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Exploring the Wholeness and Learning Climates of Graduate Students at a Religious University

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LOMA LINDA UNIVERSITY
School of Behavioral Health
in conjunction with the
Faculty of Graduate Studies

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Exploring the Wholeness and Learning Climates of Graduate Students at a Religious University

by

Stacey Brooke Cunningham

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A Dissertation submitted in partial satisfaction of
the requirements for the degree
Doctor of Philosophy in Social Policy and Social Research

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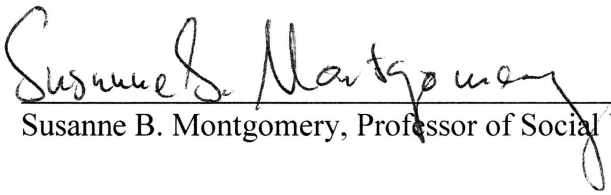
December 2018

Each person whose signature appears below certifies that this dissertation proposal in his/her opinion is adequate, in scope and quality, as a dissertation proposal for the degree Doctor of Philosophy.



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ABBREVIATIONS

AOTA	American Occupational Therapy Association
APA	American Psychological Association
APTA	American Physical Therapy Association
ASHA	American Speech-Language-Hearing Association
B/D	Burnout/Disengagement
B/E	Burnout/Exhaustion
CD-RISC 10	Connor-Davidson Resilience Scale
CMSD	Communication Sciences and Disorders
CGS	Council of Graduate Schools
DPT	Doctor of Physical Therapy
DVs	Dependent Variables
FACIT-Sp-Non-Illness	Functional Assessment of Chronic Illness Therapy - Spiritual Well Being - Non-illness
GAD-7	Generalized Anxiety Disorder 7-Item
Grit-S	Short Grit Scale
IUSE	Intrauterine Substance Exposure
IRB	Institutional Review Board
IVs	Independent Variables
LLU	Loma Linda University
MDD	Major Depressive Disorder
MOT	Master of Occupational Therapy
MS	Master of Science

NIH	National Institute of Health
O & P	Orthotics and Prosthetics
OT	Occupational Therapy
PHQ-9	Patient Health Questionnaire – 9
PSS-10	Perceived Stress Scale, 10-Item Version
PSS-14	Perceived Stress Scale, 14-Item Version
PT	Physical Therapy
QD	Qualitative Description
SAHP	School of Allied Health Professions
SC	Social Constructionism
SLP	Speech-Language Pathology
SWL	Satisfaction with Life
SWLS	Satisfaction with Life Scale
U.S.	United States
WB	Well-being
WCS	Wholeness Climate Survey
WHO	World Health Organization

ABSTRACT OF THE DISSERTATION

Exploring the Wholeness and Learning Climates of Graduate Students at a Religious University

by

Stacey B. Cunningham

Doctor of Philosophy, Graduate Program in Social Policy and Social Research
Loma Linda University, December 2018
Dr. Susanne B. Montgomery, Chairperson

Background: Graduate school students continuously face pressure to perform and excel, especially within highly competitive allied health graduate programs. Not surprisingly, rates of anxiety, depression, stress, and burnout for college/university students are concerning. Recent evidence suggests that intentionally fostered learning and wholeness climates have the potential to positively impact students' higher education journeys. Resilience and grit are also vital components to aid in optimal personal and academic outcomes. **Goal of the Study:** The current study's goal was to discover if a stated institutional policy and philosophy about a commitment to fostering wholeness influenced the perceived wholeness and learning climates of three graduate programs within Loma Linda University's School of Allied Health Professions (SAHP), thus potentially positively impacting burnout, life satisfaction, and well-being while also considering the influences of resilience, grit, stress, anxiety, depression, and religion/spirituality. **Participants and Methods:** In the qualitative, first phase**,** faculty (N = 6) were recruited to participate in key informant interviews to help further guide the student survey. In phase two, all students present for on-campus classes from three departments were given the opportunity to participate in a survey (N = 360). In phase

three of the study, graduate students (N = 27) from the participating SAHP departments (Communication Sciences and Disorders, Occupational Therapy, and Physical Therapy) were recruited to participate in a focus group (three total). **Results:** Quantitative results were statistically significant for all four hierarchical multiple regression models exploring variables of interests for the study outcomes of burnout/disengagement (B/D), burnout/exhaustion (B/E), satisfaction with life (SWL), and overall well-being (WB). Variances of the final models explained 45.8% for SWL, 36.9% for B/D, 46.4% for B/E, and 42.5% for WB. For B/D, wholeness and learning climates, grit, and spirituality (peace) continued in significance, and for B/E, learning climate, anxiety, depression, and spirituality (peace and faith) remained significant. For SWL, stress and spirituality (meaning and peace) were significant throughout. WB's final model included significance for learning climate, depression, and spirituality (peace). Patterns for qualitative results revealed four overall themes which helped further contextualize the quantitative findings: 1) Wholeness with sub-themes of a) Interactions/personalized care at LLU, b) Appreciation for spirituality, c) Reaching out to others, d) Whole person health focus, and e) Barriers to wholeness; 2) Stressors with sub-themes of a) Financial burden, b) Parking, c) Academic-based social stressors, d) Limitations with family and friends, e) Surviving versus learning, and f) Medical/mental health components; 3) Resources with sub-themes of a) Mindy, body, and spirit and b) Support from professors and classmates; and 4) Recommendations with sub-themes of a) Communicating to increase awareness of resources, b) Interprofessional opportunities, and c) On-campus needs. **Conclusions:** While overall a wholeness-based philosophy does make a difference for students, we recommend to more intentionally build upon existing programs, taking

into account the student needs and barriers identified. Supportive university programming and policy are further recommended.

Keywords: Learning climate, wholeness, life satisfaction, burnout, well-being, anxiety, depression, stress, resilience, grit, religion, spirituality, university students

CHAPTER ONE

INTRODUCTION

Background and the Problem

Mental health concerns are present and rising amongst college campuses across the United States (U.S.), especially in light of recent tragedies within the country such as shootings on college campuses (Castillo & Schwartz, 2013). Eisenberg, Hunt, and Speer (2013) sampled 14,175 college students across the nation and found that 17.3% screened positive for depression and 7.0% screened positive for generalized anxiety. The American College Health Association (2015) surveyed 93,034 college students and found that 56.9% of students felt a sense of overwhelming anxiety, 34.5% felt depressed to the point of having difficulty functioning, and 53.5% felt either greater than average or tremendous stress over the last 12 months. In general, university life presents stressors, and positive coping skills are needed for success (Freire, Del Mar Ferradás, Valle, Núñez, & Vallejo, 2016). Burnout, with its various influencing factors, is a concern for students (Cushman & West, 2006). Attrition may be related to burnout and is yet another area of concern within graduate school, as is the challenge to recruit and prepare a diverse workforce that comes with varying academic and personal preparedness to complete the increasingly stringent academic demands. Indeed, more students from low socioeconomic status and diverse backgrounds are projected to attend college, who often come with higher needs and, without adequate preparation and or special retention programs may add to these already staggering numbers. All this present an urgent need to effectively tap into student resilience and potentially apply other tools for universities who are under

increasing pressure to monitor success at a time of escalating cost (Morales, 2014). The Council of Graduate Schools (CGS) reports:

> Increasing demand for workers with advanced training at the graduate level, an inadequate domestic talent pool, and a small representation of women and minority graduates at all education levels are among some growing concerns over workforce issues that relate to the vitality and competitiveness of the U.S. economy. Improving completion rates for all doctoral students, and particularly for those from underrepresented groups, is vital to meeting our nation's present and future workforce needs ("Attrition and Completion," 2016, para.1).

Pointing to the possibility of interventions to help students with these challenges, we know that resilience, grit, and/or, elements of wholeness are associated with positive coping and success for college students (Cereola, Snyder, Cereola, & Horton, 2014; González-Torres & Artuch-Garde, 2014; Strayhorn, 2014). The question arises if current resources offer enough support. Thus, a need for system review and policy examination is merited in order to support universities and their graduate students.

Goals of the Current Study

The current mixed methods study aimed to explore if, for three programs in the Loma Linda University (LLU) School of Allied Health Professions (SAHP), wholeness and learning climates aligned with LLU's institutional policy to encourage a wholeness-oriented optimal education experience. The departments chosen included highly competitive graduate programs that are known to have students who seem to (although not yet systematically documented) present with high burnout, which likely affects their life satisfaction and potential ability to optimally function within their careers. Specifically, the following departments were included: Communication Sciences and Disorders (CMSD), Occupational Therapy (OT), and Physical Therapy (PT).

In the departments studied, the following programs were specifically examined: within the Department of CMSD, the Master of Science (MS) in Speech-Language Pathology (SLP); the Master of Occupational Therapy (MOT) within the Department of OT; and the Doctor of Physical Therapy (DPT) within the Department of PT. For students attending these departmental programs, we explored if their personal demographic background characteristics, their department's wholeness and learning climates via emotional support elements and experiential learning elements (independent variables [IVs]) had an effect on student self-reported burnout, well-being, and life satisfaction (dependent variables [DVs]), and if these relationships were further influenced by personal characteristics of resilience, grit, stress, anxiety, and depression as well as religion/spirituality (additional IVs). The study's goals were to examine the specific aims and accompanied hypotheses outlined below as related to the overall research model (Figure 1) that guided the study.

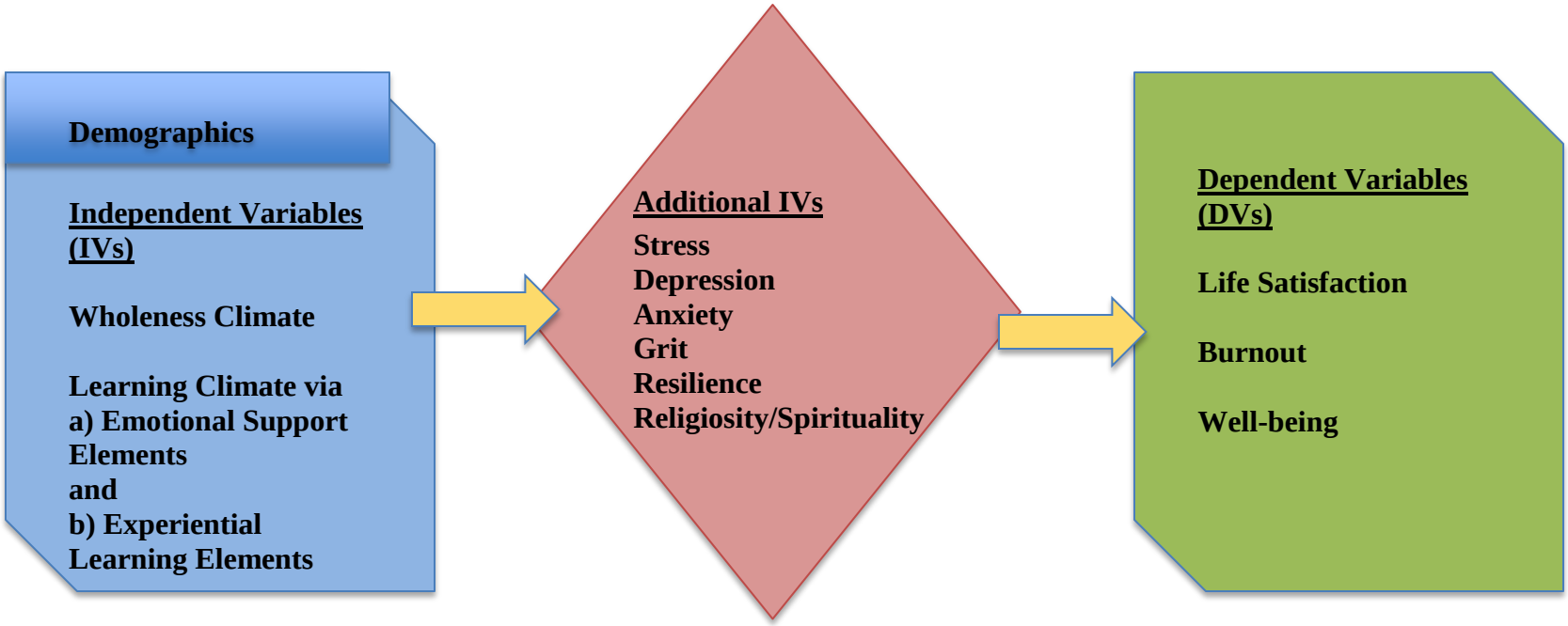

Figure 1. Research model.

Qualitative Specific Aims

1. Pre-survey phase: To explore LLU's CMSD, OT, and PT faculty perceptions regarding the programs' abilities to provide wholeness and learning environments. Specifically, to explore major perceived student stressors and professors' approaches to incorporating learning/wholeness climate elements in their teaching. *This information was used to inform the survey for the quantitative study.*

2. Post-survey phase: To clarify survey results from the students' perspectives, including how LLU CMSD, OT, and PT students perceive the learning and wholeness climates; identify stressors; note useful elements in place at LLU; and provide recommendations for improvements.

Quantitative Specific Aims

3. To explore which demographics (control variables) are statistically significant related to the study outcomes of students' self-reported satisfaction with life, burnout, and well-being (DVs).

4. To explore if wholeness and learning climates (IVs), while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).

5. To explore if mental health measures of stress, anxiety, and depression (IVs), while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).

6. To explore if grit, resilience, and religiosity/spirituality, while controlling for significant demographics, are associated with students' perceptions of satisfaction with

life, burnout, and well-being (DVs).

7. To explore if grit, resilience, and religiosity/spirituality as well as mental health factors (anxiety, depression, and stress), learning and wholeness climates, while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).

Significance

The current study is of significance and required further study for several reasons. First, while research has been conducted regarding all variables involved in the current study, to our knowledge, the combination of examined study variables and population were novel. At a time when universities struggle to motivate the students they prepare with meaningful opportunities for wholeness and applied learning, the explored variables offer insights to be shared with LLU leadership around their stated commitment to wholeness; for the larger communities of university researchers, the results provide data (and potential mechanisms) to help inform future policy and programming.

Second, the current study involved the future generation of healthcare practitioners. Healthy, well-trained providers are needed to serve patients at the highest level of care possible. Future practitioners' abilities to serve optimally begin with their education. Understanding the climates surrounding education is a necessary starting point to be able to meet needs and share visions/voices of the students and faculty alike in order to better inform recommendations that may range from professional organizations to campus life. The current study strove to identify these climates on both the qualitative and quantitative levels to provide a well-rounded depiction of the student's experiences in

these highly competitive programs. While only recently brought to the attention of the public as a need in the world of academia, climates of wholeness and how students learn are believed to affect the ultimate outcomes of life satisfaction, burnout, and well-being in addition to the traditional measures of "success" (e.g., admissions' selection criteria, grade point average, graduation rates, finding a well-paying job, etc.). Gaining insights concerning if and how programs are able to affect these ultimate outcomes is vital in providing a more complete picture to explore if a university committed to wholeness is able to prepare its students for more than academic success once their professional careers begin (Busteed, 2016).

> In the current higher education environment, institutions track plenty of classic economic measures, such as grades, test scores, and graduation rates. But institutions writ large are barely paying any attention to behavioral economic measures like student or graduate well-being, hope for the future, or engagement (Busteed, 2016, p. 13).

By taking the time to measure students' experiences in order to provide the necessary support throughout graduate school and beyond, the future of healthcare may, in turn, look brighter.

Third, mental health concerns are ubiquitous on college/university campuses. However, often at private universities, limited resources are available to address such needs to help students thrive. While the current study only consisted of a single university, the idea behind the study opens the door for application of social policy by creating a learning environment that promotes and advocates for the well-being of students, faculty, and staff alike. Identifying possible effective coping mechanisms may help programs add parsimonious resources to more successfully help students of all background through these rigorous and taxing programs.

Finally, as previously mentioned, attrition, especially for students from diverse backgrounds, is a concern in demanding graduate studies. We believe that an emphasis on wholeness and an aligned learning climate will result in reduced attrition. If retention/graduation rates can benefit from a program philosophy that supports students' wholeness and future well-being, more healthcare practitioners will potentially be available to meet the need associated with shortages of therapists. Thus, students, professors, universities at large, healthcare systems, and patients/clients may benefit whether directly or indirectly through the application of knowledge gained through the current study.

Closing/Summary

In closing, the first chapter outlined the concerns surrounding university students, especially students enrolled in highly competitive graduate programs. The current study sought to better understand learning climates (including emotional and support and experiential learning elements) and wholeness climates as well as their impact on students' life satisfaction, well-being, and burnout. Specific aims (along with associated hypotheses) to address the study's goals were outlined. Our study is significant in the current climate when educational goals of students have broadened. To achieve the academic goal of training competent practitioners, it is increasingly important to provide both a rigorous education as well as maintain student life satisfaction, well-being, and limit burnout. Social policy is a key component when striving to create optimal learning environments and addressing needs of faculty, staff, and students alike.

CHAPTER TWO

CONCEPTUAL FRAMEWORK

Overview of Chapter Two

Chapter two outlines both the concepts and guiding theories related to the overarching conceptual framework that influences the current research. To begin, the concepts of resilience, grit, and wholeness are reviewed. Then, guiding theories are addressed. Astin's (1999) Student Involvement is outlined to detail a developmental theory applicable for university students. Berger and Luckmann's (1966) social constructionism is chronicled to include other influential social theorist throughout history with application of social constructionism's potential impact on graduate students today. Finally, the guiding concepts and theories are further discussed as they related to each other and the current study.

Concepts

Resilience

To define key terms, Fletcher and Sarkar (2013) examined multiple definitions and theories of resilience and concluded upon the following definition: "psychological resilience is defined as the role of mental processes and behavior in promoting personal assets and protecting an individual from the potential negative effect of a stressor" (p. 16). Gavriel (2015) further painted a picture of resilience:

> Resilience is the natural human adaptive capability to 'self-right'. Consider a canoeist, capsized because of a sudden and extreme swell or perhaps a longer

> undercurrent that has left them exhausted. Resilience is the ability to stick an oar in the water and get back the right way up again. Bouncing back from stressful situations in this way is as instinctive as avoiding drowning (p. 333).

Zolli and Healy (2012) discussed ideas about resilience and why individuals are able to, as they put it, bounce back while others are unable, along with the implications that brings for other life components. Indeed, certain characteristics incorporated at happy mediums are needed for resilience such as being connected, being cognitively diverse, collaborating, positive belief systems or hardiness (through purpose, influence on surroundings, and growth from both positive and negative life events), and identifying fragilities. However, there is still a fluid, individualized component to resilience. Furthermore, an individual's resilience may vary depending on the context at hand, making whole person consideration important (Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014). Thus, resilience is an important element to reflect upon when studying university students who are undergoing the process of competitive graduate school programs and how it may impact outcomes. Resilience is further discussed in chapter three's literature review.

Grit

To define, grit involves steadfastly holding to one's goals over time in order to reach accomplishments despite challenges that may arise (Duckworth, Peterson, Matthews, & Kelly, 2007; Rimfeld, Kovas, Dale, & Plomin, 2016). Angela Lee Duckworth (2016) is well known for her study of grit. She found that:

> In sum, no matter the domain, the highly successful had a kind of ferocious determination that played out in two ways. First, these exemplars were unusually resilient and hardworking. Second, they knew in a very, very deep way what it was they wanted. They not only had determination, they had *direction*. It was this

> combination of passion and persistence that made high achievers special. In a word, they had grit (p. 8).

One can imagine how this type of determination may also influence life satisfaction levels and other outcomes in university students enrolled in graduate programs at LLU. Understanding how individuals utilize grit may also help shape future university policy when considering burnout, wholeness, etc. The literature regarding grit is further reviewed in chapter three.

Wholeness

Wholeness is practically a buzzword at this time. However, with trending words aside, the concept within itself is quite beautiful. A true wholeness approach for the education setting entails examining all aspects of life. "To link body, mind, and spirit is to seek the wholeness that is at the heart of holistic learning" (Miller, 2005, p. 235). As Mahmoudi, Jafari, Nasrabadi, and Liaghatdar (2012) further explain:

> Holistic education is an approach to pedagogy that can meet the needs of all types of learners, that can be a source of fulfillment and gratification for teachers, and that prepares future citizens who will contribute a concern and mindfulness for others, for their communities, and for the planet (p. 185).

With the helping professions embodied within OT, PT, and SLP, this is especially important considering the community impact as well as how LLU seeks to incorporate wholeness into its very mission "to make man whole" ("Vision and Mission," 2016, para. 2). Thus, the wholeness climate at LLU will be further explored within the current study. Please refer to chapter three for further literature.

Guiding Theories

To explore these issues we have identified two guiding theories that we believe will help influence our analyses. One is Astin's Student Involvement Theory, and the other Social Constructivism. Both will be further discussed below.

Student Involvement

In addition, Astin (1999) provides a guiding theory based upon his Student Involvement, which he defines as follows:

> Student involvement refers to the quantity and quality of the physical and psychological energy that students invest in the college experience. Such involvement takes many forms, such as absorption in academic work, participation in extracurricular activities, and interaction with faculty and other institutional personnel. According to the theory, the greater the student's involvement in college, the greater will be the amount of student learning and personal development (pp. 528-529).

Five postulates are involved with the theory:

> 1. Involvement refers to the investment of physical and psychological energy in various objects. The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination).
> 2. Regardless of its object, involvement occurs along a continuum; that is, different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times.
> 3. Involvement has both quantitative and qualitative features. The extent of a student's involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying) and qualitatively (whether the student reviews and comprehends reading assignments or simply stares at the textbook and daydreams).
> 4. The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.
> 5. The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement (Astin, 1999, p. 519).

Naturally, when seeking to better understand LLU's SAHP learning and wholeness climates and the resulting impact upon perceived life satisfaction, wellness, and burnout, motivation and choices matter (Astin, 1999). For instance, pending scheduling, students may choose to either be involved or not in provided opportunities at LLU such as the Drayson Center, additional religious activities, school socials, mental health services, community outreach, mission trips, study sessions, making appointments with faculty, etc. Additionally, the climate on campus matters to better foster such choices and provide support. By blending action with the theory, taking advantage of available opportunities may increase learning and personal development, especially when considering the added benefit of a supportive learning environment that invites a safe space to grow within the field of study while utilizing a true wholeness emphasis. Thus, the students' life satisfaction and well-being may positively be impacted while decreasing concerns of burnout, anxiety, and depression. Such an impact may further serve as a guide for potential policy recommendations related to thriving within a higher education setting for graduate school.

Social Constructionism

Berger and Luckmann's *The Social Construction of Reality* has gained widespread recognition since its 1966 debut, greatly influencing how the social sciences are interpreted. To define, social constructionism explains society as building ideas that are taken in to represent reality based on shared perceptions and social interaction until the knowledge simply becomes the way things are/the expectation. More specifically, social constructionism considers society as a human product and an objective reality with

people acting as a social product. Reality is a mix between external perceptions and internal subjective reality. Social constructionism values shared meaning, interaction, and culture. Social constructionism can be seen as occurring in three moments/phases. The first is externalization through human physical and mental outpouring into the world; the second, objectivation, when the mental and physical activities are now seen as coming from outside the original source, or institutionalization; and third, internalization, moving from the objective world to the subjective consciousness. In other words, through socialization, internalization becomes integrated into the psyche and becomes part of the identity of the individual - or a social fact to use Durkheim's term (Berger and Luckmann, 1966; Daly, 2007).

Historically, social constructionism arose during a time of general debate over social theory. During this noted time, Berger and Luckmann sought to support individual human choice combined with the social component. Influences associated with social constructionism include Nietzsche, Pareto, Scheler, Manheim, Merton, Parsons, C Wright Mills, Geigor, Stark, Schutz, George Herbert Mead, and the list continues. For the purpose of the current study, three primary figures of influence for Berger and Luckmann/social constructionism will be further examined: 1) Emile Durkheim (for his objective nature of social reality), 2) Karl Marx (for his dialectical perspective), and 3) Max Weber (for his idea of individual subjective meaning). A combination of these ideas was applied with Berger and Luckmann's own unique perspective to create the idea of social constructionism (Berger & Luckmann, 1966; Vatn, 2005).

First, Marx is discussed. Though Berger and Luckmann were predominantly in opposition to Marx, Marx provided a baseline for social constructionism by seeing a

person's consciousness as determined by his/her social being. Berger and Luckmann's social constructionism was also influenced by the social interaction of individuals. Furthermore, Marx was strongly connected to Hegel because of the notion of the dialectical, which also influenced Berger and Luckmann. Thus, Hegel's need for a holistic approach for society with cultural totalities during a time when independence and individuality were highly esteemed similarly connected to Marx's view. The implementation of the view was quite different, of course, but the linking of ideas is important to note. Berger and Luckmann's social constructionism also appreciated the acknowledgement of individuals being social with the need for interaction and the influences interaction brings (Berger & Luckmann, 1966; Coser, 1977; Vatn, 2005).

Second, Weber expanded sociology by examining others' actions as meaningful. He believed that subjective meaning helped explain actions from a social and historical context, which was needed for the very purview of sociology. Weber divided society into groupings by lifestyles, views, and classes with basically stable interactions. Clearly, Berger and Luckmann built onto Weber's ideas and shared the appreciation for subjective meaning to individuals while looking at social and historical aspects and noting society's groupings as well (Coser, 1977; Kalberg & Cohen, 2005).

Finally, Durkheim is reviewed with his obvious influences on Berger and Luckmann by seeing social phenomena as objective things to be studied. However, in order to fully understand Durkheim, it is important to first visit Comte, often referred to as the father of positivism. Comte believed people could be studied in the same way as natural science. In other words, they were subject to basic laws, follow an ordered sequence based on reason, and can be measured through observation, experimentation,

and comparison, especially in historical respect over time. Comte further explained that historical and social aspects must be considered within context (Coser, 1977, pp. 5-7). Durkheim is connected to Comte because of positivism. While social constructionism is very distinct from positivism, Berger and Luckmann borrowed from this line of thinking by stating how society is an objective reality. However, Berger and Luckmann stated that instead of the needed rigid and measurable objectives for positivism, social constructionism views objectivity as related to habituation, or repeated action turned into pattern. With social constructionism, *context* is important in how it creates meaning for people, and positivism leaves out contextual variables due to favoring a linear approach. Durkheim and Berger and Luckmann are both influenced by the need for awareness of personal individualism and incorporation of society as a whole with solidarity (Berger & Luckmann, 1966; Coser, 1977; Murphy, 2010; Vatn, 2005).

After reviewing Comte's indirect influences via Durkheim on social constructionism, it is also necessary to discuss the inherent challenges positivist-based empiricism may bring, especially through the lens of social constructionism when examining the challenges that graduate students routinely encounter. To define, empiricism depends on the senses/sensory experiences to gather information and knowledge (Roth, 2010).

Naturally, challenges are still faced when considering the fluid nature of social constructionism coinciding with the linear mindset of positivist-based empiricism. While ultimate truth is viewed as illusive, the small truths of empiricism are embraced (e.g., that one size fits/does not fit all for everyone's needs, that there is a hierarchy of race, gender, and even academic accomplishment). With this in mind, problems arise when further

examining the stresses students face within demanding graduate programs.

To begin, one may say that students' roles have been socially constructed. Traditional roles given by society often include the need for graduate students to have a high GPA, find time to work, balance a social life, and meet success within both clinical and didactic portions of their studies. The need for students to meet societal expectations/roles makes it challenging to ever feel as if one is completely measuring up to such requirements. Though students' roles may have been socially constructed, the desire and stress to meet such societal expectations/roles are real and become internalized. Thus, following the moments/phases of social constructionism, objectivation becomes internalized, potentially gaining influence over the person. However, social constructionism presents challenges to positivist-based empiricism by allowing new truths. For instance, success can be redefined as actively seeking knowledge and applying it in clinical settings in a way that one also strives toward personal growth, both of which may continue to impact others in lasting and profound ways outside of the originally socially constructed truth. Legitimizing new truths challenges empiricism by going beyond the senses to create new meaning. In turn, the old truths (e.g., that there is only one way to be truly successful as a student, such as grades) meet new socially constructed truths (e.g., that multiple ways of being successful exist; grades are important but so are wellness and life satisfaction, especially as this may reduce burnout). Thus, social constructionism allows for progression and movement of evolving, dynamic truth. By legitimating new truth, it essentially shakes the foundation and challenges the old truths of positivist-based empiricism.

Additionally, while the focus of the current study involved graduate students, it

should also be noted that the students are definitely not alone as individuals influenced by society's socially constructed expectations. Professors/faculty/staff may also feel the pull. Acknowledging such is important when considering that faculty were interviewed as key informants, and they are also under societal pressure to uphold requested standards, be politically correct, follow the campus' philosophy, potentially reduce the appearance of vulnerability as an individual in a position of leadership, and meet their own research gains. All of these pressures may simultaneously be felt while faced with the need to balance life including family/social aspects, spirituality, exercise, leisure/self-care, workload, etc. while attempting to avoid burnout themselves. Therefore, key informant interview responses may be influenced by the knowledge that faculty/professor's words were recorded in combination with potentially attempting to meet socially constructed expectations ingrained as society's "correct" way to respond for an individual within their responsibilities and position of influence.

Berger and Luckmann's *The Social Construction of Reality* has become a pivotal component in understanding and interpreting the social sciences, thus influencing the current study's exploration of wholeness and learning climates amongst allied health graduate programs at a religious university. The history of social science helped shape the present understanding of social constructionism. Going forward as a society, one could argue that we need to apply learned knowledge positively by serving others optimally, including within the university setting.

Bridging the Specific Aims to Guiding Theories

The connection between the study's specific aims and guiding theories is further

explained below. Bridging such information is necessary to link ideas and understand the bigger picture of the current research. In addition, please refer to Appendix G for a visual diagram to further see how the guiding theories are related to the study's purpose, specific aims, hypotheses, measures, and analyses.

The first specific aim was to explore perceptions regarding the programs' abilities to provide wholeness and learning environments including major perceived student stressors and professors' approaches to incorporating learning/wholeness climate elements in their teaching. The information further informed survey development. To address specific aim one, the theory of Student Involvement connected to postulates three and five, because of the qualitative nature and exploration combined with the faculty component of promoting student engagement. Perceptions were further examined and informed the current study as initially seen through the lens of CMSD, OT, and PT faculty (Astin, 1999).

The second specific aim was to clarify survey results and explored how CMSD, OT, and PT students at LLU perceived the learning and wholeness climates, stressors, useful elements in place at LLU, and provided recommendations for improvement. In examining the second specific aim, all five postulates of Student Involvement may be incorporated. To more fully examine, a qualitative perspective of involved energy in the learning process was explored with the understanding of learning as an individualized continuum to further discover how much the graduate students' invested in the LLU learning process while seeking to understand such ideas in relation to LLU's current philosophy and policies (Astin, 1999).

The third specific aim was to explore which demographics were statistically

significant related to the study outcomes of students' self-reported satisfaction with life, burnout, and well-being. Student Involvement postulates two and three were included in reference to the continuum aspect of involvement, which demographics may influence, and the quantitative component (Astin, 1999). Furthermore, Social Constructionism must be noted for how society is programmed to compartmentalize by demographics to begin with (Berger & Luckmann, 1966).

The fourth specific aim was to utilize surveys to quantitatively explore, controlling for statistically significant demographics, if wholeness and learning climates were related to students' perceptions of life satisfaction, well-being, and burnout (DVs). Regarding the fourth specific aim, Student Involvement postulates three and five were incorporated from a quantitative perspective as well as through viewing current policies set in place in regard to the educational climates (Astin, 1999). Additionally, Social Constructionism was included through the idea of internalizing expectations in the form of burnout (Berger & Luckmann, 1966).

The fifth specific aim was to explore if mental health measures of stress, depression, and anxiety (while controlling ofr significant demographics, were associated with wholeness and learning climates and life satisfaction, well-being, and burnout. Concerning the fourth specific aim, all five postulates of Student Involvement as well as Social Constructionism were incorporated. Within Student Involvement, understanding the students' investments in education quantitatively along a continuum based on personal investment in association with current policies/philosophies was noted (Astin, 1999). For Social Constructionism, pressure to measure up to the social construction of others along with the potential to internalize such perceptions, which may lead to mental

health concerns that become the student's reality, was considered (Berger & Luckmann, 1966).

The sixth specific aim was to further explore if grit, resilience, and religiosity/spirituality (while controlling for significant demographics) were associated with life satisfaction, well-being, and burnout. All five postulates of Student Involvement were considered along with Social Constructionism. The five postulates of Student Involvement helped to quantitatively examine utilized academic energy while understanding the uniqueness of each student on the continuum through personal effort while also considering LLU's policies and philosophies (Astin, 1999). Furthermore, Berger & Luckmann's (1966) Social Constructionism applied through consideration of society's social expectations for individuals to be gritty and resilient along with the need to mention that some perceive religion to be a social construction. Regardless, examining how religion and/or spirituality intertwined within programs was needed to fully seek understanding of the wholeness and learning climates with a university committed to upholding and "furthering the teaching and healing ministry of Jesus Christ to 'make man whole'" ("Vision and Mission," 2016, para. 2).

Finally, the seventh specific aim combined elements of aims five and six for a collective response. Again, postulates one through five were incorporated along with Social Constructionism for the reasons addressed above (Astin, 1999, Berger & Luckmann, 1966).

Summary and Connection of Concepts and Guiding Theories

Each concept and guiding theory tied to the greater purpose of the current

research study for the following reasons:

We believe that the concept of resilience is necessary to better understand the outcomes of the current study. As described above, resilience provides one with the ability to bounce back, to continue despite adversity (Zolli and Healy, 2012). Thus, resilience is an advantageous quality for graduate school. Moreover, while some individuals are naturally more resilient than others, it can also be improved upon. For instance, LLU believes in creating an ever-improving learning environment committed to wholeness, which would include strategies for optimal performance (such as resilience). We explored the concept of resilience via the Connor-Davidson Resilience Scale – 10 Items (CD-RISC 10) as further outlined in chapter four to help answer if resilience does indeed provide a protective effect.

Second and similarly, the concept of grit, or determination to persist with long-term goals, is another instrumental component for completing a competitive graduate school program (Duckworth, 2016). Grit was quantitatively explored in the current study through the measure of the Short Grit Scale, or Grit-S. (Measures are described in chapter four).

As previously outlined, the theory of Student Involvement describes the importance of participating in one's university experience from extracurricular aspects to interacting with faculty. The theory assumes that the greater the involvement, the greater the students' growth and engagement in learning (Astin, 1999). The theory of Student Involvement fits well with the associated mindset that also guided the current research through Busteed's (2016) ideas about the need for positive emotional support and experiential learning elements for university students as related to the achievement of a

strong sense of well-being and career engagement later in life. Both theories/ideas stress the importance of participation in extracurricular involvement and taking time to interact with faculty in a meaningful way. Thus, such components may be key to understanding what creates a satisfying university experience. Exploring associated research and related theory provides the means to connect concepts for optimal university student outcomes that may guide future policy.

Another component of the current research study involves how stressors, depression, anxiety, etc. impact satisfaction, well-being, and burnout. Social constructionism helps explain how one's community creates notions that become adopted and held as truth (Berger and Luckmann, 1966). Thus, social constructionism may further explain the why behind stressors associated with university life, while acknowledgement of the theory allows for new socially constructed truths to be incorporated for potentially healthier environments and social policy standards in the future.

In summary, the current research utilized the concepts of resilience and grit to better understand the connection between learning and wholeness climates in relation to burnout, life satisfaction, well-being, mental health factors, spirituality/religiosity, along with measures for resilience and grit, the very concepts that help to set foundational understanding within the study. Furthermore, the guiding theories of Student Involvement and Social Constructionism provided lenses to examine the outcomes of the current study as well as a potential explanation/understanding to help guide policy suggestions.

CHAPTER THREE

REVIEW OF THE LITERATURE

Overview of Chapter Three

Chapter three examines relevant literature pertaining to the variables within the current study including: wholeness and faith, learning climate, stress, anxiety, depression, resilience, grit, burnout, life satisfaction, and well-being. Additionally, consideration of the students' responses to emotions, gaps within the literature, and the need for the current study are reviewed. Finally, the chapter examines basic introductions to each of the three graduate programs to be studied before summarizing and discussing the future research direction.

Wholeness and Faith

Striving toward wholeness is a vital component of health and well-being that integrates into multiple aspects of life. The idea of wholeness emerges in various forms throughout the literature including: addressing wholeness prenatally, parental self-care, spirituality and religiosity for individuals in the military, awareness of how a patient's rehabilitation environment impacts wholeness, the connection of wholeness and exercise, as well as providing a whole-person care approach within palliative care, (Freeman, 2016; Greenwood & Delgado, 2013; Kluny & Dillard, 2014; Raanaas, Patil, & Alve, 2016; Terashita-Tan, 2013). Regardless of the specific wholeness element examined, all lead to the same conclusion. That is to say, the idea and implementation of true wholeness matter.

More specifically, LLU adopted the following definition by Gerald Winslow from SCOPE's Spring 1999 edition: "Wholeness means the lifelong, harmonious development of the physical, intellectual, emotional, relational, cultural, and spiritual dimensions of a person's life, unified through a loving relationship with God and expressed in generous service to others" (as cited in "University Philosophy," 2013, para. 2). LLU measures the wholeness climate of the institution based on the following components: "justice, compassion, humility, integrity, excellence, freedom, self-control, and purity" ("Research," 2017, para. 13). Faith through religiosity/spirituality is intertwined with the concept of wholeness. "Indeed, within the Christian theological tradition, there are interpretations of the body-spirit relationship which can be used as resources for embodied wholeness" (Greenwood & Delgado, 2013, p. 947). Religion/spirituality has even shown to have a protective effect for college students against depression (Berry & York, 2011). Those with a strong, healthy faith are inclined to positively cope when addressing academic stressors (Kuo, Arnold, & Rodriguez-Rubio, 2014). Knabb and Grigorian-Routon (2014) studied Christian university students and found that the type of relationship one had with God impacted other mental health factors. For instance, through cultivating forgiveness from God and remembering to not dwell on anger, mental health challenges regarding stress, anxiety, and depression were less likely to occur. However, for the individuals who chose negative strategies to understand the situation (e.g., feelings that God was abandoning them, being targeted by the devil, etc.), had a greater likelihood of poorer mental health (Knabb & Grigorian-Routon, 2014).

Religious views may vary throughout life. Within the timespan of the college years, research points to a decline in religiosity/spirituality (Hall, Edwards, & Wang,

2016). Examining the wholeness climate on campus allows the university to better understand if philosophy aligns with the current perceptions of students, specifically within the departments of CMSD, OT, and PT.

Learning Climate

“Learning climate is a multifaceted concept that is complex to measure” (Lombarts, Heineman, Scherpbier, & Arah, 2014). One definition is presented as follows: “School climate—by definition—reflects students’, school personnel’s, and parents’ experiences of school life socially, emotionally, civically, and ethically as well as academically” (Thapa, Cohen, Higgins-D’Alessandro, & Guffey, 2012, pp. 10-11). The learning environment may be viewed as synonymous with the learning climate. In Herrington and Herrington’s (2006) book, the learning environment is further defined as being collaborative in nature, a healthy leadership style, embracing of differences, a safe place that allows for both critical thinking as well as reflection, dealing with conflict through dialogue and willingness to see the world in a new way, and working toward wholeness. “Probably the most important characteristics of these environments is the prizing of congruence between beliefs and behavior” (Herrington & Herrington, 2006, p. 16). Of course, this is a process that requires vision, values, and gaging such ideas against one’s present reality in order to make adjustments. “Graduate education programs in traditional universities are challenging places in which to create authentic learning environments that fit this description” (Herrington & Herrington, 2006, p. 16).

As discussed within the theory of Student Involvement, student participation matters within the learning climate (Astin, 1999). In addition, faculty provide a key role

in influencing the learning climate on campus. Thus, creating an atmosphere inside and outside of the classroom that values diversity of thought is an important element to establishing a positive learning climate (Ryder, Reason, Mitchell, Gillon, & Hemer, 2016). Fostering an environment where students feel engaged provides for a valued learning climate that promotes practical application of theory (Ní Raghallaigh & Cunniffe, 2013). Instructors who create a caring environment influence their students in the art of caring as well, especially when considering the clinical component of the academic experience (Labrague, McEnroe-Petitte, Papathanasiou, Edet, & Arulappan, 2015).

More specifically, Busteed (2016) provided insights that will further guide the current research study, and he emphasized the importance of behavioral economic measures within a learning climate, which include emotional supports and experiential learning experiences, both of which are outlined in greater detail within chapter four. In essence, the created climate on campus has the potential to make a lasting impact on well-being and life goals of the future.

Stress

Stress impacts individuals on a daily basis, and graduate students continuously face stressful situations related to their studies in addition to typical life stressors, family situations, etc. Salas, Driskell, and Hughes (1996) offered the following description: "Stress is a high-demand, high-threat situation that disrupts performance. It is time-limited; stress conditions occur suddenly and often unexpectedly; quick and effective task performance is critical; and consequences of poor performance are immediate and often

catastrophic" (pp. 8-9). Of course, a healthy amount of stress can actually help individuals perform at their best possible levels, but chronic stress leads to poorer productivity and concerning health outcomes (McLaren, 2015).

Recently, the American Psychological Association (APA) completed the Stress in America Survey and their results reveal the challenges that the U.S. faces with stressors. Americans are stressed about their personal safety and country's political climate. Work, the economy, and money continue to be consistent points of alarm. Over the last 10 years, stress has increased the most related to the economy, terrorism, and violence in regard to terrorism/mass shootings. Only 41% said that they are managing stress better at this time than a decade ago. Thus, stress continues to be a point of concern with new stressors arising (American Psychological Association, 2017).

Stress may be experienced across the lifespan. Even prior to conception, stress leaves an impact, as adolescent mothers dealing with previous stressful life events were found to be four times as likely to have preterm births (Witt et al., 2014). Beginning at infancy, the brain is developing and influenced by stress within the environment regarding mental health and emotional state (Graham, Pfeifer, Fisher, Carpenter, & Fair, 2015). Early childhood stress has the potential to negatively impact physical health during early adulthood, when one is otherwise expected to be optimally healthy (Raposa, Hammen, Brennan, O'Callaghan, & Najman, 2014). Farrell, Simpson, Carlson, Englund, and Sung (2017) conducted a longitudinal study and found that stressful events during early childhood, adolescence, and during the present time (study stopped at age 32), predicted poor physical health outcomes. Furthermore, when examining individuals from low socioeconomic status backgrounds, chronic stress from poverty can lead to mental

health concerns (Mossakowski, 2015). Stress also continues throughout life into older adulthood, and an individualized approach for coping may serve as an important consideration (Lee & Mason, 2014). Stress may present differently considering gender, race/ethnicity, age, and marital status (Griffith, Ellis, & Allen, 2013).

Within the college/university setting, stressors may include but are not limited to: studying; tests/examinations; managing time; group work, romantic relationships; dealing with money; expectations; as well as concerns related to race, ethnicity, and disabilities, etc. (Baghurst & Kelley, 2014; Hurst, Baranik, & Daniel, 2013). Additionally, students from diverse backgrounds may experience higher levels of stress, both inside and outside of school, due to finances, racial discrimination, health concerns, additional pressure to assist the needs of one's family, etc. (Cheng & Mallinckrodt, 2015; Hall, Williams, Rhoads, & Hunt, 2015; Pyne & Means, 2013).

Stress may also come with health implications. For instance, stress is linked to causing depression (Phillips, Carroll, & Der, 2015). Thus, one must acknowledge (and in this study measure) stress during graduate school. If students are stressed to the point where secondarily depression is triggered, what will be the end result? To better understand student health and well-being, assessing perceived stress is critical.

Harkness & Monroe (2016) emphasized the importance of differentiating between exposure to stress and one's response to stress along with acute versus chronic stress. Having an interview to understand context and recording specific stressors are recommended within research. How one copes also make a difference in the impact of stress. For instance, university students who naturally demonstrated a higher level of playfulness in their everyday life experienced lower levels of stress, and were thus better

able to cope (Magnuson & Barnett, 2013). Such information brings into question how natural personality tendencies influence one's experiences with stress and further supports the importance of consideration for individualized needs within a university setting. Additionally, academic climates will benefit from examination to provide optimal opportunities to decrease the burden of stress before it escalates into even more pressing health concerns. Indeed, with the permeating nature of stress and its impact on health, students' perceptions of stress are deserving of continued monitoring to better understand learning experiences within a graduate setting.

Anxiety

The American Psychological Association defines anxiety (as adapted from the *Encyclopedia of Psychology*) as follows:

> Anxiety is an emotion characterized by feelings of tension, worried thought and physical changes like increased blood pressure. People with anxiety disorders usually have recurring intrusive thoughts or concerns. They may avoid certain situations out of worry. They may also have physical symptoms such as sweating, trembling, dizziness or a rapid heartbeat ("Anxiety," 2017, para. 1).

Anxiety impacts one's environment and ability to perform life tasks optimally. Level of disability varies based on the type of anxiety disorder with social anxiety disorder and generalized anxiety found to have more detrimental results (Hendriks et al., 2016). Social anxiety was also found to be a direct predictor of loneliness (Lim, Rodebaugh, Zyphur, & Gleeson, 2016). Anxiety impacts life functions, as a meta-analysis by Moran (2016) revealed that anxiety negatively affects working memory and even one's response to treatment like cognitive behavioral therapy. For individuals dealing with a diagnosis such as AIDS, autism, coronary artery disease, Parkinson's

disease, etc., higher anxiety levels are associated (Gu, Zhou, Zhang, & Cui, 2016; Lin, Lin, Liu, Chang, & Wu, 2015; Tesfaw et al., 2016; Vasa et al., 2014). When considering wholeness, one's doubts with religiosity/spirituality are also greater with anxiety (Wilt, Grubbs, Lindberg, Exline, & Pargament, 2017). Thus, mental health, specifically anxiety, needs a voice in order to provide a better quality of life.

University students commonly face challenging situations that have the potential to influence anxiety. For example, working students have shown greater anxiety levels as compared to their non-working peers (Mounsey, Vandehey, & Diekhoff, 2013). Additionally, Farrer, Gulliver, Bennett, Fassnacht, and Griffiths (2016) studied Australian university students and the factors that influence both anxiety and depression. Findings revealed: "The most prevalent psychosocial issues experienced by students were feeling too much pressure to succeed, issues with time management and procrastination, exam anxiety, managing work/life balance, and lack of confidence" (p. 5). As outlined in chapter two, one can see the pressures of social constructionism continue. Socially constructed notions may produce real life stigma that reduces the likelihood of individuals seeking out needed mental health services in the first place (Pearl, Forgeard, Rifkin, Beard, & Björgvinsson, 2017). Such socially constructed pressures and continued anxiety may lead to concerns with health outcomes as described by the National Institute of Health (NIH), and mental health assistance is necessary ("Social anxiety disorder: more than just shyness," n.d.). The question must be asked again; what are the future implications for graduate students who experience high anxiety? The question heightens when considering how a high-stress graduate environment may influence well-being and career engagement later in life (Busteed, 2016).

Depression

From the research above, one can see that anxiety and depression may result in similar academic outcomes for university students. Depression is defined by the World Health Organization (WHO) as follows: "Depression is a common mental disorder, characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration" ("Health Topics: Depression," 2017, para. 1). Depression impacts one's daily life and roles. Depression may be intermittent or constant and last throughout life. Severity varies from mild to severe. Medication and psychotherapy may be prescribed to manage depression ("Health Topics: Depression," 2017).

The WHO further explained that depression impacts over 300 million individuals worldwide and is associated with poor health outcomes, especially when considering long-term impacts from moderate-severe depression, that range from reduced social interaction, low work performance, and, sadly, even suicide ("Depression fact sheet," 2017). Depression is more common in women than men, and women also have higher comorbidities associated with depression (Kim, Shin, & Song, 2015). Maternal depression even has the potential to impact children within the home, as continued depression was related to behavioral and emotional concerns for the mother's two-year-old child (Prenoveau et al., 2017). It is not uncommon for graduate students to have a family, with concerns potentially impacting their role at both school and home.

Predictors of depression are also important information to consider. "Childhood maltreatment is a potent risk factor for depression" (Dennison et al., 2016, p. 1207). Walker and Druss (2015) found the following concerning major depressive disorder

(MDD): “Significant predictors of MDD persistence included having two or more chronic medical conditions, female gender, never having been married, activity limitation, and less contact with family” (p. 704).

Risks and protective factors for depression should be considered, especially within the young adult/college/university/graduate student population as pertains to the current study. College students who are individuals of color are especially at risk for depression when considering perceptions of discrimination and/or feelings of being an imposter (Arbona & Jimenez, 2014; Cokley et al., 2017). Also, when considering the wholeness component of religiosity/spirituality for individuals with major depressive disorder, Koenig, Pearce, Nelson, and Daher (2015) found that individuals who reported being more religious also had more optimism, and optimism was noted to be protective against depression.

Similarly, (Portnoff, McClintock, Lau, Choi, & Miller, 2017) found that: “A high level of spirituality reduces the relative risk of depression by half in the United States, India, and China” (p. 28). When considering graduate students’ mental well-being, self-reflection may serve as a positive way to counteract potential depressive symptoms as the result of highly stressful problem solving during graduate programs (Mori, Takano, & Tanno, 2015).

Furthermore, the WHO found that for every dollar invested in improving anxiety and depression, a savings of $4 was added within health improvement and work status (“Investing in treatment for depression and anxiety leads to fourfold return,” 2016). Thus, investing in positive means to address mental health concerns yields a greater impact not only from a health perspective, but financially as well. How much more so would this

investment be worthwhile if immediately applied while in graduate school? Clearly, the health and well-being of students has an expansively reaching impact that deserves proper study. Therefore, depression and anxiety are important variables to consider as potentially impacting life satisfaction, well-being, and burnout for students enrolled in competitive allied health graduate programs. Knowledge of mental health statuses for graduate students is vital in order to understand if additional policies that provide mental health supports are needed to avoid long-term health risks.

Resilience

Resilience as a concept was described in chapter two. Resilience provides a way to successfully carry on after challenging circumstances from childhood sexual assault to post-traumatic stress disorder, and understanding the impact of resilience is needed for selecting appropriate social policies (Besser, Zeigler-Hill, Weinberg, Pincus, & Neria, 2015; Marriott, Hamilton- Giachritsis, & Harrop, 2014). More specifically, in the case of the current study, social policies may be suggested for optimal wholeness alignment with the greater mission of LLU.

Adolescence is a key time to consider when examining resilience. "Physical functioning and psychological resilience in adulthood is shaped during adolescence" (Loh, Moy, Zaharan, & Mohamed, 2015, p. 1216). Skrove, Romundstad, & Indredavik (2013) discovered that adolescents commonly have to deal with anxiety and depression, in particularly amongst girls. However, there is hope to protect mental health through resilience. "Resilience characteristics as having a good relation to parents and a high number of friends seemed to protect against such symptoms, while substance use and low

physical activity were associated with a higher symptom burden" (Skrove, Romundstad, & Indredavik, 2013, p. 414). Thus, early practices established in adolescence are important to consider as influences for one's satisfaction later in life.

Furthermore, at risk individuals are impacted by resilience from intrauterine experiences to childhood to adolescence and beyond. Liebschutz et al. (2015) discovered the following for intrauterine substance exposure (IUSE) including intrauterine cocaine exposure (IUCE) and intrauterine tobacco exposure (IUTE): "Lower exposure to violence in childhood, close parental supervision in adolescence, and lack of IUTE predicted increased behavioral resilience in high-risk urban adolescents, half of whom had IUCE" (p. 334). Gratefully, even so, having IUCE was not directly associated with a lower likelihood of behavioral resilience within the study (Liebschutz, et al., 2015).

In urban youth, resilience can be fostered to overcome the potential for depression secondary to exposure to violence by building positive communication for parental relationships through adolescence (Eisman, Stoddard, Heinze, Caldwell, & Zimmerman, 2015). When longitudinally studying high risk populations of Latino/as and African-Americans over six years from early to mid/late adolescence, the researchers found that individuals who identified as being resilient had more positive outcomes later in regard to delinquency, teen pregnancy, psychological distress, etc. (Ernestus & Prelow, 2015). Clearly, starting early in life, resilience has the potential to make a difference.

Additionally, Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, (2014) elaborated that resilience should be considered on an individual basis. Each person's story is unique "based on multiple factors such as personality, specific challenges, resources available, and environmental context" (Southwick, Bonanno, Masten, Panter-

Brick, & Yehuda, 2014, p. 12). Furthermore, the source of resilience may vary throughout the lifespan (Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014). Traumatic events happen throughout life. Therefore, one may need to learn how to best be resilient depending on the moment in time (Park, Currier, Harris, & Slattery, 2017). The U.S. Department of State (n.d.) remarked, "Resilience is not a trait that people either have or don't have. It involves behaviors, thoughts, and actions that can be learned and developed in everyone" (para 1). In considering how resilience may be learned through various times and trauma exposures in life, recognizing and providing tools for success becomes an important conversation for Loma Linda University as it relates to the current study.

As mentioned above, individual needs are important. Likewise, examination of resilience within the university setting is necessary. As Allan, McKenna, and Dominey (2014) stated, "it may be concluded that empirical investigations into resilience can be useful for framing educational services and for developing student support practices in [higher education]" (p. 20).

Resilience matters within the workforce as well. Shoss, Jiang, and Probst (2016) discovered: "Across two studies, we found robust evidence that resilience helped to mitigate the negative consequences of job insecurity on psychological contract breach, burnout, and interpersonal counterproductive work behaviors" (p. 12). Thus, employees with resilience may fare better when dealing with job insecurity (Shoss, Jiang, and Probst, 2016).

The medical profession can be demanding. Waddimba, Scribani, Hasbrouck, Krupa, Jenkins, and May (2016) assessed the impact of resilience on medical

practitioners and noted the following implications: "Resilience was not associated with immutable demographics. It was most significantly associated with factors such as practice satisfaction, relational needs, ambiguity tolerance, workload, and practitioner supply" (p. 1775). Understanding factors related to resilience may assist with quality of life in regards to work. Additionally, providing training that promotes flexibility and tolerance during challenging times can be beneficial. Providing supportive professional relationships that limit isolation along with strong interdisciplinary teams are important. Awareness to qualities related to resilience is valued for a healthy outlook (Waddimba, Scribani, Hasbrouck, Krupa, Jenkins, & May, 2016). Therefore, when examining educating future practitioners, flexibility and a positive outlook matter along with supportive environments.

Resilience has also been studied cross-culturally and is connected to stress, as Li and Yang (2016) found in their sample of college students from the U.S., China, and Taiwan. "In summary, when clients' self-efficacy and trait resilience are enhanced, their tendency to use active coping strategies may be promoted" (p. 328). Thus, while culturally relevant aspects matter, there is consistency and support for recognizing the influence of resilience in dealing with stress and life situations across countries.

For medical students, greater resilience equated to a greater quality of life (Tempski et al, 2015). For healthcare professionals, resilience is related to compassion for self and mindfulness (Kemper, Mo, & Khayat, 2015). While continued adversity will likely lead to poor mental health, dealing with some adversity (versus none) actually may help develop resilience to better cope with future challenging situations (Seery, Holman, & Silver, 2010). Additionally, research suggested that resilience can be learned and

developed (Reyes, Andrusyszyn, Iwasiw, Forchuk, & Babenko- Mould, 2015). This concept supports the need for programming to provide strategies for university students to develop a greater sense of resilience for optimal success.

Grit

Grit as a concept was defined within chapter two. Simply put, grit is "perseverance and passion for long-term goals" (Duckworth, Peterson, Matthews, & Kelly, 2007, p. 1087; Rimfeld, Kovas, Dale, & Plomin, 2016, p. 780). While a positive attitude is important when considering grit, even more so is having purpose/dedication to a plan according to Hill, Burrow, and Bronk (2016). Grit is influential and was even found to be a predictor of persistence through the cadet academy at West Point (Kelly, Matthews, & Bartone, 2014). Naturally, doubts exist concerning if grit can truly predict performance success based on current measures. A recent article questioned grit, and stated that grit is actually aligned with conscientiousness, and increased scale rigor was suggested (Credé, Tynan, & Harms, 2016). Agreeably, Rimfeld, Kovas, Dale, and Plomin (2016) viewed grit as a personality trait similar to conscientiousness. Nonetheless, there is support for grit's powerful influence on success (Duckworth & Gross, 2014). High amounts of grit have even been found to offer a buffer effect for suicidal ideation against challenging life events (Blalock, Young, & Kleiman, 2015). Grit benefits learners within the classroom, and has been found to support online learners' satisfaction and academic success (Aparicio, Bacao, & Oliveira, 2017). Thus, grit offers an important additional concept to consider for graduate students' achievement in highly competitive programs.

Internationally, grit perceptions may vary. Grit was examined in working

individuals, comparing Japan to the U.S. from a previous study. For working individuals, a higher amount of grit was associated with finding meaning within happiness in Japan (Suzuk, Tamesue, Asahi, & Ishikawa, 2015). The previous guiding study had found that individuals within the U.S. valued meaning, but even more so, they valued engagement when associating grit with happiness (Von Culin, Tsukayama, & Duckworth, 2014).

Grit has also been studied in relationship to subjective well-being, which is important to the current study considering both grit and well-being are utilized, albeit from a different standpoint. Jin and Kim (2017) examined these concepts in young adults. They did not find grit to greatly impact (if at all) subjective well-being, but grit was associated with competence and autonomy. "These two basic needs were then differently related to the two indicators of subjective well-being, life satisfaction and depression. Put it simply, autonomy decreased depression, while competence increased life satisfaction" (Jin & Kim, 2017, p. 33).

In addition, it is important to understand suggestions for grit from an educational and policy perspective. At the heart of policy related to grit is a hope for student success. In order to accomplish the goal of student success, grit has to be well understood amongst policymakers (Peterson, 2015). Peterson (2015) suggested developing this understanding through a measurement-first approach that encompasses the philosophical and psychological nature using the measure of Duckworth's grit scale with definition clarity rather than a property-first approach (even though it is also appropriate at times), which allows greater subjectivity based on background assumptions in searching for what encompasses the meaning of grit. Peterson (2015) further differentiated between the two terms:

> The property-first approach to grit is more likely to foster an understanding of grit scores as revealing deep facts about the character of those assessed while the measurement-first approach is more likely to foster an understanding of high grit scores as achievements that are incidental to one's self-concept (p. 580).

The current study will incorporate the recommended measurement-first approach via Duckworth's Short Grit Scale.

Indeed, Angela Duckworth's work has created quite the phenomenon. In 2013, even the U.S. Department of Education subscribed to the importance of grit by drafting *Promoting Grit, Tenacity, and Perseverance: Critical Factors for Success in the 21st Century* in an effort to promote grit's concepts throughout the education system (Shechtman, N., DeBarger, A.H., Dornsife, C., Rosier, S., & Louise, Y., 2013). However, Stokas (2015) turned to history to examine the value of grit and concluded that working toward equality is the greater area of concern.

Thus, grit is met with both enthusiasm and criticism. Either way, a greater understanding of the concept of grit within our current time and its influence (or lack thereof) is valuable to consider for the purpose of promoting optimal policy outcomes. The current study may add to the limited research of how grit impacts graduate students.

Burnout

Burnout in the workplace is an ongoing struggle in an effort to retain quality employees. Hakanen and Bakker's (2016) abstract defines as follows: "Burnout is a response to prolonged stressors at work, and is defined as a chronic syndrome including exhaustion, cynicism, and reduced professional efficacy" (p.1). Understanding the reasoning behind burnout is necessary in order to create positive and productive changes. To begin, bullying in the workplace is a concern and cause for employee burnout

(Trépanier, Fernet, & Austin, 2015). Also, with today's technology-driven needs, employees often experience pressure to respond to emails, etc. in a timely manner; the pressure is predictive of burnout and impacts physical and psychological well-being (Barber & Santuzzi, 2015). Burnout influences the employer, employee, and clients of a facility. "When employees have become exhausted and develop a strong aversion to their job, they are less likely to put effort into their work and more likely to make mistakes" (Hakanen & Bakker, 2016, p. 6). Additionally, burnout within professional life leads to missed work time (McGeary, Garcia, McGeary, Finley, & Peterson, 2014). When individuals experienced occupational burnout, there was most likely an associated limited willingness to change during that time (Arvandi, Emami, Zarghi, Alavinia, Shirazi, & Parikh, 2016). Of course, this makes sense considering the reduced energy and commitment that accompanies burnout (Rzeszutek & Schier, 2014). Medical residents, in particular, were found to experience high burnout, which is associated with mental health concerns (e.g., anxiety and depression) along with poorer social skills. In turn, this has the potential to impact the patients whom the medical professionals serve (Pereira-Lima & Loureiro, 2015).

Working in high stress environments with intense patient needs likely leads to high burnout and the desire to change jobs, but protective factors should be considered as well. For instance, individuals who have high resilience were found to be less likely to experience burnout and have more hope (Rushton, Batcheller, Schroeder, & Donohue, 2015). Feeling one has control over work is an important factor to reduce burnout (Garcia, McGeary, McGeary, Finley, & Peterson, 2014). Also, when examining the

stressful job environment of healthcare nurses, Choi, Lee, No, and Kim (2016), discovered that compassion was protective against workplace burnout.

Indeed, multiple aspects should be considered when studying burnout. A deeper understanding of what is involved in burnout is needed to truly encompass a wholeness perspective. As Sabariego, Al-Kudwah, and Cieza (2015) explain:

> We propose to focus not mainly on symptoms, but also on burdensome activity limitations and participation restrictions, and to account for the interaction of burnout with environmental and personal factors, such as treatment received, work environment, attitudes of others and personal beliefs (p. 98).

The current study is interested in understanding the implications related to burnout within graduate school. "Academic burnout refers to students who have low interest, lack of motivation, and tiredness in studying" (Lian. Sun, Ji, Li, & Peng, 2014, p. e87152). If one has a baseline burnout from school, consider how it may carry over into work with the poor outcomes as noted above. Burnout is also related to satisfaction with the learning climate/environment (Dyrbye et al, 2009). Students who experience burnout from learning are more likely to have a negative academic experience (Stoliker & Lafreniere, 2015). Additionally, individuals who experience burnout face challenges with engaging in schoolwork, a necessary component for academic success (Salmela-Aro & Upadyaya, 2014). For Doctor of Physical Therapy students, burnout appeared to increase as the program progressed (Williams, Mueller, Carroll, Cornwall, Denney, & Kronegerger, 2018). Furthermore, when teachers experience burnout, the students' motivation may also be impacted (Shen et al., 2015). Thus, when considering truly embracing a climate of wholeness, faculty and students alike need to be taken care of to prevent burnout. Therefore, burnout is an important element to consider both during a student's time in school and well into his or her career. Better understanding burnout may assist with

prevention and greater fulfillment for students and professionals alike.

Emotions and the Student Response

After discussing the aspects of stress, anxiety, depression, grit, resilience, and burnout, it is important to consider one's approach to associated responses from life situations, both positive and negative, as indicated by emotions. Emotions are connected to meaning, feelings, life situations, and information (Paivio, 2013).

> Like diseases, emotions are defined not by a single response component, but by the manner in which the various components are patterned in place and time, and in relation to eliciting conditions. Each response component is thus an element of a broader syndrome which includes the cognitive appraisal (how the person's plight is interpreted), the physiological reaction (reflecting the kind of mobilization called for by the appraisal), the instrumental acts (e.g., attack, avoidance, etc.) and expressive behavior (facial, postural, etc.) (Lazarus & Averill, 1972, p.244).

Students' emotive responses to stressors may vary, thus individualized considerations are important. Universities need to be aware of mental health concerns amongst the students and programs should be provided to address individual needs to promote student success (Beiter et al., 2015). Additionally, Busteed (2016) explains, "The generally accepted 70/30 ratio tells us that as much as 70 percent of the decisions we make as human beings are based on emotions, while only about 30 percent are based on rational information" (p. 12). Thus, the way students are made to feel through the learning and wholeness climates matters, and may even impact perceptions of anxiety, depression, stress, etc. The created environment leaves an emotive impression, which guides perceptions. Such aspects are important to consider regarding the research process, university interactions on a daily basis, as well as to inform future policy.

Life Satisfaction

Diener (1984) offers insight into the definition of life satisfaction:

> Social scientists have focused on the question of what leads people to evaluate their lives in positive terms. This definition of subjective well-being has come to be labeled life satisfaction and relies on the standards of the respondent to determine what is the good life (p. 543).

Therefore, life satisfaction encompasses multiple components including health, social/relational, financial, career, and spiritual/religious. Heo, Stebbins, Kim, and Lee (2013) found that "leisure involvement in the context of serious leisure is positively associated with life satisfaction, physical health and mental health" (p. 27). Social connectedness is also important. Amongst adolescents, having peer and family support made a positive difference for learning and life satisfaction (Siddall, Huebner, & Jiang, 2013). When assessing 20-30 year olds, single individuals reported lower levels of life satisfaction than those in relationships (Adamczyk & Segrin, 2016). Among older adults, the simple aspect of utilizing the Internet at higher rates was found to positively influence life satisfaction and well-being (Heo, Chun, Lee, Lee, & Kim, 2015). Alternately, older adults may experience loneliness, which negatively impacts life satisfaction (Zebhauser et al., 2014). While money is not a substitute for happiness, financial security does impact perceptions of life satisfaction. For instance, Ruberton, Gladstone, and Lyubomirsky (2016) found "that having a buffer of money available in checking and savings accounts confers a sense of financial security, which in turn is associated with greater life satisfaction" (p. 579). Purpose is also essential. Feeling that one is living out a calling via career is linked to positive life satisfaction (Duffy, Allan, Autin, & Bott, 2013). Furthermore, spiritual and/or religious practices matter. Older adults with vibrant prayer lives report greater life satisfaction (Krause & Hayward, 2013).

Similarly, and more specifically for the current study, amongst university students, happiness with life was related to financial security, success within academics, and self esteem/self-image (Flynn & MacLeod, 2015). Additionally, spiritual intelligence was positively correlated with quality of life for college students (Bolghan-Abadi, Ghofrani, & Abde-Khodaei, 2014). Forgiveness and perceived happiness were also found to relate to life satisfaction for university students. Social support during university years was another important component for well-being and mental state (Rubin, Evans, & Wilkinson, 2016).

Clearly, multiple aspects are involved in the subjective nature of life satisfaction. However, themes of having basic needs met, achieving, supportive friends, and a healthy mental state appear to positively impact one's life satisfaction, particularly within the university/college years. Understanding what may comprise life satisfaction provides hope for future university policies and programming.

Well-being

Closely related to life satisfaction is well-being. Well-being is vital for one's overall health and happiness. Busteed's (2016) research determined that five aspects comprise well-being as detailed below.

> What Gallup has learned is that there are five essential elements of well-being that are consistent across all ages, races, religions, etc. They are described as purpose, social, financial, community, and physical well-being. These are important measures because they are powerful predictors of a number of key outcomes. Employees who are thriving in all five elements of well-being, for example, represent one-third of the healthcare cost burden to their organizations compared with employees who are not thriving in any one element. In short, a metric for well-being is not a *nice*-to-have, it's a *need*-to-have (Busteed, 2016, pp. 14-15).

As expressed above, purpose impacts one's life. Purpose was found to be an

essential element to bring meaning and reach for goals (Ryff & Singer, 2008). Having purpose was associated with positive health and well-being (Windsor, Curtis, & Luszcz, 2015).

Additionally, as with life satisfaction, social relationships are a vital component of well-being. Social engagement with others has the potential to increase well-being whether in committed, healthy romantic relationships, friendships, or positive family dynamics (Fuller-Iglesias, Webster, & Antonucci, 2013; Harding et al., 2015; Whitton, Weitbrecht, Kuryluk, & Bruner, 2013). For university students, having the combined support of family, friends, and boyfriend/girlfriends was found to most positively affect subjective well-being (Ratelle, Simard, & Guay, 2013). Alternately, being isolated from social support may negatively impact one's well-being. This is concerning for individuals from lower socio-economic backgrounds attending a university, as they may find themselves isolated with decreased satisfaction and greater depression as a result (Rubin, Evans, & Wilkinson, 2016). When compared to socially isolated peers, individuals who are socially engaged have better health and a longer lifespan (Umberson & Montez, 2010). Thus, it is important to consider academic environments and whether or not positive relationships are fostered.

Finances are an ongoing topic amongst university students as the reality of student loan debt comes to the surface. Financial threats negatively impacted well-being (Dupuis & Newby-Clark, 2016). On the other hand, the feeling of financial control and freedom was associated with positive well-being (Vlaev & Elliott, 2014).

Being involved within a community is also important. One such way that this may be achieved within an academic setting is through service learning. Per LLU, service

learning is different than volunteering, though it enhances the process. Service learning involves collaboration with the community in which both the students and the organization benefit. Additionally, students may purposefully reflect upon the experience ("Service Learning at Loma Linda University," 2017). Furthermore, service learning may benefit the interdisciplinary experience (Buff et al., 2015).

In addition to purpose, relational, financial, and community needs, physical well-being is also extremely important. Naturally, physical activity is valuable and aids in greater quality of life (Brown, Carroll, Workman, Carlson, & Brown, 2014). However, while vital, health outcomes impact beyond the traditional physical activity component. As previously discussed, stress, anxiety, and depression influence one's state of health. This carries over into well-being, too, as current and future health states have the potential to be influenced. Marcinko (2015) further described the connection of the immune response to physical health. "It is commonly known that negative states and chronic stress activate the fight-flight response. During this reaction all the physiological systems are fully activated so an organism can deal and manage stressor successfully" (Marcinko, 2015, p. 14). Stress becomes increasingly problematic when the nature is chronic, and the body can be impacted, leading to negative health outcomes (Marcinko, 2015).

Perception of health also has a role in well-being. High stress was associated with low perception of health, and well-being may moderate this relationship (Teh, Archer, Chang, & Chen, 2015). Major health conditions such as stroke, diabetes, cancer, hypertension, and heart disease were examined in relation to perceptions of health and emotional well-being along with the influence of social support (Heinze, Kruger, Reischl,

Cupal, & Zimmerman, 2015). The researchers discovered that "the presence of multiple diseases can have a compounding effect on perceived general and mental health" (Heinze, Kruger, Reischl, Cupal, & Zimmerman, 2015, p. 278). When examining well-being in the work environment across the lifespan, age should not be the sole factor to consider, but rather, perceived general health and a sense of optimism related to time in life were found to be important elements to gage (Kooij, de Lange, Jansen, & Dikkers, 2013). In looking through the lens of religion, individuals who volunteered in religious settings were more likely to have positive perceptions of their health (McDougle, Handy, Konrath, & Walk, 2014). Thus, perceived health is composed of multiple aspects that bring meaning to well-being.

Similar to stress, depression leads to poorer health outcomes. In turn, work performance is negatively altered. More workdays are missed, and employer burden increases (Birnbaum et al., 2010). Naturally, this leads to concerns for well-being, not only presently, but also looking toward the future.

Anxiety is also linked to negative health outcomes both physically, such as heart disease, and mentally. Harvard Health Publications further explained:

> Anxiety is a reaction to stress that has both psychological and physical features. The feeling is thought to arise in the amygdala, a brain region that governs many intense emotional responses. As neurotransmitters carry the impulse to the sympathetic nervous system, heart and breathing rates increase, muscles tense, and blood flow is diverted from the abdominal organs to the brain. In the short term, anxiety prepares us to confront a crisis by putting the body on alert. But its physical effects can be counterproductive, causing light-headedness, nausea, diarrhea, and frequent urination. And when it persists, anxiety can take a toll on our mental and physical health ("Anxiety and physical illness," 2008, para. 2).

Furthermore, when examining depression as well as anxiety within the workplace through the eyes of healthcare professionals, Bertilsson, Löve, Ahlborg, and Hensing

(2015) noted the following when identifying what it is like for one to work with mental health concerns. They viewed their patients as experiencing complete changes in work performance. "Time management, managing daily work demands and emotions were described as difficult, and work capacity was fragmented by anxiety attacks" (Bertilsson, Löve, Ahlborg, and Hensing, 2015, p. 132). Nonetheless, the healthcare professionals described that their patients tried to carry on through the challenges as if all was well. In turn, the patients' home lives began to deteriorate (Bertilsson, Löve, Ahlborg, and Hensing, 2015). "The workplace was revealed as a community in which individuals were expected to take part and act; according to the professionals this was next to impossible for individuals with depression and/or anxiety" (Bertilsson, Löve, Ahlborg, and Hensing, 2015, p. 132). Thus, stress, anxiety, and depression have the potential to inflict long-term poor health outcomes. Poor health can lead to greater challenges professionally at work and may additionally impact the well-being of one's family (Alker, Wang, Pbert, Thorsen, & Lemon, 2015; Reid, 2015). Therefore, when examining the multi-faceted components of well-being, the outcomes exceed the present moment and have the potential to negatively or positively shape one's future, especially considering that college/university life provides an opportune time to form lifelong habits (for good or bad) that may impact well-being in the future. Howell et al., (2016) highlights key good components that well-being delivers: "Well-being may motivate people toward success, improve health and longevity, strengthen relationships, and boost the economy. Well-being can be enhanced in easy and inexpensive ways by incorporating facets of well-being into already-existing individual and systems-level intervention or prevention programs" (p. 8).

Additionally, the health choices one makes influences health later in life. Lifestyle choices such as smoking, obesity, and HIV risk behavior, etc. are related to poor health outcomes and the potential for disease at a later time. Alternately, health choices, such as exercise were related to a lack of disease and strong self-reported health (Monnat & Chandler, 2015). Young adulthood, such as during the university years, is an important time to develop and maintain optimal health habits. Young adults who abided by healthy lifestyle factors such as having a healthy body mass index, regularly exercising, consuming low to no alcohol, incorporating a well-rounded diet/enough vitamins and minerals, and having no history of smoking were found to have healthier cardiac functioning, which equated to a low risk for cardiovascular disease in middle age (Liu et al., 2012). Creating healthy lifestyle opportunities that embrace wholeness is clearly an important aspect during the university/graduate school years.

Sleep is another vital component for health. Recommended hours of sleep vary based on age. Newborns are recommended 14-17 hours per night, infants, 12-15 hours, toddlers 11-14 hours, preschoolers 10-13 hours, school-aged children 9-11 hours, teenagers 8-10 hours, young adults and adults 7-9 hours, and older adult 7-8 hours (Hirschkowitz et al., 2015). The amount of sleep one regularly partakes in has an impact on how one feels about his or her well-being. This varies by age. For instance, adolescents were found to report poor affective well-being with less than average sleep while adults reported poor affective well-being with either less than or more than average sleep (Wrzus, Wagner, & Riediger, 2014). For individuals 50 years and older, researchers found that having purpose in life was associated with a reduced likelihood for sleep disturbances (Kim, Hershner, & Strecher, 2015). Barber, Grawitch, and Munz (2013)

discovered that "individuals who frequently engage in poorer sleep hygiene behaviours have lower self-regulatory capacity, experience more subjective strain and are less engaged at work" (p. 312). Sleep definitely impacts one's well-being and even workplace performance. Furthermore, within the college/university setting, screen time is often needed for academic performance. High screen time is associated with poor mental health and quality of sleep, which in turn impacts well-being (Wu, Tao, Zhang, Zhang, & Tao, 2015). Thus, sleep within the university setting is important to consider.

Closely connected to well-being is quality of life. Amongst older adults in Japan, social activity, physical activity, reading, writing, and art were noted to positively impact quality of life (Sampaio & Ito, 2013). Alternately, when examining the health of older adults, a state of frailty was related to lower quality of life with function. Better nutrition and functional status were related to higher quality of life (Ferrer et al., 2015). Working adult healthcare professionals may find themselves dealing with burnout while caring for patients with chronic health needs, making it important to understand how to boost well-being of healthcare professionals in order to also enhance quality of life for the patients receiving care (Leonardi, Pagani, Giovannetti, Raggi, & Sattin, 2013). Engaging in employment was also found to increase quality of life and was more so associated with men than women (Noh, Kim, Park, Kim, & Kwon, 2015). From a graduate student perspective, amongst female health service psychology doctoral students, stress was found to be high with self-care and quality of life at lower levels than others (Ayala, Ellis, Grudev, & Cole, 2017). This poses the question, how are graduate students within the helping/healthcare professions being supported in order to optimally perform in school and later continue to professionally give back to the community?

In essence, well-being, in its many forms, makes a difference and needs further examination, especially within likely high stress graduate programs that will lead to healthcare careers, perpetuating the need to find a work-life balance in order to serve others to the best of one's ability (Isaacs, 2016).

Literature Gaps and Need for the Current Study

We posit that perceptions of wholeness, the learning climate, well-being, burnout and life satisfaction are connected and may further be influenced by grit, resilience, stress, anxiety, depression, and religious/spirituality views in how they affect graduate students' ability to succeed in their studies. However, little is known about how students even present with these factors, or how they present at LLU, particularly within allied health graduate studies, as most research has been conducted in undergraduate education, or even medical school, and non-parochial settings. Furthermore, while traditional measures about student stressors, depression, and anxiety exist, the behavioral economic components (e.g., emotional support, experiential learning) are grossly missing (Busteed, 2016). A necessity exists to further examine outside of the traditional measures to better understand how this impacts students' success from a well-being and satisfaction perspective. The current study is needed to bridge the literature gap, answer relevant questions related to graduate study education within the allied health professions, and provide valuable insights for future academic policy.

The School of Allied Health Professions and Departments

The SAHP at LLU offers hosts ten departments. For the purpose of the current

study, three graduate programs within CMSD, OT, and PT were utilized and briefly reviewed below. Further program review will transpire as outlined in the methodology chapter.

Communication Sciences and Disorders

LLU's Department of CMSD offers the MS in SLP. Two graduate options exist within the department. The first is for those who already have an undergraduate degree in SLP, and the program can be completed in approximately two years. However, without an SLP undergraduate background, the MS degree will take approximately three years to complete. Either way, students are required to have a bachelor's degree with a cumulative GPA of 3.0, and the last 96 quarter units/64 semester units needs to be at a 3.3 GPA or higher ("Program Information – CMSD," 2017). According to the American Speech-Language-Hearing Association (ASHA), the SLP profession is described as follows: "Speech-language pathologists (SLPs) work to prevent, assess, diagnose, and treat speech, language, social communication, cognitive-communication, and swallowing disorders in children and adults" ("About Speech-Language Pathologists," 2017, para. 1).

Occupational Therapy

LLU's SAHP Department of OT offers the entry-level MOT degree for individuals who have already obtained a bachelor's degree and have met all required pre-requisites with an overall 3.2 GPA or above. Forty or more observation/work hours are also required. The program is 2 ¾ years total, including fieldwork ("Occupational Therapy," 2017). The American Occupational Therapy Association (AOTA) describes

the OT profession as follows:

> In its simplest terms, occupational therapists and occupational therapy assistants help people across the lifespan participate in the things they want and need to do through the therapeutic use of everyday activities (occupations) . . . . Occupational therapy practitioners have a holistic perspective, in which the focus is on adapting the environment to fit the person, and the person is an integral part of the therapy team ("About Occupational Therapy," 2017, paras. 1-2).

Physical Therapy

The Department of PT within LLU's SAHP offers the entry-level DPT. Students need to enter with a bachelor's degree, complete all pre-requisites with a 3.4 or above GPA, and document at least 80 observation/work hours. The DPT degree is awarded after students successfully complete the three-year program ("Entry Level Doctor [DPT]," 2017). The American Physical Therapy Association (APTA), defines the PT profession as such:

> Physical therapy is a dynamic profession with an established theoretical and scientific base and widespread clinical applications in the restoration, maintenance, and promotion of optimal physical function. Physical therapists are health care professionals who help individuals maintain, restore, and improve movement, activity, and functioning, thereby enabling optimal performance and enhancing health, well-being, and quality of life. Their services prevent, minimize, or eliminate impairments of body functions and structures, activity limitations, and participation restrictions ("The Physical Therapist Scope of Practice", 2017, paras. 1).

Summary and Future Direction

In summary, the current study examines how the wholeness and academic climates may influence burnout, life satisfaction, and well-being. This is an especially necessary topic considering that graduate allied health students – who will form careers helping rehabilitate others – are to be studied. Once starting their careers, the allied health

professionals will need to find a work-life balance to achieve optimal outcomes for their patients. Thus, both while in school and once embracing careers, burnout, satisfaction, and well-being may further be influenced by outside positive components such as grit, resilience, and/or religiosity/spirituality. Students/professionals may also be met with the negative challenges of stress, anxiety, and/or depression. Such challenges have the potential to lead to long-term health concerns and poor work performance. Therefore, fully examining the academic climate – both wholeness and learning aspects – may better explain what graduate students at LLU in highly competitive programs are facing in order to provide optimal policy recommendations to ensure that future healthcare practitioners, and in turn their patients, are given the best possible opportunities.

CHAPTER FOUR

METHODOLOGY

Overview of Chapter Four

To begin chapter four, the specific aims of the current study are outlined as discussed in chapter one with the current study's accompanying hypotheses. Then, methods for the current study are detailed. Human subjects considerations are also noted. Finally, plans for dissemination of research are discussed.

Specific Aims and Hypotheses

Qualitative Specific Aims and Hypotheses

1. Pre-survey phase: To explore LLU's CMSD, OT, and PT faculty perceptions regarding the programs' abilities to provide wholeness and learning environments. Specifically, to explore major perceived student stressors and professors' approaches to incorporating learning/wholeness climate elements in their teaching. *This information was used to inform the survey for the quantitative study.*

> Hypothesis: The interviewed faculty will believe that, overall, the wholeness and learning environments are positive for the LLU SAHP students in the CMSD, OT, and PT programs (even with associated stressors); student stressors along with wholeness and learning climate approaches will include stress and competitiveness of the program as well as the financial burden associated with enrollment. Also, the faculty will provide minor

corrections/considerations for the survey but overall accept it as relevant.

2. Post-survey phase: To clarify survey results from the students' perspectives, including how LLU CMSD, OT, and PT students perceive the learning and wholeness climates; identify stressors; note useful elements in place at LLU; and provide recommendations for improvements.

Hypothesis: CMSD, OT, and PT students at LLU overall will have positive perceptions about the faculty's attempt of providing wholeness and learning climates – feeling that their departments are committed to active, meaningful learning; stressors and recommendations will be multiple responsibilities, financial burden of the program, and minor hassles related to program requirements. Clarifications regarding the survey data will be organically explored as they arise.

Quantitative Specific Aims and Hypotheses

3. To explore which demographics (control variables) are statistically significant related to the study outcomes of students' self-reported satisfaction with life, burnout, and well-being (DVs).

Hypothesis: No formal hypothesis, as the data are to be explored.

4. To explore if wholeness and learning climates (IVs), while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).

Hypothesis: The primary purpose is for data exploration. However, based on the literature, we hypothesize that higher perceptions of wholeness and learning

climates are associated with higher life satisfaction and well-being, while lower wholeness and learning climate perceptions are associated with burnout.

5. To explore if mental health measures of stress, anxiety, and depression (IVs), while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).

Hypothesis: The primary purpose is for data exploration. However, based on the literature, higher levels of stress anxiety, and depression are expected to be associated with higher burnout and lower life satisfaction and well-being.

6. To explore if grit, resilience, and religiosity/spirituality, while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).

Hypothesis: The primary purpose is for data exploration. However, based on the literature, higher levels of resilience, grit, and spirituality/religiosity are predicted to be associated with higher life satisfaction and well-being and lower burnout.

7. To explore if grit, resilience, and religiosity/spirituality as well as mental health factors (anxiety, depression, and stress), learning and wholeness climates, while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).

Hypothesis: The primary purpose is for data exploration. However, while resilience, grit, and spirituality/religiosity are important to consider, mental health factors are expected to be greater considerations when exploring their association with life satisfaction, well-being and burnout.

Purpose of the Study

The purpose of the cross-sectional, mixed methods study was to explore if wholeness and learning (regarding emotional support and experiential learning elements) climates aligned with LLU's institutional policy to encourage a wholeness-oriented optimal education experience, thus influencing life satisfaction, well-being, and whether or not one experienced burnout within the CMSD, OT, and PT departments at LLU. For students attending programs within these departments, we explored the above variables in relation to stress, anxiety, depression, resilience, grit, and religiosity/spirituality. The study hoped to answer the stated specific aims and test the related research hypotheses above in order to assist with programming and policy recommendations for an optimal wholeness-based learning environment.

Methods

Procedures

The current research study involved three phases: 1) a qualitative phase in which we conducted semi-structured key informant interviews with faculty to inform the survey, 2) a quantitative phase in which we had students of the target departments complete the resulting survey, and 3) a final qualitative phase in which we asked students to help us further contextualize the quantitative findings through feedback obtained in semi-structured focus groups with students from each of the three departments. Please see Figure 1. Faculty key informant interviews took place in October of 2017. Quantitative survey administration took place from November to December of 2017. The final

qualitative phase for student focus groups took place during February and March of 2018.

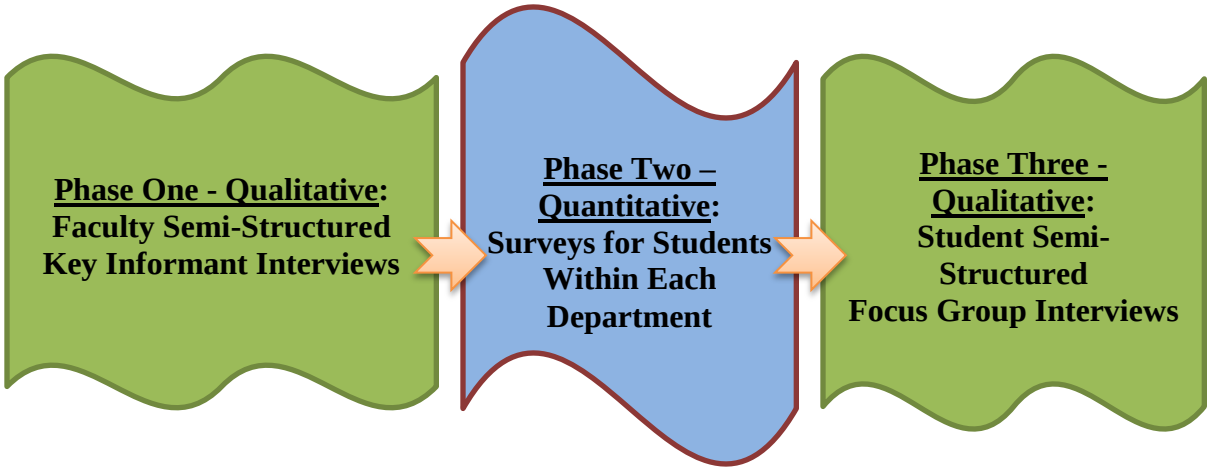

Figure 1. Progression of the research phases.

Phase One

Phase one involved the initial qualitative component of the current mixed methods study. Two faculty members from each CMSD, OT, and PT department were recruited to individually participate in semi-structured key informant interviews (Total N=6) to provide further insights on the wholeness and learning climates of the SAHP at LLU as well as inform the survey and to familiarize the interviewed faculty with its contents. (See Appendix B for the interview questions and Appendix D for the informed consent document.) Field notes were recorded after each interview.

Feedback informed phase two's final survey in addition to the variables we already explored. The use of modest incentives were approved by the Institutional Review Board (IRB) and offered to incentivize participation, which included providing a meal and/or beverage for faculty during the interview process or a $5 Starbucks gift card based on the faculty's preferred interview location.

Phase Two

Utilizing information from the first phase, a draft (based on the conceptual framework) quantitative survey was refined in phase two. Aligned with the study's identified aims, we selected measures and demographic information based on the research, faculty qualitative input, and pilot testing. (See Appendix A for the survey's questions/measures.)

Pilot testing: Once the survey had been constructed, we conducted a pilot test with five LLU Orthotics and Prosthetics (O & P) students from the SAHP. The pilot testers provided further feedback regarding factors such as length, acceptability, readability, and clarity.

Survey administration: We collaborated with faculty from the departments of CMSD, OT, and PT to schedule times for survey administration, utilizing class time (or time directly after class) as permission was granted in an effort to obtain maximal student participation from the selected programs studied. The student investigator administered the surveys and requested faculty members to be absent (inconsistently able to implement from a practical perspective) to optimize disclosure. For occupational therapy students, the student investigator's peer/colleague graciously volunteered to assist with administering surveys. The reason for this approach was to attempt to alleviate pressure to participate, since the student investigator has a dual role as an assistant professor within the Department of Occupational Therapy. Once the student investigator explained the study purpose, procedures, and that the survey was not to include names, thus that participation was taken as consent (since all were adults), the survey was administered. We expected time of completion to not exceed 30-40 minutes (within one class period)

with completion times ranging from approximately 10 minutes to up to approximately one hour. Students were offered snacks and the chance to be entered into a $25 Amazon gift card raffle (one awarded per class visited at nine total) as a small token of appreciation. In addition, the participants were told to keep the cover letter to the survey, which provided contact information for further details about the study results to be shared as requested after analyses are completed or to answer any additional questions. See Appendix E.

Phase Three

Three focus groups took place with twenty-seven total CMSD, OT, and PT graduate students. We used overall standard methods to conduct the focus groups (Krueger & Casey, 2009). Recruitment involved sign-up sheets during phase one with follow up as needed via provided contact info (or through the LLU email directory). In addition, for CMSD students, the student investigator also made class announcements again to try to increase participant numbers. Incentives of a provided lunch and a $5 Starbucks gift card were offered to participants. The student investigator served as the focus group facilitator to conduct guided, yet free-flowing discussion based on a semi-structured outline with predesigned questions and probes. (See Appendix C for phase three questions and Appendix F for the informed consent.) To better understand the experiences students had in their program using their own voices and perspectives, we explored probed responses about our topic. Data were analyzed to determine saturation of information. Interviews were audiotaped, transcribed verbatim, and analyzed using Qualitative Description (QD) with the intent to stay close to the data in order to share the

students' perspectives with common language (Sandelowski, 2000). Field notes were also documented after each focus group. The study incorporated further analytic strategies for QD as outlined by Miles & Huberman (1994) and Neergaard Olesen, Andersen, & Sondergaard (2009) for coding, reflection, data sorting, generalizing themes, and considering current knowledge.

Participants

Four hundred and twenty-five total students attended the selected LLU's SAHP graduate programs from the CMSD, OT, and PT departments during the 2017-2018 school year. Within the Department of CMSD, 32 year one and 30 year two students were enrolled in the SLP MS program for a total of 62 students. Within the Department of OT, 55 year one, 52 year two, and 53 year three MOT students were enrolled for a total of 160 students; and within PT 71 year one, 62 year two, and 70 year three DPT students were enrolled for a total of 203 students. For the quantitative phase, since we were given access to classroom-based survey administration, we anticipated a participation rate of at least 70% for approximately 300 graduate students to complete the survey. Our expectations were exceeded, as 360 graduate students (84.71%) dedicated time to participate in the quantitative survey. Total participants consisted of 32 year one SLP students (100% participation rate), 29 year two SLP students (96.67% participation rate), 55 year one OT students (100% participation rate), 48 year two OT students (92.31% participation rate), 52 year three OT students (98.11% participation rate), 60 year one PT students (84.51% participation rate), 35 year two PT students (56.45% participation rate --- limited students present in class that day), and 49 year three PT

students (70% participation rate). Participants were adults from ages 20-51 years (mean age = 26.02 years, *SD* = 4.37; female = 76.8%) and currently residing in California, United States. Further demographics are displayed in chapters five and six.

Thirty-three total participants took part in the two phases of the qualitative research. In the initial qualitative phase, we invited seven faculty members to participate in the face-to-face semi-structured key informant interviews. Of the seven, six responded and agreed to participate within the needed timeframe (two from each CMSD, OT, and PT Departments). Of the faculty, four were female and two were male. To further triangulate, each department consisted of a veteran member and a faculty member early within their career. Then, after the quantitative data were collected, focus group qualitative interviews for students from each department began for the final phase. Twelve first and second year OT students, 10 first and second year PT students, and five first year SLP students participated in the three focus groups. (Students in their final year of the program from all departments were unable to join in the focus groups due to their clinical rotation schedules.) Of the graduate student qualitative participants, three were males, and twenty-four were females.

Measures

Measures were selected to correspond with the stated specific aims and have been utilized within the emerging adult, college/university, graduate, and/or medical student/PhD population. Quantitative measures utilized within the second phase are further described below.

Demographics/Control Variables

Standard demographics were assessed as well as a brief academic profile of the participants. This included, but was not limited to: age (continuous, ratio scale); gender (categorical, nominal scale); marital status (categorical, nominal scale); race/ethnicity using standard census variables (categorical, nominal scale); language (categorical, nominal scale); immigrant background (categorical; nominal scale); undergraduate school attended: public versus private versus private nonreligious (categorical, nominal scale); volunteer experience (categorical, nominal scale); service learning (categorical, ordinal scale); additional time volunteering (continuous, ratio scale); prior work experience (categorical, nominal scale); religious affiliation (categorical, nominal scale); parental education (categorical, nominal scale); current GPA (continuous, interval scale) and/or a measure of academic struggle; student debt status (continuous, ratio scale as well as a categorical, ordinal scale based on opinion of comfort); personal/parental income in perception: comfortable versus struggling (categorical, ordinal scale); typical hours of sleep (categorical, ratio scale); sleep difficulties (categorical, ordinal scale); hours spent studying (continuous, ratio scale); family support (categorical, ordinal scale); overall perceived health status (including chronic and acute health issues – categorical, ordinal and nominal scales); department enrolled (categorical, nominal scale); and year of the program (categorical, interval scale). Please see section one of Appendix A for all included questions.

Independent Variables

Learning Climate as Measured by Behavioral Economic Measures

Behavioral economic measures were described as emotional support and experiential learning elements. Research by Busteed (2016) found that universities that do well in all aforementioned behavior economic aspects (as further outlined below) end up supporting the likelihood of work engagement and well-being of their graduates by two-fold later in life. Thus, questions utilized within the Busteed's (2016) Gallup survey were also adapted and incorporated into the research survey utilizing the following behavioral economic measures:

A. Emotional Support Elements:
    a. "At least one professor who made me excited about learning" (p. 15)
    b. "Professors cared about me as a person" (p. 15)
    c. "A mentor who encouraged by goals and dreams" (p. 15)

B. Experiential Learning Elements:
    a. "Long-term project taking a semester or more to complete" (p. 15)
    b. "Internship or job where applied learning" (p. 15)
    c. "Extremely involved in extracurricular activities and organizations" (p. 15).

For the purpose of the current study, the above questions were incorporated using a 5-point Likert scale. Refer to Appendix A, section two.

LLU's Wholeness Climate Survey (WCS)

LLU developed the WCS as an assessment tool specifically designed for the university. As further explained:

> The [23]-item Wholeness Climate Survey assesses the environment (rather than the individual) in terms of the degree to which the university setting provides a context for developing personal values and personal/professional wholeness. There are 15 questions that assess the overall climate of wholeness on the Loma Linda University campus. There are eight questions that assess the values of LLU: justice, compassion, humility, integrity, excellence, freedom, self-control, and compassion ("Research," 2017, para. 12-13).

Dr. Carla Gober granted permission to utilize the WCS (currently in progress to be published) for the current study. The measure uses a 5-point Likert scale. See Appendix A, section 3.

Perceived Stress Scale, 10 Items (PSS-10)

The PSS-10 is a self-reporting questionnaire concerning how one perceives stress in his/her life and utilizes a 5-point Likert scale. The PSS-10 is a newer version of the Perceived Stress Scale, 14-Item Version (PSS-14) and was found to maintain the psychometric qualities of the original version (Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988). Scores were divided as low (0-13), moderate (14-26), and high (27-40) perceived stress based upon guidelines from past literature (Anandhalakshmi, Sahityan, Thilipkumar, Saravanan, & Thirunavukarasu , 2016; Ramash Bhat, Sameer, & Ganaraja, 2011; Thangaraj & D'souza, 2014). Additionally, Roberti, Harrington, and Storch (2006) found that the PSS-10 was valid and reliable to measure stress amongst college/university students. See Appendix A, section four.

Generalized Anxiety Disorder 7-Items (GAD-7)

The GAD-7 is screening assessment in the form of a self-reporting questionnaire to determine level of anxiety using a 4-point scale based on duration of perceived concerns (Spitzer, Kroenhe, Williams, & Lowe, 2006). Scores ranged from minimal (below 5) to mild at five to moderate at 10 (with likelihood of generalized anxiety disorder) to severe at 15+ (Spitzer, Kroenhe, Williams, & Lowe, 2006). Originally shown to be valid within the primary care population, it has since shown to have good reliability and validity within the general population. Further research has included utilizing the measure for university and medical students (Choueiry et al., 2016; Moir, Henning, Hassed, Moyes, & Elley, 2016). At seven questions, it provides efficiency with accuracy for determining how much anxiety an individual is experiencing (Löwe et al., 2008). See Appendix A, section five.

Patient Health Questionnaire – 9 Items (PHQ-9)

The PHQ-9 is a screening assessment for depression consisting of nine questions based on a 4-point scale of perceived difficulty (Kroenke, Spitzer, & Williams, 2001). It has been utilized within medical settings. Additionally, construct validity was supported within the general population (Martin, Rief, Klaiberg, & Braehler, 2006). Furthermore, the measure has been utilized with university students, graduate students, and medical students (Garcia-Williams, Moffitt, & Kaslow, 2014; Moir, Henning, Hassed, Moyes, & Elley, 2016; Umegaki & Todo, 2016). Kroenke, Spitzer, & Williams (2001) found the PHQ-9 to be both reliable and valid way to measure depression severity. "PHQ-9 scores of 5, 10, 15, and 20 represented mild, moderate, moderately severe, and severe

depression, respectively" (Kroenke, Spitzer, & Williams, 2001, p. 606). See Appendix A, section six.

Connor-Davidson Resilience Scale – 10 Items (CD-RISC 10)

The CD-RISC was designed by two medical doctors, Kathryn M. Connor and Jonathan R.T. Davidson of Duke University Medical Center, to assess resilience. As further explained in the words of the designers:

> The CD-RISC has been tested in the general population, as well as in clinical samples, and demonstrates sound psychometric properties, with good internal consistency and test–retest reliability. The scale exhibits validity relative to other measures of stress and hardiness, and reflects different levels of resilience in populations that are thought to be differentiated, among other ways, by their degree of resilience (e.g., general population vs. patients with anxiety disorders). Clinical improvement with even short-term pharmacotherapy in patients with PTSD, a condition with a propensity toward heightened vulnerability to the effects of stress, is accompanied by up to 25% or greater increase in resilience, depending upon level of global improvement (Connor & Davidson, 2003, p. 81).

Additionally, the scale was found to have appropriate psychometric properties for resilience specifically within the emerging adulthood population, which relates well to most graduate students' phase of life (Madewell & Ponce-Garcia, 2016). Then, the 10-item version, or the CD-RISC 10 was developed by Campbell-Sills and Stein (2007) utilizing a sample of undergraduate students. When constructing the CD-RISC 10, the researchers found the following:

> In summary, the current investigation found that the factor structure of the original CD-RISC was unstable, but an abridged version of the instrument had excellent psychometric properties. Analyses supported the reliability and construct validity of the 10-item measure. Rather than reflect negatively on the CD-RISC, the results of this investigation are positive in demonstrating that resilience can be reliably assessed with a subset of the CD-RISC items (Campbell-Sills & Stein, 2007, p. 1027).

For the purpose of the current study, the CD-RISC 10 will be applied within the survey,

but is not to be published per copyright guidelines.

Short Grit Scale (Grit-S)

The Grit-S is an 8-item assessment that measures grit in individuals based on a 5-point scale on perception of how much each question is representative of the individual answering (Duckworth, Peterson, Matthews, & Kelly, 2007; Duckworth & Quinn, 2009). The assessment was found to have an advantage over the original 12-item Grit-O, as the Grit-S is psychometrically stronger while still demonstrating similar predictive validity. The researchers stated, "we recommend the Grit-S as an economical measure of perseverance and passion for long-term goals" (Duckworth & Quinn, 2009, p. 174). The measure has been utilized with the collegiate population (Wolters & Hussain, 2015). See Appendix A, section eight.

Functional Assessment of Chronic Illness Therapy - Spiritual Well Being - Non-Illness (FACIT-Sp-Non-Illness)

The FACIT-Sp-Non-Illness is a 12-item questionnaire about one's well being through the lens of faith and/or spirituality. Participants respond based on a 5-point Likert scale ranging from "not at all" to "very much" per self-report of perception over the last week. The FACIT-Sp-Non-Illness scale offers an alternate version from the FACIT-Sp (FACIT.org, 2010; Haugan, 2015; Peterman, Fitchett, Brady, Hernandez, & Cella, 2002). "The FACIT-Sp scale was initially developed as a scale to assess spirituality in the context of chronic illness, but its use has expanded considerably since its initial release and now includes the FACIT-Sp-Non-Illness version." (Wachholtz & Rogoff, 2013, p.

85). The measure has been utilized with graduate medical or medical/PhD students (Wachholtz, A., & Rogoff, 2013). Scoring recommendations are as follows: "Until this future work is completed, we suggest that interested researchers and clinicians utilize the full 12-item measure, scoring and reporting results from the three subscales separately, as well as the combined Meaning and Peace subscale" (Peterman et al., 2014). An additional question, having been found to improve model fit, was added as adapted from Murphy et al. (2010) for the survey. However, for the purpose of the current study, the additional question was not utilized in the final analysis. As stated, the FACIT-Sp-Non-Illness was utilized to examine religiosity/spirituality, as the neutral wording provides a way to encompass both aspects simultaneously. "However, the terms, religion and spirituality, are not synonymous: a person can be spiritual without being religious and religious without being spiritual" (Hurley, 2012). Variation in belief terms is necessary to note when considering LLU's diversity represented in 60 faiths university-wide ("Apart Together Whole," 2017). Cronbach's alphas for the FACIT-Sp12 (4^{th} version), which the current scale was adapted from, were found to be .81 for meaning/peace and .88 for faith with an overall of .87 (Peterman, Fitchett, Brady, Hernandez, & Cella, 2002). Please refer to Appendix A, section nine for survey questions.

Dependent Variables

Satisfaction with Life Scale (SWLS)

The SWLS is a 5-item self-questionnaire about how satisfied one is with his/her life that is answered with a 7-point Likert scale. Questions reflect one's ideal, life

conditions, overall satisfaction, desires in life, and if one would change aspects of life given the opportunity (Diener, Emmons, Larsen, & Griffin, 1985). Pavot, Diener, Colvin, & Sandvik (1991) further explain the advantages of the SWLS:

> It is brief, yet it offers as high or higher predictive validity than several longer measures of life satisfaction. It can be used with all age groups, allowing for direct comparison of different age groups on the same measure of life satisfaction. In sum, for many uses it may be the instrument of choice, unless a broader band measure is needed to emphasize the affective aspects of well-being or unless it is desirable to use a life satisfaction scale that is specifically appropriate for a specific population (p. 159).

The measure was tested across age ranges, including university students. Good psychometric properties were noted for the SWLS (Diener, Emmons, Larsen, & Griffin, 1985; Pavot, Diener, Colvin, & Sandvik, 1991). See Appendix A, section 10.

Oldenburg Burnout Inventory-Student English Version (OLBI-S)

The OLBI-S explores burnout in individuals via a 16-item questionnaire that utilizes a 4-point scale based on how much one reports agreeing with given statements looking at dedication versus disengagement and vigor versus exhaustion (Demerouti & Bakker, 2008; Reis, Xanthopoulou, & Tsaousis, 2015). The questionnaire was constructed as an alternate to the Maslach Burnout Inventory. Later, it was translated into English, and then the student version – or the OLBI-S – to specifically examine academic burnout amongst university students (Demerouti & Bakker, 2008; Halbesleben and Demerouti, 2005; Reis, Xanthopoulou, & Tsaousis, 2015). The OLBI was found to be psychometrically appropriate as Halbesleben and Demerouti (2005) explain: "While additional validation is warranted, the present study finds support for the internal consistency, test retest reliability, factorial validity, and construct validity of the

OLBI" (p. 218). The psychometric properties continued to be positive for the student version as well (Reis, Xanthopoulou, & Tsaousis, 2015). Recently, the OLBI-S was utilized amongst the Doctor of Physical Therapy students (Williams, Mueller, Carroll, Cornwall, Denney, Kronegerger, 2018). See Appendix A, section 11.

Well-being

Well-being is an important component of everyday life to bring meaning and provide for needs. For the current study, well-being questions were related to the five essential aspects found by Busteed (2016), which included: 1) having purpose and enjoying the life one has chosen, 2) social components of relationships and having love as part of one's life, 3) being financially secure, 4) being engaged with one's surrounding community, and 5) having good health and energy to accomplish one's daily routines and activities. Adapted from Busteed (2016), 5-point Likert scale questions that incorporate the five components of well-being were included within the graduate student survey. See Appendix A, section 12.

Data Analytic Plan

Qualitative Data Analytic Plan for Phases One and Three

For the first qualitative phase, six faculty semi-structured key informant interviews were utilized in order to further inform the quantitative survey and provided further insights plus triangulation when analyzing alongside the final qualitative phase. For phase three, data were gathered from three semi-structured student focus groups.

Sandelowski's (2000) qualitative description method was incorporated for analytic purposes. Data were transcribed verbatim, coded, and themed. Initial coding with transcripts included modified line-by-line coding based on overall whole concepts/ideas for completion of participants' thoughts. Coding utilized a fluid approach between pre-made and emerging codes along with the process of data immersion, addressing specific aims, and studying theory. Then, focused coding took place where codes were synthesized and blended as necessary. This resulted in a final codebook that was applied to all phase three transcripts. To quote Charmaz (2006), "Focused coding means using the most significant and/or frequent earlier codes to sift through large amounts of data. Focused coding requires decisions about which initial codes make the most analytic sense to categorize your data incisively and completely" (p. 57). Finally, the data were themed within each code, and selected quotes were chosen to highlight each theme.

Quantitative Data Analytic Plan for Phase Two

Once survey data were entered with 10% of the sample double-entered to check for data accuracy, quantitative data were analyzed using SPSS 21.0. Analyses proceeded as follows: 1) Data exploration, cleaning, and final scale construction (e.g., obtaining Cronbach's alphas) took place. We also conducted descriptive analyses – examining distribution and assumptions. 2) Bivariate analyses between the outcome and independent variables (also including the control demographic variables of department/program, year of program, age, gender, race/ethnicity, and religious affiliation) were conducted to facilitate model building. Variables at a significance level of $p \leq .10$ for simple linear regressions and $p \leq .05$ for correlations were maintained for further analyses. 3)

Multivariate analyses controlling for significant demographics utilized hierarchical multiple regressions for the DVs of well-being, burnout, and satisfaction with life along with the IVs of significant demographic variables, wholeness and learning climates, mental health factors, grit, resilience, and spirituality/faith.

Analyses to Address the Specific Aims and Hypotheses

Please refer to Table 1 on the following page for detailed information pertaining to the specific aims and related hypotheses in association with the data analytic plan for each phase. The table is divided by qualitative (phases one and three) as well as quantitative (phase two) aspects of the study.

Table 1. Connecting specific aims to the related hypotheses to the data analytic plan.

Specific Aims	Hypotheses	Data Analyses
Qualitative Phase		
1. Pre-survey phase: To explore LLU's CMSD, OT, and PT faculty perceptions regarding the programs' abilities to provide wholeness and learning environments. Specifically, to explore major perceived student stressors and professors' approaches to incorporating learning/wholeness climate elements in their teaching. *This information was used to inform the survey for the quantitative study.*	The interviewed faculty will believe that, overall, the wholeness and learning environments are positive for the LLU SAHP students in the CMSD, OT, and PT programs (even with associated stressors); student stressors along with wholeness and learning climate approaches will include stress and competitiveness of the program as well as the financial burden associated with enrollment. Also, the faculty will provide minor	Semi-structured faculty key informant interviews with verbatim transcripts, modified line-by-line and focused coding, and emerging themes

Specific Aims	Hypotheses	Data Analyses
	corrections/considerations for the survey but overall accept it as relevant.	
2. Post-survey phase: To clarify survey results from the students' perspectives, including how LLU CMSD, OT, and PT students perceive the learning and wholeness climates; identify stressors; note useful elements in place at LLU; and provide recommendations for improvements.	CMSD, OT, and PT students at LLU overall will have positive perceptions about the faculty's attempt of providing wholeness and learning climates – feeling that their departments are committed to active, meaningful learning; stressors and recommendations will be multiple responsibilities, financial burden of the program, and minor hassles related to program requirements. Clarifications regarding the survey data will be organically explored as they arise.	Semi-structured faculty key informant interviews with verbatim transcripts, modified line-by-line and focused coding, and emerging themes utilizing qualitative description as a guide (Sandelowski, 2000)
Quantitative Phase		
3. To explore which demographics (control variables) are statistically significant related to the study outcomes of students' self-reported satisfaction with life, burnout, and well-being (DVs).	No formal hypothesis, as the data are to be explored.	DVs: Life satisfaction, well-being, and burnout IVs: Demographics, wholeness and learning climates Analyses progression: 1. Missing data analysis checking assumptions, and descriptive analyses 2. Bi-variable analyses 3. Multivariate analyses --- Hierarchical multiple regression

Specific Aims	Hypotheses	Data Analyses
4. To explore if wholeness and learning climates (IVs), while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).	The primary purpose is for data exploration. However, based on the literature, we hypothesize that higher perceptions of wholeness and learning climates are associated with higher life satisfaction and well-being, while lower wholeness and learning climate perceptions are associated with burnout.	DVs: Life satisfaction, well-being, and burnout IVs: Wholeness and learning climates Control variables: Significant demographics Analyses: Hierarchical multiple regression
5. To explore if mental health measures of stress, anxiety, and depression (IVs), while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).	The primary purpose is for data exploration. However, based on the literature, higher levels of stress anxiety, and depression are expected to be associated with higher burnout and lower life satisfaction and well-being.	DVs: Life satisfaction, well-being, and burnout IVs: Learning and wholeness climates, stress, anxiety, and depression Control variables: Significant demographics Analyses: Hierarchical multiple regression
6. To explore if grit, resilience, and religiosity/spirituality, while controlling for significant demographics, are associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).	The primary purpose is for data exploration. However, based on the literature, higher levels of resilience, grit, and spirituality/religiosity are predicted to be associated with higher life satisfaction and well-being and lower burnout.	DVs: Life satisfaction, well-being, and burnout IVs: Learning and wholeness climates, stress, anxiety, and depression, grit, resilience, and religiosity/spirituality (model builds from above) Control variables: Significant demographics

Specific Aims	Hypotheses	Data Analyses
		Analyses: Hierarchical multiple regression
7. To explore if grit, resilience, and religiosity/spirituality as well as mental health factors (anxiety, depression, and stress), learning and wholeness climates, while controlling for significant demographics, were associated with students' perceptions of satisfaction with life, burnout, and well-being (DVs).	The primary purpose is for data exploration. However, while resilience, grit, and spirituality/religiosity are important to consider, mental health factors are expected to be greater considerations when exploring their association with life satisfaction, well-being and burnout.	DVs: Life satisfaction, well-being, and burnout IVs: Learning and wholeness climates, stress, anxiety, and depression, grit, resilience, and religiosity/spirituality (as above with a focus on the whole, progressive model here) Control variables: Significant demographics Analyses: Hierarchical multiple regression

Human Subjects Considerations

The researchers hold human subjects training as outlined by LLU. We obtained approval by the IRB and made adjustments as requested. Respect for persons, beneficence, and justice guided the research and were further incorporated as outlined below.

Respect for Persons

According to the Belmont Report (National Commission for the Protection of

Human Subjects of Biomedical and Behavioral Research, 1978):

> Respect for persons incorporates at least two ethical convictions: first, that individuals should be treated as autonomous agents, and second, that persons with diminished autonomy are entitled to protection. The principle of respect for persons thus divides into two separate moral requirements: the requirement to acknowledge autonomy and the requirement to protect those with diminished autonomy (pp. 4-5).

Beneficence

The Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978) further described beneficence:

> Persons are treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well-being. Such treatment falls under the principle of beneficence. The term 'beneficence' is often understood to cover acts of kindness or charity that go beyond strict obligation. In this document, beneficence is understood in a stronger sense, as an obligation. Two general rules have been formulated as complementary expressions of beneficent actions in this sense: (1) do not harm and (2) maximize possible benefits and minimize possible harms (p. 9).

Justice

Additionally, the Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978) explained the important aspect of justice:

> Who ought to receive the benefits of research and bear its burdens? This is a question of justice, in the sense of 'fairness in distribution' or 'what is deserved.' An injustice occurs when some benefit to which a person is entitled is denied without good reason or when some burden is imposed unduly. Another way of conceiving the principle of justice is that equals ought to be treated equally. However, this statement requires explication. Who is equal and who is unequal? What considerations justify departure from equal distribution? Almost all commentators allow that distinctions based on experience, age, deprivation, competence, merit and position do sometimes constitute criteria justifying differential treatment for certain purposes. It is necessary, then, to explain in what respects people should be treated equally. There are several widely accepted formulations of just ways to distribute burdens and benefits. Each formulation

> mentions some relevant property on the basis of which burdens and benefits should be distributed. These formulations are (1) to each person an equal share, (2) to each person according to individual need, (3) to each person according to individual effort, (4) to each person according to societal contribution, and (5) to each person according to merit (pp. 8-9).

Incorporation of Human Subjects Considerations

The above-mentioned considerations of respect for persons, beneficence, and justice are important themes that were incorporated into the current study. To begin, a concern that may be identified within human subjects considerations was that the student investigator is also employed as a part-time assistant professor faculty member in the Department of OT. To address this concern, research demonstrated continued sensitivity for all students and faculty. Participants were informed that the study was being conducted outside of the department, participation was completely voluntary, and one was given the option to withdraw at any time without consequence. Furthermore, in order to positively impact growth, baseline information through key informant interviews about programming and perceptions provided helpful exploration in order to make recommendations to best serve the SAHP; familiarity with the environment and individuals within the SAHP may have served to build research rapport, thus potentially serving a greater good.

All research involves risk. However, the current study involved minimal risk. Specific risks may have included apprehension to speak in the small focus group or key informant interview, feelings of obligation, embarrassment from sharing, boredom, remembering distressing thoughts while completing the survey, and breech of confidentiality. To safeguard, future data were de-identified for the confidentiality of subjects and the research electronic file was password protected. Also, student counseling

is available to all enrolled students through Student Health as well as LLU full-time employees through Risk Management should the need to further discuss emotions related to the study arise. Additionally, contact information of the student investigator was provided to all participants to address any research related questions or concerns.

Benefits are also apparent within research. The participants of the focus groups and key informant interviews may have benefitted by finding a voice to express perceptions and broadening their networking influence while gaining understanding of the perceptions of others. Both focus group participants and student survey participants may have benefitted from the personal accomplishment of knowing he/she may have helped to positively impact the learning and wholeness climates within the SAHP and beyond through a willingness to share perceptions. Finally, small, approved incentives as previously described may have served as a benefit, although the incentives were to have served solely as a token of appreciation and abode by IRB guidelines.

Relevance to the Field of Study

The current research presents relevance to the field of study for several reasons. To begin, the data may reveal valuable information when considering program improvement. Information from the research provided greater insight into how aspects of wholeness and learning experiences are incorporated in relation to LLU's mission. Such information sheds light on how this impacts current levels of burnout, life satisfaction, and well-being. In turn, individuals who are more satisfied with positive well-being and lack burnout have the potential to improve the healthcare profession at large, because when one is in a positive place personally, he/she is in a better place to serve others.

Thus, a ripple effect takes place. Knowing where the select SAHP graduate programs at LLU stand provided needed insight into how to influence LLU's ripple effect for good.

Dissemination of Research

Dissemination of research is a vital component to providing applicable use of findings. The process allows for a bridge from theory to practice. Therefore, results will be disseminated as appropriate in an effort to inform future, targeted efforts to assure a whole and healthy learning environment as outlined as the goal of the LLU administration. Ideas for potential dissemination include: Meeting with the SAHP dean, presenting at the SAHP's administration committee, and providing a lunch for the Departments of CMSD, OT, and PT to share results for translational purposes.

CHAPTER FIVE

PAPER ONE

The Influences of Burnout for Graduate Students at a Religious University

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Note

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Abstract

Background: Rates of burnout for college/university students are concerning. Graduate students in occupational therapy, physical therapy, and speech language pathology are known to face performance pressures. **Purpose of the Study:** The study's purpose was to examine if efforts within an institution committed to creating a supportive learning and wholeness climate along with a students' personal characteristics of grit, resilience, and spirituality resulted in lower burnout. Three-hundred and sixty graduate students from occupational therapy, physical therapy, and speech language pathology program were recruited to participate in a cross sectional survey exploring student functioning using primarily validated measures. **Methods:** Hierarchical multiple regression was utilized to test the unique contributions of perceived learning and wholeness climates, mental health factors, and coping strategies controlling for demographics of a) burnout/disengagement and b) burnout/exhaustion. **Results:** All models accounted for a significant amount of the variance in both burnout/disengagement (36.9%) and burnout/exhaustion (46.4%). Results suggest that strong wholeness and learning climates, grit, and spirituality for peace reduce burnout/disengagement, while a strong learning climate and spirituality/peace reduce burnout/exhaustion. However, anxiety, depression, and spirituality/faith helped explain burnout/exhaustion. **Conclusion:** Perceived student value of the university wholeness and learning climates, spirituality, grit, depression, and anxiety were significantly associated with burnout. Results may help guide future studies, provide suggestions for programming, and promote supportive university environments.

Keywords: Burnout, wholeness, anxiety, depression, grit, spirituality, university students, occupational therapy, physical therapy, and speech language pathology

The Influences of Burnout for Graduate Students at a Religious University

Introduction

Burnout is on ongoing concern across university campuses (Stoliker, Lafreniere. 2015; Williams, Dziurawiec, & Heritage, 2018; Wolf & Rosenstock, 2017). Academic burnout is defined as: "… students who have low interest, lack of motivation, and tiredness in studying" (Lian. Sun, Ji, Li, & Peng, 2014, p. e87152). Many suspect that burnout begins in undergraduate education and/or before students move into these highly competitive fields of graduate education, continuing through training in the respective professions with ever increasing professional demands (Duru, Duru, & Balkis, 2014; Stoliker, Lafreniere. 2015; Wei, Wang, & MacDonald, 2015). In the helping professions, burnout has increased at an alarming rate affecting work force stability and quality of care even after graduation (Krisberg, 2017). Thus, if students have experienced high burnout while pursuing academic endeavors, burnout may carry over to their careers, adding to the concerning burnout rates already observed.

Therefore, if burnout is not identified and mitigated earlier, such as within the academic career, consequences may continue professionally. Workforce burnout is a significant concern and was found to lead to exhaustion, higher mistakes, reduced commitment, and missed work days (Hakanen & Bakker, 2016; McGeary, Garcia, McGeary, Finley, & Peterson, 2014; Rzeszutek & Schier, 2014). Medical residents, in particular, were found to experience high burnout associated with mental health concerns such as anxiety and depression, poorer social skills, and patients whom the medical professionals serve have the potential to be impacted (Pereira-Lima & Loureiro, 2015).

Within the academic setting, burnout was related to satisfaction with the learning climate/environment (Dyrbye et al., 2009). Students who experienced burnout from learning were more likely to have a negative academic experience (Stoliker & Lafreniere, 2015). Actively engaging with schoolwork is part of academic success, but for the individual already burnt out, this understandably posed a challenge (Salmela-Aro & Upadyaya, 2014). Furthermore, when looking at graduate physical therapy students, recent data suggested that academic burnout increased with program progression (Williams, Mueller, Carroll, Cornwall, Denney, & Kronegerger, 2018). Additional contributing factors to academic burnout included insufficient sleep, poor exercise, and mental health concerns that often accompany demanding graduate programs (Johnson, Simon, Wicks, Barr, O'Connor, & Schaad, 2017; Wolf & Rosenstock, 2017).

When considering academic burnout and related mental health concerns, both positive and negative associated factors should be noted. Components found to negatively influence the academic experience included stress, depression, and anxiety (Baghurst & Kelley, 2014; Cokley et al., 2017; Farrer, Gulliver, Bennett, Fassnacht, and Griffiths, 2016; Hurst, Baranik, & Daniel, 2013). Mental health challenges come with stigma when seeking help that, unfortunately, reduces the likelihood of individuals getting the needed help to address their burnout (Pearl, Forgeard, Rifkin, Beard, & Björgvinsson, 2017). Suggested protective factors against burnout include positive coping of personal resilience, grit, and spirituality/religion/faith in its healthy form (Aparicio, Bacao, & Oliveira, 2017; Berry & York, 2011; Duckworth, Peterson, Matthews, & Kelly, 2007; Kuo, Arnold, & Rodriguez-Rubio, 2014; Rushton, Batcheller, Schroeder, & Donohue, 2015). Resilience increased coping for college and medical students, providing greater

quality of life (Li & Yang, 2016; Tempski et al, 2015). Grit also benefitted learners within the classroom and was found to support online learners' satisfaction and academic success (Aparicio, Bacao, & Oliveira, 2017). Spiritual well-being, too, was associated with satisfaction with life (Alorani & Alradaydeh, 2018). Furthermore, mental health is impacted by the positive coping mechanisms. For instance, religion/spirituality has shown to have a protective effect for college students against depression (Berry & York, 2011). Also, high amounts of grit have been found to offer a buffer effect for suicidal ideation against challenging life events (Blalock, Young, & Kleiman, 2015).

To address burnout and support protective factors for students, universities increasingly attempt to balance the necessary intense learning and potential mental health sequelae by creating positive learning and wholeness climates with some success (Herrington & Herrington, 2006; Mahmoudi, Jafari, Nasrabadi, and Liaghatdar, 2012; Miller, 2005; Thapa, Cohen, Higgins-D'Alessandro, & Guffey, 2012). One such faith-based, private university in southern California is seeking to intentionally implement a supportive learning environment by incorporating institutional (including student) wholeness ("Vision and Mission," 2016, para. 2). However, no studies to date have explored if student perceptions regarding such efforts indeed result in lower burnout.

The aim of this study is to contribute to the sparse literature on the effect of wholeness along with a number of other protective factors by exploring if and how burnout is associated with student perceptions of wholeness and learning climates, stress, anxiety, depression, religiosity/spirituality, grit, and resilience. We posited that higher student perceptions of positive wholeness and learning climates at the university and higher religiosity/spirituality, grit, and resilience would be associated with lower burnout,

whereas higher levels of stress, anxiety, and depression would be associated with higher burnout.

The current study contributes to the sparse literature by examining the protective factors of burnout observed amongst students in highly rigorous occupational therapy, physical therapy, and speech language pathology programs at a religious university.

Methods

Participants

Three hundred and sixty graduate students (84.71% participation rate of the total 425 students) enrolled in the Departments of Communication Sciences and Disorders (CMSD), Occupational Therapy (OT), and Physical Therapy (PT) participated in an anonymous, cross-sectional survey. Participants were adults ages 20-51 years (mean age = 26.02 years, *SD* = 4.37; female = 76.8%), currently residing in California, United States and recruited during or after class for their respective programs. Further participant demographics are displayed in Table 1.

Procedures

After Institutional Review Board (IRB) approval was granted, student participants completed pilot-tested (with minor IRB-approved changes), self-administered paper/pencil surveys during or directly after class time, using standard, passive consent. An announcement was made in each class prior to surveys being administered in order to recruit. Completion of the surveys took from approximately 10 - 60 minutes depending on the individual student/class dynamics. Students received snacks (for all regardless of participation) and the chance for a $25 Amazon gift card in a drawing as a token of appreciation for survey completion within each visited class (with nine total gift cards

distributed).

Measures

Demographics/control variables.

Standard demographics, including a brief academic profile of the participants, were assessed for: age, gender, race/ethnicity, religious affiliation, department enrolled, and year of the program. Please see Table 1.

Independent variables.

Learning climate. We used questions adapted from Busteed's (2016) Gallup survey for assessed feelings toward students' learning climate (thus no preliminary Cronbach's alpha to compare). The questions included elements pertaining to behavioral economic measures of emotional support elements (professor and/or mentor support) plus experiential learning elements (long-term projects, internship, and extracurricular involvement). For the purpose of the current study, six questions based upon Busteed's (2016) article were used with a 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5) and summed for a total learning climate score ranging from 6 - 30. Higher scores represent higher satisfaction with the learning climate. The current study's $\alpha = .62$.

Wholeness climate. We used the *Wholeness Climate Survey (WCS)* developed locally at the authors' institution as an assessment tool specifically designed for the university (with no comparison Cronbach's alpha currently in the literature). The measure consisted of 23 questions and used a 5-point Likert scale that addressed students' perceptions of university climate and alignment of values ("Research," 2017). Each item was scored from "strongly disagree" (1) to "strongly agree" (5) and added together for a

total score ranging from 23-115 with higher sums associated with higher wholeness satisfaction on campus. Sample items included in the scale were: "Through the education I receive at [the studied university], I am better prepared to provide whole person care for others (patients, clients, etc.);" "While at [the studied university] a staff member, professor, or administrator at [the university] has talked with me about my own wholeness;" and "It is evident in their work that staff, professors, and administrators integrate body/mind/spirit, value relationships, care for resources, and value service." WCS's $\alpha = .93$ for the current study.

Stress. We utilized the *Perceived Stress Scale, 10 Items (PSS-10),* which measures how one perceives stress in his/her life using a 5-point Likert scale. The PSS-10 is based upon a 5-point Likert scale ranging from "never" (0) to "very often" (4). Total scores were summed from all 10 answers after reverse coding (for four items); the higher the score, the greater the amount of perceived stress (Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988). Scores were further divided as low (0-13), moderate (14-26), and high (27-40) perceived stress based upon guidelines from prior studies using this scale with undergraduate medical students (Anandhalakshmi, Sahityan, Thilipkumar, Saravanan, & Thirunavukarasu, 2016; Ramash Bhat, Sameer, & Ganaraja, 2011; Thangaraj & D'souza, 2014). Additionally, Roberti, Harrington, and Storch (2006) found that the PSS-10 was valid and reliable to measure stress amongst college/university students with Cronbach's alpha at .82 – .85. Similarly, the current study's $\alpha = .84$.

Anxiety. The *Generalized Anxiety Disorder 7-Items (GAD-7)* is a screening assessment for anxiety using a 4-point scale (Spitzer, Kroenhe, Williams, & Lowe, 2006). Scores range from minimal at below 5 to mild at 5 to moderate at 10 (with likelihood of

generalized anxiety disorder) to severe at 15+ (Spitzer, Kroenhe, Williams, & Lowe, 2006). The response options regarding a series of statements ranged from "not at all" (0) to "nearly every day" (3) with higher scores representative of higher anxiety. The measure has been used widely, including for university and medical students (Choueiry et al., 2016; Moir, Henning, Hassed, Moyes, & Elley, 2016). Cronbach's alpha was found to be .89 within the general population (Löwe et al., 2008). Our study's GAD-7 α was slightly higher at .91.

Depressive symptoms. The *Patient Health Questionnaire – 9 Items (PHQ-9),* a standardized screening assessment for depression, was used to assess the severity of depressive symptoms (Kroenke, Spitzer, & Williams, 2001). The nine items in the PHQ-9 include symptoms of hopelessness, lack of energy, difficulty concentrating, suicidal thoughts, etc. Each question is presented on a four-point scale ranging from "not at all" (0) to "nearly every day" (3) with scores ranging from a total of 0-27. "PHQ-9 scores of 5, 10, 15, and 20 represented mild, moderate, moderately severe, and severe depression, respectively" (Kroenke, Spitzer, & Williams, 2001, p. 606). The PHQ-9 has been used with university students, graduate students, and medical students (Garcia-Williams, Moffitt, & Kaslow, 2014; Moir, Henning, Hassed, Moyes, & Elley, 2016; Umegaki & Todo, 2016). Cronbach's alpha was found to be .91 (Umegaki & Todo, 2016). The current study's PHQ-9's α = .83.

Individual resilience. The *Connor-Davidson Resilience Scale – 10 Items (CD-RISC-10)* was designed to assess individual resilience with consistency and reliability found in a variety of populations including the emerging adulthood population, which relates well to most graduate students' phase of life (Connor & Davidson, 2003;

Madewell & Ponce-Garcia, 2016). The abridged 10-item version, or the *CD-RISC-10*, was developed utilizing a sample of undergraduate students and was also found to be reliable and valid with a Cronbach's alpha ranging from .85 to .90 (Campbell-Sills & Stein, 2007; Hartley, 2012). Our study's $\alpha = .90$. The ten questions were answered using a 5-point Likert scale from "not true at all" (0) to "true nearly all the time" (4). The higher the score was, the greater the suggested resilience (Connor & Davidson, 2003; Madewell & Ponce-Garcia, 2016).

Grit. Defined, grit is "perseverance and passion for long-term goals" (Duckworth, Peterson, Matthews, & Kelly, 2007, p. 1087; Rimfeld, Kovas, Dale, & Plomin, 2016, p. 780). The *Grit-S*, previously used with collegiate populations, is an 8-item assessment that measures grit in individuals based on a 5-point scale ranging from "very much like me" (5) to "not like me at all" (1) with reverse coding utilized for select questions. Higher scores are indicative of higher grit (Duckworth, Peterson, Matthews, & Kelly, 2007; Duckworth & Quinn, 2009; Wolters & Hussain, 2015). Questions address work consistency, goals, and diligence, etc. (Duckworth & Quinn, 2009). Alphas for internal consistency ranged from .73-.83 (Duckworth & Quinn, 2009). Likewise, our study's Cronbach's alpha = .77.

Spirituality. The *Functional Assessment of Chronic Illness Therapy - Spiritual Well Being - Non-Illness (FACIT-Sp-Non-Illness)*, a 12-item questionnaire about one's well-being through the lens of religiosity/spirituality was utilized. Participants responded based on a 5-point Likert scale ranging from "not at all" (0) to "very much" (4) with periodic reversed coding incorporated (FACIT.org, 2010; Haugan, 2015; Peterman, Fitchett, Brady, Hernandez, & Cella, 2002). The measure has been utilized with graduate

medical or medical/PhD students with Cronbach's alpha at .86 (Wachholtz, A., & Rogoff, 2013). The FACIT-Sp-Non-Illness includes three subscales of meaning, peace, and faith (Peterman et al., 2014). Our study's spirituality/meaning $\alpha = .75$, spirituality/peace $\alpha = .79$, and spirituality/faith $\alpha = .89$. Higher scores imply more perceived spirituality within each subscale. The Subscale for peace pertains to items about harmony within, peacefulness, and finding comfort within oneself. Meaning consists of one's perception of productivity in life, purpose, etc. The faith subscale addresses comfort and strength within one's beliefs and response to hard times (FACIT.org, 2010; Peterman, Fitchett, Brady, Hernandez, & Cella, 2002).

It should be further noted that the FACIT-Sp-Non-Illness was utilized to examine religiosity/spirituality, as the neutral wording provides a way to encompass both aspects simultaneously. "However, the terms, religion and spirituality, are not synonymous: a person can be spiritual without being religious and religious without being spiritual" (Hurley, 2012). Variation in belief terms is necessary to note when considering the studied university's diversity of students represented in 60 faiths across campus ("Apart Together Whole," 2017).

Dependent variable.

Burnout. The Oldenburg Burnout Inventory-Student English Version (OLBI-S) – Disengagement and Exhaustion, a 16-item questionnaire for exploring burnout with a 4-point scale based on how much one reported agreeing with given statements in the context of two components: a) dedication versus disengagement and b) vigor versus exhaustion (Demerouti & Bakker, 2008; Reis, Xanthopoulou, & Tsaousis, 2015). Scores ranged from "strongly agree" (1) to "strongly disagree" (4) with higher scores

representing greater perceived burnout within the two subcategories. The psychometric properties continued to be positive for the student version, and omega values (.98 for disengagement and .97 – .99 for exhaustion) versus Cronbach's alpha reliability measures were utilized (Reis, Xanthopoulou, & Tsaousis, 2015). Previous Cronbach's alpha scores have been less than ideal for the OLBI-S exhaustion subscale at .57 and acceptable at .70 for the disengagement subscale (Bonini Campos, Carlotto, & Marôco, 2012). Our study yielded higher levels at $\alpha = .78$ for burnout/disengagement and $\alpha = .77$ for burnout/exhaustion. The OLBI-S was also recently utilized amongst Doctor of Physical Therapy students, as pertinent to our study (Williams, Mueller, Carroll, Cornwall, Denney, & Kronegerger, 2018).

Data Analytic Plan

Data were collected, entered, checked for accuracy with a 10% double entry of the sample, and analyzed using SPSS, version 21.0. Analyses proceeded as follows: 1) Data exploration, cleaning (e.g., demographic variables of race/ethnicity and religious affiliation were reduced in categories), and final scale construction (e.g., obtaining Cronbach's alphas) took place. Missing data were excluded listwise. We also conducted descriptive analyses by examining distribution and assumptions (e.g., normality, linearity, multicollinearity, and homoscedasticity), which warranted no modifications to the data. Univariate analyses further involved generating means, standard deviations, and percentages as appropriate for variables. 2) Bivariate analyses between the outcome and independent variables (also including the control demographic variables of department/program, year of program, age, gender, race/ethnicity, and religious affiliation) were conducted to facilitate model building by generating Pearson's (*r*)

correlations between all continuous variables and simple linear regressions for categorical variables. Variables at a significance level of $p \leq .05$ for correlations and $p \leq .10$ for simple linear regressions were maintained for further analyses. 3) Four hierarchical multiple regression models (for each DV) were generated to examine the unique linear combination of the research variables: a) beginning with the control demographics, b) adding in learning and wholeness climates, c) then including mental health components of stress, anxiety, and depression, and finally d) adding resilience, grit, spirituality/meaning, spirituality/peace, and spirituality/faith to the proceeding combination of variables.

Results

Descriptive Analyses

Preliminary descriptive data analyses explored means and standard deviations between demographics and the two dependent burnout variables of interest. The majority of students were female, White or Asian, and religiously affiliated. Males and females were found to handle burnout differently; males were more likely to experience burnout through disengagement, while females were more likely to be exhausted from burnout. Students displayed similar levels of burnout for disengagement or exhaustion throughout programs. However, PT had the highest means for burnout/disengagement, and CMSD had the highest means for burnout/exhaustion. In general, burnout appears to peak in the second year of study. While categorizing scores based on the current burnout measure is not recommended, it appeared that midrange levels were present for burnout/disengagement and even higher for burnout/exhaustion. (See Table 1.)

Additionally, student demographic variables with mental health outcomes were analyzed. Across departments and years in the program, perceived stress predominantly fell within the moderate range. Stress levels appeared highest for a combination of moderate to high during the first year of the program for CMSD and PT but within the second year for OT. Anxiety was predominately mild across programs (except higher at moderate levels during the second year of the CMSD program). Anxiety concerns followed the previous stress pattern with the highest levels in first year of CMSD and PT and second year of OT for the cohorts assessed. Depression was mainly mild for CMSD, none/minimal for OT (except within the third year), and mostly none/minimal in PT (except for mild during the first year). Please see Table 2.

Bivariate Analyses

To prepare for hierarchical multiple regression, we explored all variables at the bivariate level. Variables at $p \leq .10$ for simple linear regressions and $p \leq .05$ for Pearson's (r) correlations were retained and included in the multivariate analyses burnout models.

Multivariate Analyses

Overview.

As mentioned, based on the OLBI-S measure utilized within the current study, burnout consisted of two subscales – one for disengagement and the other for exhaustion. Overall, both burnout/disengagement and burnout/exhaustion accounted for statistically significant variance within the hierarchical multiple regression models when controlling for significant demographics. We will further discuss the step-by-step sequential account of how the models changed as variables were entered.

Step one of the burnout/disengagement model.

When examining the hierarchical multiple regression for burnout/disengagement results with the control variable of race/ethnicity in the first step, participants of Hispanic or other race/ethnic backgrounds experienced less burnout as opposed to White individuals. See Table 3.

Step two of the burnout/disengagement model.

Wholeness and learning climates were significant, key elements of reducing burnout/disengagement in the second step of the model. Race/ethnicity also continued to impact burnout. See Table 3.

Step three of the burnout/disengagement model.

As mental health factors were added to the model, students who were depressed were found to have higher burnout/disengagement. Learning and wholeness climates along with the previous race/ethnicity variables continued to be significant. See Table 3.

Final step/overall model of burnout/disengagement.

For burnout/disengagement's final model, the optimal linear combination of race/ethnicity, learning and wholeness climates, mental health factors, resilience, grit, and spirituality was explained by 36.9% of the variance, $R^2 = .37$, $F(13, 304) = 13.66$, $p < .001$. While initially, depression contributed to the disengagement aspect of burnout, as the models continued, the most important variables equated to climates (as mentioned), grit, and the peace component of spirituality as safeguards against burnout/disengagement. Please see Table 3.

Step one of the burnout/exhaustion model.

Within the first step of the burnout/exhaustion model, gender, department, and year of the program were analyzed for their impact on burnout/exhaustion. Initially, no significance was found for the control variables. See Table 4.

Step two of the burnout/exhaustion model.

At the next step, the control variable of the CMSD Department indicated higher levels of burnout/exhaustion. For the primary variables of interest, learning climate, but not wholeness climate, explained lower burnout/exhaustion rates. Refer to Table 4.

Step three of the burnout/exhaustion model.

As the model continued, the CMSD Department was no longer significant, but learning climate kept being protective against burnout/exhaustion. In addition, for mental health factors, anxiety and depression were significant predictors of increased burnout/exhaustion. See Table 4.

Final step/overall model of burnout/exhaustion.

An even greater percentage was accounted for based on the final model of burnout/exhaustion so that the optimal linear combination of gender, department, year of program, wholeness and learning climates, mental health factors, resilience, grit, and spirituality was explained by 46.4% of the variance in burnout/exhaustion, $R^2 = .46$, $F(15, 303) = 17.48$, $p < .001$. For burnout/exhaustion hierarchical multiple regression, learning climate (but not wholeness climate) consistently made a difference in reducing burnout as the models built. Anxiety and depression continued to be significant across models with higher levels of anxiety and depression relating to greater burnout. While the

faith component of spirituality was actually predictive of burnout, the peace aspect of spirituality was protective, indicating a lesser likelihood of burnout. Please see Table 4.

Discussion

Our study examines two dimensions of burnout including disengagement and exhaustion, outcomes that are highly prevalent in collegiate populations known to have adverse immediate and long-term consequences (Stoliker, Lafreniere. 2015; Williams, Dziurawiec, & Heritage, 2018; Wolf & Rosenstock, 2017). In our sample of 360 graduate students enrolled in CMSD, OT, and PT programs at a small health sciences institution in southern California, we found that disengagement and exhaustion were not only high but also comparable to rates observed in prior research (Lian. Sun, Ji, Li, & Peng, 2014; Neumann, Y., Finaly-Neumann, E., Reichel, A., 1990; Salmela-Aro & Upadyaya, 2014). Moreover, we examined salient risk- and protective-factors associated with disengagement as well as with exhaustion, which interestingly presented unique patterns. The use of both types of burnout, namely disengagement and exhaustion, is novel and allows us to explore more specific areas of burnout, which we believe will aid in working toward offering a learning climate that is less affected with burnout.

With regard to burnout/disengagement, our multivariate analyses support our original position, as informed by student involvement theory, asserting an inverse relationship between disengagement and students' positive perceptions of the learning and wholeness climates (Astin, 1999). The encouragement of students at the studied university to engage and emphasis on creating positive learning climates across campus may have positively contributed to our findings. Thus, it appears the studied university's focus on wholeness is making a difference, specifically for the reduction of

disengagement/burnout. This is encouraging considering that one does not wish for burnout to carry over into students' careers after graduation. With respect to depression, we found that it initially mattered. However, as other factors were taken into account, the effect of burnout/disengagement disappeared and was taken over by grit and the peace element of spirituality, which both equated to less burnout/disengagement.

When mental health factors of anxiety and depression increased, so did burnout/ exhaustion. As spirituality/peace increased, burnout/exhaustion decreased. However, surprisingly and not in alignment with our original position, a greater report of spirituality/faith was found to significantly increase burnout/exhaustion. Naturally, not all variables that we posited to be of importance reached significance. However, the variables we chose to explore were able to explain a large degree of the variance on our concept in both of our final models, suggesting the current study provides relevant concepts to explore.

Additionally, creating an optimal learning climate makes a substantial impact for reducing both burnout within disengagement and exhaustion. However, universities may vary in the way to aim to encourage and offer an environment that promotes wholeness and positive learning. Therefore, further study is needed to see if results change or stay the same across campuses with a myriad of educational philosophies.

While positive wholeness and learning climates were clearly related to less burnout, additional variables that affect burnout were student mental health and other personal variables such as mental health and spirituality, a finding also noted by Knabb and Grigorian-Routon (2014). Young adults' university years are often wrought with spiritual struggle as they work to find their own sense of spirituality and meaning (Bryant

& Astin, 2008). This may well be more pronounced in a faith-based university, such as the one within the conducted study. The interconnection of spirituality and mental health along with the possibility for polarizing faith views amongst students attending a faith-based institution may further explain why not all elements of spirituality, specifically the meaning element (for both models) and the faith component (for burnout/disengagement), significantly impact the models within the current study. Additionally, it may help to explain why spirituality/faith's impact on burnout/exhaustion contradicted expected results by promoting versus protecting against burnout/exhaustion. To address the surprising result of spirituality/faith, it is possible that some students who are more actively involved in their faith environments (i.e., spiritual or church-based responsibilities and related service activities) may take on added responsibilities when their plate is already full with graduate student life, or the student may have a varying view of faith/be in a moment of finding their own sense of spirituality/faith, thus explaining why our data revealed a positive (versus the expected negative) relationship between faith and burnout/exhaustion.

In continued examination, our mental health findings align with Evans, Bira, Beltran Gastelum, Weiss, and Vanderford's (2018) article suggesting a graduate student mental health crisis. Our results support the need to further examine and provide resources for mental health within highly competitive graduate programs as they are clearly related to burnout. Mental health is a vital component to examine and nurture in order to meet the needs of graduate students as a whole. Burnout is closely connected to mental health factors, and we should note that, overall, the second year of graduate school within the studied programs saw heightened burnout. The increases during the

students' second year makes sense considering that it is the final academic year in the two-year CMSD program, and second year culminates much of the didactic coursework in the OT and PT programs prior to the final, third year which is comprised of predominately clinical work, providing a different pace. When this was explored in a multivariate model, the effect of year of study was removed and overtaken by other factors that universities have a chance to influence, such as learning and wholeness climates.

Practically, in reference to findings about the need for a positive learning climate on campus, Busteed's (2016) guidelines, as adopted for the current study's questionnaire, may prove useful. He says creating a positive learning climate involves recruiting professors who are both caring and excite learning within the students, having student mentorship available, providing opportunities for students to engage in extracurricular opportunities, offering clinical application of learning, and including a long-term project within the curriculum (Busteed, 2016). Such considerations in combination with support of spiritual and mental health are important when planning for university extracurricular programming (such as for wholeness) and can be influenced even in how the academic learning environment is structured. Further, having resources for accessible mental health support and creating an environment that encourages mental health and reduces stigma is suggested (Pearl, Forgeard, Rifkin, Beard, & Björgvinsson, 2017). Medical schools, for instance, have worked on this need for student support for wellness to mental health factors by making adjustments to their programming/curriculum in an effort to provide positive learning environments and combat burnout (Drolet & Rodgers, 2010; Slavin, Schindler, & Chibnall, 2014). Therefore, other graduate programs would likely benefit

from similar attention, programming, and study. As a whole, our data support that individuals who perceive a positive learning and wholeness climate are also more likely to engage and have a healthier, more rewarding graduate school experience. Based on our results, we can further gather that supporting on-campus programming within mental health, grit, and positive spirituality alongside a created meaningful wholeness and learning climate may reduce graduate student burnout in allied health programs. Early implementation of such programs is recommended to prevent burnout. Program needs are recommended to be further assessed through both quantitative and qualitative means and may include options such as stress reduction and positive coping along with highlighting available student resources. Then, as the workload becomes more rigorous, students will have tools to incorporate, and further programming is recommended to build on initial supports and promote a greater sense of wholeness and a positive learning environment.

Naturally, limitations exist for the current study. First, while results may have implications beyond the specific population studied, the current study is limited to a single university and specifically to CMSD, OT, and PT graduate students. Therefore, results may differ if the same survey were to be administered to a greater variety of universities/students. In addition, the study was cross-sectional, and based on self-report, in-class responses, limiting causality and leaving open the possibility of students being more likely to report favorable impressions. While not necessarily a limitation, it should be transparently noted that the student researcher also serves as an OT faculty member (and is involved in PT programming).

Recommendations for future studies include continuing to examine the impact of wholeness and learning climates on burnout in a variety of university settings to see how

results compare. Also recommended is the creation of a standardized, non-denominational wholeness questionnaire (versus one specific to the university at hand as we used) in order to continue to assess the impact of striving for a wholeness-focused graduate school environment across an array of university settings from parochial to non-religious private to public. Finally, it is recommended that programming following the guidelines of the current study be implemented and measured/reported for a translational research approach in order to continue to seek ways to provide optimal higher education for future helping-professionals with the potential to create a lasting difference in educational practice and policy for learning, and in turn, service to the greater community.

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Table 1.

Demographic Characteristics of Participants with Means and Standard Deviations for Burnout

Variables	N (Valid %)	M(SD) - Burnout/Disengagement (Scores range from 8 – 32.)	M(SD) - Burnout/Exhaustion (Scores range from 8 – 32.)
Gender			
Female	282 (78.6)	16.80(3.63)	21.06(3.56)**
Male	77 (21.4)	17.41(3.26)	19.99(3.52)**
Race/Ethnicity		*	
White	131 (36.5)	17.26(3.61)	20.56(3.41)
Asian	107 (29.8)	17.28(3.00)	21.33(3.25)
Hispanic/Latino(a)	65 (18.1)	16.12(3.75)	20.90(3.76)
Other/multi-racial	56 (15.6)	16.44(4.10)	20.31(4.18)
Department			
Communication Sciences and Disorders	61 (16.9)	16.85(3.43)	21.95(3.15)**
Occupational Therapy	155 (43.1)	16.83(3.60)	20.62(3.51)**
Physical Therapy	144 (40.0)	17.05(3.61)	20.57(3.74)**
Year of Program			
Year 1	147 (40.8)	16.81(3.77)	20.90(3.65)
Year 2	112 (31.1)	17.10(3.29)	21.30(3.57)*
Year 3	101 (28.1)	16.88(3.58)	20.19(3.40)*
Religious Affiliation			
Non-Religious	42 (12.1)	17.24(3.13)	21.14(3.77)
Religious/Spiritual Affiliation Given	305 (87.9)	16.86(3.65)	20.84(3.53)
Combination of all participants	355 (100)	16.92(3.56)	20.82(3.57)

*$p < .10$, **$p < .05$ from simple linear regression

Table 2.

Mental Health Frequencies for Each Program and Year

	CMSD		OT			PT		
N (Valid %)	Year 1	Year 2	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Stress								
Perceived low stress (0-13)	3 (9.4%)	5 (17.2%)	18 (34.0%)	9 (20.0%)	12 (23.1%)	12 (20.0%)	7 (20.6%)	20 (43.5%)
Perceived moderate stress (14-26)	27 (84.4%)	20 (69.0%)	33 (62.3%)	30 (66.7%)	37 (71.2%)	39 (65.0%)	25 (73.5%)	23 (50.0%)
Perceived high stress (27-40)	2 (6.3%)	4 (13.8%)	2 (3.8%)	6 (13.3%)	3 (5.8%)	9 (15.0%)	2 (5.9%)	3 (6.5%)
Anxiety								
Typical (0-4)	7 (21.9%)	8 (27.6%)	22 (40.0%)	11 (22.9%)	14 (26.9%)	12 (20.0%)	15 (45.5%)	25 (51.0%)
Mild (5-9)	11 (34.4%)	8 (27.6%)	23 (41.8%)	19 (39.6%)	22 (42.3%)	20 (33.3%)	11 (33.3%)	17 (34.7%)
Moderate (10-14)	8 (25.0%)	9 (31.0%)	7 (12.7%)	10 (20.8%)	12 (23.1%)	18 (30.0%)	6 (18.2%)	6 (12.2%)
Severe (15+)	6 (18.8%)	4 (13.8%)	3 (5.5%)	8 (16.7%)	4 (7.7%)	10 (16.7%)	1 (3.0%)	1 (2.0%)
Depression								
None/minimal (0-4)	9 (28.1%)	10 (34.5%)	34 (61.8%)	20 (43.5%)	20 (39.2%)	23 (39.7%)	18 (52.9%)	29 (59.2%)
Mild depression (5-9)	12 (37.5%)	11 (37.9%)	15 (27.3%)	16 (34.8%)	27 (52.9%)	24 (41.4%)	12 (35.3%)	14 (28.6%)
Moderate depression (10-14)	9 (28.1%)	6 (20.7%)	4 (7.3%)	7 (15.2%)	2 (3.9%)	7 (12.1%)	3 (8.8%)	3 (6.1%)
Moderately severe depression (15-19)	2 (6.3%)	2 (6.9%)	1 (1.8%)	1 (4.3%)	2 (3.9%)	2 (3.4%)	1 (2.9%)	1 (2.0%)
Severe depression (20-27)	0 (0.0%)	0 (0.0%)	1 (1.8%)	1 (2.2%)	0 (0.0%)	2 (3.4%)	0 (0.0%)	2 (4.1%)

Table 3.

Hierarchical Multiple Regression Models Predicting Burnout/Disengagement from Demographics, Climates, Mental Health Factors, and Other Variables

Independent and Control Variables	Model 1 b(SE)	β	Model 2 b(SE)	β	Model 3 b(SE)	β	Model 4 b(SE)	β
Race/Ethnicity: Asian	.02(.46)	.00	-.00(.42)	.00	-.09(.43)	-.01	-.16(.42)	-.02
Race/Ethnicity: Hispanic/Latino(a)	-1.14(.54)*	-.12	-1.06(.48)*	-.12	-1.11(.49)*	-.12	-1.00(.48)*	-.11
Race/Ethnicity: Other	-.82(.57)	-.08	-1.23(.51)*	-.13	-1.14(.52)*	-.12	-1.10(.51)*	-.11
Learning Climate			-.15(.07)*	-.14	-.15(.07)*	-.13	-.15(.07)*	-.13
Wholeness Climate			-.13(.02)***	-.40	-.11(.02)***	-.36	-.11(.02)***	-.35
Stress					.06(.04)	.10	.04(.04)	.08
Anxiety					-.03(.05)	-.04	-.07(.05)	-.10
Depression					.11(.05)*	.14.	.07(.06)	.09
Resilience							.05(.04)	.08
Grit							-1.41(.34)***	-.23
Spirituality/Meaning							.17(.10)	.12
Spirituality/Peace							-.27(.08)**	-.26
Spirituality/Faith							.09(.05)	.10
Model Fit								
R^2	.02		.26		.30		.37	
ΔR^2	.02		.24		.04		.07	
F(df)	2.19(3, 350)		23.37(5, 332)***		16.69(8, 314)***		13.66(13, 304)***	

*$p < .05$, **$p < .01$, ***$p < .001$

Table 4.

Hierarchical multiple regression Models Predicting Burnout/Exhaustion from Demographics, Climates, Mental Health Factors, and Other Variables

	Model 1		Model 2		Model 3		Model 4	
Independent and Control Variables	b(SE)	β	b(SE)	β	b(SE)	β	b(SE)	β
Gender (0 = Female, 1 = Male)	-.94(.39)	-.11	-.80(.47)	-.09	-.30(.39)	-.04	-.00(.40)	.00
Department: PT	.18(.43)	.03	.19(.42)	.03	.30(.35)	.04	.08(.35)	.01
Department: CMSD	1.01(.56)	.11	1.62(.57)**	.17	.76(.47)	.08	.34(.48)	.04
Year of Program: Two	.30(.45)	.04	.33(.44)	.04	.52(.37)	.07	.38(.37)	.05
Year of Program: Three	-.55(.48)	-.07	-.67(.47)	-.08	.07(.40)	.01	-.06(.40)	-.01
Learning Climate			-.20(.07)**	-.18	-.15(.06)*	-.13	-.13(.06)*	-.11
Wholeness Climate			-.04(.02)	-.11	-.02(.02)	-.05	-.01(.02)	-.04
Stress					.07(.04)	.11	.01(.04)	.02
Anxiety					.22(.05)***	.31	.18(.05)***	.25
Depression					.16(.05)**	.21	.18(.05)**	.23
Resilience							-.06(.04)	-.11
Grit							-.40(.31)	-.07
Spirituality/Meaning							.16(.09)	.11
Spirituality/Peace							-.25(.08)**	-.24
Spirituality/Faith							.10(.05)*	.11
Model Fit								
R^2	.04		.11		.41		.46	
ΔR^2	.04		.07		.30		.05	
F(df)	2.76(5, 348)*		5.94(7, 332)***		21.71(10, 314)***		17.48(15, 303)***	

*$p < .05$, **$p < .01$, ***$p < .001$

CHAPTER SIX

PAPER TWO

The Influences of Satisfaction with Life for Graduate Students at a Religious University

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Note

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Abstract

Background: Poor life satisfaction is an increasing problem among U.S. graduate students that has been shown to adversely impact mental health and coping abilities. As in other competitive professional fields, graduate students are known to face significant performance pressures that may influence life satisfaction. **Purpose of the Study:** The study's purpose was to explore if efforts within an institution committed to creating a supportive learning and wholeness climate along with a student's personal characteristics of grit, resilience, and spirituality resulted in greater satisfaction with life. **Participants:** Three-hundred and sixty graduate students from occupational therapy, physical therapy, and speech language pathology programs were recruited to participate in a cross-sectional survey exploring student functioning using primarily validated measures. **Methods:** Hierarchical multiple regression was utilized to test the unique contributions of perceived learning climate, wholeness climate, stress, anxiety, depression, resilience, grit, and spirituality, controlling for demographics, on satisfaction with life. **Results:** A significant amount of the variance was accounted for as each model built with 45.8% of the variance explained by the final model. **Conclusion:** While student perceptions of the university's wholeness climate were originally protective and depression a risk for satisfaction with life, once other variables were entered, these effects diminished and were overtaken with self-reported stress as a risk and spirituality for meaning and peace as protective factors for higher satisfaction with life. Results may help guide academic policy to promote campus satisfaction with life through supportive programming.

Keywords: Satisfaction with life, wholeness, depression, stress, spirituality, university students, physical therapy, occupational therapy, and speech language pathology

The Influences of Satisfaction with Life for Graduate Students at a Religious University

Introduction

Satisfaction with life is an important consideration that encompasses multiple aspects of a person's unique experience. As Diener (1984) indicated, life satisfaction is specific to the individual and involves well-being and positive feelings toward life. In addition, life satisfaction is connected to the greater concept of living out one's purpose and calling (Duffy, Allan, Autin, & Bott, 2013).

Specific for the current study, spiritual intelligence was positively correlated with quality of life for college students (Bolghan-Abadi, Ghofrani, & Abde-Khodaei, 2014). The lens by which college students view God influences mental health, either positively or negatively, depending on how the individual copes with religion (Knabb & Grigorian-Routon, 2014). Stress during the university/college years was found to negatively relate to satisfaction with life (Kuang-Tsan & Fu-Yuan, 2017; Puri, Yadav, & Shekhawat, 2016). Additionally, faculty support (a component of the learning and wholeness climates within the current study) was found to help explain greater satisfaction with life for graduate students (Tompkins, Brecht, Tucker, Neander, & Swift, 2016). Grit for university students and resilience (for those at midlife) were also related to satisfaction with life (McGinnis, 2018; Vainio & Daukantaitė, 2016).

Clearly, multiple aspects are involved in the subjective nature of life satisfaction. However, supportive networks, the incorporation of healthy spirituality, experiencing purpose, and positive mental health appeared to protect one's life satisfaction, especially important within the university/college years for the current study. Poor mental health

and coping may lower life satisfaction. Understanding what comprises life satisfaction provides guidelines and hope for future university policies and programming.

The purpose of the current study was to explore if satisfaction with life was connected to, and could further be influenced by student perceptions of wholeness (e.g., healthfully balancing the mind, body, and spirit while caring for self and others) and learning climates (supportive learning experiences per Busteed, 2016), stress, anxiety, depression, religiosity/spirituality, grit, and resilience. We posited that these factors would be influential and that higher perceived levels of wholeness and learning climates, religiosity/spirituality, grit, and resilience would be associated with higher satisfaction with life, whereas, less perceived supportive environments, higher levels of stress, anxiety, and depression would be associated with lower levels of satisfaction with life.

The current study sought to bridge the literature gap of few rigorous explorations of protective and risk factors for professional graduate students' satisfaction with life.

Methods

Participants

Three hundred and sixty graduate students (84.71% participation rate of the total 425 students) enrolled in the Departments of Communication Sciences and Disorders (CMSD), Occupational Therapy (OT), and Physical Therapy (PT) participated in an anonymous, cross-sectional survey. Participants were adults ages 20-51 years (mean age = 26.02 years, *SD* = 4.37; female = 76.8%), currently residing in California, United States and recruited during or after class for their respective programs. Further participant demographics are displayed in Table 1.

Procedures

After Institutional Review Board (IRB) approval was granted, student participants completed pilot-tested (with minor IRB-approved changes), self-administered paper/pencil surveys during or directly after class time, using standard, passive consent. An announcement was made in each class prior to surveys being administered in order to recruit. Completion of the surveys took from approximately 10 - 60 minutes depending on the individual student/class dynamics. Students received snacks (for all regardless of participation) and the chance for a $25 Amazon gift card in a drawing as a token of appreciation for survey completion within each visited class (with nine total gift cards distributed).

Measures

Demographics/control variables.

Standard demographics, including a brief academic profile of the participants, were assessed for: age, gender, race/ethnicity, religious affiliation, department enrolled, and year of the program. Please see Table 1.

Independent variables.

Learning climate. We used questions adapted from Busteed's (2016) Gallup survey for assessed feelings toward students' learning climate (thus no preliminary Cronbach's alpha to compare). The questions included elements pertaining to behavioral economic measures of emotional support elements (professor and/or mentor support) plus experiential learning elements (long-term projects, internship, and extracurricular involvement). For the purpose of the current study, six questions based upon Busteed's (2016) article were used with a 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5) and summed for a total learning climate score ranging from 6 - 30.

Higher scores represent higher satisfaction with the learning climate. The current study's $\alpha = .62$.

Wholeness climate. We used the *Wholeness Climate Survey (WCS)* developed locally at the authors' institution as an assessment tool specifically designed for the university (with no comparison Cronbach's alpha currently in the literature). The measure consisted of 23 questions and used a 5-point Likert scale that addressed students' perceptions of university climate and alignment of values ("Research," 2017). Each item was scored from "strongly disagree" (1) to "strongly agree" (5) and added together for a total score ranging from 23 - 115 with higher sums associated with higher wholeness satisfaction on campus. Sample WCS items included: "I have had opportunities at [the studied university] to learn about wholeness and incorporate wholeness principles into my life;" "The actions of the staff, professors, and administrators at [the studied university] match their stated convictions;" "My [university] education has helped me to see the relationship between my studies and the needs of contemporary society;" and "[The university] provides a culture that encourages me to exceed minimum standards and expectations." WCS's $\alpha = .93$ for the current study.

Stress. We utilized the *Perceived Stress Scale, 10 Items (PSS-10),* which measures how one perceives stress in his/her life using a 5-point Likert scale. The PSS-10 is based upon a 5-point Likert scale ranging from "never" (0) to "very often" (4). Total scores were summed from all 10 answers after reverse coding (for four items); the higher the score, the greater the amount of perceived stress (Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988). Scores were further divided as low (0 - 13), moderate (14 - 26), and high (27 - 40) perceived stress based upon guidelines from prior studies

using this scale with undergraduate medical students (Anandhalakshmi, Sahityan, Thilipkumar, Saravanan, & Thirunavukarasu, 2016; Ramash Bhat, Sameer, & Ganaraja, 2011; Thangaraj & D'souza, 2014). Additionally, Roberti, Harrington, and Storch (2006) found that the PSS-10 was valid and reliable to measure stress amongst college/university students with Cronbach's alpha at .82 – .85. Similarly, the current study's $\alpha = .84$.

Anxiety. The *Generalized Anxiety Disorder 7-Items (GAD-7)* is a screening assessment for anxiety using a 4-point scale (Spitzer, Kroenhe, Williams, & Lowe, 2006). Scores range from minimal at below 5 to mild at 5 to moderate at 10 (with likelihood of generalized anxiety disorder) to severe at 15+ (Spitzer, Kroenhe, Williams, & Lowe, 2006). The response options regarding a series of statements ranged from "not at all" (0) to "nearly every day" (3) with higher scores representative of higher anxiety. The measure has been used widely, including for university and medical students (Choueiry et al., 2016; Moir, Henning, Hassed, Moyes, & Elley, 2016). Cronbach's alpha was found to be .89 within the general population (Löwe et al., 2008). Our study's GAD-7 α was slightly higher at .91.

Depressive symptoms. The *Patient Health Questionnaire – 9 Items (PHQ-9),* a standardized screening assessment for depression, was used to assess the severity of depressive symptoms (Kroenke, Spitzer, & Williams, 2001). The nine items in the PHQ-9 include symptoms of hopelessness, lack of energy, difficulty concentrating, suicidal thoughts, etc. Each question is presented on a four-point scale ranging from "not at all" (0) to "nearly every day" (3) with scores ranging from a total of 0 - 27. "PHQ-9 scores of 5, 10, 15, and 20 represented mild, moderate, moderately severe, and severe depression, respectively" (Kroenke, Spitzer, & Williams, 2001, p. 606). The PHQ-9 has been used

with university students, graduate students, and medical students (Garcia-Williams, Moffitt, & Kaslow, 2014; Moir, Henning, Hassed, Moyes, & Elley, 2016; Umegaki & Todo, 2016). Cronbach's alpha was found to be .91 (Umegaki & Todo, 2016). The current study's PHQ-9's $\alpha = .83$.

Individual resilience. The *Connor-Davidson Resilience Scale – 10 Items (CD-RISC-10)* was designed to assess individual resilience with consistency and reliability found in a variety of populations including the emerging adulthood population, which relates well to most graduate students' phase of life (Connor & Davidson, 2003; Madewell & Ponce-Garcia, 2016). The abridged 10-item version, or the *CD-RISC-10*, was developed utilizing a sample of undergraduate students and was also found to be reliable and valid with a Cronbach's alpha ranging from .85 to .90 (Campbell-Sills & Stein, 2007; Hartley, 2012). Our study's $\alpha = .90$. The ten questions were answered using a 5-point Likert scale from "not true at all" (0) to "true nearly all the time" (4). The higher the score was, the greater the suggested resilience (Connor & Davidson, 2003; Madewell & Ponce-Garcia, 2016).

Grit. Defined, grit is "perseverance and passion for long-term goals" (Duckworth, Peterson, Matthews, & Kelly, 2007, p. 1087; Rimfeld, Kovas, Dale, & Plomin, 2016, p. 780). The *Grit-S*, previously used with collegiate populations, is an 8-item assessment that measures grit in individuals based on a 5-point scale ranging from "very much like me" (5) to "not like me at all" (1) with reverse coding utilized for select questions. Higher scores are indicative of higher grit (Duckworth, Peterson, Matthews, & Kelly, 2007; Duckworth & Quinn, 2009; Wolters & Hussain, 2015). Questions address work consistency, goals, and diligence, etc. (Duckworth & Quinn, 2009). Alphas for internal

consistency ranged from .73 - .83 (Duckworth & Quinn, 2009). Likewise, our study's Cronbach's alpha = .77.

Spirituality. The *Functional Assessment of Chronic Illness Therapy - Spiritual Well Being - Non-Illness (FACIT-Sp-Non-Illness)*, a 12-item questionnaire about one's well-being through the lens of religiosity/spirituality was utilized. Participants responded based on a 5-point Likert scale ranging from "not at all" (0) to "very much" (4) with periodic reversed coding incorporated (FACIT.org, 2010; Haugan, 2015; Peterman, Fitchett, Brady, Hernandez, & Cella, 2002). The measure has been utilized with graduate medical or medical/PhD students with Cronbach's alpha at .86 (Wachholtz, A., & Rogoff, 2013). The FACIT-Sp-Non-Illness includes three subscales of meaning, peace, and faith (Peterman et al., 2014). Our study's spirituality/meaning $\alpha = .75$, spirituality/peace $\alpha = .79$, and spirituality/faith $\alpha = .89$ with a collective $\alpha = .87$. Higher scores imply more perceived spirituality within each subscale. The Subscale for peace pertains to items about harmony within, peacefulness, and finding comfort within oneself. Meaning consists of one's perception of productivity in life, purpose, etc. The faith subscale addresses comfort and strength within one's beliefs and response to hard times (FACIT.org, 2010; Peterman, Fitchett, Brady, Hernandez, & Cella, 2002).

It should be further noted that the FACIT-Sp-Non-Illness was utilized to examine religiosity/spirituality, as the neutral wording provides a way to encompass both aspects simultaneously. "However, the terms, religion and spirituality, are not synonymous: a person can be spiritual without being religious and religious without being spiritual" (Hurley, 2012). Variation in belief terms is necessary to note when considering the studied university's diversity of students represented in 60 faiths across campus ("Apart

Together Whole," 2017).

Dependent variable.

Satisfaction with life. The *Satisfaction with Life Scale (SWLS)* is a 5-item self-questionnaire about how satisfied one is with his/her life and answered with a 7-point Likert scale ranging from "strongly agree" (7) to "strongly disagree" (1). Questions reflect one's perceived ideal, life conditions, overall satisfaction, desires in life, and if one would change aspects of life given the opportunity (Diener, Emmons, Larsen, & Griffin, 1985). While traditionally used based on a continuous scale, to help further understand scoring, categories from "extremely satisfied" to "extremely dissatisfied" have been created per Pavot and Diener (2008) guidelines. Please see table 2 for further details. The measure was tested across age ranges, including university students. Good psychometric properties were noted for the SWLS with a coefficient alpha of .87 (Diener, Emmons, Larsen, & Griffin, 1985; Pavot, Diener, Colvin, & Sandvik, 1991). Our SWLS's $\alpha = .85$.

Data Analytic Plan

Data were collected, entered, checked for accuracy with a 10% double entry of the sample, and analyzed using SPSS, version 21.0. Analyses proceeded as follows: 1) Data exploration, cleaning (e.g., demographic variables of race/ethnicity and religious affiliation were reduced in categories), and final scale construction (e.g., obtaining Cronbach's alphas) took place. Missing data were excluded listwise. We also conducted descriptive analyses by examining distribution and assumptions (e.g., normality, linearity, multicollinearity, and homoscedasticity), which warranted no modifications to the data. Univariate analyses further involved generating means, standard deviations, and

percentages as appropriate for variables. 2) Bivariate analyses between the outcome and independent variables (also including the control demographic variables of department/program, year of program, age, gender, race/ethnicity, and religious affiliation) were conducted to facilitate model building by generating Pearson's (*r*) correlations between all continuous variables and simple linear regressions for categorical variables. Variables at a significance level of $p \leq .05$ for correlations and $p \leq .10$ for simple linear regressions were maintained for further analyses. 3) Four hierarchical multiple regression models were generated to examine the unique linear combination of the research variables: a) beginning with the control demographics, b) adding in learning and wholeness climates, c) then including mental health components of stress, anxiety, and depression, and finally d) adding resilience, grit, spirituality/meaning, spirituality/peace, and spirituality/faith to the proceeding combination of variables.

Results

Descriptive Analyses

Preliminary descriptive data analyses explored means and standard deviations between demographics and the dependent satisfaction with life variables of interest. The majority of students were female, White or Asian, and religiously affiliated. Based upon examined means and standard deviations, male students were slightly more satisfied than females. White students reported the highest levels of satisfaction. OT students were slightly more satisfied with PT closely following and then CMSD. As a whole amongst all programs based on calculated means, year one students were more satisfied followed by year three and then year two. Though close in range, those with a religious affiliation

were more satisfied than those without. Please refer to Table 1 for specific data on frequencies, means, and standard deviations.

Satisfaction with life was further explored via categories as outlined by Pavot and Diener (2008). As Table 2 depicts, the majority of OT, PT, and CMSD students were satisfied with life. The positive exception was for first year PT students, where the majority was extremely satisfied with life.

Additionally, student demographic variables with mental health outcomes were analyzed. Across departments and years in the program, perceived stress predominantly fell within the moderate range. Stress levels appeared highest for a combination of moderate to high during the first year of the program for CMSD and PT but within the second year for OT. Anxiety was predominately mild across programs (except higher at moderate levels during the second year of the CMSD program). Anxiety concerns followed the previous stress pattern with the highest levels in first year of CMSD and PT and second year of OT for the cohorts assessed. Depression was mainly mild for CMSD, none/minimal for OT (except within the third year), and mostly none/minimal in PT (except for mild during the first year). Please see Table 3.

Bivariate Analyses

To prepare for hierarchical multiple regression, we explored all variables at the bivariate level. Variables at $p \leq .10$ for simple linear regressions and $p \leq .05$ for Pearson's (r) correlations were retained and included in the multivariate analyses satisfaction with life models.

Multivariate Analyses

Overview.

Overall, satisfaction with life accounted for a statistically significant variance in the hierarchical multiple regression models when controlling for significant demographics. We will further discuss the step-by-step sequential account of how the models changed as variables were entered below.

Step one of the satisfaction with life model.

Within the first step, results revealed that individuals with the race/ethnicity of being Asian (versus White) were significantly less satisfied with life. The Department of CMSD (compared to OT) also had a noted significant decrease in satisfaction with life.

Step two of the satisfaction with life model.

In the next step, wholeness climate (but not learning climate) was significant. Individuals who reported demographics of being Asian (versus White) and part of the Department of CMSD (versus OT) continued to report significantly less satisfaction with life.

Step three of the satisfaction with life model.

Mental health factors were added in step three. Both stress and depressive symptoms significantly accounted for less satisfaction with life. In addition to the previous pattern of less satisfaction with life for Asians and students from CMSD, PT (compared to OT) also reported significantly less satisfaction with life.

Final step/overall model of satisfaction with life.

Variables that remained significant in the final model (that included all variables) were perceived stress (which lowered satisfaction with life) and spirituality for both meaning and peace (which both increased satisfaction with life). A noted significant demographic variable throughout all models included the race/ethnicity of being Asian

(versus White) as having less satisfaction with life. While wholeness climate (increasing satisfaction with life with greater perceived wholeness climates) and depression (decreasing satisfaction with life with greater perceived depressive symptoms) previously had high significance levels in the previous steps, once coping mechanisms were added in the final model, both variables did not remain. For the final satisfaction with life model, the optimal linear combination of race/ethnicity, learning and wholeness climates, mental health factors, resilience, grit, and spirituality was explained by 45.8% of the variance, R^2 = .46, (F15, 306) = 17.26, $p < .001$. See Table 4 for further descriptions.

Discussion

The purpose of this study was to examine risk and protective factors associated with life satisfaction among graduate students from CMSD, OT, and PT programs at a private, religious university learning climates as well as their report of perceived stress, anxiety, depression, resilience, grit, and spirituality/religiosity.

In comparison to past studies, our results reveal slightly higher means for satisfaction with life. More specifically, a past satisfaction with life study with undergraduates found a scale mean of 23.5 with a standard deviation of 6.43, and a similar recent study with graduate students found the mean to be somewhat higher at 25.61 and a standard deviation of 5.81 (Diener, Emmons, Larsen, & Griffin, 1985; Tompkins, Brecht, Tucker, Neander, & Swift, 2016). In our study, students reported a mean of 26.35 (with a standard deviation of 5.56). Overall, most students reported that they were satisfied with life. However, Asian students reported significantly less satisfaction with life. This may be due to additional cultural expectations and pressures

outside of the immediate campus environment plus trying to meet the rigorous program demands. However, further study is needed.

To assist educational policy and programming, the relationship between satisfaction with life and the study's independent variables merit discussion. Specific to the current study, initially, wholeness climate (associated with increased satisfaction with life) and the mental health components of depression and stress (associated with decreased satisfaction with life) were all highly significant. However, after coping mechanisms were added, the other variables did not remain significant, except for being an Asian student (associated with decreased satisfaction with life) and the continued influence of stress, though less significant than previously. Coping mechanisms of influence were spirituality for meaning and peace (both which positively influenced satisfaction with life). According to our study, the answer to what brings about satisfaction with life lies in students' perceiving less stress and reporting spirituality that brings meaning and peace to them. Perhaps it can be expressed in two statements. Limit unnecessary stress in life. Take care to nurture the soul by seeking peace and meaning beyond one's self.

Mental health and spirituality are interconnected. Our study appears to agree with this idea. Additionally, the university years are wrought with spiritual struggle and influence the environment on campus (Bryant & Astin, 2008). The interconnection of spirituality and mental health along with the possibility for polarizing faith views amongst students within the continuum of faith may also further explain why not all elements of spirituality, specifically the faith component, significantly impacted the models within the current study. Furthermore, our study supports the link between

spirituality and satisfaction with life. Considering LLU's strong mission for service, similarities were found with Pashak and Laughter's (2012) study, as both studies examined students at parochial universities where service is a focus, and this may help explain the link between spirituality and satisfaction with life. Therefore, holistic resources focusing on the many dimensions of an individual are encouraged for university students and future programming in connection with service opportunities that include reflection on life satisfaction in the process.

The examination of mental health factors in our study is somewhat concerning but unfortunately not surprising. Recent press surrounding Evans, Bira, Beltran Gastelum, Weiss, and Vanderford's (2018) article propose a graduate student mental health crisis. Our results support the need to further examine and provide resources for mental health within highly competitive graduate programs

In our study, reported means of satisfaction with life were slightly higher than past research in comparison (Diener, Emmons, Larsen, & Griffin, 1985; Tompkins, Brecht, Tucker, Neander, & Swift, 2016). This may be related to perceived less stress and greater spirituality. However, findings need further study to explore if the type of campus with an emphasis on wholeness, service, and meaning was part of this higher satisfaction with life.

Naturally, limitations exist for the current study. First, while results may have implications beyond the specific population studied, the current study is limited to a single university and specifically CMSD, OT, and PT graduate students. Therefore, results may differ if the same survey were to be administered to a greater variety of universities/students. Second, while elements were put in place to reduce obligation or

bias, the researcher is simultaneously a behavioral health doctoral student and an assistant professor of OT in addition to being involved in programming with select PT students. Though not evident, this may have influenced survey responses. Finally, the study was cross-sectional, limiting results to a single point in time.

Recommendations for future studies include continuing to examine the impact of wholeness and learning climates, stress, anxiety, depression, resilience, grit, and spirituality/religiosity on satisfaction with life for graduate students, an area of research that is nearly non-existent. Further exploring such variables is recommended in a variety of university settings, especially universities preparing students for the helping professions. Specific to the current study, it is recommended for programming and policy to encourage: 1) enhancing the types of spirituality that bring meaning and peace along with 2) openly addressing and advocating for mental health, particularly with providing strategies for stress management. The earlier in the program this can begin, the better for potential lasting influences both within the academic and clinical environments. Furthermore, in light of the emergent consensus around the need for wholeness in higher education, we recommend that a wholeness scale be developed to continue to explore how a wholeness-focused university environment can assist healthcare-oriented students to pursue a higher quality of life while preparing for their future careers. Exploring these issues in a variety of campus settings (e.g., public versus private, religious versus non-religious) and how students may be impacted and/or benefitted by possible interventions plans is advised. Finally, it is recommended to consider educational practice and policy efforts to provide a more optimal education environment for health professionals whose future careers involve giving back through caring for the needs of communities.

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Table 1.

Demographic Characteristics of Participants with Means and Standard Deviations for Satisfaction with Life

Variables	N (Valid %)	M (SD) Satisfaction with Life (Scores range from 5-35.)
Gender		
Female	282 (78.6)	26.24 (5.47)
Male	77 (21.4)	26.66 (5.90)
Race/Ethnicity**		
White	131 (36.5)	27.25 (5.45)
Asian	107 (29.8)	25.27 (5.66)
Hispanic/Latino(a)	65 (18.1)	26.62 (5.54)
Other/multi-racial	56 (15.6)	26.05 (5.42)
Department*		
Communication Sciences and Disorders	61 (16.9)	24.95 (6.56)
Occupational Therapy	155 (43.1)	26.93 (5.02)
Physical Therapy	144 (40.0)	26.35 (5.56)
Year of Program		
Year 1	147 (40.8)	26.61 (5.93)
Year 2	112 (31.1)	26.12 (5.37)
Year 3	101 (28.1)	26.24 (5.56)
Religious Affiliation		
Non-Religious	42 (12.1)	25.57 (5.80)
Religious/Spiritual Affiliation Given	305 (87.9)	26.35 (5.58)
Combination of all participants	360 (100)	26.35 (5.56)

*$p < .10$, **$p < .05$ from preliminary regression/one-way ANOVA

Table 2.

Satisfaction with Life Categories for Program and Year

	N (%) CMSD		OT			PT		
Category (Score Range)	Year 1	Year 2	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Extremely satisfied (31-35)	8 (25%)	4 (13.8%)	17 (30.9%)	11 (22.9%)	12 (23.1%)	23 (38.3%)	3 (8.6%)	11 (22.4%)
Satisfied (26-30)	9 (28.1%)	14 (48.3%)	20 (36.4%)	21 (43.8%)	20 (38.5%)	15 (25.0%)	17 (48.6%)	18 (36.7%)
Slightly satisfied (21-25)	7 (21.9%)	5 (17.2%)	14 (25.5%)	9 (18.8%)	13 (25.0%)	9 (15.0%)	10 (28.6%)	13 (26.5%)
Neutral (20)	0 (0.0%)	2 (6.9%)	1 (1.8%)	2 (4.2%)	1 (1.9%)	4 (6.7%)	1 (2.9%)	3 (6.1%)
Slightly Dissatisfied (15-19)	5 (15.6%)	1 (3.4%)	3 (5.5%)	4 (8.3%)	5 (9.6%)	6 (10.0%)	3 (8.6%)	2 (4.1%)
Dissatisfied (10-14)	2 (6.3%)	2 (6.9%)	0 (0.0%)	0 (0.0%)	1 (1.9%)	2 (3.3%)	1 (2.9%)	2 (4.1%)
Extremely dissatisfied (5-9)	1 (3.1%)	1 (3.4%)	0 (0.0%)	1 (2.1%)	0 (0.0%)	1 (1.7%)	0 (0.0%)	0 (0.0%)

Table 3.

Mental Health Frequencies for Each Program and Year

	CMSD		OT			PT		
N (Valid %)	Year 1	Year 2	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Stress								
Perceived low stress (0-13)	3 (9.4%)	5 (17.2%)	18 (34.0%)	9 (20.0%)	12 (23.1%)	12 (20.0%)	7 (20.6%)	20 (43.5%)
Perceived moderate stress (14-26)	27 (84.4%)	20 (69.0%)	33 (62.3%)	30 (66.7%)	37 (71.2%)	39 (65.0%)	25 (73.5%)	23 (50.0%)
Perceived high stress (27-40)	2 (6.3%)	4 (13.8%)	2 (3.8%)	6 (13.3%)	3 (5.8%)	9 (15.0%)	2 (5.9%)	3 (6.5%)
Anxiety								
Typical (0-4)	7 (21.9%)	8 (27.6%)	22 (40.0%)	11 (22.9%)	14 (26.9%)	12 (20.0%)	15 (45.5%)	25 (51.0%)
Mild (5-9)	11 (34.4%)	8 (27.6%)	23 (41.8%)	19 (39.6%)	22 (42.3%)	20 (33.3%)	11 (33.3%)	17 (34.7%)
Moderate (10-14)	8 (25.0%)	9 (31.0%)	7 (12.7%)	10 (20.8%)	12 (23.1%)	18 (30.0%)	6 (18.2%)	6 (12.2%)
Severe (15+)	6 (18.8%)	4 (13.8%)	3 (5.5%)	8 (16.7%)	4 (7.7%)	10 (16.7%)	1 (3.0%)	1 (2.0%)
Depression								
None/minimal (0-4)	9 (28.1%)	10 (34.5%)	34 (61.8%)	20 (43.5%)	20 (39.2%)	23 (39.7%)	18 (52.9%)	29 (59.2%)
Mild depression (5-9)	12 (37.5%)	11 (37.9%)	15 (27.3%)	16 (34.8%)	27 (52.9%)	24 (41.4%)	12 (35.3%)	14 (28.6%)
Moderate depression (10-14)	9 (28.1%)	6 (20.7%)	4 (7.3%)	7 (15.2%)	2 (3.9%)	7 (12.1%)	3 (8.8%)	3 (6.1%)
Moderately severe depression (15-19)	2 (6.3%)	2 (6.9%)	1 (1.8%)	1 (4.3%)	2 (3.9%)	2 (3.4%)	1 (2.9%)	1 (2.0%)
Severe depression (20-27)	0 (0.0%)	0 (0.0%)	1 (1.8%)	1 (2.2%)	0 (0.0%)	2 (3.4%)	0 (0.0%)	2 (4.1%)

Table 4.

Multiple Regression Models Predicting Satisfaction with Life from Demographics, Climates, Mental Health Factors, and Other Variables

Independent and Control Variables	Model 1 b(SE)	β	Model 2 b(SE)	β	Model 3 b(SE)	β	Model 4 b(SE)	β
Race/Ethnicity: Asian	-2.24(.72)**	-.18	-2.41(.70)**	-.19	-1.59(.64)*	-.13	-1.24(.62)*	-.10
Race/Ethnicity: Hispanic/Latino(a)	-.78(.84)	-.05	-1.03(.80)	-.07	-.75(.73)	-.05	-.38(.70)	-.03
Race/Ethnicity: Other	-1.14(.88)	-.07	-1.01(.83)	-.07	-1.00(.76)	-.07	-.94(.74)	-.06
Department: PT	-.77(.64)	-.07	-1.01(.61)	-.09	-1.11(.56)*	-.10	-.51(.54)	-.04
Department: CMSD	-2.29(.84)**	-.16	-3.35(.82)***	-.22	-2.13(.75)**	-.14	-.99(.75)	-.07
Learning Climate			.14(.11)	.08	.07(.10)	.04	.08(.10)	.05
Wholeness Climate			.17(.03)***	.34	.13(.03)***	.26	.05(.03)	.11
Stress					-.24(.06)***	-.26	-.13(.06)*	-.14
Anxiety					.08(.08)	.07	.05(.08)	.04
Depression					-.35(.08)***	-.29	-.12(.08)	-.10
Resilience							.08(.05)	.09
Grit							-.25(.48)	-.03
Spirituality/Meaning							.55(.15)***	.23
Spirituality/Peace							.31(.12)**	.19
Spirituality/Faith							.07(.07)	.05
Model Fit								
R^2	.04		.19		.38		.46	
ΔR^2	.04		.15		.18		.17	
F(df)	3.10(5, 353)**		11.40(7, 335)***		19.03(10, 317)***		17.26(15, 306)***	

*$p < .05$, **$p < .01$, ***$p < .001$

CHAPTER SEVEN

OTHER RESULTS

A Brief Summary of Quantitative Results Exploring Correlates of Perceived Student Well-being

While well-being levels were quite similar between groups, males had slightly higher self-reported well-being than females. Individuals identifying as other or multi-racial had the highest well-being followed by Whites, Hispanic/Latino(a)s and then Asians. The three academic departments were close in perceived well-being scores with OT listing the highest scores, followed by PT, and then CMSD. Year one students had the highest levels of perceived well-being, followed by year three, and lastly year two, a pattern predominantly consistent with the other three dependent variables explored. Graduate students who state a religious/spiritual affiliation had a greater sense of perceived well-being than those who were non-religious. Please see Table 1.

Table 1. Demographic characteristics of participants with associated means and standard deviations.

Variables	N (Valid %)	M (SD) – Well-being (Scores range from a total of 5-25)
Gender		
Female	282 (78.6)	18.51 (2.95)
Male	77 (21.4)	18.82 (3.07)
Race/Ethnicity		*
White	131 (36.5)	18.79 (2.95)
Asian	107 (29.8)	18.19 (3.21)
Hispanic/Latino(a)	65 (18.1)	18.22 (2.76)
Other/multi-racial	56 (15.6)	19.78 (2.65)
Department		
Communication Sciences and Disorders	61 (16.9)	18.15 (3.14)
Occupational Therapy	155 (43.1)	18.72 (2.90)
Physical Therapy	144 (40.0)	18.65 (3.01)
Year of Program		
Year 1	147 (40.8)	18.88 (3.06)
Year 2	112 (31.1)	18.31 (2.87)
Year 3	101 (28.1)	18.48 (2.98)
Religious Affiliation		**
Non-Religious	42 (12.1)	17.57 (3.27)
Religious/Spiritual Affiliation Given	305 (87.9)	18.74 (2.91)

*$p < .10$, **$p < .05$ from simple linear regression

To prepare for hierarchical multiple regression, we explored all variables at the bivariate level. Only variables outside of the guidelines for significance at $p \leq .10$ for linear regressions and $p \leq .05$ for Pearson's (r) correlations were excluded. Please refer to Tables 1 and 2.

Table 2. Bivariate correlations amongst continuous variables.

	M(*SD*)	1	2	3	4	5	6	7	8	9	10	11	12	13
1	26.02(4.37)	–												
2	23.90(3.20)	-0.04	–											
3	94.06(11.37)	0	.57**	–										
4	17.82(6.25)	-0.07	-.13*	-.19**	–									
5	7.57(5.20)	-0.07	-0.06	-0.07	.71**	–								
6	5.81(4.61)	-0.01	-.12*	-.14*	.64**	.64**	–							
7	29.23(6.26)	0.1	.27**	.40**	-.49**	-.32**	-.37**	–						
8	3.59(.58)	-0.04	.22**	.23**	-.21**	-.18**	-.34**	.39**	–					
9	14.18(2.37)	0	.26**	.39**	-.38**	-.25**	-.54**	.45**	.39**	–				
10	10.32(3.38)	0.04	.19**	.31**	-.63**	-.58**	-.61**	.58**	.34**	.56**	–			
11	11.73(4.05)	0.01	.22**	.36**	-.22**	-.24**	-.28**	.32**	.30**	.37**	.42**	–		
12	16.92(3.56)	0.02	-.37**	-.47**	.25**	.19**	.25**	-.28**	-.36**	-.29**	-.37**	-.18**	–	
13	20.82(3.57)	-0.01	-.20**	-.21**	.53**	.56**	.52**	-.43**	-.28**	-.30**	-.56**	-.18**	.45**	–

Note. Variables are as follows: 1 = Age, 2 = Learning climate; 3 = Wholeness climate; 4 = Stress; 5 = Anxiety; 6 = Depression; 7 = Resilience; 8 = Grit; 9 = Spirituality, meaning; 10 = Spirituality, peace; 11 = Spirituality, faith; 12 = Burnout, disengagement; 13 = Burnout, exhaustion.
*$p < .05$, **$p < .01$

Overall, well-being accounted for a statistically significant variance within the hierarchical multiple regression models when controlling for significant demographics. Specifically, for well-being's final model 42.5% of the variance, $R^2 = .43$, $F(14, 298) = 15.76$, $p < .001$ was explained. Further examination of the hierarchical multiple regression for well-being revealed that while initially wholeness climate and the control variable of religious affiliation were significant, the components of learning climate and the spirituality aspect of peace continued to be positive significant key elements for explaining well-being, while depression continued to be a negative significant consideration even as the models continued. Further, detailed analyses of each of the four models are outlined in Table 3 below.

Table 3. Multiple regression models predicting well-being from demographics, climates, mental health factors, and other variables

Independent and Control Variables	Model 1 b(SE)	β	Model 2 b(SE)	β	Model 3 b(SE)	β	Model 4 b(SE)	β
Religious Affiliation (0 = No, 1 = Yes)	1.19(.49)*	.13	.74(.44)	.08	.62(.41)	.07	.35(.49)	.04
Race/Ethnicity: Asian	-.60(.39)	-.09	-.48(.37)	-.07	-.38(.34)	-.06	-.35(.34)	-.05
Race/Ethnicity: Hispanic/Latino(a)	-.61(.46)	-.08	-.66(.42)	-.09	-.65(.39)	-.08	-.57(.39)	-.07
Race/Ethnicity: Other	.55(.48)	.07	.59(.44)	.07	.41(.41)	.05	.41(.41)	.05
Learning Climate			.22(.06)***	.24	.21(.05)***	.22	.22(.05)***	.23
Wholeness Climate			.07(.02)***	.27	.06(.02)***	.21	.03(.02)	.11
Stress					-.05(.03)	-.10	-.01(.04)	-.01
Anxiety					-.04(.04)	-.06	-.04(.04)	-.07
Depression					-.18(.04)***	-.28	-.11(.05)*	-.17
Resilience							.03(.03)	.06
Grit							.02(.27)	.00
Spirituality/Meaning							.14(.08)	.11
Spirituality/Peace							.13(.07)*	.15
Spirituality/Faith							.03(.05)	.04
Model Fit								
R^2	.04		.23		.39		.43	
ΔR^2	.04		.20		.16		.03	
F(df)	3.32(4, 341)*		16.38(6, 326)***		21.77(9, 308)***		15.76(14, 298)***	

*$p < .05$, **$p < .01$, ***$p < .001$

Qualitative Results

Findings revealed four major themes: Wholeness, Stressors, Resources, and Recommendations. Furthermore, under each theme, several sub-themes were identified. Below, themes and sub-themes are described, and tables provide supporting quotes.

1. Wholeness

Interactions/Personalized Care at LLU

Overall, the graduate students expressed that they could feel the care from professors, and professors also expressed making time to connect with students. Students expressed that is was nice to be personally known and recounted experiences at previous universities where they had not received the same care and felt unnoticed in contrast to LLU. Students also mentioned that dorm staff provided extra support for aspects such as birthdays, funerals, etc.

Appreciation for Spirituality

Graduate students were grateful for having intentional activities to address components of spirituality at LLU. Resources included chapel, Week of Renewal, having faculty pray in class, the respectfulness of conversations surround spirituality, the blessing of learning about others' spirituality, how Sabbath rest was encouraged (usually a point of gratitude with the minor exception that one expressed of the potential stress of being confined to a specific day). Faculty expressed that while not all faculty choose to include this as a topic in their teaching, most strive to incorporate elements of spirituality

into their daily class routine.

Reaching out to Others

Service learning, mission trips, local community outreach, etc. were experiences that graduate students valued. The requirements attached to the respective programs appeared to encourage the graduate students to participate in ways they may not have otherwise, and one expressed that after the requirement was over, she continued to willingly volunteer her time. Professors also mentioned similar outreach opportunities available to students.

Whole Person Health Focus

Graduate students acknowledged a vast array of opportunities provided at LLU that ranged from intramurals, to information on nutrition, to class chaplains, to the Drayson Center, to Lunch Power meetings (weekly lunch is served with inspirational speakers and/or advice to strive for wholeness with common academic needs/stressors), to doing mindfulness exercises in class, and how this combination of wholeness received carries over to integrating wholeness when caring for patients. Faculty reported to consciously offer multiple aspects of what they sought as wholeness to help students integrate these into their respective wholeness journeys.

Barriers to Wholeness

Both faculty and graduate students expressed that wholeness can be challenging to implement into busy student life. Graduate students noted that while there are

encouraging and helpful professors, not all professors support wholeness. Other challenges for graduate students included accessibility difficulties, time limitations, transportation, and having class during other opportunities for wholeness. Faculty further expressed that it is not always possible to meet the expectations of students or the university's expectations about providing an environment that supports wholeness, and beside pressure to cover all material, the limitation of being human was mentioned. See Table 4.

Table 4. Wholeness category/theme with proceeding sub-themes and examples.

Sub-themes	Examples
Interactions/ personalized care at LLU	"And that's, oh nice, um, that's such a big school, and I guess wellness and wholeness wasn't really emphasized. Um, I feel like I was just a little person in a big place, and it's almost you feel more special here, and you feel noticed, and you know more people, and people know your name. And I think the staff and the faculty actually do a really good job at making that known that you are someone who they notice and that means something to them." –OT student
	"Um I think my favorite part about here is, like, how the teachers, like, really know you. And they really, like, actually care about how you're doing. And I think that just like ties in the whole, whole person, like, aspect. You just feel better about everything if you know someone's, like, rooting for you." –PT student
	"Yeah. Like, yesterday, one of my professors ... I just looked really stressed out, and she was like, [participant name], come here." (laughs) Gave me the biggest hug. I'm like, 'You're the best!' Like a momma hug, you know? (laughs) The best!" –CMSD student
	"What I tell students is, we don't try to pry into their personal life, but we do know what goes on outside of school has a big impact on what happens here. And so faculty are pretty attune to, if we're seeing somebody that's not acting like they normally do, um, they'll kind of probe a little bit to see if they need some help. And then if they do we refer them to counseling or just talk or whatever." –PT faculty
	"One thing, I think our department does well at is our open-door policy. We always have students in our offices, because they know that they can come and talk about anything, um. They'll come by with class related questions obviously, but then they'll also talk about their life. They'll talk about their struggles. They'll talk about work life balances, you know, graduate - starting graduate school can be a big adjustment. So I feel like even though graduate school is hard in that students are gonna be stretched in terms of time, we want to nourish the wholeness, but at the same time, we say, 'Yes there's a lot more to learn.' And so to - to try and balance that, we try and have the personal touch." –CMSD faculty

Sub-themes	Examples
Appreciation for spirituality	"I think when analyzing my undergrad, um, we weren't able to have that spirituality conversation and there would be oftentimes, um, there were like uncomfortable conversations you would have in undergrad, um, just because people weren't very respectful of other different religious beliefs. But I've always felt like being here at Loma Linda has been, like, such a blessing, because I feel like I've been able to learn so much about other people's spirituality. And have that, um, conversations, because that is such a unique, um, part of a person. And when I think of wholeness I think like when we, um, are with our clients or our patients like that's such an awesome privilege that we get to kind of learn how to integrate that within, um, our healthcare system. So I think that's one of the biggest blessings I've noticed here at Loma Linda, um, is that spirituality component of, you know, fitting that puzzle piece in with all of the rest of wholeness." –OT student
	"Think I like when they have, like, the Week of Renewal, because it's like fifteen extra minutes off that you have. I-, I was kinda surprised that they did it because I know, like, grad school's so, like, demanding, but, it's nice. It's like, even though it's a little bit of rest, it's-, it means a lot. Uh, and then the weekly chapel, also just like a nice time to pause and rest and think about God that normally you'd be studying. So, that's nice." –PT student
	"Um, my wife and I both like to start with little worships, positive encouragement, prayer, because I think it's part of the beauty of working for this institution." –PT faculty
Reaching out to others	"I think by making us go out and do volunteer hours, kind of puts us in a situation where we wouldn't put ourselves in if we were still in school. I don't think we would nec ... not everyone might not necessarily make time to go out and volunteer within the community or give service to the community. Because this program is so heavy and fast. So, I think, I personally like the service aspect of it, because that's not something I would've normally done on my own." –PT student
	"Well, as far as serving others, I know in undergraduate, we had to do so many hours in like, community service. And I did; I found that helpful. At the time, like, getting there, I was like, 'Oh, I don't have time for this.' But once I was there, and I saw that I was like, helping people and everything, it, it was really worth it. And I still go to the [community service place]." –CMSD student

Sub-themes	Examples
	"We have opportunities for service at - at the moment not all the students can be a part of, cause there are only a small, few, smaller service opportunities. We have a Mexico trip. We have the China trip. So students can - can be involved in that, and I feel like that opportunity is an opportunity to - to nourish the spiritual side as well." – CMSD faculty
Whole person health focus	"It's nice that we have, like, class positions, too, like, a chaplain and Intramural committee because those help, um, organize those events within, like, the class. So, they have a really good, strong intramural system here, which support, like, uh physical activity and then just how they pray for us before exams and stuff like that takes away your stress a little bit." –PT student
	"I think wholeness here, for me, is really good 'cause coming from an undergrad that was kinda more a public school, and then coming here, there's a lot more emphasis on spiritual health and physical health and, just this being a medical university, we're taught a lot about like nutrition and all those aspects. So, I feel like for me, um, like we, they do a good job here of incorporating like all areas of health." –PT student
Barriers to wholeness	"Um … I don't know. I really appreciate the fact that they have the wholeness concept, but it's a little bit harder to do then, like, um … when it's actually … when it actually comes down to it, like, 'Let's go to the gym every day.' And you know sometimes it's just like you're busy. (laughs)" –CMSD student
	"I was going to say something similar where it really kinda depends on the teachers you have, too, how much wholeness you can incorporate into your life. And some of them support it more than others and will actually go out of their way to just like, suggest that you take a break. Um, then other ones wouldn't be as helpful . . ." –PT student

Sub-themes	Examples
	"I think wholeness is an ideal (laughs). I think it's something that Loma Linda hopes that we're all striving for, but it, it, it's a very difficult thing. Both as a student I think and as a faculty here, to really um, live a life of wholeness, because we all have intense lives. So, we're pushing them through very intense programs and we're telling them, 'Wholeness, wholeness.' (Laughs). How do you do that? And on the other hand, the faculty are all overloaded with responsibilities, and we're supposed to be whole, but then what kind of models are we for the students? So, it's, it's (laughs); it's an ideal. And it's something I guess to, to strive for." –CMSD faculty
	"I think when the students come in, there's a certain expectation that Loma Linda. They have certain expectations of Loma Linda. Sometimes, there is a little bit of a challenge with that, because they, there's, it's, the expectations are so high, so when they come on, it's like it -, everything's gonna be perfect. Like, it's not. It's not. And I, and that's the hard part for me, 'cause I've heard students talk about this. You know, 'This is what the university said it was gonna do,' and different things like that. And I'm like, 'How can one institution truthfully ... Are we all human beings?' They're like, 'Yeah ...' You know what I, and then you have to talk through them. Or talk with them through it. And they get it. And then they're much more open afterwards. But it's, you know, making them aware of what options are there and what is wholeness? You know, and trying to live it ourselves, which is not always easy." –OT faculty

2. Stressors

Financial Burden

Graduate students stated a burden with the cost of tuition and the accompanying stressors of finding it challenging to pay bills, picking up extra work to make ends meet (and then finding that their school performance suffered), and not having enough money to cover groceries. Faculty acknowledged the burden of costs for students as well and saw it interfering with wholeness.

Parking

While the topic did not surface with the faculty members interviewed (as most faculty have parking close by), the students strongly expressed their stress over the current parking situation and requested solutions. Challenges included insufficient spaces/full lots, circling without spots opening and the impact of tardiness to class, as well as the high cost of getting tickets if they decided to park in areas that were not open to them in order to make it to class.

Academic-Based Social Stressors

Graduate students stated that social stressors during the academic experience were also present. For instance, stressors included selecting lab partners, working on group projects, and dealing with strong personalities.

Limitations with Family and Friends

Graduate students expressed how their academic responsibilities compete with time they have for family and friends. Students may be far away from family members/friends, and finding quality time to spend with others outside of the program can be a stressor. Indeed, as it also gave them joy, finding time for travel, attend weddings, funerals, and the arrival of babies served as stressors to them as well. Furthermore, for those already in relationships, the added responsibilities of spouses and children also added to the feeling of stress, an issue also observed by some faculty.

Surviving Versus Learning

Both graduate students and faculty acknowledged the many stressors placed on the learning process. Graduate students appeared to state a continuous state of merely surviving instead of getting to learn and engage with the LLU environment to the extent they would like to due to the rigor, volume of work, and time demands of their programs. Areas contributing to the idea of surviving versus learning included time management, planning for the future/fear of the unknown, workload and performance, fear of how clinical and classroom experiences will translate into work after school, uncertainty of how to best work with novel populations in clinic, deciding between sleep and studying, and procrastinating when the stress of assignments takes over.

Medical/Mental Health Components

Graduate students expressed concerns with unexpected emergencies, anxiety, depression, and health issues while in school, along with doctors' hours (if they got sick

or needed to address other health concerns) often being during class time. Professors further stated their efforts to refer graduate students to appropriate resources. However, this requires students taking the time to meet with faculty by seeking them out, or faculty intuitively noticing a concern/requesting a student meeting. Thus, it is likely not possible to know of every struggling student and their needs. See Table 5.

Table 5. Stressors category/theme with proceeding sub-themes and examples.

Sub-themes	Examples
Financial burden	"But um, we could start with like financial stressors, because I know, um, even myself, and I know other students have been in a situation where they didn't even really have enough money to, like, buy enough groceries. And for me, like I have to buy enough groceries for me and my family, 'cause I have two kids. So and my husband um, and so even though we have like a little bit of help, we, like sometimes I would rather just like not eat, and then my kids could eat like the whole dinner rather than me. So I just like wouldn't eat, and I would make their dinner, and I would just like drink water or something." –PT student
	"Yeah, it was just something that she said that popped up to me when she was like, you know, financial is a huge stressor for all of us. And I think this quarter, personally, um, it hit me hard. And so I started to pick up different jobs, like, I was Uber-ing, I was making [inaudible], and I just took on a new job . . . And it's not, it's not demanding, but I have to be up til 1 a.m. And that's kind of stressful. And, um, cause then I lose sleep and stuff. But I think I kind of ... my grades kind of, um, suffered this quarter, because I was juggling all of that. But I think, um, just learning to put school first, cause I am here for school, and like, money will come later. And, uh, yeah like, I think I was just so focused on like, trying to, like, keep up with my bills and stuff that, um, I kind of fell behind." –PT student
	"Oh big one? . . . Finances." –OT faculty
Parking	"Parking is a nightmare. Today, I came in early, and they blocked out an entire section for a special event. Um, and so, that's like an added t - ten minutes just trying to find parking, if you're lucky. (Group member: Sometimes 20 minutes.) [Crosstalk] And then actually walking to our classrooms. So, that's valuable time we could be doing relaxing even, working on homework. So, I don't know really what we can do about parking." –CMSD student
	"Cause, um, piggy backing up on the parking. Cause it's not just allied students, it's all over the campus --- dental students, med students - (Group member: Yeah, nursing students.) They all struggle and stressful, especially in the morning time because I, I've heard several dent students, med students, the, you know, the complex? Centennial Complex, when they come like, at least five minutes late, or like, on time, they can't park in Centennial, so they have to park in the street, and they get tickets. But they have to park knowing that they're going to get tickets,

Sub-themes	Examples
	because they're, they can't be late on the exam or something. Especially the exam day. And they just park there, 80 dollars, 100 dollars ticket. Have to go, have to go. There's so many incidents like this, so I was thinking, Loma Linda can do something about this, I'm sure." –PT student
Academic-based social stressors	"I kinda want to go out on a limb and add kind of a crazy one, but social stressors on campus are a big one for me. Um, I think there could be at least one or two other people in my shoes. For example, like, when we go into lab. Sometimes I just have to work with a person that I've been working with, because that's the social norm. I don't get the best practice that I could get. I don't make the best use of my time, and it's because I don't know if I can approach someone else and ask them if they'll work with me, if they even want to work with me." –PT student
	"Um, I feel like sometimes I'm talked over a lot, and I mean even when I voice my opinions sometimes it's not heard. And so I don't know if there's some way, you know, we could talk about, you know, ways to work on group projects or [crosstalk]. Well, I've worked on several group projects with strong personalities and it's difficult, um, because I don't want to offend them you know, and I'm gonna be in the program with them for the next three years, so I want to have a good relationship. But, um, it's like really a difficult, challenging aspect." –OT student
	"So other stressors, relationships with classmates. Sometimes we as faculty don't always hear until after the fact when they've graduated. Then the student will say, you know um, 'I wanna share with you about what happened in the class.' And my heart hurts, because I wish they would have said something beforehand." –OT faculty
Limitations with family and friends	"Yeah. And then sometimes when you're like, stressed with school. Like, you take it out like, on your like, relationships outside of school, which is never good either." –CMSD student
	"You know, another one, like, to go along with that, is having to say no to friends who want to hang out . . . And like, when you say, no to someone, like to hang out, and then you go and study, and then you're in a bad mood. So like, go back to your studying (laughs). I don't want to be here! I want to go hang out!" –PT student
	"Um, one of the bigger stressors for me is like, being so far away from my family. Which is fine, like, I've been away, but it's still like, a lot of my friends are getting married right now, and it's like, I can't be there to, like, help

Sub-themes	Examples
	them. Or I'm not just ... I have to call them instead of just like, be there. Or like ... and my little cousin just had his first birthday, so they're doing all these things, and I can't be there. But it's fine; it's just like another stressor, like, yeah." –PT student
	"I think the relationship aspect is my biggest stressor sometimes, and I know that some of us here are not from here, but I think it's, um, when I'm here, and I'm in school mode it's oftentimes difficult for me to like take myself out of that, so even on the weekends I'm like, 'Oh like this week would be a good time to like connect, like reconnect with my family or my friends that are back home.' But I feel like I'm constantly doing other projects or things, or a lot of my socialization happens in these group projects; it's like I get home call my mom right now, like um, and so I think the relationship aspect I think has been the hardest thing for me to juggle within it, of like making time for all those other important aspects of my life. And so I think that's where we talk about the wellness is, you know, I think, you know, school is prevalent and then there's all these other aspects, but I feel like I'm constantly thinking that I'm like, um, forgetting about them, or I'm like neglecting them. Um, and so it's, that's, I feel like that's been the biggest stressor for me is, you know, making time for other people outside of the program, I guess." –OT student
	"Where we end up having to encourage our students is, those people that were important to them before they started the program need to be important to them when they graduate. So if they're married we want them to still be married when they graduate. Um. You know, how often are they calling their parents, their grandparents? So, I think the university does a good side on the social. But I think there's still more that we have to encourage our students to do outside." –PT faculty
Surviving versus learning	"I feel like everybody like ... Like, school in itself, like, in the grad program itself is so like, you know, taxing and just like, there's so much you have to do. But then we all, I think we forget that we all, like, each of us have our own like personal stuff that we're going through too, and it can, obviously, like make these problems, or like, everything seems so much bigger that, you know? So, I just feel like just everything is stressful." –CMSD student
	"Oh I was going to add also, like, a lot of stress we put on ourselves of like, pressure of our performance. And kind of, always thinking, how am I gonna be in the clinic some day? Like, I know me and my classmates will kind of joke about that, but it's a serious stress sometimes to think like, how is this gonna transform into this? So I think

Sub-themes	Examples
	just the pressure you put on yourself to be successful and, I don't know. The stress in itself." –PT student
	"Um, yeah another stressor I think for me, and I think it's what you make of it, but sometimes the focus, uh, educationally is like passing or like getting stuff turned in that you, um, the focus is not so much on learning, unfortunately. Um, but I've noticed it in my own life and I know - like I said, it's what you make of it, like you can always like take more time to learn and focus, but sometimes, you know, it's just we're so busy, and there's so many assignments due; it's like let's just get this done, turn it in. And you forget like, 'Wait, what was that assignment for? What did I learn?'" –OT student
	". . . I work on top of school and so trying to, you know, manage school and work is hard enough without, um, making sure I'm getting exercise, and I'm getting self-care. And so sometimes I think that you know I'm not, I'm not really sure what a solution to that is necessarily, but it does get really overwhelming when you're living hour to hour as opposed to like actually enjoying your time. And, um, focusing on the learning aspect as opposed to like, 'Okay, I've got to get this done otherwise I'm gonna fail.'" –OT student
	" . . . a lot of us are in like, either married, not all of them, but a lot of students here are married, or they have kids, and then some of them working too and, um, like to me I have to literally write down everything in the morning on little sticky notes. Like 7:30-8:30. 8:30-9:00 I'll do this. Like literally I have to cut like separate it hourly. So I can actually finish whatever I planned today. If I don't do it today then it, I can't do it tomorrow, because it's too late. So time management is really like difficult and sometimes I have to actually, I can't go to the gym today. I want to go, I should go, but I can't go, because I have this work, this work, and this work I have to finish today. So I think that's like the biggest stressor that I need to deal with. Time management." –OT student
	"The biggest stressor is the workload. Um, they have nine credits of academic coursework every quarter, plus a clinical experience every quarter. A different one every quarter. Um, plus um, problem-based learning is stressful, because if you, if you've just got one course, fine, but if you've got three, and you're doing research and learning issues for all three of them. That, that puts a load on you. Um, those are the things I hear the most. Um, and then of course there's Graduate Portfolio, they've got all, all year. (Laughs). There's a lot of things going on. And so it's intense." –CMSD faculty

Sub-themes	Examples
	"Well, being on a quarter system, it's just full on all the time, so they're like constantly preparing for exams, assignments, and all that, so just the sheer load of content they need to get through. So that would be their stressor." –OT faculty
	"Because honestly, if a whole cohort of students came to us, and said, 'We're just, we're not getting anything this quarter, because it's so overwhelming,' our - our goal is for them to be great clinicians. Not to break them." –PT faculty
Medical/mental health components	"Um, so like, medical issues. I think that's a big, um, stressor. For me at least. And like, a lot of people don't know this, but I have really bad anxiety, so dealing with anxiety . . . and then dealing with other medical issues, at least for me, it's really hard to balance that and . . . it's hard to balance schoolwork because I, I am in pain. I'm trying to be positive, but I am in pain. So it's hard to, like, I just want to sleep it off. I don't want to deal with it. But it's hard to do that. And so, like, I find myself not motivated to do schoolwork . . . So like, things just pop up randomly in your life and you're like, 'What in the world is going on? Why is this happening?' So I think, like, tying with what [other participant] was saying. The stressors of life, cause life doesn't stop." –PT student
	"What I tell students is, we don't try to pry into their personal life, but we do know what goes on outside of school has a big impact on what happens here. And so faculty are pretty attune to, if we're seeing somebody that's not acting like they normally do, um, they'll kind of probe a little bit to see if they need some help. And then if they do we refer them to counseling or just talk or whatever." –PT faculty

3. Resources

Mind, Body, and Spirit

The graduate students stated utilizing various services offered by LLU, including the Drayson Center exercising with friends, Bible study, dorm talks, Sabbath rest, expressing the helpfulness of the PT lab spaces having exercise equipment and a kitchen to access, and seeing a counselor/psychologist/psychiatrist. Faculty also mentioned similar resources that are available to students. Even with ample availability of resources, students noted that finding time during a rigorous program was more of a reason why they would not use what was available.

Support from Professors and Classmates

Also expressed, was the resource of professors and classmates from having mentorship during programming to practice skills (e.g., Horses and Lambs as well as Street Medicine) to checking in with professors who listen/care/share/guide to mentors from cohorts ahead who offer advice to classmates who share experiences. Further, indirect influence from professors through Canvas and using assignments in a meaningful way along with remembering to ask the why of learning were other expressed components. Professors alluded to students seeking guidance from them or other faculty members as well. See Table 6.

Table 6. Resources category/theme with proceeding sub-themes and examples.

Sub-themes	Examples
Mind, body, and spirit	"Um, I know in the under grad program, they made a, they gave us like, a list of things we could do. And one of them was visiting the, I guess it's a psychiatrist or a psychologist or something. So, I did that and I only went that one time. But I actually did find it helpful. I should have went back, but I haven't had time, but because like, I don't have anything in general that was bothering me. Just, you know, just life in general. He just gives you like techniques like, breathing or just different ways to look at things. So, sometimes something stressful doesn't seem as stressful. That was good. I, I recommend it to others." –CMSD student
	"I like that the Drayson is so close and offers free classes. That's been a really, um, good way I think for me to de-stress after school. Is just to go and work out, (laughs). And bring that balance in life, um, but I like that it's so accessible and it's free for students." –OT student
	"I feel like we as a department, and probably because the school is helping to foster this we're trying to promote balance in students. Balance with the areas that you said --- body, mind, and spirit. That's really ... what we've been encouraging our students to do. –CMSD faculty
Support from professors and classmates	"One more thing I thought of too that has been helpful for my learning is participating in Street Medicine and Horses and Lambs. Because it's kind of been like some real-life application, with like, professors around and, um, mentors. So I came straight from undergrad, so I don't feel like I had a ton of pre-exposure to working in a PT setting, so being involved in those kind of, um, programs, has really like, helped me start to become confident being around patients and stuff." –PT student
	". . . I really appreciate the interest that, um, the teachers in our department take in our education, but also you know, are there to listen to us and talk to us about other things going on. 'Cause I know that I had it, some bad experiences in undergrad with teachers who just didn't care. And, um, and so it's nice to be here and be like, 'Oh I can talk to you about whatever it is that I need, and you'll be there to listen.' Um, and I also appreciate the mentorship of the second and third year OTs. Um, being first year is, you know what to expect for the next couple quarters and different classes and, um, yeah, I appreciate that." –OT student

4. Recommendations

Communication to Increase Awareness of Resources

Graduate students expressed uncertainty of available resources for aspects such university sponsored service trips, mission opportunities, and basic resources such as cafeteria discounts. Many felt that these were not well explained and/or advertised/clearly spelled out. An optimal method of organizing resources was noted to be an area that would be helpful to reduce the challenge of trying (with difficulty) to find available resources on LLU's website which many found hard to navigate. Furthermore, SDA resources were requested to be openly discussed without the fear of offending. Finally, the need to be present at orientation was requested as a way to increase resource awareness.

Interprofessional Opportunities

A desire to learn alongside their medical profession peers across the campus was expressed by graduate students in all three departments. A recent introductory workshop regarding interprofessional education offered by the School of Allied Health was mentioned to be nice, but not enough. Students referred to programming from other universities that utilized a collaborative approach throughout the academic experience. A student mentioned knowing her own cohort very well, but not others. A faculty member also expressed the need to demonstrate faculty support across departments and provide labs where students can learn together prior to collaborating after graduation.

On-Campus Needs

Finally, graduate students expressed various on-campus needs that included: parking, greater and more flexibly offered healthcare accessibility on campus (challenging to get in for an appointment right away), providing information on Seventh-day Adventist culture for those entering from other faiths/beliefs, accessibility for mental health services (off campus, while more private, creates difficulty to attend for some), the need for stress management/coping seminars, further incorporation of mindfulness, longer hours to buy food on campus, and the need for departments to have their own space/building with updated equipment. Likewise, faculty mentioned space limitations that may hinder optimal wholeness. See Table 7.

Table 7. Recommendations category/theme with proceeding sub-themes and examples.

Sub-themes	Examples
Communication to increase awareness of resources	"Um, well, I know when I first got here, I didn't know anything. Or like, how the cafe worked or anything. And I know, um, School of Allied Health has a big orientation, but like, we don't go to that. So I felt like we just didn't know. We had to learn it all and like, they didn't tell us like, that we get a student discount in the cafe, or anything. (laughs) So it's just like little things like that that they didn't tell us, and it's like, it would've been nice to, you know." –PT student
Interprofessional opportunities	"Just like, for interdisciplinary workshop, it's a good intro, like, that we get to work together. But then we never really get to see how we work together until we start practicing, and then it's like, okay. I know what you do, kind of, not really." –PT student
	"Sometimes, um, I would just like, to like be part of like, more like, whole school events. I feel like, um, there's a lot of, like, bonding between, like, programs, but then you don't really meet people outside your program as much." –CMSD student
	"One thing I wish that ... I had wished, I wish we had more collaboration with like, the other schools. Um, I think that would be really awesome, since we all are here. But you still don't really get to know them. I can't just ... I don't know what you would do, but something (laughs)." –PT student
	"Um, there's one thing I wanted to mention as far as, um, not something that we technically need but what I would like to see, like some type of collaboration with the different schools. Because I mean this is a medical school, and we're gonna be working with different disciplines, you know, out in the field so I don't know, I would like to see something where we're collabing with the School of Medicine or School of Dentistry or, you know, something." –OT student
	"I mean look, we have PT and OT. I mean, we should be, we should have lab groups that meet together. Honestly. On a regular basis . . . why would that not be? Why - we don't have to put ourselves in silos, and then, 'All right, now you're out of school, go work together!'" –PT faculty

Sub-themes	Examples
On-campus needs	"Um, I'm personally not SDA, but . . . so this is, coming to Loma Linda was the first exposure to the SDA community. Um, so I feel like I had to ask a lot of questions amongst my friends just to get a better understanding, and I think, I, it would be nice if Loma Linda could kind of just, kinda have an intro course to, to people you know who are kind of like me who don't really know much about ... Because I know when I first came into this university I was a little nervous, because I don't want to offend anyone. Like what if I drink coffee, and it's just gonna come off like a really bad way. It was, it was, you know, just you think about it, because you don't want to come off that way, but um, yeah just would have been nice to feel more comfortable, (laughs) coming in." –OT student
	"Um, mine is like a completely different thing, (laughs) but I think for overall wellness I, I personally, I don't know, probably other people too, um, it would probably be helpful to have more of like the counseling service. I know we have it, but it's not even on campus. No, it's not, it's by Stater Bros. It's pretty far. Like just to be a little open, like my first year I went through a very hard time in my transition being here. And, um, the people on campus that I did go to kind of, I felt didn't help me and kind of just were like, 'Oh, just go to counseling services.' But I know most people have cars. But I'm not from here. I don't have a car, and I, I don't plan on staying so I don't, there's no point in me getting a car. Um, so to physically get to those kind of places it's really hard, and like I saw like professors or like they'd like refer me to like go, maybe go see like a chaplain to talk to that, but like I would kind of just go in circles. And I felt like in a way I kinda just had to get through it myself and like just working through it personally and just with my friends and kind of just pushing through it, even like just going through that like depression phase." –OT student
	"I forgot to mention something that I think i[s] very important and needs to be changed about the health office. I've been going through some medical issues and there is NO walk-ins, and I have to wait days to see the doc. I think that needs to change." –PT student
	"Like you said, like how you feel like ... the PT labs, Centennial, Randall, like ... I know a lot of my classmates complain that (coughs) that um, with PTs, we don't have like a designated building. We're just kind of tossed wherever. Like, spaces are available to us, and like we're just everywhere. And so it's kind of inconvenient. So if we could have a physical therapy building that would be nice too (laughs). Just better projectors in Randall, too. Cause they're old." (Group member: ". . . They're always breaking"). –PT student

Sub-themes	Examples
	“Well, and I - look- my - my class is in Randall. And you go into this bunker, and there's these seats, I want to fall asleep as soon as I walk in there. So I'm already tired, and my job is to keep you engaged and interested . . .” –PT faculty
	“But, but I think, I, I think it's important for us, in any decisions that we make in the university, we should consider the students first . . . and to meditate and, and, and experience their spirituality and all of that. We've gotta have space for that.” –CMSD faculty

CHAPTER EIGHT

DISCUSSION

Overview of Chapter Eight

Overall, chapter eight will examine five aspects. First, meta findings for the current study will be addressed based upon specific aims and hypotheses. Second, modifications from the original proposal will be discussed. Third, dissertation strengths and limitations will be addressed. Fourth, implications for higher education and clinical therapy services will be examined. Finally, recommendations for future research will be outlined.

Meta Findings

In addressing the first specific aim for qualitative faculty key informant interviews, our hypothesis was partially met. While faculty overall mentioned positive expressions about the wholeness and learning environments at LLU's SAHP, they also appeared to feel the weight of the responsibilities associated with LLU's wholeness definition, seeing wholeness as an ideal but challenging to optimally achieve. Collectively, faculty appeared to be in tune with the majority of student stressors. Faculty expressed attempts to incorporate positive wholeness/learning environments from opening their door outside of class to incorporating prayer/inspirational thoughts to encouraging physical activity, joining students in mission service, and providing resources, etc.

Besides conceptual input, faculty provided minor corrections for the quantitative

survey for phase two and importantly also offered their agreement for the relevance of our research. Adjustments were made/approved through IRB after the combination of feedback from faculty and the pilot test with O & P students.

The second specific aim addressed the students' perspectives within the quantitative focus groups. Findings revealed four major themes with sub-themes including: 1) Wholeness with themes of a) Interactions/personalized care at LLU, b) Appreciation for spirituality, c) Reaching out to others, d) Whole person health focus, and e) Barriers to wholeness; 2) Stressors with themes of a) Financial burden, b) Academic-based social stressors, c) Limitations with family and friends, d) Surviving versus learning, and e) Medical/mental health components; 3) Resources with themes of a) Mind, body, and spirit and b) Support from professors and classmates; and 4) Recommendations with themes of a) Communicating to increase awareness of resources, b) Interprofessional opportunities, and c) On-campus needs. The second hypothesis was met with overall positive perceptions about faculty's attempts to provide wholeness and learning climates all stated stressors identified in the data (with additional stressors also discovered). Resources and recommendations were further noted by the graduate students.

The third specific aim did not have a formal hypothesis, as analyses were explorative. We discovered that for satisfaction with life's final model, the statistically significant demographic (control) variable included race/ethnicity. Specifically, individuals who reported a race/ethnicity of being Asian (as opposed to White) were found to have reduced satisfaction with life. For burnout/disengagement's final model, individuals who reported a race/ethnicity of Hispanic/Latino(a) or other/mixed race (as

opposed to White) perceived to have significantly less burnout/disengagement. For burnout/exhaustion, while initially the department was significant for CMSD, as mental health factors and coping mechanisms were added, no significance was noted for any of the demographic variables. For well-being, while initially having a religious affiliation was positively associated with well-being, as the models built starting with adding wholeness and learning climates, no demographic variables were then significant.

The fourth specific aim addressed the impact of wholeness and learning climates on the dependent variables. The hypothesis was partially met, as both wholeness and learning climates were significant in the final models for burnout/disengagement. However, for burnout/exhaustion, learning climate (but not wholeness climate) was significant. For well-being, learning climate was significant throughout, whereas wholeness climate was initially significant, but when variables associated with positive coping mechanisms (e.g., grit, resilience, and spirituality/religiosity) were added, wholeness dropped out and only learning climate remained to be significant. For satisfaction with life, learning climate was never significant, whereas wholeness climate was significant until the positive coping mechanism variables were added. All directionality was as predicted.

The fifth hypothesis about mental health measures was also partially met. Depression was initially significant for burnout/disengagement, but fell out when positive coping mechanisms were added. For burnout/exhaustion, both anxiety and depression remained significant across all models. For satisfaction with life, depression was initially significant but then dropped off, while stress was consistently significant. However, depression continued to be significant for well-being as the models built. Directionality

was as expected for the significant mental health variables. In summary, mental health matters, and results call for improved mental health support on campus.

The sixth hypothesis about grit, resilience, and religiosity/spirituality was also partially met. Grit and spirituality/peace were significant for burnout/disengagement, and spirituality for peace and faith were significant for burnout/exhaustion. Spirituality/peace was significant for well-being. Spirituality for peace and meaning were significant for satisfaction with life. Directionality was as hypothesized with the exception of spirituality/faith for burnout/exhaustion. Spirituality (in some form) was significant for all final models of satisfaction with life, burnout, and well-being.

For the final and seventh hypothesis, we compared mental health variables to resilience, grit, and spirituality/religiosity, assuming that mental health factors would have a stronger influence on outcomes. While anxiety was at a greater significance than the other variables for burnout/exhaustion, the hypothesis was not met for the other DVs. Also, at times, when the positive coping mechanisms were added, previously significant mental health variables would lose their significance (as further outlined above).

Modifications from the Original Proposal

Noted changes from the dissertation proposal included that the second year CMSD students and third year OT and PT students were unable to participate in the focus groups due to clinical rotation scheduling as part of their academic programs at the time of year focus groups were conducted. Also, the focus group participant number for CMSD students, at five, was just shy of the original goal of participating students for the focus group, though still within the anticipated range of three to six students per cohort.

While additional recruiting efforts were made through contacting previously interested students and making live announcements, a greater number of CMSD participants for the focus group was not able to be obtained, mainly due to the clinical rotation schedule. Additionally, the data analytic plan changed from the proposal. Hierarchical multiple regression was utilized versus the originally anticipated MANCOVA + mediation/moderation combination. Through committee insight, hierarchical multiple regression appeared to be the most effective way to tell the data's story for the purpose of the dissertation.

Strengths and Limitations

Strengths of the study include reaching saturation in our qualitative inquiry quickly with the planned focus groups. Additionally, with a participation rate of nearly 85% of all eligible students for the quantitative survey, expectations for sample size were exceeded. The combination of variables also offers a novel examination of variables from past literature, while still reviewing familiar concepts and meeting a pertinent need to further explore a meaningful component of higher education. Finally, results have the potential to inform policy and programming at LLU's SAHP, as well as more broadly for other health science programs.

Limitations of the study include four main points. First, both the qualitative and quantitative portions of the current study are specific to LLU and the three allied health graduate programs. Therefore, the study is not generalizable to the larger population. Nonetheless, it may provide valued insights to guide LLU policy and other universities in their future program to address student health and burnout. Second, being that the

programs examined are clinical in nature, student participation was limited for selected cohorts due to affiliation/fieldwork/clinical rotation schedules. Timing did not allow us to avoid this aspect when collecting qualitative data. Third, the current study was cross-sectional in nature, thus limiting causality. However, the current study drew inspiration from Busteed's (2016) article, which examined the long-term impact of well-being in relation to behavioral economic variables of student perceptions while attending a university. Thus, the current study was only able to examine current perceptions associated with well-being instead of future outcomes. However, a baseline was still needed and may serve to guide future research. Fourth, the quantitative portion of the study was anticipated to take up to 30-40 minutes to complete, and it took longer for some (with the full survey completed, nevertheless). At times, survey administration was only able to be offered at the end or after class (for PT), thus some students did not wish to stay on their own time to participate. Several students (primarily for the PT year two cohort) did not attend class the day surveys were administered (close to Thanksgiving break), and were thus unable to be reached for study recruitment.

Implications

Dissertation implications relate to higher education for graduate students in allied health and the associated provision of therapy services. Overall, our qualitative as well as our quantitative findings agree with the literature on the critical need to prevent burnout, foster well-being, and strive toward healthy life satisfaction (Bolghan-Abadi, Ghofrani, & Abde-Khodaei, 2014; Flynn & MacLeod, 2015; Lian. Sun, Ji, Li, & Peng, 2014; Rubin, Evans, & Wilkinson, 2016; Sabariego, Al-Kudwah, and Cieza, 2015; Teh, Archer,

Chang, & Chen, 2015; Williams, Mueller, Carroll, Cornwall, Denney, & Kronegerger, 2018).

Qualitative results reveal a need to both applaud the efforts that are making a difference for LLU graduate students and work toward positive change through viewing faculty and students as stakeholders in the process. Specific areas to address are outlined in chapter seven. Quantitative results of the dissertation reveal that, for the current population, promotion of life satisfaction is best achieved through targeting higher education and clinical/workplace programming related to spirituality and stress reduction; for well-being – reducing depression, increasing positive learning climates, and spirituality; for burnout/disengagement – optimizing the wholeness and learning climates, fostering grit, and spirituality; and for burnout/exhaustion – spirituality, reducing anxiety and depression, and promoting a positive learning climate. We recommend implementing needed, accessible programming early and updating information/continuing to provide support through the ever-changing stages of the programs in order to provide coping strategies and limit negative factors for both academic learning and later optimal patient care. Thus, the need to promote policy in advocacy of mental health/offering healthy coping mechanisms, incorporation of spirituality/religiosity as appropriate, teaching skills for grit, supporting positive learning and wholeness climates all while valuing diversity and working together to achieve classroom and clinical goals alike are recommended.

Results connect to our selected theories in that Busteed's (2016) adapted well-being measures community engagement, a component of Student Involvement, and our data appear to support the expressed postulates (Astin, 1999). Furthermore, social constructionism is an important lens, as answering survey, key informant, and focus

group questions may be influenced by socially constructed “correct” ways of responding (Berger & Luckmann, 1966). Discussion of social constructionism also offers hope for legitimizing new truths for graduate education that support well-being and satisfaction with life.

Future Research

Recommendations for future studies include continuing to examine the role of our study variables of wholeness and learning climates and their covariates of stress, anxiety, depression, resilience, grit, and spirituality/religiosity on burnout, satisfaction with life, and well-being. Further exploring such variables is recommended in a broader variety of university settings/students. Also recommended is the development of a more generic wholeness questionnaire (versus one specific to the university at hand) in order to continue to assess the impact of striving for a wholeness-focused graduate school environment. We feel that our study has allowed us some insights that could inform and further intentionalize ongoing efforts to better serve students in their education without risking burnout or poor quality of life. Finally, we recommend to routinely provide opportunities for discussion across campuses to better learn the needs of students, staff, and faculty for optimal short and long-term impacts.

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Appendix A Redacted

APPENDIX B

SEMI-STRUCTURED QUALITATIVE KEY INFORMANT INTERVIEW FOR FACULTY

Objectives of the Faculty Key Informant Interview

1. Discover how faculty perceive the learning (including emotional support and experiential learning) and wholeness climates at LLU with respect to students' burnout, life satisfaction, and well-being.
2. Identify if faculty feel that a university such as LLU where wholeness is ingrained within the philosophy of the school makes a difference in the students' learning experiences.
3. Discover what techniques to embrace positive learning and wholeness climates are currently being utilized.
4. Note recommendations by the faculty to further improve upon the learning and wholeness climates to foster optimal student success.
5. Gain recommendations for the phase two survey.

Faculty: Semi-Structured Key Informant Questions

1. One area of interest within this research is how the learning and wholeness climates of LLU ultimately impact students' burnout, well-being, as well as perceived life satisfaction. How would you describe the learning climate at LLU? The wholeness climate? (Define/prompt as appropriate.)
    a. Prompts:

i. Learning climate = Environment for learning including emotional and experiential learning components

ii. Wholeness = “Wholeness means the lifelong, harmonious development of the physical, intellectual, emotional, relational, cultural, and spiritual dimensions of a person's life, unified through a loving relationship with God and expressed in generous service to others" (as cited in “University Philosophy,” 2013, para. 2).

iii. Positive versus negative aspects

2. Do your students have the opportunity to work on long-term projects (2+ quarters) while in the program? If so, what project/s?
    a. Prompt:
        i. Example: OT and research
3. All students are involved in fieldwork or internship opportunities, correct? What does that look like for your department?
    a. Prompt: Per LLU, service learning is different than volunteering, though it enhances the process. Service learning involves collaboration with the community in which both the students and the organization benefit. Additionally, students may purposefully reflect upon the experience (“Service Learning at Loma Linda University,” 2017).
        i. Example: OT and Level 1 + Level 2 (two, 3-month placements)
4. What service learning opportunities are available to your students, and is service learning required for the program?
    a. Prompt:

i. Service Learning Definition:

5. What are some common stressors that you feel our students face?
    a. Prompt:
        i. Personal, academic, etc.
6. "To make man whole" is deeply ingrained into LLU's philosophy. Do you feel our philosophy on wholeness makes a difference in the students' learning experiences?
    a. Prompt:
        i. Through education, research, provided health care, missions, etc.
7. What techniques are you/your department currently utilizing to foster a positive learning and/or wholeness climate?
    a. Prompts:
        i. How do you feel we're incorporating promoting wholeness within the curriculum?
        ii. How do you encourage whole person care of students?
        iii. How do you make the students feel excited about learning?
        iv. How do you make the students feel that they are cared for as a person?
        v. What do you do to provide mentorship for students to achieve goals and dreams?
        vi. How are students encouraged to participate in extracurricular opportunities?

8. What recommendations would you offer to our school in order to best foster positive learning and wholeness climates?
    a. Prompt:
        i. Ideas, aspects that have worked for you in the past, etc.
9. For our next research phase, we'll be conducting a survey that incorporates elements we've discussed today. Do you think this survey (provide hard copy) encompasses the purpose? Any further suggestions?
    a. Prompt:
        i. Show diagram of elements variables involved to further explain.
10. Anything else you'd like to add? Thank you for your time and responses.

APPENDIX C

SEMI-STRUCTURED QUALITATIVE FOCUS GROUP QUESTIONS FOR STUDENTS

Objectives of the Student Focus Groups

1. Discover how students perceive the learning (including emotional support and experiential learning) and wholeness climates at LLU with respect to burnout, life satisfaction, and well-being.
2. Identify if students feel that attending a university such as LLU where wholeness is ingrained within the philosophy of the school makes a difference in their learning experiences.
3. Discover what techniques the students perceive are being offered to them, or that they naturally utilize, that embrace positive learning and wholeness climates.
4. Note recommendations by the students to further improve upon the learning and wholeness climates to foster optimal program success.
5. Clarify findings from the survey.

Students: Semi-Structured Questions

Note: Will intro self, purpose of the group, sign consent, offer food or incentive, etc.

1. Will everyone please introduce themselves with your name, program, and year of the program?
2. One area of interest within our research is how the learning and wholeness climates of LLU ultimately impact students' burnout, well-being, as well as perceived life satisfaction. How would you describe your experience thus far of

the learning climate at LLU? The wholeness climate? (Define/prompt as appropriate.)

   a. Prompts:
      i. Learning climate = Environment for learning including emotional and experiential learning components
      ii. Wholeness = “Wholeness means the lifelong, harmonious development of the physical, intellectual, emotional, relational, cultural, and spiritual dimensions of a person's life, unified through a loving relationship with God and expressed in generous service to others" (as cited in “University Philosophy,” 2013, para. 2).
      iii. Positive versus negative aspects

3. What are some common stressors that you and/or classmates face that you feel comfortable sharing?
   a. Prompt:
      i. School-related, personal, relationships, work, etc.
4. “To make man whole” is deeply ingrained into LLU’s philosophy. Do you feel our philosophy at LLU on wholeness makes a difference in your learning experiences?
   a. Prompt:
      i. Through education, research, provided health care, missions, etc.
5. Do you feel excited to be learning?
   a. Prompt:
      i. What makes you feel alive when learning?

6. Do you feel that your professors care about you personally?
    a. Prompt:
        i. What ways have your professors shown they care (or have shown the opposite)?
7. Do you feel like you have a mentor who encourages your goals and dreams?
    a. Prompts:
        i. In what way are you mentored?
        ii. How do you feel like your goals and dreams are valued?
8. Are you involved in extracurricular activities? If so, which ones?
    a. Prompt:
        i. Example: Student association, Horses & Lambs, Student Occupational Therapy Association (or related student-run professional club, student officer, etc.
9. What are you doing as a student to seek out opportunities to get involved on campus?
    a. Prompt:
        i. Extracurricular, support, etc.
10. What techniques are currently being offered to you to help foster a positive learning and/or wholeness climate? Additionally, what are techniques that you naturally incorporate yourself to foster a positive learning and wholeness climate while attending LLU?
    a. Prompt:

        i. Aside from the info previously discussed: learning resources, self-care resources, wellness components, etc.

11. What recommendations would you offer to our school to best foster positive learning and wholeness climates for your optimal success?
    a. Prompt:
        i. Ideas, aspects that have helped you in the past, etc.
12. Clarify findings from the survey. (Note: Questions will vary based on the student responses and discovered outcomes after the analyses are run. Further note: Directly clarifying survey data were not utilized for triangulation purposes.)
13. Anything else you'd like to add? (Thank everyone for his or her time and responses.)

APPENDIX D

IRB APPROVED INFORMED CONSENT FOR PHASE ONE FACULTY KEY INFORMANT INTERVIEWS

LOMA LINDA UNIVERSITY
School of Behavioral Health
Department of Social Work and Social Ecology
1898 Business Center Dr.
San Bernardino, CA 92408
Phone: 909-379-7594, Fax: 909-379-7594

INFORMED CONSENT
Phase One – Faculty Key Informant Interviews

TITLE:	EXPLORING WHOLENESS AND LEARNING CLIMATES AMONGST ALLIED HEALTH PROGRAMS AT A RELIGIOUS UNIVERSITY
PRINCIPAL INVESTIGATOR:	Susanne B. Montgomery, MS, MPH, PhD *phone* 909.651.5881 (Griggs), (909)-558-9586 (BHI)

1. WHY IS THIS STUDY BEING DONE?

The study is being conducted by the student investigator for academic credit. The purpose of the study is to find out what the current wholeness and learning environments are like for speech language pathology, occupational therapy, and physical therapy entry-level programs at Loma Linda University (LLU) as well as how life satisfaction, well-being, burnout, resilience, grit, stress, anxiety, depression, and religiosity/spirituality are associated.

The rationale for this study is that providing an education that includes wholeness (and thus, a positive learning climate) is at the heart of LLU's mission and may increase students' success academically and even within their future careers. Therefore, a need exists to discover how the university is implementing elements of the mission as perceived by the students with initial input from faculty. Results may help provide feedback to guide university policy related to optimal wholeness and learning climates.

You are invited to participate in this research study, because your insights are valuable, and you represent the Department of Communication Sciences and Disorders, Occupational Therapy, or Physical Therapy as a faculty member.

Loma Linda University
Adventist Health Science Center
Institutional Review Board
Approved 9/18/17 Void after 9/3/2018
5170266 Chair

2. HOW MANY PEOPLE WILL TAKE PART IN THIS STUDY?

Six-nine faculty members will take part in this study phase (with up to 500 total participants throughout the study).

3. HOW WILL I BE INVOLVED?

Inclusion Requirements: You can participate in this study if you a) are 18 years or older, b) offer consent, c) are faculty within the departments of Communication Sciences and Disorders for the MS in Speech Language Pathology, Occupational Therapy for the MOT, and Physical Therapy for the DPT degree programs at LLU.

Participation in this study involves the following:

- Taking part in an audio-recorded faculty key informant interview will involve answering questions related to learning and wholeness climates at LLU as well as providing verbal and/or written feedback about the proposed phase two survey. The interview will last for approximately one hour.

4. WHAT ARE THE REASONABLY FORESEEABLE RISKS OR DISCOMFORTS I MIGHT HAVE?

Confidentiality: As with all studies, there is a risk of confidentiality/privacy breach, but risks remain minimal.

Social discomforts: While completely voluntary and with minimal risk, participating in the study may lead to feelings of obligation, boredom, and apprehension to speak.

Psychological discomforts: Some of the procedures may cause embarrassment or anxiety, or the questions the researchers ask you may be upsetting or make you uncomfortable. If you do not wish to answer a question, you can skip it and go to the next question. If you do not wish to participate, you can stop.

5. WILL THERE BE ANY BENEFIT TO ME OR OTHERS?

There are no direct benefits of participating. However, implications from findings may potentially help influence educational policy/procedures and facilitate positive learning and wholeness climates.

6. WHAT ARE MY RIGHTS AS A SUBJECT?

Participation in this study is voluntary. Your decision of whether or not to participate or withdraw at any time from the study will not affect your ongoing relationship to Loma Linda University or the researchers and will not involve any penalty or loss of benefits to which you are otherwise entitled.

Loma Linda University
Adventist Health Science Center
Institutional Review Board
Approved 9/18/17 Void after 9/13/2018
5170266 Chair

7. WHAT HAPPENS IF I WANT TO STOP TAKING PART IN THIS STUDY?

- You are free to withdraw from this study at any time. If you decide to withdraw from this study, please tell the research team immediately. The research team may also end your participation in this study if you do not follow instructions, or if your safety and welfare are at risk.
- Likewise, your participation in the study may be stopped by the study staff/investigator for any reason without your agreement.

8. WHAT OTHER CHOICES DO I HAVE?

The only alternative to participation in this study is not to participate.

9. HOW WILL INFORMATION ABOUT ME BE KEPT CONFIDENTIAL?

Efforts will be made to keep your personal information confidential. Identifying names will be removed from the typed transcripts and/or pseudonyms will be provided. All hard copies of data will be kept in a locked office-like space to secure file cabinets. Unneeded documents will be disposed of via shredding. Electronic data for audio recordings will be password protected with input from Information Support as needed to ensure security. Per the IRB stipulated time period, the data will be kept for 3 years after the study ends prior to being discarded. We cannot guarantee absolute confidentiality. You will not be identified by name in any publications describing the results of this study.

10. WHAT COSTS ARE INVOLVED?

There is no cost to you for participating in this study.

11. WILL I BE PAID TO PARTICIPATE IN THIS STUDY?

You will not be paid to participate. However, in appreciation of your time a meal and/or beverage or a $5 gift card (depending on whether or not you prefer to meet at a local eatery off campus or on campus) will be offered for your participation in this study.

12. WHO DO I CALL IF I HAVE QUESTIONS?

You may contact the primary investigator, Susanne Montgomery, at smontgomery@llu.edu or by phone at 909-651-5881. If you wish to contact an impartial third party not associated with this study regarding any questions about your rights or to report a complaint you may have about the study, you may contact the Office of Patient Relations, Loma Linda University Medical Center, Loma Linda, CA 92354, phone (909) 558-4647, e-mail patientrelations@llu.edu for information and assistance.

Exploring Wholeness and Learning Climates Amongst Allied Health Programs at a Religious University

13. SUBJECT'S STATEMENT OF CONSENT

- I have read the contents of the consent form and have listened to the verbal explanation given by the investigator.
- My questions concerning this study have been answered to my satisfaction.
- Signing this consent document does not waive my rights nor does it release the investigators, institution or sponsors from their responsibilities.
- I may contact the primary investigator, Susanne Montgomery (as listed above in #12), or the student investigator, Stacey Cunningham, during routine office hours at (909) 558-4628, ext. 47588 or by email at scunningham@llu.edu for further questions or comments.
- I hereby give voluntary consent to participate in this study.

I understand I will be given a copy of this consent form after signing it.

Signature of Subject

Printed Name of Subject

Date

14. INVESTIGATOR'S STATEMENT

I have reviewed the contents of this consent form with the person signing above. I have explained potential risks and benefits of the study.

Signature of Investigator

Printed Name of Investigator

Date

Loma Linda University
Adventist Health Science Center
Institutional Review Board
Approved 9/8/17 Void after 9/13/2018
5170266 Chair

APPENDIX E

IRB APPROVED PHASE TWO SURVEY COVER LETTER

LOMA LINDA UNIVERSITY
School of Behavioral Health

Hello,

Hope all is well! I am a Social Policy and Social Research student at LLU. My research committee and I are studying about wholeness and learning climates within the School of Allied Health Professions for the DPT, MOT, and MS in SLP programs. Additionally, we will be examining how life satisfaction, well-being, burnout, stress, anxiety, depression, grit, resilience, and religiosity/spirituality may be associated. You are invited to participate in a survey to help better understand these aspects. The survey will take approximately 30-40 minutes to complete. You will not be paid for participation. However, you are welcome to the provided snacks, and you may be entered into a $25 gift card raffle for participating as a token of appreciation. (One winner will be selected from each cohort.)

Risks: As a participant, you may be exposed to minimal risks, but no more than as during routine, daily activities. As with all studies, there is a risk of confidentiality/privacy breach. Additional risks may include feelings of obligation, boredom, and/or remembering distressing thoughts while completing the survey. Please note that Student Counseling Services may be reached at (909) 558-6050 should the need to further discuss emotions related to the study arise.

Benefits: There are no direct benefits to you. However, by participating, you potentially may influence LLU's policy/procedures and a wide-range of academic settings regarding wholeness and learning climates through the research process.

Confidentiality: Efforts will be made to keep data confidential. All hard copies of data will be kept in a locked office-like space to secure file cabinets. Electronic data for audio recordings will be password protected with input from Information Support as needed to ensure security.

Participation is completely voluntary, and you may stop at any time. You are welcome to ask questions now. Additionally, you may contact the principal investigator, Susanne Montgomery at smontgomery@llu.edu or me – the student investigator, Stacey Cunningham, at (909) 558-4628 extension 47588 or by email at scunningham@llu.edu for questions or if you'd like information about study results.

Taking the survey is considered consent to participate. You may keep this letter for your records. Thank you so much for your time, and have a wonderful day!

-Stacey

Department of Social Work and Social Ecology
1898 Business Center Dr.
San Bernardino, CA 92408
Phone: 909-379-7594, Fax: 909-379-7594

Loma Linda University
Adventist Health Science Center
Institutional Review Board
Approved 9/18/2017
5170266 Chair

APPENDIX F

IRB APPROVED PHASE THREE INFORMED CONSENT FOR STUDENT FOCUS GROUPS

Exploring Wholeness and Learning Climates Amongst Allied Health Programs at a Religious University

LOMA LINDA UNIVERSITY
School of Behavioral Health

Department of Social Work and Social Ecology
1898 Business Center Dr.
San Bernardino, CA 92408
Phone: 909-379-7594, Fax: 909-379-7594

INFORMED CONSENT
Phase Three – Student Focus Groups

TITLE:	EXPLORING WHOLENESS AND LEARNING CLIMATES AMONGST ALLIED HEALTH PROGRAMS AT A RELIGIOUS UNIVERSITY
PRINCIPAL INVESTIGATOR:	Susanne B. Montgomery, MS, MPH, PhD *phone* 909.651.5881 (Griggs), (909)-558-9586 (BHI)

1. WHY IS THIS STUDY BEING DONE?

The study is being conducted by the student investigator for academic credit. The purpose of the study is to find out what the current wholeness and learning environments are like for speech language pathology, occupational therapy, and physical therapy entry-level programs at Loma Linda University (LLU) as well as how life satisfaction, well-being, burnout, resilience, grit, stress, anxiety, depression, and religiosity/spirituality are associated.

The rationale for this study is that providing an education that includes wholeness (and thus, a positive learning climate) is at the heart of LLU's mission and may increase students' success academically and even within their future careers. Therefore, a need exists to discover how the university is implementing elements of the mission as perceived by the students with initial input from faculty. Results may help provide feedback to guide university policy related to optimal wholeness and learning climates.

You are invited to participate in this research study, because your insights are valuable, and you represent the Department of Communication Sciences and Disorders, Occupational Therapy, or Physical Therapy as a student.

Loma Linda University
Adventist Health Science Center
Institutional Review Board
Approved 9/18/17 Void after 9/13/2018
5170266 Chair

2. HOW MANY PEOPLE WILL TAKE PART IN THIS STUDY?

In this study at LLU, 18-36 students will be recruited for the focus groups within this phase (with up to 500 total participants throughout the study).

3. HOW WILL I BE INVOLVED?

Inclusion Requirements: You can participate in this study if you a) are 18 years or older, b) offer consent, c) are a student within the departments of Communication Sciences and Disorders for the MS in Speech Language Pathology, Occupational Therapy for the MOT, and Physical Therapy for the DPT degree programs at LLU.

Participation in this study involves the following:

- Taking part in a recorded student focus group concerning wholeness and learning environments as well as clarifying survey findings for approximately one hour total on LLU's campus within a private Nichol Hall room.

4. WHAT ARE THE REASONABLY FORESEEABLE RISKS OR DISCOMFORTS I MIGHT HAVE?

Confidentiality: As with all studies, there is a risk of confidentiality/privacy breach, but risks remain minimal.

Social discomforts: While completely voluntary and with minimal risk, participating in the study may lead to feelings of obligation, boredom, and apprehension to speak.

Psychological discomforts: Some of the procedures may cause embarrassment or anxiety, or the questions the researchers ask you may be upsetting or make you uncomfortable. If you do not wish to answer a question, you can skip it. If you do not wish to participate, you can stop.

5. WILL THERE BE ANY BENEFIT TO ME OR OTHERS?

There are no direct benefits for participating. However, indirectly, one may benefit from voicing perceptions, networking with peers, gaining understanding of the perceptions of others, and potentially influencing educational policy/procedures/wholeness and learning climates through eventual research dissemination. Therefore, the participants/students may indirectly benefit from positive program changes after review that we hope will be the result of our study.

6. WHAT ARE MY RIGHTS AS A SUBJECT?

Participation in this study is completely voluntary. Your decision of whether or not to participate or withdraw at any time from the study will not affect your ongoing relationship to Loma Linda University or the researchers and will not involve any penalty or loss of benefits to which you are otherwise entitled.

7. WHAT HAPPENS IF I WANT TO STOP TAKING PART IN THIS STUDY?

- You are free to withdraw from this study at any time. The research team may also end your participation in this study if you do not follow instructions, or if your safety and welfare are at risk.
- Likewise, your participation in the study may be stopped by the study staff/investigator for any reason without your agreement.

8. WHAT OTHER CHOICES DO I HAVE?

The only alternative to participation in this study is not to participate.

9. HOW WILL INFORMATION ABOUT ME BE KEPT CONFIDENTIAL?

Efforts will be made to keep your personal information confidential. Identifying names will be removed from the typed transcripts and/or pseudonyms will be provided. All hard copies of data will be kept in a locked office-like space to secure file cabinets. Unneeded documents will be disposed of via shredding. Electronic data for audio recordings will be password protected with input from Information Support as needed to ensure security. Per the IRB stipulated time period, the data will be kept for 3 years after the study ends prior to being discarded. We cannot guarantee absolute confidentiality. You will not be identified by name in any publications describing the results of this study.

10. WHAT COSTS ARE INVOLVED?

There is no cost to you for participating in this study.

11. WILL I BE PAID TO PARTICIPATE IN THIS STUDY?

You will not be paid to participate. As a token of thanks for your time, you will be offered snacks/food and a $5 gift card.

12. WHO DO I CALL IF I HAVE QUESTIONS?

You may contact the primary investigator, Susanne Montgomery, at smontgomery@llu.edu or by phone at 909-651-5881. If you wish to contact an impartial third party not associated with this study regarding any questions about your rights or to report a complaint you may have about the study, you may contact the Office of Patient Relations, Loma Linda University Medical Center, Loma Linda, CA 92354, phone (909) 558-4647, e-mail patientrelations@llu.edu for information and assistance.

13. SUBJECT'S STATEMENT OF CONSENT

- I have read the contents of the consent form and have listened to the verbal explanation given by the investigator.
- My questions concerning this study have been answered to my satisfaction.

Exploring Wholeness and Learning Climates Amongst Allied Health Programs at a Religious University

- Signing this consent document does not waive my rights nor does it release the investigators, institution or sponsors from their responsibilities.
- I may contact the primary investigator, Susanne Montgomery (as listed above in #12), or the student investigator, Stacey Cunningham, during routine office hours at (909) 558-4628, ext. 47588 or by email at scunningham@llu.edu for further questions or comments.
- I hereby give voluntary consent to participate in this study.

I understand I will be given a copy of this consent form after signing it.

Signature of Subject

Printed Name of Subject

Date

14. INVESTIGATOR'S STATEMENT

I have reviewed the contents of this consent form with the person signing above. I have explained potential risks and benefits of the study.

Signature of Investigator

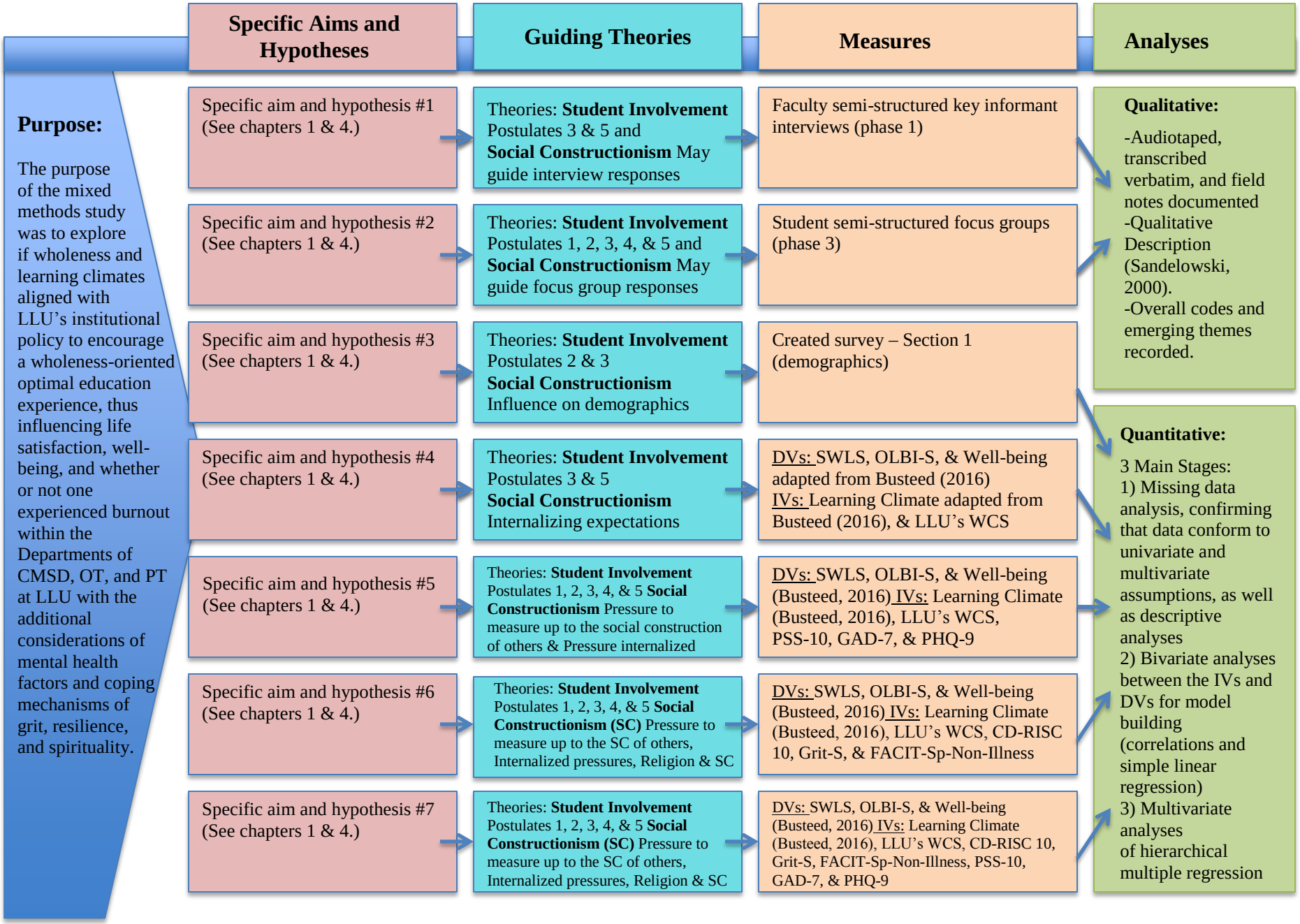
Printed Name of Investigator

Date

Loma Linda University
Adventist Health Science Center
Institutional Review Board
Approved 9/18/17 Void after 9/13/2018
5170266 Chair

APPENDIX G

BRIDGING THE PURPOSE, SPECIFIC AIMS, HYPOTHESES, GUIDING THEORIES, MEASURES, AND ANALYSES


Specific Aims and Hypotheses
Guiding Theories
Measures
Analyses
Purpose:
The purpose of the mixed methods study was to explore if wholeness and learning climates aligned with LLU's institutional policy to encourage a wholeness-oriented optimal education experience, thus influencing life satisfaction, well-being, and whether or not one experienced burnout within the Departments of CMSD, OT, and PT at LLU with the additional considerations of mental health factors and coping mechanisms of grit, resilience, and spirituality.
Specific aim and hypothesis #1 (See chapters 1 & 4.)
Theories: Student Involvement Postulates 3 & 5 and Social Constructionism May guide interview responses
Faculty semi-structured key informant interviews (phase 1)
Specific aim and hypothesis #2 (See chapters 1 & 4.)
Theories: Student Involvement Postulates 1, 2, 3, 4, & 5 and Social Constructionism May guide focus group responses
Student semi-structured focus groups (phase 3)
Specific aim and hypothesis #3 (See chapters 1 & 4.)
Theories: Student Involvement Postulates 2 & 3 Social Constructionism Influence on demographics
Created survey – Section 1 (demographics)
Specific aim and hypothesis #4 (See chapters 1 & 4.)
Theories: Student Involvement Postulates 3 & 5 Social Constructionism Internalizing expectations
DVs: SWLS, OLBI-S, & Well-being adapted from Busteed (2016) IVs: Learning Climate adapted from Busteed (2016), & LLU's WCS
Specific aim and hypothesis #5 (See chapters 1 & 4.)
Theories: Student Involvement Postulates 1, 2, 3, 4, & 5 Social Constructionism Pressure to measure up to the social construction of others & Pressure internalized
DVs: SWLS, OLBI-S, & Well-being (Busteed, 2016) IVs: Learning Climate (Busteed, 2016), LLU's WCS, PSS-10, GAD-7, & PHQ-9
Specific aim and hypothesis #6 (See chapters 1 & 4.)
Theories: Student Involvement Postulates 1, 2, 3, 4, & 5 Social Constructionism (SC) Pressure to measure up to the SC of others, Internalized pressures, Religion & SC
DVs: SWLS, OLBI-S, & Well-being (Busteed, 2016) IVs: Learning Climate (Busteed, 2016), LLU's WCS, CD-RISC 10, Grit-S, & FACIT-Sp-Non-Illness
Specific aim and hypothesis #7 (See chapters 1 & 4.)
Theories: Student Involvement Postulates 1, 2, 3, 4, & 5 Social Constructionism (SC) Pressure to measure up to the SC of others, Internalized pressures, Religion & SC
DVs: SWLS, OLBI-S, & Well-being (Busteed, 2016) IVs: Learning Climate (Busteed, 2016), LLU's WCS, CD-RISC 10, Grit-S, FACIT-Sp-Non-Illness, PSS-10, GAD-7, & PHQ-9
Qualitative:
-Audiotaped, transcribed verbatim, and field notes documented
-Qualitative Description (Sandelowski, 2000).
-Overall codes and emerging themes recorded.
Quantitative:
3 Main Stages:
1) Missing data analysis, confirming that data conform to univariate and multivariate assumptions, as well as descriptive analyses
2) Bivariate analyses between the IVs and DVs for model building (correlations and simple linear regression)
3) Multivariate analyses of hierarchical multiple regression