure. But even before that, it was just medical school is just so draining. And even when I started the first semester, in our pulmonary course, before my GI remediation class, I was already pretty burnt out. Pam shared, “I was more hopeful about the role that the school would play in helping us gain confidence.” Still others shared that the faculty course director of the class they failed was at least partly to blame. Jessica said, “And Dr. K even in my meeting was like, ‘You were doing so well, what happened?’ I'm like, ‘Dr. I happened.’” For these students, a perceived lack of support, a draining program structure, and difficulty with teaching faculty combined to make success elusive.

Marred academic record. Among the primary problems that remediation posed was that it led to a marred academic record. Participants expressed varying levels of concern about the impact their remediation experience would have on their transcripts and future NRMP match prospects. As Pam noted, remediation “goes on your transcript, and then you have to, like, retake the course. And it doesn't look good.”

Even after having been through the entire remediation process, some students remained unclear on what impact their experience would have on their academic record. Michael said, “So I felt comfortable with like, you know what, I have to remediate it sucks, but it's not gonna affect my academic career. I don't know, if it will go on my resume or academic record. I'm kind of unsure on that.

Zayda explained that, prior to starting medical school she “didn't know that 70% was the cutoff” for a passing grade. She thought it was much lower because “in undergrad, like if you get a D or something, like if you get in 60s, that's still technically passing because it's not an F.” When talking about the transcript implications post-remediation, Zayda explained she missed passing
the course she failed by a single point. She said, “I definitely don't like the way it looks on my transcript. And I know that my grades are not, are not fantastic. Um, my GPA definitely took a big hit because of those three remediations.”

Other students had a more nuanced perspective, such as Pam when she explained,

Even though there are the consequences when the Match comes up, I don't want a program picking me that doesn't—because I believe in informed consent, obviously—So I think that they should be choosing me based on who I truly am and like my actual academic record, even with its flaws, as opposed to like looking nice on paper if I don't really deserve it.”

Similarly, Alisha said,

I think for me, because it was the very first class, it's easier to kind of, you know, talk people into believing that I'm not like that anymore. But because it's the first one, I think it's a red flag that's not as important.

**Taking personal responsibility:** When asked what they believe caused them to need to remediate, many participants noted that they lacked required academic skills, such as appropriate study strategies. As Cliff noted, “I didn't know what I was doing. I had never taken an anatomy practical before.” Jamie elaborated on this to a degree, saying, “Well, like I said before, not knowing how to study for physiology. Treating the class like it were a more rote memorization based class, such as with biochemistry, anatomy, immunology.” So, for both Cliff and Jamie, it was clear that there was a lack of awareness regarding what was needed to successfully perform on written exams and practical exams. Only after entering the program did students become aware of just how fast and rigorous medical school would be.
Thinking back on the events leading up to his course failure, Oscar said, “Mental health, study skills, sleep issues, and those are all kind of intertwined.” This hit on the idea that other forms of discipline, like learning to study well and sleeping adequately, were necessary parts of fostering success in medical school. However, there were further issues that plagued the participants. Alisha took responsibility for her failure, citing, “laziness, cockiness, lack of judgment and insight, poor judgment and insight” as contributing factors. She also went on to say, “So yeah, I just hadn't established strong study habits, and being a first-generation student, it's hard to navigate higher education and I didn't really understand everything that goes into it.”

Alisha’s words elaborated on the negative impact of being overly confident and not putting in the appropriate amount of time studying. It was important to change and improve upon old ways of learning to meet the new challenges of each course. Several of the participants realized that they had to come to terms with their own failings. As Pam noted, “I had some time to come to grips with the fact that I would be remediating.”

Ultimately, all 10 participants noted ways in which they were personally responsible for their need to remediate, while eight of the 10 also placed some degree of blame on the school. The reasons why students failed were diverse and their varying processes for coming to terms with their own failings differed as well. What their overall experience ultimately looked like depended on what they believed had been the source of their failure in the first place.

**Interviewee journey.** The final major theme to emerge was that of the journey the interviewees took. This consisted of three subthemes that included “shift in identity,” “positive feelings,” and “negative feelings.” These subthemes described how individuals changed as a result of their remediation, a product of both positive and negative feelings they had regarding their experiences with the program.
Feelings, both positive and negative, were a significant portion of each participant’s experience with academic remediation. Oscar summed it up well when, in response to Interview Question 12 asking for adjectives to describe his experience with remediation, he asked, “Is it okay, if I give it in order of like, before and after?” then thoughtfully added, “So initially, intimidating. And then stress-inducing. Then as I was getting ready to do it, I'll throw enlightening and productive in there as three and four. And then for the fifth one, rewarding.” But not all of the participants had positive feelings at the conclusion of their experience with remediation. In response to the same question Cliff replied dryly, “Terrifying. Isolating. Somewhat pointless. Unnecessary. Is there an adjective for lack of guidance? I can't think of one.”

**Shift in identity.** One subtheme that emerged during review of the transcripts was the fact that almost all (9) of the individuals perceived a shift in their social or academic identity. These shifts varied depending on the person’s assessment of their role within the program and the outcomes of remediation. For some, this shift included a change in study intensity and approaches. As Oscar noted, “I think I'm more focused, and I know what I need to do to succeed. So putting that pressure on really made me strive harder, instead of just being too comfortable and complacent.” Jamie noted that while his study intensity did not change, he did adopt the approach he learned during remediation, saying, “I still use the same study method.”

For others, the shift was more existential. Some participants described how their opinions of themselves and others changed. As Pam said, “Um, I tried to be less judgy, like, towards myself, mostly, but also, obviously, towards others, when it comes to stumbling blocks in medical education, because everybody goes into med school thinking, I'm gonna be the best little student. . .” The idea that the participants became less judgmental toward others struggling in
their programs was echoed in other statements. Participants seemed to consider remediation as a learning experience that showed them how much of a struggle the process of being a medical student could be. Michael affirmed this, saying,

I'm just more empathetic on the medical student and their struggles of medical school, and not just medical students, just students in general, you know, I was a good student, I struggled as a medical student, other people struggle just as a regular student, I can understand that.

Both Pam and Michael also noted an increase in empathy toward others who had experienced struggles.

Not all shifts in identity were toward becoming more empathetic. In at least one case, the shift was toward better appreciating the value of social connections. Cliff spoke to this, saying,

I think I learned how valuable having a social network is. Both for emotional support, as well as to know what your peers are doing and what you should be doing. I think that was a huge lesson to me that I didn't really appreciate until somewhat late.

Not all of the responses were positive regarding the shifts in identity. Some participants cited negative ways in which they saw themselves change as a result of remediating. As Alisha indicated, “I'm way more jaded after that experience. I don't . . . I don't know.” Similarly, Jessica said, “Well, I'm a little more dead inside. It took a little piece of me.” In review of the responses participants provided to the student doctor thought bubble projective technique from the start of the interview, these sentiments were echoed with responses such as, “Omg this is humiliating” (Jessica), “I hope I can pass my remediation exam so I don't fall behind in school and have a hard time matching” (Pam), and “Disappointment, sense of failure, self-loathing, embarrassment, frustration, anger” (Michael). The majority of these shifts were considered positive and spoke to
the importance of empathy and social connections, but some of these shifts were not positive, indicating the potential negative impact of the remediation experience.

**Positive feelings.** Despite the potential negative impact that remediation may have on some students, there were still largely positive feelings from the participants regarding involvement in their medical program. The students often spoke warmly about their time in medical school and its outcomes. Participants noted the potential future they might have as a result of their medical school attendance. Jamie spoke to this, saying,

> Like I'm still pretty excited for that opportunity to become a physician. Our class is generally pretty supportive. People are pretty nice. And additionally also offered to help me with learning the material if I had difficulty with anything the second time around.

Jessica shared, “Every time I have an OSCE [objective structured clinical examination] I'm just like, oh my god, that felt so good. Like, I just am really excited to get to clinical rotations.” The opportunity for future success was mirrored in other statements as well. Michael spoke to this, saying, “Medical School will try to work with you to try to help you to success.” Consequently, there was a general sense that the program was a vessel carrying students toward future clinical success—if they could make it there.

Positive feelings were also mentioned in relation to the development of better habits. Oscar said,

> I'm really grateful that I remediated that one, because it made sure that I did have the solid understanding of that foundation knowledge, which will be built upon in the second year. I think I'm more focused, and I know what I need to do to succeed.

Another reason the students cited positive feelings was the care demonstrated by certain instructors. Zayda spoke to this, saying, “She sat down with me shortly before my exam, when I
went to remediate, and she went over everything that was most important.” Alisha went into
detail describing the support she received. In her eyes, the mental and emotional benefits were
many. Consequently, she framed the benefits similarly to the ways that Oscar did. She noted,

So my faculty advisor that I got, he was fantastic, it was Dr. F. I loved him, he was so
supportive. So my emotional health I think, just you know, I was riding the success of
getting through all my other classes, I can do it. But you know, I'm really grateful for the
opportunity really, to remediate. I really appreciated that I got to review the test.

Participants in the study also tied their positive feelings to the fact that they had a path
forward. Jessica felt that her resilience was beneficial to her during her struggles. The ability to
persist was a valuable quality that she felt proud of. Resilience was also reflected by Amanda,
who said, “So during remediation, I was just reminded of the part of me that knows that I can
work hard and I know can deliver. So it's definitely made me more organized, mentally and like
physically.” There were numerous reasons why individuals described positive feelings during
and after remediating. Participants were particularly happy about the kinds of support that they
received, even if they ultimately felt they should have had more and indicated their hopefulness
for the future. This was echoed in some places in their student doctor thought bubble responses
with quotations such as Oscar’s response: “Doing the remediation before second year was a good
way to brush up on content I felt uncomfortable with in first year, and I think it prepared me for
second year” as well as Jamie’s response:

Remediation is difficult but not the end of the world for one's medical career, sometimes
it takes a while to adapt to medical school or sometimes you have a bad test in a one
exam course. Either way, it won't sink your residency chances and may even be a good
learning experience in the long run.
**Negative feelings.** Despite many positive feelings toward the overall outcomes of the remediation process, there were also an abundance of negative feelings voiced. The students often demonstrated a lack of confidence in themselves. Michael spoke about this, saying, “Study wise as medical student, I don't consider myself a particularly good medical student, I've always kind of been a little bit below average, which now I can accept.” Underperformance in one class left participants feeling as if they were poor students in general. In some cases, this left the participants feeling as if they were not suited to be in medical school. Jessica noted this, saying, Yeah, it was just like reaffirming your most horrible feelings—in front of all your faculty. I actually ran into one of my friends who did remediate and like, we were just bawling. I think it's just part of that like imposter syndrome, where it feels like you're just reaffirming that problem.

Pam said of it, “It's just about the feasibility of if other people are going to want us to become doctors. But everybody has some level of imposter syndrome.”

Considering how badly these individuals felt, it is logical that some had very negative things to say about their overall program and instructors. Cliff spoke about this saying, “I've never been treated as rudely as I have been during medical school. I found it to be the least supportive, most cutthroat environment I've ever been in. I've become deeply disillusioned with medical schools and institutions.”

Cliff’s comments touched upon the common idea that student supports were lacking and that a general feeling of poor treatment of students exists. Zayda was also disappointed with aspects of the remediation penalties decided by the program:,

I couldn't run for any student council positions, I couldn't start my own club, I couldn't be on any executive boards for anything because I was on probation. And I also felt really
stigmatized by some of the deans. Who, if I would set up a meeting with, if I needed to like ask for support for something, would immediately ask if I was on academic probation, without even regarding what my actual concern was. And so I felt like I was very much stigmatized by a few members of the administration who just saw me at the bottom of the class or saw that I was on probation, and it like completely flipped around the way they viewed my issue. Or viewed whatever I was coming to them for. So those were definitely big things.

Negative feelings toward the medical school and remediation process were common in the interviews, as the participants felt disappointed by the fact that the school was not more supportive. They also felt negatively about remediating in general, due to the negative impact to their transcripts, class standing, and standing in the eyes of school, faculty, and administrators.

**Theme Development**

Table 2

*Theme Development*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Codes</th>
<th>Research Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process of Remediation</td>
<td>Preparation methods (students)</td>
<td>Central Research Question: How do medical students describe the experience of academic course remediation?</td>
</tr>
<tr>
<td></td>
<td>Communications between school and student</td>
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<td></td>
<td>Support system</td>
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<tr>
<td>Personal vs External</td>
<td>Blames school</td>
<td>Sub-question 1: How do medical students describe themselves and their academic abilities before and during academic remediation?</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Marred academic record</td>
<td>Sub-question 2: How do medical students describe their personal role in the remediation process?</td>
</tr>
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<td></td>
<td>Takes personal responsibility</td>
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</table>
Research Question Responses

In seeking to understand the lived experience of what it means to undergo academic remediation, this study was guided by one central question and three sub-questions. The variety of data types gathered from participants was the foundation for answering each of these questions.

Central question. The central research question asked, “How do medical students describe the experience of academic course remediation?” Understanding the nuances of the lived experience that participants shared in their interviews is at the core of phenomenological research (van Manen, 2014). Each of the three themes outlined earlier in this chapter contributed information that was used to answer the central research question. Participants wrote their responses to two journal prompts, drew life graphs highlighting their best and worst moments, completed projective exercises, and verbally expressed their thoughts and feelings about academic remediation in their one-on-one interviews.

The first theme, process of remediation, encouraged participants to consider the specific methods of preparation they used to study for their remediation exam, reflect on the quality and timeliness of communications from the school regarding remediation, and examine who comprised their support system during the process. Despite the potential of being held back a year or even dismissed from the program entirely if the remediation exam was not passed, some of the participants still did not prepare adequately. For Michael, there was a sense that his single
course failure did not warrant severe repercussions, preventing him from becoming too stressed about his need to remediate:

So I felt comfortable with like, you know what, I have to remediate. It sucks, but it's not gonna affect my academic career. But I always thought that they're gonna give me a second chance. And I'm not gonna mess up a second time.

Alisha shared,

It was always something where I was like, "Oh, I'm going to do this. I'm going to do this. I'm going to do this. I'm going to do this." And then every day that just never worked out. So then I went into that remediation exam being like, I failed this frickin’ remediation exam again, I'm so stupid. I don't know what's wrong with me.

But Alisha’s lack of preparation makes logical sense when viewed in light of her knowledge that she was able to review the test she had failed at length prior to testing again, and that questions from that test would be a part of her retake examination.

The second theme, personal vs. external responsibility, explained how participants felt about the remediation(s) marring their academic record, and examined whether they expressed personal responsibility for their situation or blamed the school for their need to remediate. All 10 participants expressed mixed views about where the responsibility for failing fell in their eyes. Jessica shared her distaste for the course director of the class she failed recalling, “And Dr. K even in my meeting was like, you were doing so well what happened? I'm like, Dr. I happened.” But later, Jessica also admitted, “I made the mistake of switching my study method for a professor that I was already really shaky with. So that was kind of like big no no's. So I think that didn't help.”
The third theme, interviewee journey, examined the prevalence and cause of both the positive and negative feelings expressed by participants about the remediation process and probed deeper about any shifts in their identity they felt they experienced as a result of remediating. Nine of the 10 participants expressed ways in which they felt and acted differently after having gone through the remediation experience, confirming it is not something they would have chosen on their own. Pam said, “I didn't opt into remediation, because obviously, like my performance had dictated it.”

It was also clear from the participants that the length of time between the initial failure and when the remediation exam was given resulted in a general sense of urgently wanting to be done with the whole process and moved on. Jamie described updating a friend at another medical school on the phone after finishing his exam, saying to him, “Oh I finished remediation. I don't know if I passed. That thing felt like a blur. The last five minutes of the exam, I just wanted to be done.” He then added that he “thought of the experience as kind of ‘get yourself in gear for what's to come,’” suggesting he viewed remediation as a sort of barrier, momentarily positioned between him and the next step in his medical education journey.

When choosing two to five adjectives to describe the remediation process, five out of 10 participants chose “productive” as one of their words. The next most common word was “enlightening,” which appeared four times, followed by “scary,” which appeared three times (see Appendix K). Participants frequently described feeling differently at different points in the remediation process. Cliff and Amanda were the only two participants who chose all negative adjectives, leaving eight out of 10 participants who experienced both positive and negative emotions during the process.
**Sub-question 1.** Sub-question 1 asked, “How do medical students describe themselves and their academic abilities before and during academic remediation?” This sub-question was answered by participants when they described themselves and their outlook on medical school before and during remediation. Several participants mentioned knowing remediation existed before experiencing it themselves but talked about it as being far away from something they would ever become personally acquainted with. Pam said, “I don't think it's ridiculous to expect that a decent proportion of people are going to need remediation at some point in their medical career.” Jamie put it more directly: “Back then I was like, oh, failing a class, that's not gonna happen to me, I'm a pretty good student.” Jessica, Michael, and Amanda cited not needing to retake anything during their undergraduate degrees, which made them feel as though that trend of not experiencing failure was bound to continue during their medical education.

When speaking about how they felt about themselves and their academic abilities during the remediation process, many students expressed lasting shock at the idea that they would need to remediate and a deep desire to power through it so the situation would go away. Pam said, “I kind of put everything on the back burner,” and Jessica said, “I was just like ‘blinders. Get this done.’ I think a lot of things got neglected, you know.” Zayda shared, “I just knew that I had to remediate and I had to pass it.”

**Sub-question 2.** Sub-question 2 asked, “How do medical students describe their personal role in the remediation process?” Sub-question 2 was answered mainly by the third theme, interviewee journey. All 10 participants mentioned at least one way in which they felt they were culpable for their need to remediate. They said things like, “I'm really terrible at cadaver labs” (Pam), “Not knowing how to study” (Jamie), and “Dedicating more time to my personal life instead of my academics” (Amanda). But many of the students also placed partial blame on the
school and its faculty. They expressed this in statements like, “None of the stuff my professors
told me to do was helpful” (Cliff), “I struggled really badly with Dr. I. I didn't understand her
material” (Jessica), and “When I emailed Dr. F, his response was just like, eight different
resources, which he might pull questions from, and that was it” (Scott).

**Sub-question 3.** Sub-question 3 asked, “How do medical students describe themselves
after academic remediation?” Sub-question 3 was addressed by the third theme as well,
interviewee journey. Participants noted ways in which they saw themselves as being different
after their experience with remediation. Pam explained it saying,

I tried to be less judgy, like, towards myself, mostly, but also, obviously, towards others,
when it comes to stumbling blocks in medical education, because everybody goes into
med school thinking, I'm gonna be the best little student, and everybody is gonna think
I'm just like the bomb.

Participants also said things like, “So I got my study method out because of that, and it's been
working out pretty well” (Jamie), “I'm just more empathetic on the medical student and their
struggles” (Michael), “It's definitely made me more organized, mentally and like physically”
(Amanda), and “I've learned to be more calm” (Scott).

**Summary**

This chapter began with an overview of contents, followed by a portrait of each of the 10
osteopathic medical student participants involved in the study. These portraits allowed
participants to become people in the eyes of this study, one of the main goals of employing a
qualitative design in a field primarily dominated by quantitative studies. The results of their one-
on-one interviews, projective exercise responses, and written essay question responses were then
presented through quotations attached to theming and coding. The themes that emerged from the
data were (a) process of remediation, (b) personal vs. external responsibility, and (c) interviewee journey. The subthemes identified were (a) preparation methods, (b) communication between school and student, (c) support system, (d) blames school, (e) marred academic record, (f) takes personal responsibility, (g) shift in identity, (h) positive feelings, and (i) negative feelings.

There were both logistical and emotional themes and subthemes present when the data were analyzed critically. The theme process of remediation, with its subthemes (a) preparation methods, (b) communication between school and student, and (c) support system, highlighted the mechanical workings of the remediation process that to which participants then explained their emotional reactions. Participants shared stories of not hearing from the school in a timely or detailed manner or of attending meetings consisting of a panel of faculty and administrators who did not seem interested in hearing the full story from students about why they experienced a failure. In some cases, these negative interactions with the school shaped the way participants felt about themselves as well as how much they trusted the school moving forward, like when Alisha said, “I really felt like faculty was saying I can trust them and they'll offer me support . . . And then after that, it was just like, I am pretty alone in this experience.”

The remainder of the two themes and their subthemes were inherently more emotional in nature. The theme personal vs. external responsibility, with subthemes (a) blames school, (b) marred academic record, and (c) takes personal responsibility, revealed that the students viewed their need to remediate as both a product of their own choices (10), as well as being at least partly attributable to decisions made by the school (8). Participants also cited a range of concerns about if and how their academic transcripts might reflect their need to remediate, and how that might affect their futures.
Lastly, the theme interviewee journey and its subthemes of (a) shift in identity, (b) positive feelings, and (c) negative feelings, revealed the inner essence of the experience participants had while undergoing academic remediation. Almost all of the participants (9) noted a shift in themselves. Some noted practical shifts, such as finding their current study strategies during the remediation process, while others noted emotional shifts, such as being less judgmental of themselves and those around them.

In the next chapter I present my analysis of the study findings by discussing how they relate to the themes, subthemes, and theoretical frameworks used in this research. The implications, recommendations, and areas of future research are also discussed.
CHAPTER FIVE: CONCLUSION

Overview

Of the 97,793 students who matriculated into U.S. medical schools in 2018 (AACOM, n.d.; AAMC, n.d.), an estimated 10% of them, or 9,779 students, will require remediation at some point during their medical education (Bennion et al., 2018). Based on an extensive review of publicly available online student handbooks from the 37 osteopathic medical schools existing in the United States at the time of this writing, a retest remediation system, such as is employed at the site school for this study, is the most common method for academic remediation. The Flexner model has been the standard medical education process used in the United States since its creation in 1910, but the educational needs of students have changed dramatically since that time (Mangold, 2007; Pardue & Morgan, 2008; Parsell & Bligh, 1995). There is a clear demand for revision and reinvention of the U.S. medical education process from key stakeholders (AMA, 2016; Densen, 2011; Emanuel, 2017; Lee, 2021), as estimates project that by the year 2033 the United States will lack up to 139,000 medical doctors (AAMC, 2020a).

The purpose of this transcendental phenomenological study was to understand the lived experience of academic remediation for medical students at an osteopathic medical school in the United States. The voices of medical students who have undergone academic remediation have not been a key focus area of research efforts in medical education up to this point. One central research question (CQ) and three sub-questions (SQ) guided this study:

CQ: How do medical students describe the experience of academic course remediation?

SQ1: How do medical students describe themselves and their academic abilities before and during academic remediation?

SQ2: How do medical students describe their personal role in the remediation process?
SQ3: How do medical students describe themselves after academic remediation?

To answer the research questions with triangulated data, 10 participants agreed to answer journal prompts, participate in projective technique exercises, and answer 16 semi-structured interview questions in a one-on-one Zoom interview. The analysis of the results was grounded in two theoretical frameworks, Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory. This fifth chapter contains a summary of the research findings, a discussion of the findings, an implications of research section, limitations and delimitations, recommendations for future research, and a final summary.

**Summary of Findings**

Chapter Four summarized the data revealed from the three data collection methods utilized in this study—essay question responses, projective technique exercises, and interviews. The themes that emerged from the data were (a) process of remediation, (b) personal vs. external responsibility, and (c) interviewee journey. The subthemes identified to support the main themes were (a) preparation methods, (b) communication between school and student, (c) support system, (d) blames school, (e) marred academic record, (f) takes personal responsibility, (g) shift in identity, (h) positive feelings, and (i) negative feelings.
Table 3

*Identified Themes and Their Associated Subthemes*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
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<tbody>
<tr>
<td>Process of Remediation</td>
<td>Preparation Methods</td>
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<td></td>
<td>Communication between School and Student</td>
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<td>Support System</td>
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<td>Personal vs. External Responsibility</td>
<td>Blames School</td>
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<tr>
<td></td>
<td>Marred Academic Record</td>
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<tr>
<td></td>
<td>Takes Personal Responsibility</td>
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<tr>
<td>Interviewee Journey</td>
<td>Shift in Identity</td>
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<td></td>
<td>Positive Feelings</td>
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<td></td>
<td>Negative Feelings</td>
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</table>

The purpose of this study was to understand the lived experience of academic remediation for medical students at an osteopathic medical school in the United States. This understanding was gained through interviews with 10 medical students, in addition to examining their written responses to journal prompts, projective techniques, and a life graph. A summary of the data gathered to answer the central research question and three sub-questions is included below.

**Central Question**

“How do medical students describe the experience of academic course remediation?” Participants experienced and, therefore, expressed their experience with academic remediation as a journey with more than one phase. Instead of simply summing up the experience by naming one effect by which it was dominated, the students named several different phases of emotion that they attributed to the journey. Going through remediation means going on an emotional journey that starts with shock or dread, transitions into acute stress, fades into productivity, and
then tends to resolve with a crescendo of relief or reward once the retest exam is passed. For those participants who were more than 6 months removed from their remediation experience, an enduring disposition of appreciation for lessons learned from the process was described.

The experience of academic remediation means working with what resources and communications the school does or does not provide and finding a way to be successful regardless. Students who remediate identify not only with one another differently, but also with everyone around them. They come to realize, in an even more intimate way, that everyone struggles whether it is visible or not, and that empathy and human connection are indispensable needs for every individual.

Sub-question 1

“How do medical students describe themselves and their academic abilities before and during academic remediation?” Before academic remediation, participants described themselves as being sure that they would not experience severe struggles or failure while in medical school. They created a mental model of success based on their prior academic performance in their undergraduate programs, not yet aware of how different their terminal degree experience would be. Before remediating, students felt accomplished for gaining acceptance into their program and felt that they had earned their seat and belonged.

During remediation, students transitioned from believing they would not encounter failure to fighting pervasive feelings of imposter syndrome and, in some cases, questioning their personal ability to be successful going forward. Concerns about possible future academic remediations, as well as failure to match into residency programs, were pronounced.
Sub-question 2

“How do medical students describe their personal role in the remediation process?” The level of personal responsibility accepted by students varied significantly. While all 10 of the participants did accept at least some personal responsibility, eight out of 10 also placed some degree of responsibility on their institution. When explaining how they viewed themselves as being responsible for their need to remediate, they cited shortcomings like not knowing how to study effectively and not spending an adequate number of hours preparing for the failed course. Half of the participants also mentioned a chronic inability to ask for help, leading them not to seek out and utilize student support services offered by their institution.

Eight of the participants noted ways in which they felt the school had played a role in their need to remediate, namely via poor quality of instruction from professors and lack of appropriate and timely school communications about available support services and course logistics. Overall, these eight participants viewed the fault for their need to remediate as being a shared burden between themselves and their institution. The two remaining participants blamed themselves and external life situations outside of their immediate control.

Sub-question 3

“How do medical students describe themselves after academic remediation?” The participants’ responses to how they differed after their remediation experience fell into two categories, emotional and practical. Emotionally, many of the students noted changes in themselves such as decreased judgment toward others, increased empathy for those around them, and increased focus on their academics. Practically, they noted outcomes such as finding a study routine that worked so effectively that they carried it with them through the rest of their didactic
curricula and the creation of clear plans for additional achievement in areas such as research in order to compensate for the enduring evidence of remediation on their academic record.

**Discussion**

This section features a theoretical discussion and an empirical discussion. First, an explanation of how this study’s findings extend or reinforce the two theoretical frameworks utilized in this study, Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory; second, a discussion on how this study’s findings are related to the existing empirical literature presented in Chapter Two and how they also add new data to the growing body of remediation literature.

**Theoretical Discussion**

The two conceptual frameworks for this study were Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory. Of the seven constructs presented between both theories, four were chosen for this study based on their illumination of the factors involved in comprising the phenomenon of academic remediation for medical students. Bioecological theory places great emphasis on contextual influences of differing types, including personal responsibility, time, and other individuals involved in the phenomenon. Social identity theory examines how individuals view and define themselves in relation to others (Ellemers et al., 1997). The bioecological theory constructs of *person* and *context*, and the social identity theory constructs of *social categorization* and *social identification* were each found to play a role in explaining the remediation experience of the participants. These theories appropriately facilitated the crafting of research questions with fitting depth and breadth to capture the collective phenomenon of the remediation experience in a medical school setting.
Table 4

*Guiding Theories, Constructs Utilized, and RQs Informed by Each Construct*

<table>
<thead>
<tr>
<th>Elements</th>
<th>Bioecological Theory</th>
<th>Social Identity Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory Constructs Utilized in the Study</td>
<td>Context</td>
<td>Social Categorization</td>
</tr>
<tr>
<td></td>
<td>Person</td>
<td>Social Identification</td>
</tr>
<tr>
<td>Theory Constructs Informing Research Questions</td>
<td>CQ – Context</td>
<td>SQ1 – Social Categorization</td>
</tr>
<tr>
<td></td>
<td>SQ2 – Person</td>
<td>SQ3 – Social Identification</td>
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</tbody>
</table>

**Context.** The construct of *context* is composed of five ecological systems: microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner, 1977). Several students spoke of their experiences interacting with various systems within this construct. It was also easy to note ways in which the students were directly affected by these systems, possibly without their consciously realizing it. For example, when Alisha said, “Looking at my peers, the majority of the conversations are about making money or about things that don't necessarily align with my interest.” Cliff similarly stated,

> Also, I just don't like medical students. I'm really not into the idea of like social status or keeping up with the Jones'. If like, if what you want from life is status . . . like I have a good family friend who, from her romantic relationships, wants money, and it's just like, that's fine. But I don't connect with that on a deep level at all.

They both touched on the macrosystem, which is defined by this study as societal views on the prestige and personal meaning of attending medical school and becoming a doctor.

> Alisha shared about how changes were being made to the curriculum, saying, “It didn't seem like the faculty were on board with the shifts, and they hadn't adjusted their slides and materials and things like that.” When she did so, she touched on how the exosystem was
affecting her and her peers. When each of the 10 participants talked about their faculty relationships and interactions, they referenced the mesosystem. And their medical school environment acted as the microsystem, with all the complexities and moving parts encompassed in it.

The combination of these five ecological systems provides a definition by which to view the participants’ experiences as a whole phenomenon. Assigning roles and definitions for each system to the specific arena of medical education allows readers of this study to begin to understand how the variety of interactions that occur during a students’ experience shapes the way they feel and operate within the school community.

**Person.** The construct of *person* examines an individual’s predisposition toward a certain personality temperament and ultimately influences social interactions, which profoundly shape an individual’s beliefs and experiences throughout life (Anastasi, 1958; Bronfenbrenner & Ceci, 1994). Within *person* Bronfenbrenner and Ceci established two relevant “personal stimulus” characteristics: resource characteristics and force characteristics. Resource characteristics include mental and emotional resources, including intelligence and skills. Force characteristics explain variations in motivation and persistence.

For many of the participants, low resource characteristics were a stated factor in their inability to pass the course that ultimately caused them to remediate. Scott said of his failed course, “I was already pretty burned out.” When talking about her undergraduate experience Alisha echoed this saying, “I did feel kind of burned out by the end.” That burnout then carried over into her first course in medical school, which she failed.

Similarly, force characteristics give structure to the human experience of losing motivation and were mentioned by five of the 10 participants. Talking about beginning his
medical school curricula and staring down two years of didactic work before seeing real patients, Michael said, “You have nothing to look forward to. Where's your motivation?” Cliff also spoke to this shifting of motivation when he said, “I am highly motivated—when the topic is something I'm actually interested in learning.” Unfortunately, he was not very interested in the course he failed. Pam, Scott, and Jamie also made similar statements about waxing and waning motivation: “So there's a little part of you that's like, struggling with the motivation” (Pam), “I hate to say it, I tend to get a little lazy with it, or rather just bored of rote memorization” (Scott), and “I think it was definitely . . . the rigor was definitely not as present. Not to say I was lazy during those times, but like not . . . it wasn't as evident” (Jamie).

Force and resource characteristics give color to the personal struggles the participants cited experiencing during their medical education journey. These characteristics add a nuanced understanding to participant quotations and responses by reminding readers that, often in life, the ability to accomplish stated goals is not always a simple binary choice. Each of the participants clearly valued succeeding, and in most cases did the best they could to achieve it. But when the time came to put the effort in, confounding factors such as variable internal motivation and uncontrollable burnout dictated the ability they had to make that success come to fruition.

Social categorization. Social categorization occurs when individuals perceive themselves and others as part of a group, rather than as an individual within that group (Tajfel & Turner, 1979). Social identity theory makes sense of the common emotional shift students who remediate go through when they find themselves part of the out-group. Pam expressed this colorfully when she said,

It gave the impression of like, having the cone of shame, like from the movie Up, if you've seen that. Yeah, so we were told, like we can't—well obviously, you don't have a
letter of good standing at that point. So if you want to do any, like, really big research, like with St. Jude's, or all the things that you do that first summer, which is like a really important summer for building your CV so that you can match well. So it's not just that you have the hit of "Oh, look, I had to remediate," you have, like five other hits of "and I can't hold any offices, because I'm, like, deemed unworthy." And "I can't, like, go do anything that will help balance this out." And you can't like “represent the school in any form or fashion, because you wouldn't want the failures representing you” is kind of like, not the subtext that they're trying to give, but it certainly I think, feels that way, when you're in the midst of dealing with your own process of coping with having failed.

Jessica had her own take on becoming a part of the out-group, saying,

It's just like reaffirming those feelings of like, where you don't fit in. You're like, I'm not even hitting, you know, averages. Like, I just like, oh my god, maybe they were right. I don't belong here. It's just such a horrible, horrible feeling.

Jessica’s statement that maybe she did not belong in medical school because she experienced academic difficulty speaks to her belief that the successful medical student does not struggle. While it is common knowledge to schools and educators that many students struggle throughout their medical education journey, this knowledge is less common and accepted among student doctors. Likewise, when Pam indicated that she was unable to represent the school after being put on academic probation, she was describing the very real shift of moving from the in-group of students in good standing—who were allowed and encouraged to represent the school—to the out-group of students on academic probation who were sidelined from doing so. This disadvantageous psychological shift that students commonly experience in U.S. medical
school programs is compounded by the underdeveloped philosophy around failure employed by numerous schools.

**Social identification.** Social identification occurs as the mental process used to understand who an individual is and how they relate to their larger group in social situations (Tajfel & Turner, 1979). Zayda spoke to the changes she saw in how others in her larger group treated her after her remediation experience saying,

I couldn't run for any student council positions, I couldn't start my own club, I couldn't be on any executive boards for anything because I was on probation. And I also felt really stigmatized by some of the deans. Who, if I would set up a meeting with, if I needed to like ask for support for something, would immediately ask if I was on academic probation, without even regarding what my actual concern was. And so, I felt like I was very much stigmatized by a few members of the administration who just saw me at the bottom of the class or saw that I was on probation, and it like completely flipped around the way they viewed my issue.

Zayda’s experience with her dean of students is likely common among those who experience academic struggles or failure during medical school. It is easier to invalidate the feedback and concerns of struggling students because it can be assumed they are trying to shift blame for their undesirable outcomes. In reality, students who struggle are often the best source of feedback from whom a school can learn, as they are likely to speak for a category of students who are struggling with the same components of the process or curriculum—just not enough to pass the threshold of failing and have their struggles eternally documented. Rather than ignore or stigmatize students who experience difficulty, schools have an opportunity to quell fears about
how these students fit into their program by welcoming their feedback and giving importance to their lived experiences.

The two conceptual frameworks for this study were Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory. The four constructs utilized from the two theories were applied to osteopathic medical education for the first time, based on an extensive literature review. This use of validated frameworks within a new context adds novel understanding to the existing body of research involving these theories and further validates their continued usefulness.

**Empirical Discussion**

The literature included in Chapter Two explored existing publications covering different aspects of the remediation process, experience, and logistics, as well as relevant periphery topics. This discussion includes an in-depth review of how this study confirms existing literature topics while also adding new knowledge to the research into academic remediation in a medical school setting.

**Becoming and being a student doctor.** Existing literature purported that the rigorous process of becoming a student doctor can leave newly minted medical students in the position of being burned out as they first begin the uphill climb of medical school (Boni et al., 2018). Four participants specifically echoed this truth in their interviews, such as when Jessica said, “Yeah, it's been tough. Like when they say burnout . . . I'm like oh my god. Like, I mean, I've felt it.” Three other participants agreed. Alisha said, “And in undergrad it was more of a struggle. I had to maintain a scholarship; it was stressful. I did feel kind of burned out by the end.” Michael mentioned he was “kind of burned out, for sure” and Cliff said he was “very burned out at the time, so I probably didn't work as hard as I should have” when reflecting on the course he failed.
This fact, that many students enter medical school stripped of their mental and emotional reserves, may warrant more attention from those capable of revising their medical school’s admissions requirements or introductory curriculum.

Boni et al. (2018) described the type of burnout seen in these applicants as “a multifactorial occupational syndrome, characterized by a triad of symptoms involving high levels of emotional exhaustion, depersonalization, or professional cynicism and professional disbelief” (p. 2). Carrying this type of burnout experience into their medical education program can then be compounded by these high-achieving students’ frequent aversion to asking for help. Several of the participants spoke to this when they said things like “Honestly, I didn't talk too much about it outside the university. I'm the kind of person who doesn't really ask too many questions from staff unless I feel it's pretty important” (Jamie), “I do have a hard time asking for help in the school setting” (Pam), “I've always had trouble asking for help. I mean, I'm sure you've had tons of medical students from all over tell you that. Like, we're not used to asking for help, or needing to ask for help” (Amanda), and “I kept really tight lipped about it, for pride reasons I guess” (Alisha). This inexperience with, and aversion to, seeking out school resources that might have helped them avoid the need to remediate then have the chance to cause further damage to the motivation and energy needed to achieve academic success.

Every new generation of students to pass through medical school will have differing needs from the ones who came before them. Technology, among other things, is changing the world and the way humans learn quickly and profoundly. Schools should make every effort to adapt their teaching and policies to address the realistic needs of their students rather than assuming their students should adapt to potentially antiquated methods of instruction. If it is clearly understood that this generation of students struggles with emotional intelligence and
achieving a sense of meaning and belonging in their community, then a golden opportunity is available for schools to provide positive reassurance and support service options in their communications with students.

**Remediation process and policy.** Based on an extensive review of publicly available U.S. osteopathic medical school handbooks, the academic remediation retest process experienced by the participants in this study is very similar to numerous medical schools in America. While the specifics of most schools’ remediation processes are not made public, it is unlikely that this study happened to be conducted at the only osteopathic medical school in the United States that gives students the same test they originally failed for their remediation retest exam without one-to-one instruction from faculty to fill content gaps. This points to a potentially systemic error in the way struggling learners are dealt with in medical education and serves as a reminder that more transparency and accountability are needed. Kalet et al. (2017) noted that the trend of increasing accountability in medical education is both important and timely. Jessica spoke to this theme from the literature, saying:

Maybe they should hold the professors more accountable for their crappy PowerPoints, and like the way they present. I feel like they're just kind of letting them get away with anything. Even the surveys, I fill them out and like, I see the notes from their meeting. They're like, "Oh, yeah, I'm not going to change that." I'm like, well, maybe that shouldn't be okay. You know, like, you're getting this feedback. Like you're here for us. You know, so it's frustrating for the people who struggle. So, yeah, in terms of changing the remediation process, like maybe if a certain amount of people fail you need to talk to the professor, not just the students.
When viewed in light of the knowledge that the Flexner model has been the standard medical education process used in the United States since its creation in 1910 but that the educational needs of students have changed dramatically since that time (Mangold, 2007; Pardue & Morgan, 2008; Parsell & Bligh, 1995), this sentiment from students becomes a wakeup call for the medical education community rather than a professionalism issue. While it is easier to assume students who make negative comments about the quality of their program policies or curricula are simply looking for someone to blame for their struggles rather than to consider that their feedback may have merit, it is a mistake to do so. If previous cohorts have not made the same comments, this could be an indicator that the current generation of students has different needs that are not being properly addressed by potentially outdated materials or processes.

Not all institutional leadership teams subscribe to the notion that students in higher education settings should be viewed as “customers,” as though that mentality is the most dangerous one possible (Clay, 2008). Yet it stands to reason that there is an even more damaging view that could be taken by educators and administrators in a medical school setting. One of the factors that keeps higher education entities accountable to the students they serve is the idea that there are plenty of other institutions for their students to attend. If a student does not appreciate how they are treated at one post-secondary school, they are generally able to leave that school and transfer the credits they have earned into another school to finish their degree (Giani, 2019). However, based on a review of available online student handbooks from DO medical schools in the United States (see Appendix D), that same option of transferring schools relatively easily does not exist in the medical school setting.

During the 2013–2014 academic year, the Liaison Committee on Medical Education reported there were a total of 98 students who transferred medical schools within the United
States (Smith-Barrow, 2015). This is out of nearly 85,000 total students enrolled in medical schools that year, according to the same report. This means that less than .001% of medical students successfully transferred that year. This figure stands in stark comparison to National Student Clearinghouse Research Center data, which reported an average U.S. undergraduate student transfer rate of 37.2% in 2015. Based on a review of publicly available online student handbooks from osteopathic medical schools in the United States (see Appendix D), the list of factors making it difficult for medical students to transfer notably includes the transfer requirements from medical programs. When attempting to transfer schools, medical students are almost always required to provide a recommendation letter from the dean of the original school, as well as proof of “highly compelling circumstances” in order to even be considered. Additionally, it is commonplace for medical schools to require transfer students to complete a minimum of two years of their education at the new school, further complicating their ability to transfer.

Given the knowledge that transferring between medical schools is not an option if the reason is that the student does not agree with the values or practices of their current program, the student is left with three options. They can continue at their current school despite having deeply negative feelings toward it, they can (request to) take a leave of absence to give themselves time to think and recuperate emotionally before resuming their program, or they can drop out of their program permanently. However, as noted earlier, it is a long and arduous process that brought the student to the point of gaining acceptance to medical school in the first place. For this reason, it is not common for students to willfully withdraw from their medical programs, resulting in a unique dynamic that data suggest is seldom seen elsewhere in higher education (National Student Clearinghouse Research Center, 2015).
Because there are always more applicants than there are seats in U.S. medical school programs and the competition for gaining acceptance to any program is so fierce, and because there is little to no potential for transferring medical schools after matriculation, it becomes easy to see how accountability for providing high quality treatment of students in medical education is low. For higher education institutions to treat students as customers may not be the best overall approach, but it is likely better for the student experience than the knowledge that one is both easily replaceable, as well as lacking in leverage to influence the quality of content or policies endorsed by the institution. Guerrasio (2018) spoke to this well in her book on academic remediation in medical education when she said,

> Without avenues of two-way communication between the remediation program and the larger educational program and without revising our view of remediation as ‘fixing’ struggling learners, remediation will remain, in our opinion, less effective and more costly to individual learners and to the school. (p. 2)

**Recent attention on medical education revision.** This aspect of the existing literature was only somewhat corroborated by the data from this study, as the participants were generally not focused on the larger field of medical education in their responses. Although the institution where this study was conducted was not part of the AMA Accelerated Change in Medical Education Consortium, it was still influenced by the knowledge that the field of medical education is currently undergoing an evolution. It is possible this knowledge contributed to the school’s decision to update its curricula around the time Alisha failed the course that caused her to need academic remediation. Alisha explained:

> I think for my class it was a little more difficult because we were guinea pigs on a curriculum shift. We had a new dean and to me it didn't seem like the faculty were on
board with the shifts, and they hadn't adjusted their slides and materials and things like that. They said that the first two years were going to be no disease states, but then we were tested on a lot of disease states first year. So, it was kind of like confusing what to study and I just felt like it was kind of unorganized.

**The case for academic remediation.** The existing literature paints a bleak emotional and financial picture for the majority of students who leave or are dismissed from a medical education program before completion but after incurring significant debt. Blacker, Lewis, Swintak, Bostwick and Rackley (2019) noted that a previous study found suicide was the second highest cause of medical student deaths from 1947–1967, but that it is not currently possible to perform even a credible meta-analysis of past studies covering this topic largely because of the variance in data presentation between existing studies. It remains extremely difficult to determine what the actual rates of suicide are for medical students, and the authors ultimately call for more resources to be spent on collecting comprehensive and reliable statistics to guide reasonable interventions for the sake of these students.

Jessica spoke to this financial and emotional burden when she shared, “Everyone just told me to give up, they're like, ‘it's not happening. Stop wasting your money, stop.’ And I'm like, ‘No, this is my dream career.’” Other participants echoed similar statements of fear at the idea of dismissal or remediation of an academic year rather than a single course. Pam said, “And then of course, the threat of like, failing out altogether, having to repeat a year, are all the things that are like real options for a lot of people.” Cliff explained, “I wasn't really as upset with the idea of remediating one class as I was at the thought of potentially failing a second class and that would mean I'd have to repeat the year.” Scott said, “Again, like the thought of failure is always there. And like, you know, failing can lead to repeating a whole year, etc.”
In discussing my reasons for pursuing this topic with Alisha, I mentioned my review of other osteopathic school handbooks and the various processes some schools use in place of a simple retest system. She said,

But you know, I'm really grateful for the opportunity really, to remediate. Like you saying that some other schools don't even let students do that. And you said something about paying for it, or these other processes. So yeah, now that you've said that it was fine.

Her sentiment is a scary one. Although she objectively thought the remediation process at her school was not well put together or helpful for filling the knowledge gaps she had, the idea that there are schools where she would not have had the option to remediate at all suddenly made her accept her school’s process as adequate when, in fact, it was not.

This shift in student thinking perfectly exemplifies the reason why medical education as an industry is in need of much more transparency and accountability, and why high-quality remediation experiences should be a standard part of the curriculum at every U.S. medical institution. The bar of quality in remediation programming is currently so low that a school offering the option to remediate at all becomes something students are grateful for, regardless of the quality of the actual programming or its ability to adequately prepare them to move forward in the curricula. This largely invisible power imbalance is a problem for both medical students and the general public, who implicitly trust medical programs to provide high quality programming that fills the knowledge gaps that can develop for students due to a number of internal or external factors.

Empirically, this study supported much of the research presented in Chapter Two and recapped in this section. Some of the research covered in Chapter Two, such as the wider view of
medical education and the need for revision, was not spoken about directly by participants, but their comments and descriptive experiences helped to validate their inclusion in this study.

**Implications**

Osteopathic medical students in the United States need to remediate academic courses during their didactic years for a variety of reasons. Some students attribute the event to outside circumstances, while others see it as a personal failure. This study produced findings that have theoretical, empirical, and practical implications. This section addresses each of these domains and provides recommendations for student doctors and key stakeholders in medical education.

**Theoretical**

This study was guided by Bronfenbrenner and Ceci’s (1994) bioecological theory and Tajfel and Turner’s (1979) social identity theory. Bioecological theory is valuable for its ability to “identify the mechanisms through which genotypes are transformed into phenotypes” (Bronfenbrenner & Ceci, 1994, p. 568), while social identity theory was constructed as an integrative theory meant to link cognitive processes and behavioral motivation (Tajfel & Turner, 1979), which was exemplified by the participants. Bioecological theory contributed the constructs of *context* and *person*, while social identity theory contributed the constructs of *social categorization* and *social identification*.

Each of these four constructs proved vitally useful in the process of interpreting the data collected from participants, as the constructs provided a lens through which the students’ stories could be understood and appreciated. The three main themes chosen after thorough analysis of the data from this study—Process of Remediation, Personal vs. External Responsibility, and Interviewee Journey—all reinforce the ideas and constructs provided by the two theories. When participants reflected on how their remediation process went as a whole, their answers to the
interview questions reflected the bioecological theory construct of context, which evaluates the interactions between components of a given environment. In instances where the participants cited people, processes, or attitudes, the construct of context provided perspective for interpreting what was shared.

The social identity theory construct of social categorization gave perspective to participants’ views on why they failed and needed to remediate. The bioecological theory of person helped frame the participants’ thoughts about whether they felt personally responsible for their need to remediate or whether they blamed outside forces, such as the institution. Finally, the social identity theory of social identification provided a backdrop for understanding how to make meaning from the participants’ ideas about how they had changed as a result of their experience remediating.

**Recommendations.** The results of this study strongly support the continued use of both bioecological theory and social identity theory as meaningful frameworks by which to understand human behavior. Based on the findings of this research, it is recommended that medical education administrators work to enhance the understanding they and their faculty have of the emotional journey students undergo when they remediate. This can be accomplished in numerous ways, but it is recommended that at least one of them involves asking students—and then actively and patiently listening to their responses—what positive and negative lessons academic remediation taught them. This should be done in an informal and relaxed setting, not the kind of formal committee hearing that causes students to say what they think they are supposed to. The knowledge learned from each new student helps to build a stronger understanding of the impact remediation can have, and better equips the listener to relate to and assist future students on their journey.
Empirical

This study provided additional research findings to support existing literature in many cases, but also yielded new information not previously found. Remediation is talked about almost exclusively as a negative repercussion of academic failure in existing literature; however, this study found that some students do express positive value when thinking back on the experience. Jamie articulated this well when he said, “As weird as it sounds to say, like I'm glad in the end that I ended up failing that class, because of what it taught me.”

Jamie’s statement is an interesting one to digest for individuals working in medical education, as administrations are likely not primed to think of the positive impacts that remediating might make on a student. The reason for this tunnel vision toward the negative implications makes sense when one considers the deeply seated culture of high achievement that inherently develops in a school full of elite academics—both the students and faculty. Guerrasio (2018) spoke to this culture of negativity around failure, saying:

Nearly all medical schools invest in remediation resources, but most err in not having cross-talk between remediation specialists and instructors or curriculum managers at strategic points throughout students’ developmental process of becoming a physician. Instead remediation is relegated away from the core action of medical education; consigned to manage the “penalty box” where struggling learners are sent after committing academic “fouls.” (p. 7)

Other participants were not as openly happy about having remediated as Jamie, but several others found ways to at least minimize their perception of the potential damage to their futures that academic remediation might pose. Michael said,
So I felt comfortable with like, you know what, I have to remediate it sucks, but it's not gonna affect my academic career. I don't know, if it will go on my resume or academic record. I'm kind of unsure on that.

Similarly, Alisha said,

I think for me, because it was the very first class, it's easier to kind of, you know, talk people into believing that I'm not like that anymore. But because it's the first one, I think it's a red flag that's not as important.

When discussing the potential implications of her need to remediate, Pam spoke with more defiance than the others: “They should be choosing me based on who I truly am and like my actual academic record, even with its flaws, as opposed to like looking nice on paper if I don't really deserve it.”

These various exhibitions of the attribution theory constructs internal and external locus of control demonstrate the innate human desire to assign causes to behaviors. These ways of mentally diminishing or shifting blame for the negative repercussions of their remediation experience also exemplify the resiliency of the human spirit. For students who put so many years of their lives and so much of their financial and emotional stability in jeopardy to pursue this career field, it becomes imperative for them to find ways to continue hoping while working toward the completion of their goals. Jessica summed up this dedication well when she said, “This is my dream career.”

One aspect of the existing literature that was confirmed by this study is that the approach to communication between the school and the student is of the utmost importance in setting expectations for the student around how to feel about their need to remediate. Guerrasio (2018)
talked about identifying struggling learners by listening to the rumor mill of students, faculty, and administrators when they discuss who may need additional support. She said:

In fact, the rumor mill is remarkably accurate at identifying who is in need of remediation. If remedial teaching is thought to be punitive, then responding to the rumor mill could be potentially dangerous for misidentified learners. If, however, remedial teaching is viewed as support with dedicated teaching and improved learning methods, then the benefit of responding to the rumor mill far outweighs the risks. (p. 14)

When participants spoke about the way the school communicated with them or the way individuals employed by the school behaved in committee meetings about their need to remediate, it was almost always negative. Cliff said, “I had that meeting where you go and you sit with all the professors, who are like all wearing suits, and they all yell at you.” Tellingly, Jamie said, “Yeah, so I had been expecting it for quite a while. But I was still defeated, looking at that email, that I had to meet with the disciplinary committee.” Even though remediation is not technically a disciplinary action, remediation meetings at his school are held by the same committee that administers true disciplinary actions, such as dismissal from the program following grievous lapses in professionalism. One can imagine that this committee likely employs the same punitive approach in remediation meetings as is used in true disciplinary ones, informally educating students about how to feel regarding their need to remediate.

Finally, notably absent from the existing literature but an interesting and useful discovery of this study is the lasting change that occurs in many students who undergo academic remediation. Some of the ways participants noted being changed as a result of their experience with academic remediation were becoming “more focused” (Oscar), “I still use the same study method” (Jamie), exercising new effort to be “less judgy” (Pam), striving to be “more
empathetic” (Michael), realizing “how valuable having a social network is” (Cliff), becoming “way more jaded” (Alisha), and being “a little more dead inside” (Jessica).

It may be easy to fall into a pattern of thinking that considers struggling students who have failed a course and passed remediation as being successfully reintegrated with their cohort and over the experience. But that mentality fails to consider the deeper ways in which students can experience a shift in identity that far outlasts the length of the remediation process. This lingering effect is an advantage for students who experience a positive shift, but for those whose experience leaves them different in a negative way, additional support may be warranted.

**Recommendations.** The findings of this study support three main empirical recommendations. The first is for medical educators and administrators to view academic remediation as a positive opportunity for individual student growth, not as something students should seek to experience on purpose, but something that does not have to be wholly negative. The second is that the approach to communication between the school and the student is of the utmost importance in setting expectations for the student around how to feel about remediation. Third, the importance of recognizing that many students who undergo remediation change permanently because of the experience and should be encouraged to utilize student support services even after the official remediation process is complete.

**Practical**

I began this study after working with a group of struggling medical students and developing a desire to better understand not only their struggles, but what was being done to help them. What I found was a lack of structured support that surprised and deeply bothered me, ultimately leading to my decision to choose this topic for my dissertation study. Since then, I have evaluated the online student handbooks from the 37 U.S. osteopathic medical schools in
existence at the time of this writing and have come to realize the lack of structured support is not
the norm at one or two medical schools in this country, but it is the norm for the vast majority.
With so much emphasis now being placed on revision in medical education (AMA, 2016;
Densen, 2011; Emanuel, 2017; Lee, 2021), my hope is that this study will help illuminate where
meaningful changes can be made to policies and procedures around the academic remediation
process with the goal of better supporting medical students.

**Recommendations.** Practical recommendations based on the findings of this study fall
into two categories, recommendations for student doctors and recommendations for medical
schools. Based on the wisdom and reflection of the participants in this study, accessing inner
humility and reaching out to designated school supports early is highly recommended to all
medical students. More than half of the participants noted they struggled to ask for help even
when they knew they needed it, and, looking back, believe not doing so was a clear mistake. It
was seemingly a mistake for two reasons: first, because the assistance could have potentially
helped them prevent the need to remediate in the first place; and second, because their school
viewed utilization of such resources as proof of proactivity on the part of the student. This
information, what resources were (or were not) utilized, when, and how often, came up in their
remediation committee meetings and a lack of utilization was seemingly interpreted by faculty as
being due to laziness or an unacceptable attitude. Independent, voluntary utilization of school
support services that occurred before documented academic struggles were ultimately viewed
favorably by the school and seemed to result in a less overtly condemnatory approach toward the
student by the committee.

For students already in the process of struggling academically, the collective participants
had a different piece of advice to offer based on hindsight wisdom. Many of them did not share
their need to remediate with classmates in real time and shared notable regret at keeping the
information to themselves. When asked what they would say to a classmate who came to them
and shared that they needed to remediate a course, many of the participants started by
acknowledging that they did not share with those around them when they were going through it,
but that they admired this hypothetical student for being brave and humble enough to access the
collective wisdom of their peers. This admiration was partly because it gave the hypothetical
student a better chance of discovering information or methods from others that would assist them
in studying for the retest and preventing additional remediations and partly because being
vulnerable afforded them a type of extended support network of people who they knew were
cheering them on and who were available if they needed help or encouragement during the
process.

A personal recommendation I have for student doctors who fail a course in medical
school and need to go through academic remediation, regardless of how good or bad the
programming might be at their institution, would be to embrace a growth mindset. Dweck (2006)
pioneered the idea that human abilities are not fixed, and that people possess the ability to
improve their skills and abilities through effort and positive thinking. This stands in opposition to
a fixed mindset, which is characterized by a consistently negative personal monologue that
sabotages efforts to grow based on an internalized belief that human skills are inherently
immutable. Fortunately, there is now an abundance of research to support the idea that anyone
can learn to develop a growth mindset (Ng, 2018; Limeri et al., 2020; Vongkulluksn, Matewos,
& Sinatra, 2021), even someone who has been unknowingly employing a fixed mindset for
years. For high-achieving medical students facing failure, especially if failure is largely a foreign
experience for them, understanding that failure is often a step in the learning process is
important. This understanding, combined with the understanding that we all possess the unique human ability to learn and adapt, makes the failure recovery and reassimilation experience a more positive one.

The realization that many students are already willing to view the academic remediation process as a positive experience long-term because of what it can teach them should be an exciting addition to the existing literature. This is an attitude that can be capitalized on when communications are dispatched from the school to the student, providing a unique opportunity to reframe the failure as a point of growth that then acts as a launchpad to future success.

Based on the way participants negatively described the remediation process touchpoints they experienced from their school, timely and reassuring communications from faculty and administrators appear to be very powerful for students. When participants spoke about email communications from their school regarding the remediation process, they were spoken about negatively in every instance (formal committee meetings were also found to be highly negative experiences). This stands in stark contrast to the occasions where a student communicated individually with a school representative either on the phone or in person, which were spoken about very positively.

The takeaway is clear: adding the basic customer service pillar of timely and supportive communication around a tough topic would deeply impact students’ experiences with the entire remediation process for the better. Schools can and should make simple adjustments to their communications with students to achieve this positive result, such as calling a student to empathetically communicate remediation information prior to the typical follow-up email template. Pains should also be taken to make sure these communications occur in a timely manner in order to reduce the time students have to spend “in limbo,” needing, but not having,
further information about the process or timeline of their remediation proceedings. This minimizes the severity of catastrophic thinking students often struggle with while awaiting further information about how their future in the program will be impacted.

Multiple participants also noted that the formal committee meetings that occur after a course failure and consist of five or more faculty members cross-examining the student were not only unhelpful, but brutally negative experiences. While the need for such meetings is largely explained as a requirement to assure legal protection for the school in the event the student later brings litigation against it—and therefore remains difficult to persuade schools to eliminate—implementing required faculty emotional intelligence trainings and holding committee members accountable for their words and body language during such meetings would likely prove to be an easy and effective change. Not every faculty member or administrator can or should be permitted to engage in these types of sensitive discussions with students, and it is ultimately the responsibility of school leadership to ensure the right individuals are given the right responsibilities based on their unique skills and giftings. While tough love is undoubtedly needed in certain situations, medical students are ultimately high-achieving, adult learners who deserve to be spoken to with respect and genuine care no matter their academic standing.

Another finding of this study was the consistency with which certain teaching faculty members were implicated as being particularly problematic by the participants, the majority of whom were not aware of one another or their shared remediation requirement. It is difficult to dismiss the congruent level of detail provided by participants as coincidence; rather, the consistency seems to warrant practical recommendations. In an article summarizing the challenges involved in updating the quality and accuracy of medical education to meet the needs of the modern world, Densen (2011) included the “implications of a faculty whose research is
highly focused at the molecular or submolecular level” (p. 1) as being a persistent problem.

While it is undoubtedly true that quality medical educators, those who possess both the relevant clinical wisdom and the effective teaching skills to be exemplary professors, are difficult to find and retain, that struggle does not excuse schools from the responsibility of providing quality faculty instruction for their students.

I strongly recommend each medical school take the time to inventory the qualifications of their teaching faculty with the goal of connecting individuals possessing deficiencies in essential job functions with required and enforced professional support. If it is a difficult task to employ medical educators who can come on board already qualified and effective at their craft, considerable resources should be allocated to reforming and improving the faculty who are available. Undergraduate institutions who face steep competition from one another for students and their federal aid money have engineered countless useful rubrics and performance measurement tools that make tracking and supporting faculty growth and improvement easier than it has ever been before. These types of technologically driven measures of accountability have proven significantly effective in producing performance improvement in faculty (Manthey, Magilner, Ozumba, & Neiberg, 2008).

Finally, I consider some of the most deplorable and condemning findings of this study to be the remediation and transfer verbiage used in many of the student handbooks, as outlined in the chart found in Appendix D. Phrases like “remediation is to be regarded as a privilege. Permission to remediate must be earned by a student” and “requests for transfer are discouraged and will rarely be considered unless there are highly compelling circumstances” in order to be considered for transfer between medical schools show just how far medical education has drifted from its stated goal of producing “physicians who are prepared to serve the fundamental
purposes of medicine” (AAMC, 1998, p. 3). Mistreating students and subjecting them to a wholly unnecessary power imbalance does not prepare them to serve the fundamental purposes of medicine. Additionally, plenty of research exists demonstrating learning as an iterative process during which failure should be understood as a probable step (Cherepinsky, 2011; Gonzalez et al., 2019; Henderson & Harper, 2009; Le-May Sheffield & Felten, 2018; Wenzel, 2002; Yerushalmi & Polingher, 2006). To assert that medical students should be grateful for the chance to go through this normal step in the learning process completely undermines the responsibility placed on institutions of higher learning to assist their students and speaks volumes about the unbecoming attitude those institutions likely employ when addressing their struggling learners. It is reasonable to assume that, for the schools willing to publish language like this in their publicly available handbooks, their internal messaging to students is similarly (if not even more) inappropriate.

I strongly encourage every medical school to review all the written policies and procedures in their handbooks and on their websites with a critical eye. How might they rewrite these documents if they suddenly needed to fight to attract applicants and fill their cohorts like a typical undergraduate institution? Similarly, consider who is in charge of internal written communications to students during each phase of their education. Conduct an unannounced audit of their emails and hold them accountable for how they speak to students. A high-quality, customer-service-centric approach should be employed by the schools not because it is demanded by the market and their bottom line, but simply because treating others with kindness and respect is the honorable thing to do.

I believe it is important to add that not all school handbooks reviewed leave the reader with a negative impression. In fact, finding verbiage from certain schools such as “the
progressive development of osteopathic physician competencies is a shared responsibility of both the learner and the School of Osteopathic Medicine” restores some hope that not every medical school feeds into the inherent power imbalance in medical education. Ideally, with continued revision efforts and more accountability, misguided faculty and administrators will learn to do better by their students. The medical institutions with encouraging verbiage in their handbooks serve as examples to the others of effective messaging and a positive culture of shared responsibility between school and student.

**Delimitations and Limitations**

This study was designed to fill what I viewed as a gap in existing medical education literature regarding the lack of consistency and quality in the remediation programming currently occurring at many osteopathic medical schools in the United States. A transcendental phenomenological study model was chosen based on its appropriateness for collecting the lived feelings and experiences of medical students who have undergone the process of academic remediation (Moustakas, 1994).

There were several delimitations decided upon for this study. First, I evaluated students from only one osteopathic medical school in the United States. Both the exclusion of allopathic schools and the choice to interview students from a single osteopathic school were intentional. Although it is almost certain that many allopathic medical programs in the United States share the same remediation programming quality issues, that cannot be confirmed or denied by this study. Second, I included only students who had successfully passed their required remediation(s) and did so without needing to repeat an academic year of their program for any other academic or non-academic reason. Third, I focused only on academic remediations that
occurred during the two didactic years of the curriculum and did not include clinical academic remediation situations (such as a failed shelf exam).

There were also limitations to this study, some expected and some unexpected. First, the sample of 10 students all being from one geographic region in one country is a limitation to the transferability of the findings. Second, the age range of the participants (24–28) was much smaller than anticipated, and I consider all 10 participants being fairly young, unmarried, and without children to be another limitation in relation to the transferability of the study. Third, I did not have equal representation from all ethnic groups (Caucasian, Asian, and Asian Caucasian), as I utilized volunteers and had only 10. Fourth, the sudden worldwide COVID-19 pandemic meant that the participants took their remediation examinations online from home, rather than in person at the institution, as is the typical process.

**Recommendations for Future Research**

This research study aspired to give voice to the experiences and thoughts of osteopathic medical students who have undergone academic remediation at a West Coast medical school in the United States. As noted in the review of existing literature section, numerous studies have been conducted around the topic of remediation but none that I could find focused on the lived experience of osteopathic medical students (Patel et al., 2015; Winter et al., 2017). This study was a small first step toward soliciting, and then listening to, high-achieving students provide valuable feedback about remediation as a component of their medical education experience; however, additional studies are needed.

First, there should be additional studies similar to this one conducted in other geographic regions that include a larger sample size. Second, there should be studies similar to this one focused on allopathic institutions. Third, there should be additional studies around the student
experience with remediation that compare and contrast the results from private and public institutions to examine how attitudes and policies may differ. Fourth, because of the lack of qualitative research studies examining academic remediation from a student perspective, additional studies utilizing a myriad of other qualitative approaches are needed. Fifth, longitudinal research studies should be conducted to examine possible lasting impacts of the academic remediation experience at different stages of the students’ medical training. Looking at impacts seen during post-didactic medical training could provide additional insights into how students navigate meaning making from the experience.

Some of the findings in this study also offer clear opportunities for spinoff research, one example being the differences between an online remediation experience and a residential one. For example, Scott noted, “The stress of doing it online was a lot scarier for me personally.” He went on to explain this was because of the eye tracking function built into the proctoring software used to monitor him during his exam. His comment came in contrast to other participants who noted that they appreciated taking their exam in an environment in which they were personally more comfortable. Further exploration into the ideal logistics and conditions for student success is needed to continue improving the process of academic remediation in a medical school setting.

Summary

This fifth and final chapter began with an overview section, followed by a summary of the findings and a discussion about those findings. The summary discussed how the data gathered from participants answered the central research question and three sub-questions. The discussion section featured an exploration of how the findings were illuminated by the two guiding theoretical frameworks utilized as well as an evaluation of how the study findings
aligned with the existing research in Chapter Two. The chapter then identified and explored the theoretical, empirical, and practical implications of this study, and recommendations were made for each. After the implications and recommendations sections, the chapter concluded with a report of the delimitations and limitations of the study, followed by recommendations for future research, before concluding with this summary.

Of all the honest and meaning-laden thoughts and experiences the participants shared in their interviews, essays, and activities, two points stick out as being supremely important takeaways. The first is how large an impact the faculty and administration had on the students’ experience of academic remediation. Some of the participants loved the faculty and administrators with whom they interacted, and some had severely negative things to say about them, but all 10 of the participants clearly articulated strong feelings about their interactions with school personnel. The second point this study revealed was the level of personal responsibility taken by these high-achieving students. Although eight of them placed some degree of blame on the institution, all 10 participants also took personal responsibility for their need to remediate by expressing what they believed they did or did not do that led to their need for remediation. This should be taken as a positive sign of encouraging levels of self-awareness. As Oscar so keenly put the core result of his remediation experience into words, “I think I'm more focused, and I know what I need to do to succeed. So, putting that pressure on really made me strive harder, instead of just being too comfortable and complacent.”
REFERENCES


https://doi.org/10.1097/acm.0000000000002079

https://doi.org/10.2105/AJPH.2017.304187


https://doi.org/10.1097/acm.0000000000001855

https://doi.org/10.1037/0022-3514.72.3.617


Liaison Committee on Medical Education. (2021, March). *Function and structure of a medical school: Standards for accreditation of medical education programs leading to the MD*


https://topmedicalschools.admissionsconsultants.com/stanford-university/


https://doi.org/10.1177/1049732314549602


https://doi.org/10.1097/00005053-198412000-00006


October 12, 2020

Lauren Daly  
Megan Cordes

Re: IRB Exemption - IRB-FY20-21-83 White Coat Remediation: Understanding Medical Students’ Academic Remediation Experiences

Dear Lauren Daly, Megan Cordes:

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46: 101(b):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your stamped consent form can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. This form should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, MA, CIP  
Administrative Chair of Institutional Research  
Research Ethics Office
Appendix B: Student Recruitment Email

Greetings:

My name is Lauren Daly, and I am doctoral student working on my dissertation through Liberty University in the School of Education. I am conducting research as part of the requirements for a Doctor of Philosophy in Education degree. The purpose of my research is to focus on osteopathic medical students who have remediated one or more courses to examine more closely the emotions and experiences associated with the process of academic remediation, and I am writing to invite eligible participants to join my study.

Participants must be active DO students at [institution name] who have successfully completed the remediation process for one or more courses during the two didactic years of the curriculum without repeating an academic year. If willing, participants will be asked to complete the following:

- An online survey consisting of demographic questions and written responses to two journal prompts (30 minutes total)
- Responses to three projective technique exercises, including personification, fill-in thought bubbles, and a life graph at the start of your personal interview (30 minutes total)
- Audio recorded (for transcription purposes) one-on-one interview (45 minutes)
- Member checking for accuracy of intent after interview audio is transcribed (15 minutes)
- Total Time Commitment = ~2 hours

Names and other identifying information will be requested as part of this study, but the information will remain confidential. If you have any questions, please do not hesitate to contact me at lauren.daly@email.com.

In order to participate, please click the following link to complete screening and take the survey:

[Link]

A consent document is provided in the survey link, following successful completion of the screening questions. The consent document contains additional information about my research. After you have read the consent form, please electronically sign the consent form by typing your full name and date in the required text box and click the button to proceed to the survey.

Participants who complete the four tasks involved in being a part of this study will receive a $10 Amazon giftcard as a small token of my appreciation for their time and effort.

Thank you for your time, I know it is precious!

SIGNATURE
Appendix C: Student Consent Form

Consent

Title of the Project: White Coat Remediation: Understanding Medical Students’ Academic Remediation Experiences
Principal Investigator: Lauren E. Daly, Ed.S, Liberty University

<table>
<thead>
<tr>
<th>Invitation to be Part of a Research Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are invited to participate in a research study. In order to participate, you must be active DO students at [Institution Name] who have successfully completed the remediation process for one or more courses during the two didactic years of the curriculum without repeating an academic year. Taking part in this research project is voluntary.</td>
</tr>
</tbody>
</table>

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

<table>
<thead>
<tr>
<th>What is the study about and why is it being done?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of the study is to focus on osteopathic medical students who have remediated one or more courses to examine more closely the emotions and experiences associated with the process of academic remediation. The goal of this study is to gain further insight into your personal experience with academic remediation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What will happen if you take part in this study?</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you agree to be in this study, I would ask you to do the following things:</td>
</tr>
<tr>
<td>1. Complete an online survey consisting of demographic questions and written responses to two journal prompts (30 minutes total).</td>
</tr>
<tr>
<td>2. Responses to three projective technique exercises, including personification, fill-in thought bubbles, and a life graph at the start of your personal interview (30 minutes total).</td>
</tr>
<tr>
<td>3. Audio recorded (for transcription purposes) one-on-one interview (45 minutes).</td>
</tr>
<tr>
<td>4. Member checking for accuracy of intent after interview audio is transcribed (15 minutes).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How could you or others benefit from this study?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants should not expect to receive a direct benefit from taking part in this study.</td>
</tr>
</tbody>
</table>

Benefits to society include the potential to benefit future students by providing additional information about remediation for the purposes of informing university policies and procedures.

<table>
<thead>
<tr>
<th>What risks might you experience from being in this study?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The risks involved in this study include the risk of a breach in confidentiality if the data is lost or stolen. Ultimately, the risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.</td>
</tr>
</tbody>
</table>
How will personal information be protected?
The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records. Data collected from you may be shared for use in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed before the data is shared.

- Participant responses will be kept confidential through the use of pseudonyms. Interviews will be conducted remotely via Zoom in a location where others will not easily overhear the conversation.
- Data will be stored on a password-locked, biometrically locked computer and may be used in future presentations. After five years, all electronic records will be deleted.
- Interviews will be recorded on Zoom and transcribed using NVivo12. Recordings will be stored on a password locked computer for five years and then erased. Only the researcher will have access to these recordings.

How will you be compensated for being part of the study?
Participants will be compensated a $10 Amazon gift card for participating in all four tasks in this study. Compensation will be delivered virtually by email upon completion of the study.

Does the researcher have any conflicts of interest?
The researcher serves as a learning specialist in the Office of Academic Services and Institutional Support at [Institution Name]. To limit potential or perceived conflicts it is important to know that the position of learning specialist does not involve the authority to dictate student grades or progression through an academic program. Participation or lack of participation in this study will not negatively affect academic or social standing. This disclosure is made so that you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate in this study.

Is study participation voluntary?
Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University or [Institution Name]. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?
If you choose to withdraw from the study, please contact the researcher at the email address included in the next paragraph. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?
The researcher conducting this study is Lauren Daly. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at [email]. You may also contact the researcher’s faculty sponsor, Dr. Megan Cordes, at [email].
Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record/video-record me as part of my participation in this study.

____________________________________
Printed Subject Name

____________________________________
Signature & Date
Appendix D: A Review of Osteopathic Student Handbooks

A review of the websites for all 37 accredited osteopathic medical schools (and some of their multiple satellite branches) in the United States found that 35 posted their student handbooks digitally for public review, while two did not. These colleges are accredited to deliver instruction at 58 teaching locations in 33 states. Seven of the colleges are public and 29 are private institutions.

<table>
<thead>
<tr>
<th>DO School / Handbook</th>
<th>Mentions of Remediation</th>
<th>Transcript Notation</th>
<th>Transfer policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACOM</td>
<td>Handbook Not Posted For External Review.</td>
<td>“70-R” or “70-X” for remediated courses</td>
<td>“ARCOM accepts transfer applicants in rare circumstances only when students are transferring from a LCME or AOA accredited college of medicine.”</td>
</tr>
<tr>
<td>ARCOM</td>
<td>Can fail 2 courses before triggering inability to remediate/dismissal. 75% or higher required to pass remediation.</td>
<td>“ARCOM accepts transfer applicants in rare circumstances only when students are transferring from a LCME or AOA accredited college of medicine.”</td>
<td></td>
</tr>
<tr>
<td>ATSU-KCOM</td>
<td>No mention of remediation.</td>
<td>Info not present in handbook.</td>
<td>Info not present in handbook.</td>
</tr>
<tr>
<td>BCOM</td>
<td>“Students may remediate only one course per term and will have only one opportunity to remediate any failure. Remediation examinations will be scheduled at the end of each term with time available for students to restudy material from the course. The format of the examination will be determined by the Course Director as will the minimum required performance to pass the exam and the course.”</td>
<td>“70RP” in their academic record or a “PX” if it is a Pass/Fail Course</td>
<td>Info not present in handbook.</td>
</tr>
<tr>
<td>CHSU-COM</td>
<td>No acceptable number of remediations mentioned. “Required student preparation for Remediation may consist of, but is not limited to, self-study, tutoring, and meetings with the learning specialists and/or course instructor(s) as determined by the Year-Specific Curriculum Director. Remediation Exams are not subject to appeal.”</td>
<td>“RC”</td>
<td>Info not present in handbook.</td>
</tr>
<tr>
<td>CUSOM</td>
<td>“Students who fail any part of the curriculum are brought before the Academic Performance, Promotion and Standards (APPS) Committee for review and possible disciplinary action. The APPS Committee may offer students who fail any part of the curriculum an opportunity for remediation. Students who experience difficulty successfully completing elements of the CUSOM</td>
<td>“A student who earned a grade of F initially and is eligible to remediate the course will have the grade reported as Incomplete”</td>
<td>“CUSOM may consider acceptance of transfer students. Potential transfer students must submit the following to the Office of Admissions: a completed CUSOM Application for Transfer form, certified and official transcripts from all...”</td>
</tr>
</tbody>
</table>
Curriculum may be placed into a combination curriculum/remediation program (Modified Course of Study). The MCOS will be individually designed based upon the student’s performance and needs by the respective Associate Dean and approved by the APPS Committee. A Modified Course of Study (MCOS) is a credit-bearing, individualized study plan for students who require an alternative educational pathway for reasons such as mandated board preparation, required remediation, illness, leave of absence, or withdrawal. Students placed in a Modified Course of Study must agree to comply with the plan as determined by the APPS Committee. **PLEASE NOTE THAT THE OPPORTUNITY TO REMEDIATE IS NOT GUARANTEED AND IS A DECISION MADE BY THE APPS COMMITTEE ON AN INDIVIDUAL BASIS. A STUDENT MUST NOT ASSUME HE/SHE WILL BE GRANTED REMEDICATION.** (Emphasis theirs)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMU-COM</td>
<td>Handbook Not Posted For External Review.</td>
</tr>
<tr>
<td>ICOM</td>
<td>No inclusion of the word remediation at all. No policy on course failures included.</td>
</tr>
<tr>
<td>KCU-COM</td>
<td>Excellent and extensive breakdown of processes and policies. 3 fails in a single year triggers automatic repeat of the year. 3-5 fails cumulatively earns referral to SPC, subject to dismissal.</td>
</tr>
<tr>
<td>LECOM-PA</td>
<td>$500 max fee for course remediation, decided by course length. $100 remediation exam fee. “Courses, systems, modules of three credit hours or more are classified as major courses and failure of two major courses or a combination of one major and two minor courses (including remedial courses) may result in the student having to repeat the year or being dismissed.”</td>
</tr>
<tr>
<td>LECOM-FL</td>
<td>$500 max fee for course remediation, decided by course length. $100 remediation exam fee. “Courses, systems, modules of three credit hours or more are classified as major courses and failure of two major courses or a combination of one major and two minor courses (including remedial courses) may result in the student having to repeat the year or being dismissed.”</td>
</tr>
<tr>
<td>LMU-DCOM</td>
<td>$100 remediation fee per course. Four weeks of vacation are allowed in the 3rd and 4th year, “F/C” Students applying to transfer into the school must transfer post-secondary educational institutions, verifying passing grades in all subjects at the time of transfer, and an overall 3.2 GPA or higher on a 4.0 scale at their current medical school. Transfer students leaving an accredited medical school must request a letter from both the Dean and one Associate Dean from all prior medical schools attended.”</td>
</tr>
<tr>
<td>Institution</td>
<td>Policy Description</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>LUCOM</td>
<td>More than 2 fails in a year, repeat the year. 3+ fails subject to dismissal.</td>
</tr>
<tr>
<td>MSUCOM</td>
<td>“Students who receive an “N” (“no grade”) in a course may be eligible to remediate that course under terms defined in the course syllabus.”</td>
</tr>
<tr>
<td>MU-COM</td>
<td>“If a course coordinator offers remediation, the course coordinator will determine the format and timing of the remediation program.” Can’t remediate more than one course in an academic year.</td>
</tr>
<tr>
<td>NSU-KPCOM</td>
<td>“The committee may require one or more remedial measures to be successfully completed by the student in order for the student to be removed from academic probation and returned to good standing.”</td>
</tr>
<tr>
<td>NYIT-COM</td>
<td>“There is a $500 fee for all remediation programs. The remediation fee cannot be covered by financial aid. For any student approved to repeat an academic year, during the repeat year, the student will be charged 50% of the regular tuition charges for any billing period for which the student had already paid 100% in the prior year. The student will pay full fees in the repeat year. The student may remediate only one course or clerkship per academic year. In such cases, the student will be placed on academic warning status.”</td>
</tr>
<tr>
<td>OU-HCOM</td>
<td>Terribly disjointed and difficult to navigate.</td>
</tr>
<tr>
<td>PCOM</td>
<td>“The Course Director, in consultation with the Associate Dean of Osteopathic Curriculum at the</td>
</tr>
<tr>
<td>Institution</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>PNWU-COM</td>
<td>Format of handbook prevents the search function, which is very inconvenient for readers. Different grading policies for each individual course, very inconsistent and confusing. Remediation is mentioned as the remedy to failure, no additional information offered.</td>
</tr>
<tr>
<td>Rowan-SOM</td>
<td>“Appropriate course remediation procedures to change a failing grade include taking a reexamination covering all or parts of a course as designated by the syllabus, or retaking the course.” Two fails means student is no longer eligible for remediation, three fails means subject to dismissal. Very clear and detailed remediation information.</td>
</tr>
<tr>
<td>RVU-COM</td>
<td>“If a preclinical student receives approval to remediate a course failure, they, in conjunction with the Director of Preclinical Education, the Course Director, and the Office of Testing will be required to develop a remediation schedule. Remediation examinations will occur at an RVU campus and must be proctored by an RVU employee, or designee.” No more than 2 courses may be remediated. Very clear and detailed remediation information.</td>
</tr>
<tr>
<td>SHSU-COM</td>
<td>“Students who require remediation shall be provided with an opportunity to review their examination outcomes with an Academic Success Specialist specifically to assess whether patterns of performance can be utilized to improve future performance. The requirements for remediation and the nature of the re-evaluation examination shall be established by the course director. Any remediation plan shall include time for the student to prepare for re-evaluation examination(s), as determined by the course director. Dates for re-evaluation shall be determined for each course by the course director.”</td>
</tr>
<tr>
<td>Institution</td>
<td>Policy</td>
</tr>
<tr>
<td>-------------</td>
<td>--------</td>
</tr>
<tr>
<td>Touro-COM</td>
<td>“Remediation is to be regarded as a privilege that must be earned by a student through active participation in the educational program, as demonstrated by regular attendance (as described in this Handbook) and by individual initiative and utilization of resources available to him/her. Decisions regarding remediation will be made by the Dean on an individual basis after considering the recommendation of the SPC and all pertinent circumstances in each case.” Three or more fails not eligible for remediation.</td>
</tr>
<tr>
<td>TUC-COM</td>
<td>“Students may be allowed to repeat a failed course one time in order to obtain a passing grade. Remediation of a course may include submitting additional work for evaluation or revising prior assignments.”</td>
</tr>
<tr>
<td>TUN-COM</td>
<td>“Remediation is to be regarded as a privilege. Permission to remediate must be earned by a student through active participation in the educational program as demonstrated by regular attendance, individual initiative, and utilization of resources available to him/her. Students will take a remediation exam. The specific time and day of the remediation exam will be determined by the course director. A student who fails more than two courses in an academic year will be reviewed by the SPC.”</td>
</tr>
<tr>
<td>UIWSOM</td>
<td>“The progressive development of osteopathic physician competencies is a shared responsibility of both the learner and the School of Osteopathic Medicine. Any learner who accumulates a total of TWO grades of Fail (F) or FOUR non-passing (e.g., SR, F) grades during the course of their medical education at UIWSOM, regardless of whether or not the course was remediated, fulfills the criteria for dismissal.”</td>
</tr>
<tr>
<td>Institution</td>
<td>Information</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>UNT/TCOM</td>
<td>Info not present on website page that functions as the handbook.</td>
</tr>
<tr>
<td>KY-COM</td>
<td>“The P&amp;M Committee determines if students with course failures are eligible to pass failed courses via end-of-year course remediation at KYCOM; repeat failed courses at KYCOM with a full or decelerated schedule; or, with approval from the KYCOM Dean, to repeat one or more failed courses at another institution; or to be dismissed from KYCOM.” Decelerated curriculum option is unique and supportive. Clear, well laid out policy.</td>
</tr>
<tr>
<td>VCOM-Virginia</td>
<td>“Students will be charged for participation in altered academic programs. These charges will consist of an administrative fee, and charges for the portion of curriculum being completed and any additional remediation courses. A final course grade of less than 70% will normally require remediation of all of the course material during the one-week period provided between blocks. A single, comprehensive written or practical exam covering the material of the overall course or the entire component from the course will be administered during this week and must be completed prior to the first class of the next Block.”</td>
</tr>
<tr>
<td>VCOM-Auburn</td>
<td></td>
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<tr>
<td>VCOM-Carolinas</td>
<td></td>
</tr>
<tr>
<td>VCOM-Monroe</td>
<td></td>
</tr>
<tr>
<td>WCUCOM</td>
<td>“The P&amp;M Committee, in consultation with the Course Director and Assistant Dean, Assessment and Curricular Affairs, will review remediation options for the student before final approval.”</td>
</tr>
<tr>
<td>WesternU/COMP</td>
<td>“The Student Performance Committee (SPC) shall consist of ten (10) voting members. The educational objectives that underlie remedial teaching and evaluation will be the same as the educational objectives that underlie regular courses in the curriculum. If the student is allowed to remediate or repeat the course or rotation, the Course Director, in consultation with the Office of Academic Affairs, will determine the way(s) in which the student will demonstrate acceptable academic performance and complete the requirement(s). This may include passage of a comprehensive examination or other requirements as directed.”</td>
</tr>
<tr>
<td>WVSOM</td>
<td>“The remediation plan, approved by the Curriculum Committee and/or the appropriate Associate Dean, will be included in detail within each course syllabus and in the Clinical Education manual. The authority to assign a remediation course grade and final course grade lies with the Associate Dean for Preclinical Education for Years 1 and 2. Students will not be permitted to remediate more than one failed course in each academic year.”</td>
</tr>
</tbody>
</table>
professional behavior.” Clear, kind, reasonable request for transfer criteria
**Appendix E: Current Medical Specialties in the United States**

<table>
<thead>
<tr>
<th>Current Medical Specialties in The United States (Cigna, n.d.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction psychiatrist</td>
</tr>
<tr>
<td>Adolescent medicine specialist</td>
</tr>
<tr>
<td>Allergist (immunologist)</td>
</tr>
<tr>
<td>Anesthesiologist</td>
</tr>
<tr>
<td>Cardiac electrophysiologist</td>
</tr>
<tr>
<td>Cardiologist</td>
</tr>
<tr>
<td>Cardiovascular surgeon</td>
</tr>
<tr>
<td>Colon and rectal surgeon</td>
</tr>
<tr>
<td>Critical care medicine specialist</td>
</tr>
<tr>
<td>Dermatologist</td>
</tr>
<tr>
<td>Developmental pediatrician</td>
</tr>
<tr>
<td>Emergency medicine specialist</td>
</tr>
<tr>
<td>Endocrinologist</td>
</tr>
<tr>
<td>Family medicine physician</td>
</tr>
<tr>
<td>Forensic pathologist</td>
</tr>
<tr>
<td>Gastroenterologist</td>
</tr>
<tr>
<td>Geriatric medicine specialist</td>
</tr>
<tr>
<td>Gynecologist</td>
</tr>
<tr>
<td>Sleep disorders specialist</td>
</tr>
<tr>
<td>General Surgeon</td>
</tr>
<tr>
<td>Vascular surgeon</td>
</tr>
</tbody>
</table>
Appendix F: Journal Prompts

Tell me about someone who inspired you to go into medicine (minimum of 200 words).
• Journal Prompt #1

Tell me about how you are paying for medical school (minimum of 200 words).
• Journal Prompt #2
Appendix G: Projective Techniques – Thought Bubble

What are these student doctors thinking or saying about academic remediation in medical school?

Type your answers into the Zoom chat box.

[Images of female and male doctors with thought bubbles removed for copyright]
# Appendix H: Thought Bubble Responses

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Female Response</th>
<th>Male Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pam</td>
<td>I hope I can pass my remediation exam so I don't fall behind in school and have a hard time matching.</td>
<td>I've already studied so much for the upcoming re-test, but I don't know how to measure my understanding of the concepts to ensure I pass this time.</td>
</tr>
<tr>
<td>Jamie</td>
<td>Remediation is difficult but not the end of the world for one's medical career, sometimes it takes a while to adapt to medical school or sometimes you have a bad test in a one exam course. Either way, it won't sink your residency chances and may even be a good learning experience in the long run.</td>
<td>Remediation is difficult but not the end of the world for one's medical career, sometimes it takes a while to adapt to medical school or sometimes you have a bad test in a one exam course. Either way, it won't sink your residency chances and may even be a good learning experience in the long run.</td>
</tr>
<tr>
<td>Michael</td>
<td>Disappointment, self of failure, self-loathing, embarrassment, frustration, anger.</td>
<td>Disappointment, self of failure, self-loathing, embarrassment, frustration, anger.</td>
</tr>
<tr>
<td>Jessica</td>
<td>Omg this is humiliating. :( I don't want to go through this.</td>
<td>I don’t want to go through this.</td>
</tr>
<tr>
<td>Amanda</td>
<td>I feel confident that I won’t have to go through academic remediation.</td>
<td>I feel confident that I won’t have to go through academic remediation.</td>
</tr>
<tr>
<td>Scott</td>
<td>I hope I don’t fail.</td>
<td>I hope I don’t fail.</td>
</tr>
<tr>
<td>Zayda</td>
<td>Remediation will cut into my dedicated study period for boards.</td>
<td>I only failed by one point!</td>
</tr>
<tr>
<td>Alisha</td>
<td>I heard that the remediation test is the same as the final.</td>
<td>Yay.</td>
</tr>
<tr>
<td>Oscar</td>
<td>Doing the remediation before second year was a good way to brush up on content I felt uncomfortable with in first year, and I think it prepared me for second year.</td>
<td>Even though I was disappointed that I did not pass the class on my first try, remediating gave me the opportunity to really learn the information well.</td>
</tr>
<tr>
<td>Cliff</td>
<td>I sure wish I knew what mistakes I made the first time.</td>
<td>I sure wish I knew what mistakes I made the first time.</td>
</tr>
</tbody>
</table>
Appendix I: Projective Techniques – Personification

As you look at the word remediation above, capture your immediate feelings by describe what remediation might be like if it were a person.

Information such as what sort of lifestyle it would live, how much money it would make, how it would look physically, and where it might go on vacation are some examples of the type of content you might include.

Type your answer into the Zoom chat box.
### Appendix J: Personification Responses

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Responses to Personification of the Word Remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pam</td>
<td>Remediation is a 35 year old male who works as a local fireman and enjoys swimming in his free time. He eats a healthy but non-restrictive diet but has no family because he's so busy. He uses his free time to help train new firemen but otherwise does no volunteer work. When he's not on the clock, he enjoys wearing Armani just for fun.</td>
</tr>
<tr>
<td>Jamie</td>
<td>If remediation were a person, it would most likely be someone who is professionally dressed and optimistic. It could very well be a physician making a comfortable salary in a nice place. For vacation, perhaps it would be going to a nice island retreat to explore someplace new.</td>
</tr>
<tr>
<td>Michael</td>
<td>A disappointed father/teacher.</td>
</tr>
<tr>
<td>Jessica</td>
<td>To me remediation is this very stuck up, snobby person who lives to enforce and follow the rules. Their lifestyle is working and they make way more money than anyone else, they look up tight, very proper and w/ resting bitch face lol I think they would probably go on vacation to somewhere really boring like a museum on taxes haha.</td>
</tr>
<tr>
<td>Amanda</td>
<td>If Remediation were a person, I feel like the ideal perception of this person would be knowing them for a while, months to years. And you could see that they really go through an arduous process. At first, you would picture them as exhausted, tired, and fatigued. You would perceive them as someone who struggles at first w their life. But as time passes, you watch them become a lot stronger, healthier, and overall better. I picture almost the evolutionary picture we see in science.</td>
</tr>
<tr>
<td>Scott</td>
<td>Almost kinda like a former convict/someone who spent time in jail and is coming back and trying to get things back on track.</td>
</tr>
<tr>
<td>Zayda</td>
<td>If remediation were a person, they would probably be the type that felt the need to live up to other people's standards and expectations. They work hard day and night to live up to these standards, and still somehow end up behind everyone else. Deep down, they know that they are genuinely talented and exceptional in their own way - but unfortunately the world only values them on other measures. They probably drink black coffee only because other &quot;successful&quot; people drink black coffee, when in reality they would much prefer a sweet and creamy latte instead. They have a difficulty buying a car, dating, building their future, and overall &quot;adulting&quot; because they worry about the impact of the tiny shortcomings of the past on their future. They never go on vacation, mostly because they fear what others may criticize about them. They truly strive to make others happy and impress others, but in the end feel completely disingenuous.</td>
</tr>
<tr>
<td>Alisha</td>
<td>Remediation would be a person who believes that meritocracy is real. Their parents were well off. They got a nice car for their 16th birthday. They are in the top 10% of people in the United States, as in they make $100,000 for a family of 4. They aren't flashy in the way they dress or present themselves. Run of the mill. Definitely a man. Glasses. They would go somewhere like Colombia for vacation to be <del>adventurous</del>.</td>
</tr>
<tr>
<td>Oscar</td>
<td>When I see the word remediation, I think of redemption or renewal. I think it would be like a person who used to be overweight with low self-esteem who gets healthy and becomes a fitness coach to help others who are currently in that situation. Another example is a former addict who gets clean and studies addiction medicine to help others who are currently going through that struggle. Money and looks can vary based on the person. Regardless, remediation as a person would be someone who struggled, had a positive transformative change, and discovered fulfillment and self-actualization.</td>
</tr>
<tr>
<td>Cliff</td>
<td>Fat middle aged man, smoker, hanging out at a deep southern 7/11 parking lot wearing a stained and torn tank top.</td>
</tr>
</tbody>
</table>
## Appendix K: Summary of Adjectives Used to Describe Remediation

The following table lists the participant responses to Question 12 of the interview, which instructed, “Use 2–5 carefully selected adjectives to describe your experience with the remediation process (i.e. productive, scary, enlightening, etc.).”

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Year in DO Program</th>
<th>Adjectives used to describe the remediation process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pam</td>
<td>DO22</td>
<td>productive, underwhelming, self-guided, motivational</td>
</tr>
<tr>
<td>Jamie</td>
<td>DO23</td>
<td>productive, terrifying, enlightening</td>
</tr>
<tr>
<td>Michael</td>
<td>DO22</td>
<td>troublesome, tiresome, productive</td>
</tr>
<tr>
<td>Jessica</td>
<td>DO23</td>
<td>scary, stressful, helpful</td>
</tr>
<tr>
<td>Amanda</td>
<td>DO23</td>
<td>enlightening, awakening, productive, necessary</td>
</tr>
<tr>
<td>Scott</td>
<td>DO23</td>
<td>scary, enlightening</td>
</tr>
<tr>
<td>Zayda</td>
<td>DO22</td>
<td>scary, anxiety-provoking, relieving</td>
</tr>
<tr>
<td>Alisha</td>
<td>DO21</td>
<td>insightful, unproductive, horrific</td>
</tr>
<tr>
<td>Oscar</td>
<td>DO23</td>
<td>intimidating, stress-inducing, enlightening, productive, rewarding</td>
</tr>
<tr>
<td>Cliff</td>
<td>DO22</td>
<td>terrifying, isolating, somewhat pointless, unnecessary</td>
</tr>
</tbody>
</table>
Appendix L: Projective Techniques – Life Graph
Appendix M: Interview Questions

1. How would you describe yourself both in and out of an academic setting? [SQ1]
2. Explain your thoughts and emotions the moment you learned you had been accepted into medical school (place that on your positives graph if you have not already) [SQ1]
3. Explain your thoughts and emotions the moment you learned you needed to remediate (place that on your negative graph if you have not already) [SQ2]
4. Have your feelings or thoughts about medical school or becoming a doctor changed since school began? If yes, explain. [SQ3]
5. What was one positive thing and one negative thing you noticed about yourself during the remediation process? [CQ]
6. Describe your support system during remediation, both inside and outside of the university; describe these individuals and their relationship to you. [SQ2]
7. When do you first remember hearing the word remediation (in relation to medical school), and then understanding what it meant in context? [SQ1]
8. What were your thoughts about remediation before you began medical school? [SQ1]
9. What factors do you believe led you to need remediation? [SQ2]
10. When preparing for your remediation examination(s), describe the specific study methods you employed. [CQ]
11. How did you manage your emotional and mental health while preparing for your remediation examination(s)? [SQ2]
12. Use 2–5 carefully selected adjectives to describe your experience with the remediation process (i.e. productive, scary, enlightening, etc.). [CQ]
13. Explain any benefits that you believe were a direct result of your remediation experience. [SQ3]
14. Explain any disadvantages that you believe were a direct result of your remediation experience. [SQ3]
15. How are you different as a result of your experience remediating? [SQ3]
16. A classmate comes to you and expresses their need for remediation after failing a course, what do you tell them? [CQ]
## Appendix N: Intersection between Research Questions and Interview Questions

<table>
<thead>
<tr>
<th>Central Research Question:</th>
<th>Sub-Question 1:</th>
<th>Sub-Question 2:</th>
<th>Sub-Question 3:</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do medical students describe the experience of academic course remediation in an osteopathic medical?</td>
<td>How do medical students describe themselves and their academic abilities before and during academic remediation?</td>
<td>How do medical students describe their personal role in the remediation process?</td>
<td>How do medical students describe themselves after academic remediation?</td>
</tr>
<tr>
<td>5. What was one positive thing and one negative thing you noticed about yourself during the remediation process?</td>
<td>1. How would you describe yourself both in and out of an academic setting?</td>
<td>3. Explain your thoughts and emotions the moment you learned you needed to remediate (place that on your negative graph if you have not already).</td>
<td>4. Have your feelings or thoughts about medical school or becoming a doctor changed since school began? If yes, explain.</td>
</tr>
<tr>
<td>10. When preparing for your remediation examination(s), describe the specific study methods you employed.</td>
<td>2. Explain your thoughts and emotions the moment you learned you had been accepted into medical school (place that on your positives graph if you have not already).</td>
<td>6. Describe your support system during remediation, both inside and outside of the university; describe these individuals and their relationship to you.</td>
<td>13. Explain any benefits that you believe were a direct result of your remediation experience.</td>
</tr>
<tr>
<td>12. Use 2–5 carefully selected adjectives to describe your experience with the remediation process (i.e. productive, scary, enlightening, etc.).</td>
<td>7. When do you first remember hearing the word remediation (in relation to medical school), and then understanding what it meant in context?</td>
<td>9. What factors do you believe led you to need remediation?</td>
<td>14. Explain any disadvantages that you believe were a direct result of your remediation experience.</td>
</tr>
<tr>
<td>16. A classmate comes to you and expresses their need for remediation after failing a course, what do you tell them?</td>
<td>8. What were your thoughts about remediation before you began medical school?</td>
<td>11. How did you manage your emotional and mental health while preparing for your remediation examination(s)?</td>
<td>15. How are you different as a result of your experience remediating?</td>
</tr>
</tbody>
</table>
Appendix O: Sample Interview Transcript

Scott’s Interview: November 30, 2020.

1. **How would you describe yourself both in and out of an academic setting?**
   Um, probably the first thing that comes to mind is like fairly relaxed. Just, I guess, just trying to do my own thing, not trying to stress out about things I don't need to worry about at the time. I guess I try to be more serious in an academic setting in the sense of like, obviously, some things you can joke about in like a private setting, but in academic, you can't. So that's probably the biggest differentiator.

2. **Explain your thoughts and emotions the moment you learned you had been accepted into medical school (place that on your positives graph if you have not already)**
   Oh, I was elated. I called out of work that day, told him why and they were okay with it.

3. **Explain your thoughts and emotions the moment you learned you needed to remediate (place that on your negative graph if you have not already)**
   Just because, like, my mindset at the time was like, not good. Sleep was a huge issue for me. And like I was dealing with, like, stuff like that. So I kind of like, as soon as I finished the test, I kind of knew I was gonna have to remediate. So it wasn't like a huge shock or anything.

4. **Have your feelings or thoughts about medical school or becoming a doctor changed since school began? If yes, explain.**
   Um, yes and no. So like no as in it didn't really change my graph. But yes, as in like, the more you learn about medical school, as you said, like, medical education is really, in my opinion, unstructured right now. Relative to what we need to learn. The more I learn about that, the more like, I guess I'm just annoyed because there's the stuff that we should be learning and we're not learning. And I get why, like, obviously, the school wants us to focus on some things. But at the same time, some professors have a tendency to try to teach what they think is interesting versus what's actually tested on boards. Because what they think is interesting is not what we're going to get tested on. And even if it's relevant to us being a future doctor, ultimately, the most important information we learn comes during rotations and residency. That's where we like learn the most, in our year long process, like the first two years are just primers. It's kind of similar to the whole concept of undergrad where like, you know, you have to take classes from all different fields versus stuff that is just relevant to your major, right? It's similar to that, like, I kind of thought I'd be done with that once I graduated. But once you're in here, you realize there's still certain—like, it is related, but it's different in a sense. Like if I can bring up a specific case, one of our professors for a case study brought up an example that no one knew. The reason no one knew was because this case had only come up twice in the last hundred years. Like just stuff like that. It's like I guess it's interesting, but really?
5. What was one positive thing and one negative thing you noticed about yourself during the remediation process?
I mean, I just noticed a change in study habits and what works for me. And I guess I got to do that in remediation versus in school because like, what happened in school is like, you know, even if you have to remediate, you still have to focus on your other stuff. You can't just go back to studying for that one class, you have to move on, and not really think about it until it's time. So I, like didn't have a lot of time to really change my study habits. Like I changed it a little bit, right. But I didn't get a huge chance to sit down and like, analyze every aspect of what I was doing, what I liked. So just a neutral thing? Because like, it's not that it's . . . I don't think it's done yet. It's like, I'm always tweaking it a little bit. Because for me, I don't like doing the same thing over and over. I have to change it up a bit. The only groove I'm trying to achieve is going to bed and waking up at the same time, but during the day, I like to keep my sleep schedule flexible, because like, I think doing the same thing every day can lead to burnout quite quickly.

6. Describe your support system during remediation, both inside and outside of the university; describe these individuals and their relationship to you.
Um, mainly just my roommates. Like, if I have any questions, I would just--or like any stuff that I was a little unsure on I just asked them and they tried to help out. I mean, my friends knew like, it's not anything I kept secret. Like, if anyone asked, I told them. Because again, like, I see no point in hiding it. Um, I mean, I emailed Dr. F about it, but this was kind of annoying. But so I had two remediations right? I had one for, I wanna say repro. And Dr. G was extremely helpful. And same with Dr. P, she was very helpful with her material. But then for MSK, when I emailed Dr. F, his response was a just like, eight different resources, which he might pull questions from, and that was it. And it's like, Okay. And then I asked if I could get access to them, he told me to contact a librarian, and then the librarian said, we don't have access to those resources anymore. So it's just like, I mean, again, MSK was one of those where I didn't need those exact resources. Like it's, it's just memorizing very simple structures. I say simple now. And then I guess it really didn't make that much of a difference. But it's just that that idea like that, he told me it's gonna be from there, and I couldn't even get access to those was a little annoying. But then it's just like, it was like a week and a half before the test. And then I'm just like whatever. I'll just study on my own and hope for the best and it worked out. I've noticed a trend with me specifically is that if it's like a conceptual thing, like for example, cardiopulmonary or renal, which were considered the harder units for a class--I thought they were easy. But when it comes to stuff that's like sheer brute force memorization. I, I hate to say it, I tend to get a little lazy with it, or rather just bored of rote memorization. It's just like, I just can't just sit there and look through a list of 200 things and do it. It's just I just can't. Which is . . . I'm trying to work on . . . but it's hard to change.

7. When do you first remember hearing the word remediation (in relation to medical school), and then understanding what it meant in context?
Um, I think I heard about it. Uh, honestly, when I started, because there was a—I think someone in my class was someone who's remediating a year, a whole year. Yeah, Parker, who was remediating, so I did hear about it quite early on in the school year.
8. **What were your thoughts about remediation before you began medical school?**
   Um, well, first, I was extremely worried that like it might affect like, you know, what residency you get into and all that. And then I just did some quick like research on it. And I guess the first two years grades are so trivial in terms of residency. And I've heard like of multiple cases where people got into like top tier specialties, even after failing multiple classes in the first couple of years. As long as they passed their remediation they were fine, of course.

9. **What factors do you believe led you to need remediation?**
   Just, um, lack of sleep was probably number one. And then that kind of led to like an inability to kind of focus in class and out of class, etc.

10. **When preparing for your remediation examination(s), describe the specific study methods you employed.**
   Um, I basically tried to stick to two passes. But before what I was doing was I tried three passes with the first pass kind of being a very cursory, and that didn't work. So I just started doing two very, like, I guess, strict passes. And I tried to schedule them. So they were about, I want to say, about five days apart. So it's still somewhat in my mind when I was reviewing it for the second time. And then I did do like, I guess, I guess I did do a third pass. It was just like a quick run through of all the PowerPoints the day before, and I just tried to focus on clinical concepts on those.

11. **How did you manage your emotional and mental health while preparing for your remediation examination(s)?**
   Uh, I just, I mean, again I try not to overthink things because again, stressing out will only lead to negative things, in my opinion. So I just kind of treated it as like just another exam, I didn't really treat it as remediation as much as like another exam that I'd have to take. That's just how I kind of treat stuff. Because I try not to focus on the past as much because you can't really change it.

12. **Use 2–5 carefully selected adjectives to describe your experience with the remediation process (i.e. productive, scary, enlightening, etc.).**
   Um, I will have to say scary has to be on there because again, like the thought of failure is always there. And like, you know, failing can lead to repeating a whole year, etc. But I'd probably say, enlightening, for me is the biggest one. Because, and this is what I was telling my roommates actually, when I was relearning the material I realized that like a lot of the material I still knew and like I still remembered. And then when I went to the test, I could almost remember the answers I put when I took it the year before. And I'm just wondering what was going on in my head that made me select that answer at that time, because I knew the material. But I just guess my thought process was all jumbled at the time. Yeah. So it was just like, I just picked answers that, if you asked me that now I would just be like, that's like the first one that's NOT true. But somehow I ended up picking it at that time. So that was very, it was very interesting. Reviewing that.
13. **Explain any benefits that you believe were a direct result of your remediation experience.**
   Um, I have a much better sleep schedule now. Partially because of the fact that you know, once I found out I failed, I started working on fixing it then. But then, and this feels weird to say, but I have to admit COVID kind of helped in that regard. Because we were at home all the time. So it really helped, like solidify like my home life.

14. **Explain any disadvantages that you believe were a direct result of your remediation experience.**
   I did lose some time studying for boards, because I definitely didn't want to brush this off. And, you know, not pass. So I know, while a lot of my classmates were like starting boards prep and all that I was stuck doing remediation. Which I mean, like, again, not. not a bad thing. But that goes back to my original point of what we learn in classes is not what's on boards, which was just reinforced all the more for me in that situation. Both in the summer. I mean, for me, I plan on doing it because of COVID I plan on doing a six month dedicated. So like, even right now through classes, I am looking at lectures, but I'm not like, going eight hours a day studying like some people are. I mean, my roommates doing that and he's already showing signs of burnout. And we're still we're still six, seven months away from boards. And like I mentally told myself that: I'm gonna use this time to kind of relax, just like get myself in the right state of mind, and then go for it.

15. **How are you different as a result of your experience remediating?**
   Um, I think I've learned to be more calm. Because I've noticed I've talked to some others that were remediating and they're definitely like much more panicked about it, which is understandable. But like, I guess I was very . . . like after remediation, once I found out that what I was doing was working, I was much happier about that. And just more confident in the way I was going about doing things. I would probably tell them don't stress too much about it. Because the more they stress, the worse that the whole situation is going to be. That would always be my number one thing. And again, I would accept the fact that it's easy to say that since I already passed it. But I do stand by that statement. If people are overly stressed out about something they won't perform as well. It's the whole Yerkes Dodson curve.

16. **A classmate comes to you and expresses their need for remediation after failing a course, what do you tell them?**
   I would probably tell them don't stress too much about it. Because the more they stress, the worse that the whole situation is going to be. That would always be my number one thing. And again, I would accept the fact that it's easy to say that since I already passed it. But I do stand by that statement. If people are overly stressed out about something they won't perform as well. It's the whole Yerkes Dodson curve.

17. **Standard unofficial closing question: Was there anything else you wanted to say that the last 16 questions have not prompted you to talk about?**
   I guess the one thing I want to talk about is the remediation being online. I guess . . . I don't know, the stress of doing it online was a lot scarier for me personally, because I'm someone
who fidgets a lot like, I have ADHD. I'm actually trying to get like my official diagnosis and prescription through Kaiser. So I guess the reason I was nervous was because with the online test, I fidget a lot. I'm like, even during classes on campus, I would like stare at the ceiling for like 10, 20 seconds at a time. And it was kind of worrying because you know with the test you have to focus like, it's weird if your eyes move, like, even though we do the whole, like rotate your camera scan, make sure everything's clean. Yeah, it's always like a little scary that you might get flagged for something. And I know they review it. I wasn't like too worried. But it's just another thing that you don't want to deal with. So I mean, but other than that, like the process itself was fine. If anything it was definitely more beneficial for students, because like they're doing it in an environment they're comfortable in.
Appendix P: Data and Theming Tables

In the following tables, quotations from each participant’s response to Questions 6, 9–11, 13–16 are presented; these responses were used for batch review and code and theme development.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pam</td>
<td>Yeah, so my study strategies the first time around with trying to overcome the barrier that I had, I was doing a bazillion flashcards a day of learning the origins and insertion.</td>
</tr>
<tr>
<td>Jamie</td>
<td>Well, like I said before, not knowing how to study for physiology. Yeah, that was pretty much the nail in the coffin was the bad score on the midterm. It was hard to pull up my grade with my skill level at that point.</td>
</tr>
<tr>
<td>Michael</td>
<td>So, even before the sickness, the sickness was an issue for sure. But even before that, it was just medical school is just so draining. And even when I started the first semester, in our pulmonary course, before my GI remediation class, I was already pretty burnt out. And then I got sick, like flu, sick, couldn't get out of bed and like rapid breathing, all that fun stuff. And then I got over that. And then I had like, maybe a curse of like a cold or something because the fatigue was still there. So that was pretty bad. And then I took the test, very fatigued, and was just kind of like answering questions like eh, eh, eh, yeah sure. Thinking that, you know, I can get the basic 70%.</td>
</tr>
<tr>
<td>Jessica</td>
<td>Um, I struggled really badly with Dr. I. I didn't understand her material. I think it was such an overwhelming amount of information. And then I also made the stupid mistake of switching my study method, because I was so overwhelmed. And so I got very scared and overwhelmed by the amount of information and the fact that it was her.</td>
</tr>
<tr>
<td>Amanda</td>
<td>It was definitely, as I said, dedicating more time to my personal life instead of my academics. So it was like, definitely not prioritizing things. I mean, I really like almost fully accredited it to a personal relationship that I was going through at the time, and it was just not good for me. I was dealing with a lot of toxicity on that side. There wasn't really anything else going on outside of that, it totally was just like this relationship.</td>
</tr>
<tr>
<td>Scott</td>
<td>Just, um, lack of sleep was probably number one. And then that kind of led to like an inability to kind of focus in class and out of class, etc.</td>
</tr>
<tr>
<td>Zayda</td>
<td>I definitely think it was part of the adjustment period. I was kind of out of the academic groove for a while and like, forgot how to sit and study and forgot how to like go to lecture and go through PowerPoints and that kind of stuff. So it definitely was part of the adjustment period.</td>
</tr>
<tr>
<td>Alisha</td>
<td>Laziness, cockiness, lack of judgment and insight, poor judgment and insight. And I think the way that my academics was structured in general, from high school through undergrad, it really shifted from like, &quot;I can get an A without doing any work in high school. I can take an AP test and get a five and I didn't read any of the AP English books.&quot; So yeah, I just hadn't established strong study habits, and being a first generation student, it's hard to navigate higher education and I didn't really understand everything that goes into it. I just had a different attitude, like, &quot;Great, if I can get a grade then that's all that's valuable.&quot;</td>
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<td>Oscar</td>
<td>Mental health, study skills, sleep issues, and those are all kind of intertwined.</td>
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<td>Cliff</td>
<td>I didn't know what I was doing. I had never taken an anatomy practical before. The thing with my experience with med school is I kind of did this all on my own, and I didn't really have any idea what I should be doing. I don't have a problem with learning, it's just that none of the stuff that I was told &quot;this is how you should be learning&quot; was even close to accurate. Like they always say, Oh, yeah, read an anatomy Atlas. No one does that, everyone uses Anki. Why didn't anyone Just tell me about this? I'm not kidding. My first year of med school was probably the single most stressful year of my life because I was barely passing despite trying really hard. And then I found out at the end of the year that I could have just completely snoozed my way through it and gotten like a high B plus average, but no one told me about anything.</td>
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<td>Participant</td>
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<td>Pam</td>
<td>So for that one, I got what was it called, I can't remember what the App was it has like a human body and stuff so you can peel back by layers, basically. As I mentioned, I had a study guide that broke things up into groups that had been shared by a classmate. And then the flashcards I did use this time, were all anatomical images. So it's like here's a hunk of meat, like which muscle is this, basically.</td>
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<td>Jamie</td>
<td>Normally I'm a flashcard person, but because I had two weeks, the interval system didn't make sense. So pretty much it was just day in, day out, going through whatever slides, quizzing myself on them, trying to engage in a bit of active learning. And being kind of, I guess, being kind of a bit strategic about the lectures I decided to view for that day, because there are just some subjects you don't like. And if you try to do too many of those in one day, it's not great</td>
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<td>Michael</td>
<td>So the remediation exam was in the middle of my board studying, so I decided to do the GI session first for my boards. So pretty much just two weeks of GI.</td>
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<td>Jessica</td>
<td>So I switched to Anki, which I was not using before, and tried to like just smash through. I'm like, Okay, I'm just gonna study everything.</td>
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<td>Amanda</td>
<td>I looked through the slides, but for the most part I was depending on like boards and beyond and questions. So I definitely only re-listened to lectures if I was confused about something. But I didn't like listen to every single one. I went over old notes that I had taken from like, when I was actually in CP. And I would say boards and beyond and their quizzes, like their practice questions, were some of the main ways that I studied. And then from there, it would just be like practicing, like going over things again, making sure I have things memorized.</td>
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<td>Scott</td>
<td>Um, I basically tried to stick to two passes. So I just started doing two very, like, I guess, strict passes. And I tried to schedule them. So they were about, I want to say, about five days apart. So it's still somewhat in my mind when I was reviewing it for the second time. And then I did do like, I guess, I guess I did do a third pass. It was just like a quick run through of all the PowerPoints the day before, and I just tried to focus on clinical concepts on those.</td>
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<td>Zayda</td>
<td>I literally just went over all of the PowerPoints again. I make a study guide for myself for every exam. And so I went over that, and kind of annotated it with some more details. I asked all of my classmates, I was like, hey, what questions do you remember? What topics do you remember were the biggest ones? And at that time, we still had exam reviews. So I had my exam report printed out, and so I was able to kind of like, look at that and figure out what topics showed up the most, and were the most high yield. I definitely think having those exam reviews benefited me, as someone who remediated.</td>
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<td>Alisha</td>
<td>So like I said, I didn't. I don't know how I studied for it. I didn't study prior to meeting with the professors. I mostly just looked at slides, like I did in undergrad, looked at slides and memorized it and went into the test and hoped for the best.</td>
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<td>Oscar</td>
<td>So the first thing I did was I made sure to read through all the slides and PowerPoints that the professors gave. And sometimes in those PowerPoints, they have slides with practice questions in them. So what I did was I took all those individual slides for the practice questions, and made a separate PowerPoint file with all the practice questions. And then after going through my first read, I filled out and I answered all the questions and then next to it I put why the correct answer is right, and why all the other ones are wrong. For each of those questions. And I also did like a separate slide deck where I pulled all the histology images. So I did a lot more question answering than before.</td>
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<td>Cliff</td>
<td>So I failed MSK, I had no clue how to study for it. None of the stuff my professors told me to do was useful. So then I spent the whole year barely passing every class. And then at the end of the year, a random person on the internet said, you should try an image occlusion deck of an anatomy Atlas, which is on this program called Anki. And I did that for the last two classes, where we had anatomy and my grades on anatomy practicals went from 50s to 90s. Or high 80s. So yeah, if someone had bothered just to actually help me figure out something that had worked, I would have had a much more relaxed year, but I didn't.</td>
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<td>Pam</td>
<td>I kind of put everything on the back burner for this since I was like &quot;it's a month, I just need to crank through as much as possible, like, be as confident as possible.&quot; And then I had to juggle a little bit of research on top of it. So I was just mainly focusing on the time management that was like anytime that I'm not in the lab, I'm gonna be studying my butt off. So I didn't do too much in terms of like, the self-care that month because I figured it can wait until the end. And then once I know that I've passed, like, I'm going to feel a lot better overall anyway, and I won't have such like a high need for as much care anyway.</td>
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<td>Jamie</td>
<td>I guess kinda taking a bit of time every day to do something fun, like, go talk to friends. And, I guess listening to music too, during my breaks. That kind of helped me instead of just like, kind of sitting around, aimlessly browsing the Internet. I guess listening to music also really helped. But yeah, those are the big main things.</td>
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<td>Michael</td>
<td>I mean, it was also the middle of boards so it's like am I more concerned about doing bad on boards or am I more concerned about, like, the GI remediation. I always thought that with how much I was studying for boards, how much GI I studied for the boards, there's just no way I could fail.</td>
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<td>Jessica</td>
<td>I feel like I didn't. Like I just... my priority... I was just like &quot;blinders. get this done.&quot; I think a lot of things got neglected, you know. They were like, &quot;oh, study in between your classes&quot; but I just couldn't do that. So I just smashed it all in. And so every day all day was just like Anki. So I just did that, I just smashed it in after we were all done because there was no way I could fit it in with everything we had going on. Yeah, no, it was like, it's like, that's the priority, which is is kind of shitty, but like, that's what you do. Right?</td>
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<td>Amanda</td>
<td>Part of the battle for me with remediation was like my mind, body and spirit completely were like affecting each other. I had a lot going on, personally, that affected my health, and then my studies. So once school ended, I decided to be closer to family. And that was definitely, like, so much more helpful than I thought. I mean, even just like not having to worry about what you eat because it's like, mom cooks, that type of thing. Like, there was a lot of like, external stress that I didn't have to worry about because of my family. So being closer to my family was definitely a huge aspect of it. And then I definitely limited my social media use. Even now actually, I've been off Twitter and Instagram for like, six months now. Yeah, I know, you know, that's a big deal. And especially for someone my age. And it gets hard sometimes, but it's definitely like hands down the healthiest decision that I've ever made for myself. So yeah, I just like focused on clearing my head and prioritizing. Like knowing that I can fully focus on this remediation exam, I really shouldn't like be worrying about anything else. And I have like the right support system behind me.</td>
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<td>Scott</td>
<td>Uh, I just, I mean, again I try not to overthink things because again, stressing out will only lead to negative things, in my opinion. So I just kind of treated it as like just another exam, I didn't really treat it as remediation as much as like another exam that I'd have to take.</td>
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<td>Zayda</td>
<td>I don't think I did. Like I don't think I actively did. Besides, you know, I really can't put my finger on what I did. I don't think I like made that a priority. I just knew that I had to remediate and I had to pass it, because if I didn't then it would continue to show up as a fail on my transcript.</td>
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<td>Alisha</td>
<td>So my emotional health I think, just you know, I was riding the success of getting through all my other classes, I can do it. I've shown myself I can do it. At the end of the year it was something where I was telling other people &quot;Hey, listen, this was my situation.&quot; I was telling my other close friends, like the pride thing had kind of gone away. A year had passed, I'd passed all my other classes so that was kind of keeping my emotional health up. It was summer, school was done, that's another emotional thing. First year I maintained physical health really well, I was really active outdoors and stuff.</td>
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<td>Oscar</td>
<td>Yeah, so managing my emotional and mental health has been much easier with the transition to online learning and doing everything from home. Because the hobbies and things that I enjoy doing, I absolutely could not do when I'm on campus. Like when I'm here, whenever I have a break, it's just a quick drive to the range on Cassius Street. I do like firearm drills here in my room, I do like martial arts drills here in my room, I can blast heavy metal music when I want. So I have more time to space things out, versus if I'm just on campus I can't do any of those things.</td>
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<td>Cliff</td>
<td>I called my mom a lot. So I avoided my school as much as possible and I called my family a lot.</td>
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<td>Pam</td>
<td>As I mentioned it was really good about the figuring out just how to power through things that I'm less interested in, and find like a little bit less applicable. So taking that forward, so that the things that I might have struggled with down the line were not easier to tackle but like easier to motivate myself with.</td>
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<td>Jamie</td>
<td>I think what remediation did for me was it ended up teaching me how I study best. It finally pushed me to that moment of first year trial and error of kind of figuring out kind of trying to figure out Oh, is this the way? Is it reading slides a bunch? is it doing flashcards? Is there a happy medium between both of them like, how do I do this? So it kind of, it kind of helped me figure out exactly, and also just exactly how hard I need to study personally.</td>
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<td>Michael</td>
<td>I mean, it gave me another outlook on medical school students, how they feel. So I feel a little more empathy for anyone who's been in that situation.</td>
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<td>Jessica</td>
<td>I passed the class? I aged 10 years? I think just the opportunity to take it again. You know, not have to like repeat a whole year. I guess that's good. Um, yeah, I don't know of any other benefit.</td>
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<td>Amanda</td>
<td>So I think overall, really, it just like has made me grateful for whatever experiences that I'm going through, it was humbling for sure. I just kind of had to be knocked down a couple notches to like, realize where I was actually at academically with myself. But yeah, so I definitely feel like it just overall made me a better student. And I just personally have had benefits of it making me a better person also.</td>
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<td>Scott</td>
<td>Um, I have a much better sleep schedule now. Partially because of the fact that you know, once I found out I failed, I started working on fixing it then.</td>
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<td>Zayda</td>
<td>I did feel a lot better starting second year having remediated endo and cardio, granted that I still failed cardio second year. But I still felt that I didn't have too much of a break from my summer where I kind of just like was a potato. But so I was still able to keep up my study habits to a certain extent, and then not be in too much of a slump for starting second year.</td>
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<td>Alisha</td>
<td>So it really allowed me to see my weak spots and where I struggled and where my strengths were. And so I made sure I understood that material going into boards.</td>
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<td>Oscar</td>
<td>Definitely getting a second look at the content, especially with MCM. And it taught me about study methods and scheduling and organization skills for myself to be successful in second year. So what I learned from the content and what I learned from the process have both been good for me.</td>
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<tr>
<td>Cliff</td>
<td>None.</td>
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<td>Pam</td>
<td>So, I don't know if this counts as like the remediation experience itself. But I mentioned like having failed. It gave the impression of like, having the cone of shame, like from the movie <em>Up</em>, if you've seen that. Yeah, so we were told, like we can't—well obviously, you don't have a letter of Good Standing at that point. So if you want to do any, like, really big research, like with St. Jude's, all the things that you do that first summer, which is like a really important summer, for building your CV, so that you can match well. So it's not just that you have the hit of &quot;Oh, look, I had to remediate,&quot; you have, like five other hits of &quot;and I can't hold any offices, because I'm, like, deemed unworthy.&quot; And I can't, like, do anything that will help balance this out. And you can't like represent the school in any form or fashion, because you wouldn't want the failures representing you is kind of like, not the subtext that they're trying to give, but it certainly I think, feels that way, when you're in the midst of dealing with your own process of coping with having failed. So I would say that was the main negative coming out of it, it was just a feeling that like, everything was piling up on top on top of each other. And then of course, the threat of like, failing out altogether, having to repeat a year, are all the things that are like real options for a lot of people.</td>
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<td>Jamie</td>
<td>Let's see, maybe becoming known to SPC. I guess getting my summer break cut a little bit. It's not the biggest deal in the world, just because it was two weeks, but I mean, it did cut into my break a little bit. I wasn't really able to do my summer research as planned during that time.</td>
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<td>Michael</td>
<td>Um, no. I mean, just an extra week of GI, but I did above average on GI for boards. So I mean, that's a positive that I guess that came out of it. But I can't think of any negatives, really. It's just another experience for you to overcome to grow after that. You know? I think so.</td>
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<tr>
<td>Jessica</td>
<td>Um, I would say extra stress. Fear of my name coming up for lectures. And just fear that it's going to happen again.</td>
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<td>Amanda</td>
<td>I told you from the get go I'm an optimist, so this is probably like the hardest question that you're asking me because that would mean I regret something. So obviously, and I don't know this like fully, but I do believe it can obviously be a disadvantage when considering me in competition, like for residencies. I'm always like conscious of that being a factor that I have to work to build, like my resume and my grades up around. I always have it in the back of my mind, for sure. So I do think like having to remediate will probably, in some instances, read as negative with some residency programs. It's completely understandable. But I do believe there are residences that would understand, with how common of an issue that is, that it is just about bouncing back from that. And yeah, I mean, the only thing I do worry about is just like, as a competitor with like thousands of students, that's the only thing that I do worry about. But I also know that that's not even like set in stone for sure yet.</td>
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<td>Scott</td>
<td>I did lose some time studying for boards, because I definitely didn't want to brush this off. And, you know, not pass. So I know, while a lot of my classmates were like starting boards prep and all that I was stuck doing remediation. Which I mean, like, again, not . . . not a bad thing. But that goes back to my original point of what we learn in classes is not what's on boards, which was just reinforced all the more for me in that situation.</td>
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<td>Zayda</td>
<td>So because of my remediation for first year, my summer was cut short, and I did have really great opportunities for shadowing and research lined up, which I had to push forward towards the end of the summer. And I feel like I didn't really max out on that experience as I would have with the remediation, or without the remediation. And then for the second summer, it cut into dedicated. I definitely don't like the way it looks on my transcript. And I know that my grades are not, are not fantastic. Um, my GPA definitely took a big hit because of those three remediations. And, oh, a big thing actually, was that I couldn't run for any student council positions, I couldn't start my own club, I couldn't be on any executive boards for anything because I was on probation. And I also felt really stigmatized by some of the deans. Who, if I would set up a meeting with, if I needed to like ask for support for something, would immediately ask if I was on academic probation, without even regarding what my actual concern was. And so I felt like I was very much stigmatized by a few members of the administration who just saw me at the bottom of the class or saw that I was on probation, and it like completely flipped around the way they viewed my issue. Or viewed whatever I was coming to them for. So those were definitely big things.</td>
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<td>Alisha</td>
<td>I didn't have respect for faculty, I didn't think that they valued me as a student. I think that first panel of remediation, especially since it was so early in the year would have been a great opportunity for them to do some reinforcement telling me that they I was here for a reason, like highlighting my application or something, but it was just like, &quot;You're a doctor now. You can't have friends, you can't have a social life, like you're an idiot.&quot; And I'm like &quot;um . . . okay.&quot;</td>
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<td>Oscar</td>
<td>The only disadvantage was . . . maybe feeling stressed out that I may not pass. None of my peers know about it, but embarrassment that someone might find out.</td>
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<td>Cliff</td>
<td>It was a waste of my summer vacation that I really needed emotionally, mentally, spiritually, and even physically.</td>
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<td>Pam</td>
<td>Um, I tried to be less judgy, like, towards myself, mostly, but also, obviously, towards others, when it comes to stumbling blocks in medical education, because everybody goes into med school thinking, I'm gonna be the best little student, and everybody is gonna think I'm just like the bomb. So I want to practice more like self-compassion, with, if I hit a stumbling block. It doesn't mean I'm going to be any less of a doctor someday, it just means like, I had to work a little bit harder to get to the level that everybody else was at at the time that they were at it.</td>
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<td>Jamie</td>
<td>I still use the same study method I used during first year, pretty much. So I got my study method out because of that, and it's been working out pretty well just not for that one BM exam.</td>
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<td>Michael</td>
<td>I'm just more empathetic on the medical student and their struggles of medical school, and not just medical students, just students in general, you know, I was a good student, I struggled as a medical student, other people struggle just as a regular student, I can understand that.</td>
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<td>Jessica</td>
<td>Well, I'm a little more dead inside. It took a little piece of me. No, I'm just kidding. Um, I don't know, I just kind of got past it. Um, I think I just kind of work to make sure that that doesn't happen again. But I don't think I really changed. I'm still just like, okay, let's just keep going. I just try to like, move past it. And don't let that overwhelm me or get in my mind. Just Okay, that's over. I did it. I fixed it. Move on.</td>
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<td>Amanda</td>
<td>I mean, I'm definitely more focused on my goals, I'm definitely better at prioritizing. It's just helped me see things a lot more clearly. It's a lot easier for me to be like, &quot;wow, why was I putting all this energy into that?&quot; Like, hindsight is 20/20. So it's definitely made me more organized, mentally and like physically.</td>
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<td>Scott</td>
<td>Um, I think I've learned to be more calm. Because I've noticed I've talked to some others that were remediating and they're definitely like much more panicked about it, which is understandable. But like, I guess I was very . . . like after remediation, once I found out that what I was doing was working, I was much happier about that. And just more confident in the way I was going about doing things.</td>
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<td>Zayda</td>
<td>Um, I think I definitely know that I have to compensate for it during these clinical years, and really impress preceptors with how I interact with patients, and just my personality, like my personality, I think that's the word. And just really making up for my lack of what I look like on paper. So now I'm really kicking it into high gear. And because I enjoy this environment a lot better than the didactic years, I just feel a lot more confident in myself. And I feel like after remediating I've come to learn that school has a lot of scare tactics involved.</td>
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<td>Alisha</td>
<td>I'm way more jaded after that experience. I don't . . . I don't know. How am I different? It wasn't a big thing for me. I didn't change my lifestyle after that. Especially when I was experiencing that mental health stuff, I really felt like faculty was saying I can trust them and they'll offer me support. And then after that, it was just like, I am pretty alone in this experience.</td>
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<td>Oscar</td>
<td>I think I'm more focused, and I know what I need to do to succeed. So putting that pressure on really made me strive harder, instead of just being too comfortable and complacent.</td>
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<td>Cliff</td>
<td>I think I learned how valuable having a social network is. Both for emotional support, as well as to know what your peers are doing and what you should be doing. I think that was a huge lesson to me that I didn't really appreciate until somewhat late. I learned that you should never repeat mistakes, and that you should never try the same thing twice and expect a different result.</td>
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<td>Pam</td>
<td>So I would disclose in that instance, that I also had had to remediate because obviously, they want somebody that they don't feel ashamed towards where it's like, oh, I have to remediate. And then I would recommend that they pursue the resources that the school has available, because I think for most people, they find that really useful. I think if they were to open up to other classmates about it as well, because I didn't necessarily open up to other classmates who then provided me with any resources, but I think that was just timing. So I wouldn't necessarily tell them to go like advertising it broadly, unless they found that therapeutic. But like, certainly putting out feelers for what the other classmates might be able to recommend to them.</td>
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<td>Jamie</td>
<td>You know, this actually happened to me. So it's funny that you asked that. I pretty much told him I was like, well, it's not going to kill you in the long run. Like, it really won't take you out of the I don't think it'll take you out of the running for most specialties. If it's just one. That's what I tried to do is I told him like, “Oh, I'm so sorry to hear that.” And then talked to him, answered his questions about remediation. And then I guess, kind of tried to reassure him that it's not the end of the world in terms of your career or trying to get into a good special I don't know what he wants to do, but I really don't think you've closed any doors by just one fail.</td>
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<td>Michael</td>
<td>Tell them you know, “I'm here for you, whatever you need, I've been through the process. You want to talk about it, I can. You want tips about it, I can give you tips about it, you know, we can study together.”</td>
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<td>Jessica</td>
<td>I would say, &quot;you know, it's going to be okay. It happens to the best of us. Just figure out what you need to do, try and remember as much as you can from the exam, because it'll probably be on there again. But it's going to be ok, it's not the end of the world, it just feels like it.”</td>
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<td>Amanda</td>
<td>I would tell them, obviously, it's okay. Probably hug them, because I know how it is. I was mostly, like, fairly private with my remediation, as you know. But I would tell them that more people go through it then you think, and I would tell them about my personal experience. Like if someone came up to me about it, specifically, I'd be honest with them, like I remediated and I'm still here. And whatever you need, like both me and our school definitely has the resources for you to just knock this out of the park. It's like don't worry about anything else. Like just focus on this one remediation exam, because that's what you can control and then everything else will just fall into place.</td>
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<td>Scott</td>
<td>I would probably tell them don't stress too much about it. Because the more they stress, the worse that the whole situation is going to be. That would always be my number one thing. And again, I would accept the fact that it's easy to say that since I already passed it. But I do stand by that statement. If people are overly stressed out about something they won't perform as well. It's the whole Yerkes Dodson curve.</td>
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<td>Zayda</td>
<td>I would tell them that everything's gonna be okay. To not be scared, because it's, it's really not that big a deal. To make sure that you put your best foot forward and just make up for it. And it's going to be okay.</td>
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<td>Alisha</td>
<td>I say &quot;Dang, that sucks. That sucks. I'm really sorry. How many credits is your class? You can't fail any other classes, or here's how many other classes you can fail.&quot; Um, yeah, I definitely crunch numbers with people if they want me to. So yeah, I just tell people what I know.</td>
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<td>Oscar</td>
<td>I tell them &quot;it'll be a really good chance to relearn the material, see it as a second chance and not as a punishment. You may have struggled with it the first time but the second time through, you'll have the opportunity to learn the material better and get a better grasp of it.&quot;</td>
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<td>Cliff</td>
<td>I always just said, &quot;Oh, yeah, I failed class once.&quot; I'd say, &quot;I failed a class once. It's not a big deal. Is this the first class you failed? Are you in any kind of trouble? You can always call me if you need help. I'm not one of those classmates, that's going to like think less of you or throw you under the bus. I think our tests are mostly bullshit.&quot; I've had a few classmates tell me they failed things and I was always very supportive. And I tried to do anything I could to help them.</td>
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<td>Pam</td>
<td>So for that one, I got what was it called, I can't remember what the App was it has like a human body and stuff so you can peel back by layers, basically. As I mentioned, I had a study guide that broke things up into groups that had been shared by a classmate. And then the flashcards I did use this time, were all anatomical images. So it's like here's a hunk of meat, like which muscle is this, basically.</td>
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<td>Jamie</td>
<td>Normally I'm a flashcard person, but because I had two weeks, the interval system didn't make sense. So pretty much it was just day in, day out, going through whatever slides, quizzing myself on them, trying to engage in a bit of active learning. And being kind of, I guess, being kind of a bit strategic about the lectures I decided to view for that day, because there are just some subjects you don't like. And if you try to do too many of those in one day, it's not great.</td>
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<td>Michael</td>
<td>So the remediation exam was in the middle of my board studying, so I decided to do the GI session first for my boards. So pretty much just two weeks of GI.</td>
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<td>Jessica</td>
<td>So I switched to Anki, which I was not using before, and tried to like just smash through. I'm like, Okay, I'm just gonna study everything.</td>
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<td>Amanda</td>
<td>I looked through the slides, but for the most part I was depending on like boards and beyond and questions. So I definitely only re-listened to lectures if I was confused about something. But I didn't like listen to every single one. I went over old notes that I had taken from like, when I was actually in CP. And I would say boards and beyond and their quizzes, like their practice questions, were some of the main ways that I studied. And then from there, it would just be like practicing, like going over things again, making sure I have things memorized.</td>
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<td>Scott</td>
<td>Um, I basically tried to stick to two passes. So I just started doing two very, like, I guess, strict passes. And I tried to schedule them. So they were about, I want to say, about five days apart. So it's still somewhat in my mind when I was reviewing it for the second time. And then I did do like, I guess, I guess I did do a third pass. It was just like a quick run through of all the PowerPoints the day before, and I just tried to focus on clinical concepts on those.</td>
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<td>Zayda</td>
<td>I literally just went over all of the PowerPoints again. I make a study guide for myself for every exam. And so I went over that, and kind of annotated it with some more details. I asked all of my classmates, I was like, hey, what questions do you remember? What topics do you remember were the biggest ones? And at that time, we still had exam reviews. So I had my exam report printed out, and so I was able to kind of like, look at that and figure out what topics showed up the most, and were the most high yield. I definitely think having those exam reviews benefited me, as someone who remediated.</td>
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<td>Alisha</td>
<td>So like I said, I didn't. I don't know how I studied for it. I didn't study prior to meeting with the professors. I mostly just looked at slides, like I did in undergrad, looked at slides and memorized it and went into the test and hoped for the best.</td>
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<td>Oscar</td>
<td>So the first thing I did was I made sure to read through all the slides and PowerPoints that the professors gave. And sometimes in those PowerPoints, they have slides with practice questions in them. So what I did was I took all those individual slides for the practice questions, and made a separate PowerPoint file with all the practice questions. And then after going through my first read, I filled out and I answered all the questions and then next to it I put why the correct answer is right, and why all the other ones are wrong. For each of those questions. And I also did like a separate slide deck where I pulled all the histology images. So I did a lot more question answering than before.</td>
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<td>Cliff</td>
<td>So I failed MSK, I had no clue how to study for it. None of the stuff my professors told me to do was useful. So then I spent the whole year barely passing every class. And then at the end of the year, a random person on the Internet said, you should try an image occlusion deck of an anatomy Atlas, which is on this program called Anki. And I did that for the last two classes, where we had anatomy and my grades on anatomy practicals went from 50s to 90s. Or high 80s. So yeah, if someone had bothered just to actually help me figure out something that had worked, I would have had a much more relaxed year, but I didn't.</td>
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<td>Pam</td>
<td>I guess Dr. F, who obviously ran the course, and was in charge of the remediation, did a couple of Q&amp;A sessions with us to test our knowledge. And that was one of the most helpful things for having some confidence that my new learning techniques were actually functioning properly.</td>
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<td>Jamie</td>
<td>Like if I see myself not doing well, I will reach out to faculty members. Otherwise, I don't really ask. I'm the kind of person who doesn't really ask too many questions from staff unless I feel it's pretty important. And like the afternoon. I woke up, I see an email from Dr. G. I'm like, uh oh, it gave me that same feeling as like the [school name] acceptance email, of like, oh, man, I don't know what's gonna happen. But this is either gonna be really good or really bad. And then she just said, Dear Jamie, I was like, oh, and then she's like, congrats on passing the remediation exam.</td>
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<td>Michael</td>
<td>And then Dr. P was there and he kind of brought me back up. Dr. P was amazing. I absolutely loved my conversation with him. He is the man.</td>
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<td>Jessica</td>
<td>I remember speaking to Dr. P and I was just like, &quot;oh my god, it's horrible.&quot; So I told her I got the email, I was bawling in her office. And she's like, you know what you're gonna do? You're gonna pick yourself up, and you're going to take the MCAT again. Uh, you know, like, I was in my ASC meeting or whatever it's called. and I was just bawling. Like, I just felt like, I was just like, &quot;I'm sorry. I'm so humiliated&quot; and, you know, like, it's like, embarrassing. Yeah, it was just like reaffirming your most horrible feelings-- in front of all your faculty. Like, I am here, I'm stupid. Sorry. They're like &quot;what happened?&quot; I'm like just crying, you know. And Dr. C, he's like, &quot;it's okay.&quot; and I'm like &quot;no it's not!! ok for who??&quot; [crying reenactment] So then you're like beating yourself up more after that. And then you know, you have this like exam at the end of the semester and you're trying to fit that in. So I was like, &quot;oh, my god, you're so dumb, blah, blah. I know.&quot; So my inner voice is pretty bad. So that's one bad thing, I would say. So right after my horrible SPC meeting I went to Dr. S's office and just bawled. I was like, I don't know what to do I'm so scared, and terrified. So she was really great too, actually. And then, like, you know, in the meeting, too, they told me to go talk to Dr. I and I kind of just already hated her at that point. They were like did you go speak to her? And I'm like, no, because she doesn't make any fucking sense. But I made sure to go see Dr. G. So yeah, the faculty weren't very helpful. I mean, they were they were okay. They weren't great. But I would say Dr. S was fantastic. I interviewed with Dr. S for the program and she was really sweet. Like, she sent an email at the end of the semester saying &quot;do you need anything?&quot; So I went and spoke to her and she was really great. Oh also, they forgot about me. My friend texted me like &quot;Oh, my gosh, are you so scared for June 8??&quot; It was like, right, like, a couple weeks after our semester ended. And I'm like, What are you talking about? She said, you didn't get the email. I'm like, no. So I literally had to email Dr. M and be like, &quot;Hi, um, I need to take things.&quot; They're like, “Oh, here. Yeah, here you go.” So they didn't tell me, so then I wasn't even really studying. So I had two weeks to go over both cardio and pulmonary. And then I'm like, oh, they're like, oh, if you have any questions talk to Dr. G. I'm like, &quot;ok Dr. G. Like, are there areas I should focus on? Is it just the final?&quot; No response.</td>
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<td>Amanda</td>
<td>So it was a blessing getting more in touch with [name of student support center]. And I still actually carry on the habits suggested for me. I think I had like a couple questions with Dr. G, just because she pretty much ran that course and so while I was reviewing things I would go over stuff with her. Um, but yeah, I felt like by the time it was summer, it was just like, Okay, this is something I have to do.</td>
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<td>Scott</td>
<td>Um, I mean, I emailed Dr. F about it, but this was kind of annoying. But so I had two remediations right? I had one for, I wanna say repro. And Dr. G was extremely helpful. And same with Dr. P, she was very helpful with her material. But then for MSK, when I emailed Dr. F, his response was a just like, eight different resources, which he might pull questions from, and that was it. And it's like, Okay. And then I asked if I could get access to them, he told me to contact a librarian, and then the librarian said, we don't have access to those resources anymore.</td>
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| Zayda | And I talked to T a lot, I talked to Dr. P a lot. And they're like, "this is like what you've been waiting for and where you'll truly shine." And I've spoken to Dr. M about this and he was like, "well, exam reviews don't benefit the majority, so it's a waste of resources. Because the majority don't come to the exam reviews. So it's a waste of time and a waste of resources," which I heavily
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| **Cliff**        | I found the faculty at my med school I never would have hired. I've never been treated as rudely as I have been during medical school. Shockingly unprofessionally. To say nothing of like fostering a good learning environment. I've actually contemplated buying the billboard outside of [school name], just to like put some of the horrible things that like people have said to me on that billboard. People that I paid to educate me. We're talking things where it's like, if you said this in a business environment, like your boss would demand speak to you like thing. Nothing, nothing that was like, you know, truly shocking, but it's just like, you really shouldn't say that to people that you work with, let alone students that are supposed to look up to you. I found it to be the least supportive, most cutthroat environment I've ever been in. I'd say most of the issues I have with medical school . . . part of it is the medical education system, but also I really can't stand by med school in particular. I think it's terrible. I think a lot of people, not all the people, but a lot of the people are awful and need to be replaced. I found that every single time I went to go find some kind of support at school, I was rebuffed. I've had professors who made me cry. Frankly, I'm disgusted with this place. I can't wait to leave it. I think it was when I failed the class and I had that that meeting where you go and you sit with all the professors, who are like all wearing suits, and they all yell at you. And then they say, yeah, you're going to remediate it. And, like, in my mind that just translated to retake and I was like, "Okay." None of the stuff my professors told me to do was useful. Yeah, I really didn't find that any of the things the school told me to do were helpful. I really don't know where they come up with their advice. Everyone I know who's had to remediate anything said that our learning department is worthless. those people are completely worthless. I don't know who hired him. They're nice, and they're pleasant, but it's just like nothing they ever told me was remotely helpful. I don't have a problem with learning, it's just that none of the stuff that I was told "this is how you should be learning" was even close to accurate. Like they always say, Oh, yeah, read an anatomy Atlas. No one does that, everyone uses Anki. Why didn't anyone just tell me about this? I'm not kidding. My first year of med school was probably the single most stressful year of my life because I was barely passing despite trying really hard. And then I found out at the end of the year that I could have just completely snoozed my way through it and gotten like a high B plus average, but no one told me about anything. As I mentioned, I really don't have any good relationships with any of the faculty at [school name]. I've never felt welcomed there. I made a point to avoid my professors as much as possible. As I've mentioned, one of them made a point to make me cry once. I didn't think that was very helpful. I didn't think that was necessary. So I avoided my school as much as possible and I called my family a lot. If there's one thing I would like somebody to hear about our school, it really doesn't support its students at all. Some of the things that I've seen and have been told by faculty are truly shocking, that I would never say in a business context, let alone an academic one. I've never felt welcomed. I've never felt supported. I feel like I should avoid my faculty at all costs. There are several good faculty members, but they're really not the ones that you spend most of your time with. Every student has some kind of problem of some kind. Otherwise, they wouldn't be at [school name], they'd be like at Harvard or an astronaut or something. And our school actively discourages people from seeking help. When students do ask for help, the school has nothing useful to tell them. The school does not respond to the issues which I'm talking about. When I enrolled at the school, the fourth years, even four years ago at this point, already said these were problems. To be honest, I really think it's a for-profit school. I really think that the objective of it is to make the administration money, I don't really think it's to help us. And my undergrad was not like this at all. My undergrad is very welcoming, and very warm. I really do think I could have had a much easier time in that school and done much better. If our environment was the least bit more supportive than it currently is. I think that the
| Oscar            | And this is not something to worry about now because it's an issue that's been resolved, and I've told T and Dr. P and like at all the meetings, they know about this, and so there's nothing to worry about. But at that time, last semester, when, especially after the second time, I didn't pass the class and had to do the remediation, I was having a lot of thoughts about suicide at that time. So for inside the university, mainly Dr. P because I've been meeting with her since like the start of first semester last year. She's helped me a lot with all the struggles I was facing then and we still meet, I just met with her I think on Tuesday, it was.  

| Alisha           | So my faculty advisor that I got, he was fantastic, it was Dr. F. I loved him, he was so supportive.  

|                  | Disagree with. Because I'm like, if it benefits ONE student, that should be in the school's interest as well. |
Lecturers need to take some basic instruction on how to teach. They're very talented scientists. I'm not doubting that. But of the worst teachers I have ever had in my life—in 22 years of being in the educational system, I think that's about maybe 100 teachers, if not more throughout my life—all of the worst ones have been at [school name]. It's not that they're bad people. It's just that they spent all their time, working in science. They don't know how to like format, a PowerPoint, they don't know how to present information efficiently. I found that the people you would go to to ask for help, didn't really know how to help you. I would say many of the people at [school name] strongly discouraged you to ask for help, even when you needed it. Particularly as I became an upperclassman, to the point where I was afraid to ask for help, even when I needed it. Due to how I was treated from some of the professors. I really, I just think it has like a culture problem. I really just think everybody's just phoning this in so they can get paid. That's really just my honest opinion about the place. Honestly, no. I would say that there are a number of things that our school does well. The non-mandatory lectures are great. All of our lectures were consistently uploaded. I felt most of our test deadlines were fair. I felt that most of our grades were fair. I did feel that like maybe one in five of the questions on exams were kind of absurd. The people there that were good professors I did like, and I thought were good teachers. It wasn't everybody. Yeah, that's really, that's really, uh, I'd say, I think I got out all my big thoughts on that.
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<td>Pam</td>
<td>Well, I was doing research with Dr. D during the summer that I was remediating. And I like didn't mention it to her because it was intermittent enough with the job that I could like study. So even though she didn't know what was going on, she was clearly invested in our learning. And I see how it is for the teachers behind the scenes, and how much they want the students to succeed and how they craft the lessons to help us learn. My roommate who is usually my biggest support was actually out of town because it was the summer, so there was like a little bit of texting. Dr. F, who obviously ran the course, and was in charge of the remediation, did a couple of Q&amp;A sessions with us to test our knowledge. And that was one of the most helpful things for having some confidence that my new learning techniques were actually functioning properly.</td>
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<td>Jamie</td>
<td>Honestly, I didn't talk too much about it outside the university. Like I had told my mom about it, but not really too many other people . . . like my mom and sister, but like, not really too many people outside. Like if I see myself not doing well, I will reach out to faculty members. Otherwise, I don't really ask. I'm the kind of person who doesn't really ask too many questions from staff unless I feel it's pretty important.</td>
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<td>Michael</td>
<td>So I actually didn't even tell anyone, I didn't even tell my relatives or my family that I might fail a class, you know, I thought I was going to pass it and no big deal. Support System, I did talk to classmates about it. You know, they're sympathetic, they're understanding. And, you know, they— I don't think their opinion of me really changed that much after that. So that was very nice. Just a few close friends, my little and I talked too. And you know, you were there in that process, too. And you were very kind to me during that time, the SPC . . . I don't want to say too ill of them, too much. But, but yeah, I mean, everybody else was pretty supportive. I guess it was healthier not to just bottle it up. Because I didn't tell my parents I didn't tell my siblings, but to bottle it up probably would have had a more negative consequence after that. Dr. P was amazing. I absolutely loved my conversation with him. He is the man.</td>
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<td>Jessica</td>
<td>Sure, so like a few of my classmates knew and stuff. I actually ran into one of my friends who did remediate and like, we were just bawling. Um, and then my boyfriend knew, obviously, like, we live together. And he's like, hey, it's gonna be okay. He was great. He's great through everything, he's future husband. Um, I talked to my mom about it. My mom doesn't really . . . she's kind of an airhead. Um, I love her. And she's very sweet. But she doesn't really understand. So I just kind of just relied on me, my boyfriend and me. Like, which is kind of my support system for everything. It's him and me. And then like, a couple classmates were like, Hey, I'll send you my notes. Like, let me help you. So that was great. Um, so yeah, so there's a few people but not too many. So yeah, the faculty weren't very helpful. I mean, they were there okay. They weren't great. But I would say Dr. S was fantastic. Ah, I mean Dr. S, I interviewed with Dr. S for the program and she was really sweet.</td>
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<td>Amanda</td>
<td>I personally didn't tell my family that I remediated. And I know I'm an adult but so I come from an Asian American background, and I'm very close with my family. I'm a local, so they're here in town. And I personally just made that decision to handle it on my own. So even though like my family is such a big support system for me, and they still were in ways that they didn't know and that they always are. But I personally didn't choose to let them know about my remediation, especially if it were something that I knew I could, like fix. I didn't want it to be like a whole thing, if that makes sense. Um, I could give a lot of credit to A.M. who used to work at [school name]. Because I've always had trouble asking for help. But I did talk to like some of my classmates who had also gone through the same remediation, like for CP, and even during the summer when we were all studying for it. That totally helped. I think I had like a couple questions with Dr. G, just because she pretty much run that course and so while I was reviewing things I would go over stuff with her. Um, but yeah, I felt like by the time it was summer, it was just like, Okay, this is something I have to do.</td>
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<td>Scott</td>
<td>Um, mainly just my roommates. Like, if I have any questions, I would just—or like any stuff that I was a little unsure on I just asked them and they tried to help out. I mean, my friends knew like, it's not anything I kept secret. Like, if anyone asked, I told them. Because again, like, I see no point in hiding it. Um, I mean, I emailed Dr. F about it, but this was kind of annoying. But so I had two remediations right? I had one for, I wanna say repro. And Dr. G was extremely helpful. And same</td>
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with Dr. P she was very helpful with her material. But then for MSK, when I emailed Dr. F, his response was a just like, eight different resources, which he might pull questions from, and that was it.

| Zayda   | So like I said, there was the one professor for endo, who was very, very supportive of me. She sat down with me shortly before my exam, when I went to remediate, and she went over everything that was most important. And she made sure to reach out to me, which was really nice. Another professor for my second year remediation was also very helpful in making sure that I had the right resources and had like, a good study schedule to keep up with that, too. T was really helpful with both the academic side, but as well as like emotional support. I would just like come running into her office, sometimes in tears, and she like knew exactly what to do. So she was really nice to have. And then my classmates were really supportive. I only confided in a couple that I was remediating. They kind of helped, remember and like jog their memory about what questions came up on the exam, and certain topics that I felt were my weak points, I didn't feel I don't feel judged by them if I wanted to, like, if I ask them to explain it to me further. |
| Alisha  | I kept really tight lipped about it, for pride reasons I guess. So my faculty advisor that I got, he was fantastic, it was Dr. F. I loved him, he was so supportive. Going over it with him, I mean, I was just stupid as . . . I had no idea what he was talking about. But he was so kind, so patient, didn't punish me at all for it . . . it was amazing. He's amazing. So um, he was great. Everyone else I worked with I don't really have anything positive to say about them. I was struggling with mental health stuff and I reached out to Dr. F and that's when he connected me with other resources. But then when I met with some other faculty, I won't name them, but they were like "other people in school get married. They have kids, you don't have any of this stuff going on." It was just not a good experience. |
| Oscar   | So for inside the university, mainly Dr. P because I've been meeting with her since like the start of first semester last year. And another one was Dr. L. Mainly my parents, they're both physicians, and they've helped me a lot through the journey. And they've always been really positive about it. And they actually helped kind of tutor me over the summer before the remediation exams happen. So that emotional and moral support and some actual practical support by helping explain some of the more complicated things. |
| Cliff   | Nonexistent. I found that every single time I went to go find some kind of support at school, I was rebuffed. I've had professors who made me cry. Frankly, I'm disgusted with this place. I can't wait to leave it. Outside the university my family was very supportive. I don't really have close friends at med school, unfortunately, so that didn't really help. But I didn't have like any, like, domestic or personal stress outside of med school. |