A PHENOMENOLOGICAL STUDY OF THE LIVED EXPERIENCES OF

EDUCATORS WHO SEEK TO RECOGNIZE AND ADDRESS

ACADEMIC STRESS IN SECONDARY STUDENTS

by

Lisa Konieczna

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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Abstract

The purpose of this phenomenological study was to understand the lived experience of educators who sought to recognize and address academic stress in secondary students. The theory guiding this study was Lazarus and Folkman's transactional model of stress as it relates to the ways educators experience the appraisal, stress, and coping of students facing academic stress. Dweck's growth mindset theory was applied to frame educators' perspectives of student growth potential. The study participants consisted of 10 middle and high school educators from a suburban school district in Massachusetts. Participants were selected based on their years of experience in education and ability to provide meaningful data. Data collection consisted of interviews, a focus group, and participant letters. Moustakas's approach to phenomenological data analysis was applied. The educator participants in this study recognized academic stress through students' presentation and intervened with mindset strategies, coping strategies, and strategies they had developed over their careers.

Keywords: educators, academic stress, secondary students, coping, mindset

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Dedication

I accredit the ideas herein to God, my creator and guide. I dedicate this work to my daughters, Ania, Naomi, and Zofia, who have supported many studious moments over the past 4 years. Your prayers, insight, and patience were the foundation of my success. You are the best daughters in the whole entire world and universe. This journey would not have been possible without the support of the Rife family; y'all have been amazing—thank you!

Acknowledgments

I would like to acknowledge my chair and committee for their advice, support, and feedback. I would also like to acknowledge my participants for their time and insight. Their willingness to support my research was inspirational.

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List of Abbreviations

Body Mass Index (BMI)

Department of Elementary and Secondary Education (DESE)

Hypothalamic-Pituitary-Adrenal (HPA)

Instructional Support Team (IST)

Massachusetts Comprehensive Assessment System (MCAS)

Physical Activity (PA)

Physical Exercise (PE)

Positive Behavior Incentive System (PBiS)

Professional Development (PD)

Social and Emotional Learning (SEL)

CHAPTER ONE: INTRODUCTION

Overview

Academic stress is a reaction to an academic task that may prevent students' successful interaction with curriculum (Sang et al., 2018). Students worldwide experience the impacts of stress, and academic stress in secondary students can lead to decreased academic achievement, long-term mood disorders, and physical illnesses (Kim et al., 2018; Sang et al., 2018; Tehrani et al., 2018; van Loon et al., 2020). Educators are on the front lines of academic stress management and may equip students with skills for managing academic stress (Turner & Simmons, 2020). Educators may help students understand the benefits of stress, which could increase academic performance (King & Kabat-Farr, 2022). Educators may instruct students about mindset, which could reduce student academic stress and increase academic success (Yeager et al., 2022). Additionally, educators may guide students to engage in positive coping mechanisms, which may significantly lower students' academic stress levels (Zarei et al., 2016). Chapter One includes the background of educators working with students who experience academic stress, the problem statement, the purpose statement, the significance of the study, the research questions, key definitions, and a chapter summary.

Background

Academic stress could have a positive impact on academic performance, yet the idea of stress has evolved to carry a negative connotation (Robinson, 2018; Sotardi, 2018). Stressful occurrences are events that impinge on an individual's state of mind. From this perspective, stressful situations are viewed by the individual as impositions on a neutral state of mind, thus avoidance of stress provides a return to a relatively neutral emotional state (Lazarus & Folkman, 1984). When students experience academic stress, they may apply adaptive coping strategies such as seeking support or maladaptive coping methods such as procrastination to alleviate

academic stress (Turner & Simmons, 2020). Educators should be aware of the ways student academic stress manifests so they may help students apply adaptive coping and mindset strategies to mitigate academic stress. Educators of secondary students are in a unique position to recognize and address student academic stress because one of the most common sources of stress for adolescent students is education (Burger & Samuel, 2017; Wuthrich et al., 2020). The historical, social, and theoretical elements of academic stress are presented in this section.

Historical Context

Stress has been applied to a range of activities that elicit physiological reactions from individuals (Lazarus & Folkman, 1984). Academic stress applies the concept of stress to school-related work and, therefore, both the idea of stress and education deserve discussion (You, 2018; Zarei et al., 2016). The term stress was used as early as the 14th century to refer to hardships, affliction, and adversity (Lumsden & Wilson, 1981). In the 17th century, stress was considered in a more scientific manner as the forces of load, stress, and strain were examined (Lazarus & Folkman, 1984). During the 19th century, the term stress was applied to the physical body as a catalyst for maladies (Lazarus & Folkman, 1984). Early research about stress was focused on extreme physical situations such as deprecation of heat and food. After World War II, researchers shifted their focus to the connection between stress and disease (Robinson, 2018). In the 1900s stress was viewed as a psychological set of reactions created by a stimulus (Selye, 1951). During this time, Hans Selye, a medical doctor and researcher, identified hormones that are released as part of the stress process. He called the stress response general adaptation syndrome (Robinson, 2018). During the second half of the 1900s, Lazarus, a cognitive psychologist, investigated the idea that individuals have different responses to stressors. In 1984, Lazarus and Folkman introduced cognition and emotions into the stress reaction process and

developed a theory named the transactional model of stress to explain the process of appraisal, stress, and coping.

Academic stress has not always been a major concern for secondary students; however, with the No Child Left Behind Act of 2001, standardized testing in public schools became commonplace. Academic pressure increased for students, and teaching and learning were impacted (Essex, 2016; Neibauer, 2019). As academic competition has increased, students have absorbed much of the stress brought on by standardized curriculum design and assessment (Sotardi, 2018). The concern about student academic stress was demonstrated in the 2000s, when multiple books about the dangers of encouraging students to engage with academic challenges outside of school were published for an audience of parents and educators (Bennett & Kalish, 2007; Kohn, 2006; Kralovec & Buell, 2000). Researchers have often highlighted the negative impact academic stress may have on a student's mental health, emotional states, and learning abilities (Kim et al., 2018; Luo et al., 2020; Tehrani et al., 2018; van Loon et al., 2020). The emphasis on the negative aspects of academic stress in research have become part of parenting literature and sometimes overpowers the positive aspects of academic stress. Academic challenges are supported by some parents, but others believe school-related stress taints the experience of childhood (Kohn, 2006).

Academic stress should be embraced because it generates academic proficiency and boosts learning competency (Khan & Shamama-Tus-Sabah, 2020). Today it is known that academic stress is necessary to provide students the opportunity to engage adaptive coping strategies, which are positively associated with a reduction in academic stress (Erath et al., 2016; Kuo et al., 2018; Park & Kim, 2018; Sotardi, 2018). Secondary educators may teach adolescent students to manage academic stress so that students are able to experience future academic success and well-being (Skinner et al., 2016). Missed opportunities to practice engaging with

academic stress translates into a lack of preparation to manage more complex tasks later in life, such as navigating college and making healthy life choices (Linden & Stuart, 2020). Academic stress is a critical issue for educators of secondary students to recognize and respond to, because educators are in the position to help students combat one of the most common sources of stress that impacts the future well-being of students (Burger & Samuel, 2017; Persike & Seiffge-Krenke, 2012; Wuthrich et al., 2020). The strategies educators use to recognize and address academic stress are important to investigate as student academic stress has increased over the past decade and continues to persist.

Social Context

Academic stress has a substantial impact on educators and secondary students (American College Health Association, 2016). Education constitutes a leading source of stress for secondary students, and stress that develops by the age of 14 often continues into adulthood (Maykel et al., 2018; Persike & Seiffge-Krenke, 2012). Adolescents rank school and schoolwork to be among their top three stressors (Skinner et al., 2016). Left unmanaged, academic stress in adolescence can lead to mental and physical health issues including substance abuse, absenteeism, risky behavior, diabetes, obesity, and decreased sleep (Linden & Stuart., 2020; Pascoe et al., 2020; Puolakanaho et al., 2019; Zarei et al., 2016). Since academic stress is a precursor to additional mental health issues, educators who support the development of adaptive coping strategies may mitigate student academic stress that could lead to depression, anxiety, and even suicide (Korinek, 2021). Educator support in managing academic stress is critical today, as veteran educators report an increase in student academic stress over the past decade (Sotardi, 2018).

It is widely recognized that school culture is a factor that affects academic stress and coping (Kuo et al., 2018). A culture of high stakes accountability testing has evolved from education policies over the past 20 years (Essex, 2016; Neibauer, 2019). Educational reforms

have resulted in accountability practices that closely track student and teacher performance, and increase educator stress (Essex, 2016; Neibauer, 2019; Sotardi, 2018). High levels of educator stress in turn negatively influence student well-being and the learning environment (Gonçalves et al., 2019; Neibauer, 2019; Shaw, 2016). Academic stress impacts 66% of students in more than 27 countries, and educators perceive the educational system to be increasingly stressful for students (Pascoe et al., 2020; Sotardi, 2018). Secondary educators work with adolescents, who are more sensitive to environmental stimuli than students of other ages, so a stressful school culture may have a significant negative impact the emotional health of adolescent students (Yeager, 2017).

Academic stress is costly for society, and medical interventions are not always accessible. The psychological and physical results of academic stress impact society as well as educators because communities are left with the expense of healthcare and the loss of educated individuals prepared to participate in the workforce. Mental health services for adolescents have declined as the rate of adolescent mental health issues has increased over the past 3 years, so there are not sufficient treatment options in many areas of the United States (Kuntz, 2022). A common barrier to mental health treatment is the financing, as it may cost over $10,000 per year for an individual's services. Additionally, two thirds of physicians report a shortage of mental health care professionals (Kuntz, 2022). There are not adequate mental health treatments options, so society may benefit from supporting students' acquisition of coping strategies in schools. High stakes tests, societal constructs, and the transitional years of adolescence may all increase academic stress in secondary students, resulting in societal burdens (Essex, 2016; King & Kabat-Farr, 2022; Neibauer, 2019; Yeager, 2017).

Theoretical Context

The transactional model of stress (Lazarus & Folkman, 1984) and the growth mindset (Dweck, 2006) have been discussed in studies conducted to investigate academic stress and coping (Burger & Samuel, 2017; Gonçalves et al., 2019; Khan & Shamama-Tus-Sabah, 2020; Sotardi, 2018; Yeager & Dweck, 2020; Zarei et al., 2016). Numerous authors have considered academic stress through the lens of Lazarus and Folkman's transaction model of stress. In Burger and Samuel's (2017) study, they examined the relationship between academic stress, self-efficacy, and life satisfaction in secondary students. Although Burger and Samuel did not mention coping, their findings, which supported the idea that self-efficacy mitigated the negative impacts of academic stress, are similar to other studies that demonstrated the importance of learning coping strategies to lessen academic stress. Though many aspects of academic stress have been considered through the lens of the transactional model of stress, no studies examining how secondary educators recognize and address academic stress have been conducted. A few additional theories have been applied to studies of academic stress and coping, but none appeared with the same frequency as Lazarus and Folkman's model of transactional stress or Dweck's growth mindset. Lazarus and Folkman's transactional model of stress was paired with Dweck's growth mindset theory to form the theoretical framework for this study as both theories have established success in supporting studies of academic stress.

Students may manage academic stress through adaptive coping or maladaptive coping. Students who cope with academic tasks by perceiving them as a challenge may apply adaptive problem-solving approaches such as planning which steps to take and gathering the resources they need to utilize. Students who cope using maladaptive methods may procrastinate, avoid the task, or become confused. During the coping phase of the transactional model of stress, a student with a growth mindset may view academic stress as a challenge and use problem solving

strategies to determine how to begin an assignment and what steps to take to complete it (Dweck & Yeager, 2018). Therefore, the growth mindset could support adaptive, problem-solving strategies as students respond to academic stress. This type of adaptive coping may help students build an ability to cope with academic challenges later in life (Puolakanaho et al., 2019). Students may struggle to learn coping strategies on their own and benefit from educators teaching them adaptive coping strategies and mindset strategies that could mitigate academic stress (Zarei et al., 2016).

Dweck's (2006) growth mindset theory may reduce student stress and increase academic performance when applied during the appraisal and coping stages of the transactional model of stress (Lazarus & Folkman, 1984). Educators may teach students to adopt a growth mindset to help students engage in adaptive coping, reduce academic stress, and improve academic skills (Dweck & Yeager, 2018). When the growth mindset is applied to academic stress, educators may teach students to adjust their response to stressful academic situations (Yeager & Dweck, 2020). The growth mindset is associated with higher academic achievement than the fixed mindset, so manipulating students' mindsets may cause a difference in academic performance (Cury et al., 2006; Yeager & Dweck, 2020). According to the growth mindset theory, students may be prompted to frame their thinking about tasks in ways that emphasize the process of learning and deemphasize task performance measures, such as grades (Dweck & Yeager, 2018). As students appraise and cope with academic stress, educators may explicitly suggest that students apply a growth mindset to increase adaptive coping and academic performance.

An element relating to stress and mindset that frequently remains unaddressed in academic literature is the power of faith. Christians recognize that stress may be mitigated through relationship with God. Scripture advises, "Do not be anxious, but in everything by prayer and supplication let your requests be known to God" (*New International Bible*,

1978/2013, Philippians 4:6). Christians believe that life will present trials, and that God will help them manage stress so that trials may become fruitful (*New International Bible*, 1978/2013, James 1:2–4; Luke 21:9; Matthew 11:28–30; Psalm 118:5–6; Proverbs 16:3). However, Christian responses to societal issues are becoming less prevalent due to a decreasing number of Christians. Only 44% of the U.S. population identify themselves as practicing Christians, compared to 65% in 1996 (PRRI Staff, 2021). A religious perspective deserves consideration when addressing academic stress because Christians have access to coping mechanisms that others do not, such as prayer, support, and guidance from God. As life's stressors arise, Christians may present their struggles to God, pray, and find direction in scripture. For the 56% of the population that does not lean on a relationship with the creator, stress must be managed through other means.

Problem Statement

The problem is that there has been an increase in student academic stress over the past decade (Sotardi, 2018). In a survey of 540,000 adolescent students from 72 countries, 66% of adolescents reported experiencing academic stress (Pascoe et al., 2020). Academic stress is a specific type of stress that impacts students during school and throughout the day (Burger & Samuel, 2017; Chacón-Cuberos et al., 2019; Sang et al., 2018). Academic stress is a predictor of future internalizing disorders, but students who practice engaged coping strategies during adolescence may be better prepared to cope with future instances of academic stress (Feiss et al., 2019; Puolakanaho et al., 2019). Though some students may regulate academic stress responses, the recent increase in academic stress could negatively impact the emotional and physical well-being of secondary students both now and in the future (Kim et al., 2018; Sotardi, 2018; You, 2018).

Researchers have examined many facets of academic stress. School-based programs to reduce academic stress, coping strategies for academic stress, perceived academic stress and life satisfaction, and the connections between stress during adolescence and future physical and mental health outcomes have been studied (Burger & Samuel, 2017; Dray et al., 2017; Erath et al., 2016; Feiss et al., 2019; Gonçalves et al., 2019; Karatekin, 2018; Tejada-Gallardo et al., 2020; van Loon et al., 2020). The relationship between academic stress and aspects of lifestyle such as physical activity, diet, and parent or peer support have also been investigated (Chacón-Cuberos et al., 2019; Luo et al., 2020; Tehrani et al., 2018). Significantly, students' applications of mindset and coping have been examined, and researchers have found that if students learn coping and mindset skills, they may reduce their academic stress (Dweck & Yeager, 2018; Main, 2018).

There is a gap in the literature surrounding educators' perspectives of recognizing and addressing academic stress in secondary students (Wuthrich et al., 2020). After an extensive search in the research literature, only one qualitative study that examines how teachers support students' experiences with academic stress was found, and that study used elementary level participants (Sotardi, 2018). As noted by Sotardi (2018), "research involving stress and coping in schools should be more extensively conducted" (p. 225). There are no studies of how secondary educators support their students experiencing academic stress, yet what educators perceive as stress and how educators encourage secondary students' coping with academic stress are important questions. Therefore, this study may provide insight into how educators recognize academic stress and address coping in secondary students.

Purpose Statement

The purpose of this phenomenological study was to understand the lived experience of educators who sought to recognize and address academic stress in secondary students. Academic

stress was generally defined as the condition or feeling that occurs when an individual perceives the demands of an academic task extend beyond their personal, social, or psychological resources (Burger & Samuel, 2017; Chacón-Cuberos et al., 2019; Lazarus, 1966; Rainwater, 2019; You, 2018; Zarei et al., 2016). The theoretical framework for this study included Lazarus and Folkman's (1984) transactional model of stress and Dweck's (2006) theory of mindset.

Significance of the Study

Educators may impact secondary students' current and future intellectual success by teaching skills to cope with academic stress (Gonçalves et al., 2019; Yeager, 2017; You, 2018). Secondary students who experience academic stress may experience increased anxiety, substance abuse, and depression later in life (Pascoe et al., 2020). Educators are positioned to provide coping and mindset strategies to help students manage academic stress, yet they may be uncertain how to best support those young people who are in their classrooms (Korinek, 2021). Though stress is a common concern for educators of secondary students, little is known about the nature of academic stress or which factors mitigate or exacerbate the experience of academic stress (Wuthrich et al., 2020). Educators may teach coping or mindset skills to address academic stress in secondary students (Dweck & Yeager, 2018; Main, 2018). Their work seeking to recognize and address academic stress must be examined to better understand the targeted interventions used to support secondary students experiencing academic stress.

Empirical Significance

Few studies have examined how educators teach secondary students coping skills in academic settings (Erath et al., 2016). Researchers have focused mostly on academic stress in postsecondary students (Hirvonen et al., 2019). Educators of secondary students were the focus of this study, and information about how educators address academics stress though teaching strategies such as mindset and coping was gathered. The acquisition of stress management skills

by adolescent students may have ongoing health benefits that last through adulthood (Pascoe et al., 2020). There have been many student-based programs developed and implemented to help educators mitigate the increasing number of students who experience academic stress (Dray et al., 2017; Feiss et al., 2019). School-based programs for addressing stress benefit students in part because they may foster stronger relationships between students and educators (Feiss et al., 2019). Targeted interventions that educators tailor to specific students have been shown to be more effective than universal programs that are the same for most students (Feiss et al., 2019; van Loon et al., 2020). Educators could be a powerful conduit for the alleviation of academic stress because they may form relationships with students that could help them select appropriate interventions, and are also positioned to teach stress management strategies that may have long-term benefits for students (Feiss et al., 2019). This study extends the literature by contributing information about secondary educators' interactions with student academic stress. This study also contributes to what is known about the application of mindset and coping strategies to experiences of academic stress in adolescent students.

Theoretical Significance

An investigation into how educators recognize and address student academic stress could uncover the techniques educators use to help students cope with academic stress. The connection between students and educators is paramount for addressing academic stress because educators must know students well enough to recognize signs of stress and address them. The transactional model of stress (Lazarus & Folkman, 1984) and the growth mindset (Dweck, 2006) have been applied to studies of students' academic stress and a study of nursing students' coping skills (Cury et al., 2006; Khan & Shamama-Tus-Sabah, 2020; Rafati et al., 2017; Yeager & Dweck, 2020; Zarei et al., 2016). However, there is a gap in theoretical application of the transactional model of stress and the growth mindset to examine educators' experiences recognizing and

addressing academic stress in secondary students. Understanding how educators recognize that secondary students are experiencing academic stress may offer insight into how students' adaptive and maladaptive coping may be identified (Lazarus & Folkman, 1984). This study could advance the transactional model of stress by collecting new information about how educators recognize the process of appraisal, stress, and coping and intervene to address student academic stress. Additionally, understanding how educators address academic stress—through coping instruction, mindset instruction, or other techniques—could lead to a better understanding of how targeted interventions may be applied to mitigate academic stress in secondary students.

Practical Significance

There is a gap in literature regarding how educators describe supporting secondary students' coping through recognizing and addressing academic stress in high stakes climates (Neibauer, 2019). Research about educators' experiences with student academic stress may provide insight into how to address it and which approaches may support students' coping abilities. Academic stress can lead to a decrease in physical and mental health and an increase in substance abuse, but skills taught to students during adolescence may mitigate academic stress (Pascoe et al., 2020). Studies of stress within school settings are rare, so much practical information can be learned from examining how educators in a secondary school setting recognize and address academic stress (Puolakanaho et al., 2019). Educators, students, and school communities may benefit from a qualitative study about educators' experience recognizing and addressing secondary student academic stress.

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Research Questions

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Understanding how educators seek to recognize and address academic stress in secondary students helps shed light on how academic stress is identified and which strategies are beneficial for mitigating it. Students may experience varying levels of success implementing mindset

(Dweck, 2006) and coping (Lazarus & Folkman, 1984) strategies, and educators may have different approaches to recognizing and addressing student academic stress. The research questions were developed from the theory of mindset (Dweck, 2006) and the transactional model of stress (Lazarus & Folkman, 1984). It was meaningful to understand the successes, failures, and various approaches that may be applied to help secondary students cope with academic stress. The central research question and sub-questions are presented in this section.

Central Research Question

How do educators describe their experiences of recognizing and addressing academic stress in secondary students?

Sub-Questions

1. How do educators describe experiences of recognizing academic stress in secondary students?

2. How do educators describe experiences of helping secondary students with a fixed mindset develop a growth mindset?

3. How do educators describe experiences of encouraging adaptive coping strategies for academic stress in secondary students?

4. How do educators describe the outcomes of addressing academic stress in secondary students?

Definitions

1. *Academic buoyancy* – is the capacity to withstand routine types of academic setbacks, challenges, and pressures experienced by students (Wuthrich et al., 2020) or students' belief that they could respond adaptively to school-based challenges such as poor grades, motivational fluctuation, negative feedback, or difficult work (Hirvonen et al., 2019).

2. *Academic Stress* – is the condition or feeling that occurs when an individual perceives the demands of an academic task extending beyond their personal, social, or psychological resources (Lazarus, 1966).

3. *Coping* – is the process through which a person manages psychological stress (Lazarus & Folkman, 1984).

4. *Distress* – is a negative form of stress that triggers a destructive response (Khan & Shamama-Tus-Sabah, 2020).

5. *Eustress* – is a positive form of stress that results in accomplishment of goals and dignity (Khan & Shamama-Tus-Sabah, 2020).

6. *Growth mindset* – is the belief that an individual's basic qualities are things they can cultivate through effort, strategies, and help from others (Dweck, 2006).

7. *Perceived stress* – is the degree to which an individual's life situations are evaluated as hectic and troubled (Khan & Shamama-Tus-Sabah, 2020).

8. *Positive mental health* – is a supportable and positive state of mind which permits people to prosper and succeed (Khan & Shamama-Tus-Sabah, 2020).

9. *Psychological stress* – is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being (Lazarus & Folkman, 1984).

10. *Resilience* – is the process of adapting to stress and "bouncing back" from difficult experiences (Turner & Simmons, 2020).

11. *Stress* – is a process in which environmental events or forces, referred to as stressors, threaten an individual's well-being (Turner & Simmons, 2020).

Summary

Student academic stress has increased over the past decade (Sotardi, 2018). Academic stress may impact the long-term academic achievement, physical health, and mental health of secondary students (Gonçalves et al., 2019; Kim et al., 2018; You, 2018). Students experiencing academic stress may benefit from universal interventions, mindset interventions, instruction that fosters adaptive coping strategies, and prayer (Burger & Samuel, 2017; Dray et al., 2017; Dweck & Yeager, 2018; Feiss et al., 2019; Zakaria et al., 2021). Through an understanding that students respond differently to academic demands, educators may support individual students' development of coping skills to address academic stress (van Loon et al., 2020; Wuthrich et al., 2020; You, 2018). Educators of secondary students may teach adaptive coping skills that could have a positive lifelong impact on students' physical and mental health and decrease the societal toll caused by academic stress (Herman et al., 2020; Pascoe et al., 2020). In addition to coping skills, a growth mindset may be fostered in students to mitigate academic stress (Dweck & Yeager, 2018). The purpose of this phenomenological study was to understand the lived experience of educators who sought to recognize and address academic stress in secondary students. Examining how educators recognized and addressed academic stress provided insight into methods that support secondary students' acquisition of lifelong metacognitive coping skills (Puolakanaho et al., 2019).

CHAPTER TWO: LITERATURE REVIEW

Overview

Student academic stress has increased over the past decade, causing struggles for students, educators, and parents (Sotardi, 2018). "Educators are in the most likely position to notice students struggling," placing them firmly on the front lines of academic stress management (Korinek, 2021, p. 97). Consequently, teachers are positioned to impact student success by implementing strategies to reduce academic stress (Korinek, 2021). The theoretical framework for this study included two theories, the transactional model of stress (Lazarus & Folkman, 1984) and the growth mindset (Dweck, 2006). The related literature section later in this chapter includes a synthesis of recent literature regarding global aspects of academic stress, appraisal of a stressor, academic stress and brain functioning, school-based interventions, collaborative for social and emotional learning's (CASEL's) social and emotional learning framework, coping mechanisms, secondary school students, female secondary students, educating secondary students, changes during adolescence, the role of lifestyle in academic stress, and family influence. The development of perspectives of stress and the role that coping and mindset play in the mitigation of academic stress are included. A gap in the literature is identified, presenting a viable need for the current study. Lastly, a chapter summary is provided.

Theoretical Framework

The theoretical framework for this study was created by combining the transactional model of stress (Lazarus & Folkman, 1984) and the theory of mindset (Dweck, 2006). Together, these theories help researchers understand how the brain informs appraisals of stress and elicits coping mechanisms for responding to academic stress. Lazarus and Folkman's (1984) transactional model of stress and Dweck's (2006) theory of mindset are both important to consider when discussing an educator's experience of recognizing and addressing student

academic stress. Educators often intervene to help students manage academic stress. The transactional model of stress (Lazarus & Folkman, 1984) offers a lens to consider educator interventions within the coping process. To intervene in the coping process, educators must also believe students can grow in their abilities to manage academic stress, so the theory of mindset (Dweck, 2006) must also be considered. These constructs of coping and mindset may inform how academic stress evolves and how educators recognize and address academic stress experienced by secondary students.

The Transactional Model of Stress

Lazarus and Folkman's (1984) transactional model of stress, also known as the theory of appraisal, stress, and coping, provides an explanation for how individuals assess and react to a potentially stressful task. Lazarus and his colleagues developed the transactional model of stress over the course of 18 years, from 1966–1984 (Lazarus, 1966; Lazarus & Folkman, 1984; Monat et al., 1972). The theory was published as the transactional model of stress in *Stress, Appraisal, and Coping* (Lazarus & Folkman, 1984). Since publication, Lazarus further examined stress and adaptational outcomes in different settings and with a focus on different types of stress (Lazarus et al., 1985). Researchers have applied the theory and identified many stress indicators, forms of distress and eustress, and adaptive and maladaptive coping responses (Erath et al., 2016; Gonçalves et al., 2019; Khan & Shamama-Tus-Sabah, 2020).

According to the transactional model of stress (Lazarus & Folkman, 1984), when a stress occurs, an individual determines if that stress is a challenge, a threat, or a potential cause of harm or loss. As that determination manifests, emotion-focused or problem-focused coping strategies surface (Lazarus & Folkman, 1984; Rafati et al., 2017; Skinner et al., 2016; Zarei et al., 2016). Individuals apply either emotion- or problem-focused coping strategies depending on the category of stress—challenge, threat, or potential harm or loss (Lazarus & Folkman, 1984).

Problem-focused coping strategies are adaptive coping mechanisms and may reduce stress as well as support continued academic participation (Erath et al., 2016; Gonçalves et al., 2019). Emotion-focused coping strategies are maladaptive coping mechanisms. They include procrastination and avoidance and may reduce stress at the onset. However, stress may increase as a deadline approaches (Monat et al., 1972). In education, maladaptive coping could manifest as a student applying procrastination to cope with the stress of a long-term assignment, experiencing too much stress to address the academic challenge before the deadline, and avoiding class on the due date. Applying the transactional model of stress to an examination of how educators recognize and address academic stress in secondary students could further inform the transactional model of stress. Information about how educators address academic stress in secondary students may also enrich what is known about the different supports that could be offered.

The coping phase of reacting to a stressor is characterized by change (Lazarus et al., 1985). As an individual encounters a stressor, they can have multiple reactions simultaneously or as time progresses (Lazarus et al., 1985; Lazarus & Folkman, 1984). For example, what one first experiences as shock at the expectations of an assignment may evolve into acceptance and problem solving about the necessary steps needed to complete the task. As the transactions between stress, appraisal, and coping happen, stress may change into a plan to meet a challenge. Adolescence is a time when students experience an elevated sensitivity to change as well as experiencing variations in academic expectations (Yeager, 2017). Therefore, academic stress could elicit elevated responses during secondary school years. Adolescence is also the period during which students establish coping patterns that may extend through post-secondary school (Sang et al., 2018). The way an individual initially appraises and copes with a stressor may evolve through reflection or acquisition of a new perspective (Dweck & Yeager, 2018; Rafati et

al., 2017). The adolescent brain is malleable, so educators of secondary students have an opportunity to intervene in students' coping processes during the secondary school years (Turner & Simmons, 2020; Yeager, 2017). Educators may recognize and address student academic stress through determining which stage of the stress, appraisal, and coping transaction the student is in and recommending appropriate coping mechanisms to address academic stress. In this study, the transactional model of stress (Lazarus & Folkman, 1984) is used to frame questions and reflect on educator responses.

Lazarus's research on stress led to additional studies of coping and marked the beginning of behavioral medicine (Lazarus & Folkman, 1984). The transactional model of stress was further developed through examinations of the coping process (Lazarus et al., 1985; Rafati et al., 2017; Skinner et al., 2016; Zarei et al., 2016). Lazarus and Folkman's (1984) theory has been used to examine coping with major life events as well as minor daily hassles (Lazarus et al., 1985). Everyday coping and everyday resilience have also been examined through an application of the transactional model of stress (Gonçalves et al., 2019; Martin, 2013; Wolchik & Sandler, 1997). In specific investigations of coping strategies, the transactional model of stress has been applied to examine the effectiveness of coping strategies in reducing student academic stress (Rafati et al., 2017; Zarei et al., 2016). Examining how educators recognize and address academic stress may extend what is known about how teachers could support students in the development of adaptive coping strategies for intellectual tasks.

The transactional model of stress has been applied to a variety of studies in the academic realm. Lazarus and Folkman's theory has been used to examine the association between mental health and academic performance in college students, wherein researchers found academic stress has a negative impact on student mental health but a positive impact on academic performance (Khan & Shamama-Tus-Sabah, 2020). Rafati et al. (2017) conducted a qualitative investigation

using the transaction model to examine nursing students' experience of coping with stressors. They determined that exploring coping strategies increases an awareness of opportunities for application during academic stress. Adolescent transitions during secondary schooling have been explained through the lens of the transactional model of stress, and researchers found that school-related stress has a stronger impact on life satisfaction than self-efficacy (Burger & Samuel, 2017). This emphasizes the need for secondary educators to offer instruction about adaptive coping strategies.

The investigation of adaptive and maladaptive coping strategies that interact with academic stress is important to others because little is known about how educators manage stress in the academic domain (Gonçalves et al., 2019; Skinner et al., 2016). There are few studies that discuss specific targeted interventions or provide details on how educators recognize and address the students who need support managing their academic stress. Research on how educators recognize adaptive and maladaptive coping strategies may extend the understanding of how coping responses manifest in secondary students and how educators may address secondary students facing academic stress. This study may contribute to the theory by examining how educators perceive academic stress and interact with their students to address it. It is known that educators can teach coping strategies and that adaptive coping reduces academic stress (Erath et al., 2016; Leung & He, 2010; Rafati et al., 2017; Yeager et al., 2022). An examination of how educators recognize and address students' appraisal, stress, and coping will deepen knowledge of how they may support secondary students experiencing academic stress. Just as coping strategies reduce academic stress, holding a growth mindset may contribute to a decrease in student stress and increases in academic performance (Yeager & Dweck, 2020).

The Theory of Mindset

The theory of mindset (Dweck, 2006) is widely embraced in the field of education. Dweck's (2006) theory of mindset was first published in the book *Mindset: The New Psychology of Success* for an audience of parents, business professionals, educators, and individuals seeking self-improvement. Though originally centered around students' reactions to failure and neuroplasticity, the mindset theory has been expanded to be applied to areas outside of education (Dweck, 2006).

Through her theory of mindset, Dweck (2006) explained that people have the ability to grow and change on a neurological level. Academically, this means that students can develop new skills and are not limited by their current level of ability (Yeager & Dweck, 2020). With practice and repetition, neurological connections in the brain grow, connect, and become stronger (Dweck, 2006). Mindset has a critical impact on educators' perceptions of students' ability to learn and manage academic stress, so the theory of mindset is directly applicable to all levels of education (Dweck, 2006). The theory of mindset, also referred to as growth mindset theory or incremental theory, states that people can grow, change, and revise their judgements and abilities over time (Dweck, 2006; Dweck & Yeager, 2018; Yeager & Dweck, 2020). On the other hand, the fixed mindset, or entity theory, is a belief that humans have limited abilities and traits (Dweck, 2006; Dweck & Yeager, 2018; Yeager & Dweck, 2020). While a fixed mindset drives individuals towards performance goals, a growth mindset propels people towards learning goals and includes an element of time (Dweck, 2006). Through interventions, individuals may be taught how to apply mindsets to academic, social, work-related, and health-related issues (Dweck & Yeager, 2018; Tejada-Gallardo et al., 2020; Yeager & Dweck, 2020).

In this study, the growth mindset provides a lens through which to view educators' experiences recognizing and addressing student academic stress. Educators who hold a growth

mindset may believe that students can learn adaptive coping responses to academic stress. Since individuals with a growth mindset believe that attributes can be cultivated over time and be different in the future, they may not attach self-worth to immediate mastery of a challenge (Dweck, 2006). In education, this translates to students being more curious about the process of learning than concerned about a grade. A growth mindset is positively associated with student test scores in 72 nations, and the association is stronger among students who struggle the most (Yeager & Dweck, 2020).

Mindset impacts academics, physical and emotional health, and secondary school transitions (Dweck & Yeager, 2018; Erath et al., 2016). Students with a growth mindset learn more in school because they can view learning challenges from a growth-oriented perspective (Claro & Loeb, 2019). While a fixed mindset is a predictor of greater stress and depression, a growth mindset can increase academic achievement, improve health, and support students' navigation of transitions (Dweck & Yeager, 2018; Miu & Yeager, 2015; Yeager et al., 2013). Yeager and Dweck (2020) addressed Li and Bates' (2019) study that found that a growth mindset was ineffective in their study of 624 nine- to 13-year-old students in China. Though Li and Bates (2019) did not find a positive correlation between growth mindset and academic success in their repetition of Mueller and Dweck's (1998) study, 72 of 74 nations surveyed did discover a positive correlation between a growth mindset and academic success (Yeager & Dweck, 2020).

In Dweck's (2006) growth mindset theory, she outlined the brain's ability to grow new neurological connections as tasks are practiced. According to the growth mindset theory, neuroplasticity, or the expanding of the brain's neurological connections as people engage in tasks, is evidence that people can improve their abilities with continued effort (Dweck, 2006; Dweck & Yeager, 2018). Individuals who possess a growth mindset believe that people have the

capacity to change their abilities and personalities (Dweck, 2006; Dweck & Yeager, 2018; Yeager & Dweck, 2020). Adolescents may be taught to apply a growth mindset to emotions that relate to learning (Dweck & Yeager, 2018; Main, 2018). For example, students can be taught that stress is normal and heightens alertness to prepare the brain to engage with a task (Dweck & Yeager, 2018; Yeager et al., 2022). Orienting students towards a growth mindset before administering an intelligence test or academic challenge results in higher success (Cury et al., 2006; Yeager et al., 2022). Thus, when students are taught the benefits of stress and tools to manage it, they may grow in their ability to cope. Similarly, students may be oriented to embrace feelings of stress as tools for achievement instead of emotions to fear (Dweck, 2006).

Mindset may also impact self-efficacy, which relates to the process of learning (Dweck & Yeager, 2018). Self-efficacy is an internal resource that facilitates adaptive coping. It interacts with mindset because it informs students' perceptions and motivation for engaging with academic tasks (Burger & Samuel, 2017; Dweck & Yeager, 2018). Some students naturally possess self-efficacy, which relates to lower levels of stress (Burger & Samuel, 2017). However, students who do not enter secondary school with an innate sense of self-efficacy may still be taught to develop a growth mindset and engage in positive coping when faced with academic challenges (Yeager, 2017). This study applied the growth mindset to examine educator experiences of recognizing and addressing academic stress in secondary students. This study extends the theory of mindset by collecting information about educators' application of mindset to recognize and address student academic stress.

Related Literature

Stress has a substantial impact on students' academic performance, and education constitutes a leading source of pressure for young people (Abdollahi et al., 2020; American College Health Association, 2016; Persike & Seiffge-Krenke, 2012). Skinner et al. (2016) found

that adolescents rank school and schoolwork to be among their top three stressors. Educators instruct many students who deal with a high number of academic challenges including parental expectations, difficulties with teachers, workload, and demands on time and attention (Burger & Samuel, 2017; Skinner et al., 2016). Stressors such as workload, underperformance on tests, and difficulty learning have a large impact on adolescents' lives but may be mitigated through educator support and instruction of adaptive coping and mindset strategies (Gonçalves et al., 2019; Turner & Simmons, 2020). The impact of academic stress on adolescent health and well-being could foretell how students will experience academic stress in the future, as adolescent levels of stress predict future levels of stress (Feiss et al., 2019). Academic stress may last through postsecondary school and impacts society in terms of reduced student achievement and increased secondary health conditions (Linden & Stuart, 2020). The following topics are addressed in this related literature section: the global aspects of academic stress, appraisal of a stressor, academic stress and brain functioning, school-based interventions, CASEL's SEL framework, coping mechanisms for academic stress, secondary school students, female secondary school students, educating secondary students, changes during adolescence, lifestyle, family influence, and the development of perspectives on stress.

Global Aspects of Academic Stress

Academic stress is a problem for adolescents worldwide (van Loon et al., 2020). Across the globe, 20% of adolescents suffer from mental health problems, including depression, stress, and anxiety (Tehrani et al., 2018). Adolescents frequently cite academic difficulties as a main source of stress and school as a primary source of stress (Burger & Samuel, 2017; Gonçalves et al., 2019). Academic stress is the condition or feeling that occurs when an individual perceives the demands of an educational situation extend beyond their personal, social, or psychological

resources (Burger & Samuel, 2017; Chacón-Cuberos et al., 2019; Lazarus & Folkman, 1984; Rainwater, 2019; You, 2018; Zarei et al., 2016).

Concern for students has prompted research about academic stress across the globe. Academic stress has similar impacts on students around the world, as evidenced through studies based in China, Korea, Canada, India, and the United States (Kim et al., 2018; Luo et al., 2020; Nagle & Sharma, 2021; Pekrun, 1992; Robinson, 2018; Sang et al., 2018). Academic stress may decrease student motivation and produce secondary health problems that include depression and anxiety for students in all regions of the world (Kim et al., 2018; Pekrun, 1992). Students who experience academic stress may be impacted during school and throughout the day (Sang et al., 2018). In addition to leading to general anxiety and depression, academic stress may negatively impact immediate skill acquisition, lifelong learning, and/or physical health (Boekaerts, 2016; Harley et al., 2019).

Appraisal of a Stressor

Academically stressful situations may have positive results and do not cause negative outcomes in all students (Sang et al., 2018; Sotardi, 2018; You, 2018). Stress at some levels can be beneficial, yet the potential for academic stress to be harmful cannot be ignored (Zakaria et al., 2021). Academic stress managed through adaptive coping strategies may lead to academic buoyancy, which is the established pattern of applying adaptive coping strategies to academic challenges (Hirvonen et al., 2019). Academic buoyancy is similar to resiliency, which is the process of adapting to stress and "bouncing back" from difficult experiences (Turner & Simmons, 2020). As students encounter academic challenges that elicit mild stress, they experience increased attention and focus due to physiological arousal. This increased attention and focus may help students engage with academic tasks (Sotardi, 2018).

According to Lazarus and Folkman's (1984) transactional model of stress, as individuals assess a potential stressful task, they determine if the stressor is a harm or loss, a threat, or a challenge. Through cognitive appraisal, individuals consider the stressor as well as their own background experiences and goals. Thus, differences in individual stress levels arise (Lazarus & Folkman, 1984; Sotardi, 2018). Along with determination of a stressor to be a harm, threat, or challenge, emotion-focused and problem-focused coping strategies emerge (Lazarus & Folkman, 1984; Zarei et al., 2016). Students engage in appraisal and coping as they make decisions about how to reduce the stress of academic tasks (Zarei et al., 2016). Perceptions of academic stress inform student reactions; some students perceive academic stress as a challenge while others perceive it as a threat. The perception of a challenge may elicit adaptive problem-solving skills, whereas a threat may cause an avoidance reaction (You, 2018). Students differ in their coping abilities and stress levels. Some adolescents may apply adaptive coping skills and regulate their academic stress responses. Other students may struggle to apply adaptive coping skills and experience a decline in their emotional and physical well-being (Kim et al., 2018). Stress levels vary considerably between adolescents and change significantly over time (Burger & Samuel, 2017). Students may experience physical responses to stress such as increased heart rate and blood pressure but may be taught that a stress response can "fuel optimal performance" (Yeager et al., 2022, p. 512). The way adolescents manage academic demand has the potential to reduce stress and influence their future well-being and academic success (Skinner et al., 2016). There are also benefits to academic stress (Sotardi, 2018; Turner & Simmons, 2020). "Research shows that stress, if taken positively improves an individual's performance. Therefore, it might be suggested that students who perceive stress and take it as motivator could perform better" (Khan & Shamama-Tus-Sabah, 2020, p. 3195). In other studies, student participants have reported that not all stress is bad, and some stress increases focus and is a positive experience (Sotardi, 2018;

Turner & Simmons, 2020). Instructing students about the benefits of stress and how stress impacts brain functioning may help students cope with academic stress.

Academic Stress and Brain Functioning

Coping is the method an individual uses to return to a state of homeostasis just as in biology organisms strive to return to equilibrium (Lazarus & Folkman, 1984; Zarei et al., 2016). During the coping process, the brain and hormones play critical roles and interact with each other. When the brain encounters a stressor and begins to determine if it is a threat or a challenge, the hypothalamic-pituitary-adrenal (HPA) axis is stimulated (Yeager et al., 2022). The hypothalamus is located at the top of the brain stem and controls the pituitary gland's release of hormones. During the appraisal of a stressor, the hypothalamus secretes corticotropin-releasing hormone which causes the pituitary gland to secrete adrenocorticotropic hormone (ACTH) into the bloodstream. When ACTH reaches the adrenal glands on top of the kidneys, cortisol is released from the cortex—the adrenal gland's outer layer. This is called a corticosterone response and the HPA stimulation results in catabolic adrenal cortisol (Yeager et al., 2022). Cortisol, one of the hormones released during the appraisal, stress, and coping process, enhances the brain's glucose absorption, which results in more available energy. Simultaneously, adrenaline increases focus, heart rate, and blood pressure. In extreme situations, the release of hormones in response to a stressor can elicit the fight or flight response, wherein high levels of adrenaline and cortisol are released. In everyday experiences, stressors may produce low levels of hormones that return to normal after the stress has been dealt with (Mayo Clinic, 2021). Different physiological reactions continue as the brain decides if it is facing a threat or a challenge:

Challenge is characterized by increased peripheral blood flow and a faster return to homeostasis [whereas threat] results in increased vascular resistance and less oxygenated

blood flow to the periphery as HPA activation tempers sympathomedullary effects and

produces a more prolonged stress response. (Yeager et al., 2022, p. 513)

"Given the complexity of this process, different sites regulate the adequate corticosterone

response to a stressor in terms of amplitude and duration" (Micale & Drago, 2018, p. 232). Some

levels of stress may also increase focus and adaptive coping skills (King & Kabat-Farr, 2022;

Turner & Simmons, 2020; Zakaria et al., 2021). Today, it is widely accepted that stress can be

managed through coping strategies, and students who apply coping strategies may be more likely

to experience academic success (Zakaria et al., 2021).

Mindset impacts brain chemistry during and after the appraisal of a stressor. Lee et al.

(2019) discovered that when faced with academic stress, students who hold a fixed mindset have

shown higher cortisol levels than their peers who hold a growth mindset. They noted that the

high cortisol levels may last into the next day, further impacting the student. Cortisol impacts

academic performance because low levels can increase memory and cognitive ability, but high

levels may impair brain functioning (Terada, 2018). Students who hold a growth mindset may

experience lower levels of cortisol spikes than their peers with fixed mindsets, so instructing

students about the growth mindset could be critical for maintaining healthy cortisol levels.

Yeager et al. (2022) found that instructing participants of a synergetic mindset—a combination

of the growth mindset and the idea that stress can enhance performance—decreased cortisol

levels throughout the day in public high school students from low-income communities. Using a

growth mindset and framing academic challenges as opportunities to engage with learning may

increase academic performance and reduce academic stress in secondary students (Cury et al.,

2006; Yeager & Dweck, 2020). Specifically, combining the growth mindset with coping

strategies that help students manage the effects of stress could support adolescents'

understanding and application of coping responses to academic stress (Yeager et al., 2022).

Educators may need to be aware of students' beliefs as they recognize and address student academic stress. Students who hold a fixed mindset may need to be addressed differently than students who hold a growth mindset.

Students may need to practice encountering academically stressful situations to develop coping skills. In fact, confronting and managing stress is part of the adolescent's development into adulthood (Yeager et al., 2022). Mild stress levels frequently coincide with increased physiological arousal and attention, which often results in greater focus (Sotardi, 2018). Students may be taught that academic stress can be managed through a growth mindset and an awareness of the physiological effects of stress (Yeager et al., 2022) Elevated amounts of stress may be reduced in the classroom when educators reinforce problem-solving coping strategies (Braun et al., 2019). As students experience stress and the accompanying low levels of cortisol and adrenaline, educators may direct the students' reactions so they learn how to channel the spike in energy and attention that stress could elicit. Educators may also foster adaptive coping processes for academic stress through sharing the growth mindset perspective with students (Yeager et al., 2022).

School-Based Interventions

Our world is fast paced and constantly changing, and our global society has resulted in increased stress for adolescent students (Zakaria et al., 2021). As student academic stress has risen, researchers have investigated school-based universal and targeted interventions intended to mitigate student stress and/or foster adaptive coping. School-based interventions have significant effects on student academic stress (Dray et al., 2017; van Loon et al., 2020). It follows that much research about academic stress during adolescence has centered around types of school-based interventions (Dray et al., 2017; Feiss et al., 2019).

School-based interventions fall into one of three categories: selective, indicative, and universal. Both selective and indicative programs are targeted interventions:

Selective intervention programs target students deemed at risk of mental health problems, due to individual or environmental characteristics such as socio-economic background. … Universal interventions are offered to all students regardless of risk or symptom status and are often aimed at enhancing wellbeing, resilience and promoting positive mental health. (Knight & Samuel, 2022, p. 91)

Dray et al. (2017) determined that universal interventions are most effective at reducing stress, whereas Feiss et al. (2019) determined that targeted interventions are more effective for students experiencing stress than universal interventions. The difference in findings can be explained by Feiss et al.'s (2019) sample, which included only four studies that specifically addressed student academic stress compared to Dray et al.'s (2017) inclusion of 57 studies. Additionally, Dray et al. (2017) focused on short-term intervention outcomes, and his synthesis did not include trials that had a long term—greater than 18 months—follow up to check intervention effects. In another review of school-based intervention studies, Knight and Samuel (2022) found that "slightly higher levels of effectiveness reported for targeted compared to universal interventions" (p. 91). Universal interventions may have a greater impact in schools where many students are in need of an intervention because all students receive universal interventions. Universal interventions provide care to adolescents who may be unlikely to access clinical support outside of school (Knight & Samuel, 2022). Some schools may not have the resources to screen all students and provide targeted, individualized support. In those cases, a universal intervention may be the most viable option.

Academic stress interventions could be beneficial in combatting the record levels of stress that adolescents today are suffering from, and there are many interventions educational

leaders may choose from (Dray et al., 2017; van Loon et al., 2020; Yeager et al., 2022). Effective interventions are centered around mindsets and school climate (Yeager, 2017). Accordingly, social and emotional learning (SEL) interventions that focus on mindset have received much attention recently (Allbright et al., 2019; Main, 2018; Nickerson et al., 2019; Yang et al., 2018). CASEL's SEL standards focus on five behavioral cognitive and affective competencies that include self-awareness and self-management and specifically aim to teach students to adopt a growth mindset (CASEL, 2022). Teaching mindset paired with coping impacts student academic stress management (Yeager et al., 2022). Therefore, many schools could find making an investment in school-based social–emotional wellness programs worthwhile for addressing academic stress (Allbright et al., 2019; CASEL, 2022; Dweck & Yeager, 2018; Yeager et al., 2022).

CASEL's SEL Framework

SEL instruction is one widespread solution to decreasing levels of student academic stress and increasing student's resilience (Dusenbury et al., 2014; Kim et al., 2018). "Well-implemented [SEL] programs … are associated with positive outcomes, ranging from better test scores and higher graduation rates to improved social behavior" (Melnick et al., 2017, p. v). The Collaborative for Academic, Social, and Emotional Learning (CASEL, 2022) developed SEL and an interconnected sets of behavioral competencies in the early 1990s. By 2017, all 50 states had adopted SEL standards for preschool (Allbright et al., 2019; Yang et al., 2018). By 2022, 27 states had also adopted K–12 SEL standards. The instruction of SEL skills may benefit many adolescent students as "there is a small but significant window of opportunity to explicitly teach and make a marked difference in the development of a young person's social and emotional skills" (Main, 2018, p. 143). SEL has been shown to have multiple positive impacts. SEL may reduce anxiety, depression, and emotional distress, as well as decrease the incidence of conduct

problems (McBride et al., 2016). SEL instruction may reduce both bullying in middle schools and student drug use (Nickerson et al., 2019). Additionally, SEL strategies may help young people adapt to change and develop resiliency (Main, 2018).

SEL programs implemented during the school day are more effective at increasing social emotional skills and academic skills than programs run after school hours (Allbright et al., 2019; Coelho & Sousa, 2017, 2018). Additionally, a semi-structured curriculum format yields better results than a prepackaged format (Coelho & Sousa, 2018; McBride et al., 2016; Yang et al., 2018). In a semi-structured curriculum, teachers may take the SEL characteristics and apply them to a variety of subjects and settings. Then, SEL programming may positively impact the implicit curriculum of a school. Programs that teach SEL skills in isolation, such as clubs or after-school programs, may not provide opportunities to apply skills throughout the day. Common language and familiar educators are other important factors in a successful SEL program (Allbright et al., 2019; Coelho & Sousa, 2018; Yang et al., 2018).

Coping Mechanisms for Academic Stress

Coping is a psychological process that is analogous to the biological process of adapting (Lazarus & Folkman, 1984). Individuals cope to return to a state of equilibrium just as in biology an organism strives to return to its natural balance (Lazarus & Folkman, 1984; Zarei et al., 2016). Lazarus and Folkman (1984) developed the concepts of problem-focused coping and emotion-focused coping. Adaptive coping strategies are generally problem-focused and propel individuals to find solutions to stressors. Maladaptive coping strategies are emotion-focused and serve to help individuals limit a reaction to stress through means such as avoidance, denial, distraction, or distancing (Lazarus & Folkman, 1984; Robinson, 2018).

Academic stress may be addressed through the coping process. Coping and academic stress have been examined, and the categories of adaptive and maladaptive coping have been

identified within academic settings (Rafati et al., 2017). Adaptive coping has been linked to academic success whereas maladaptive coping is predictive of academic struggles (Skinner et al., 2016). Adaptive coping strategies, including strategizing, seeking support, self-encouragement, and commitment, may mitigate the negative impact of stress (Erath et al., 2016; Skinner et al., 2016). Maladaptive coping strategies involve mental escape, concealing problems, becoming helpless, dwelling, ruminating, suppressing, wishful thinking, and blaming (Skinner et al., 2016; Wuthrich et al., 2020). Maladaptive coping does not increase engagement with academic challenges and also decreases the likelihood that students will pursue academic opportunities later in life (Erath et al., 2016; Leung & He, 2010; Martin, 2013).

Coping involves a cognitive behavioral effort to control stress and may be learned and improved through practice (Rafati et al., 2017). There are benefits to coping, such as growth and confidence (Lazarus & Folkman, 1984). Adolescents develop coping profiles, including both adaptive and maladaptive strategies that may be applied when academic stressors are encountered (Lazarus & Folkman, 1984; Skinner et al., 2016). Coping mechanisms are transferable from one context to another. For example, educators may teach students to apply coping mechanisms from social situations to academic situations (Erath et al., 2016). Certain levels of academic stress engage adaptive coping (Erath et al., 2016; Gonçalves et al., 2019). There is a positive and predictive relationship between adaptative coping and academic achievement (Erath et al., 2016; Gonçalves et al., 2019). Some academic stress must exist for students to engage in the coping process and develop the skills to navigate academic stress (Erath et al., 2016). With exposure to stressful or challenging situations, students develop resilience (Turner & Simmons, 2020). Educators can design academic challenges with an appropriate level of stress to cause students to engage with positive coping skills. This way, students may

experience academic stress in a classroom environment, allowing educators to help them utilize resources to adaptively cope with academic stressors.

Gonçalves et al. (2019) conducted a study that examined adaptive and maladaptive coping measurements utilizing the Multidimensional Measure of Coping. These researchers determined that there is a positive relationship between adaptive coping and academic achievement. The impact of stress on university students has also been examined, and researchers concluded that stress negatively impacts mental health but positively impacts academic performance (Khan & Shamama-Tus-Sabah, 2020). Rafati et al. (2017) found that educators could recognize coping strategies in nursing students. Additionally, educators were able to recommend specific training to help students manage academic stress (Rafati et al., 2017). Dweck (2006) explained that individuals who hold a growth mindset may learn new skills at any age (Dweck, 2006). With effort and repetition, neurogenesis occurs and the brain grows into an ability to accomplish a challenge. During early childhood and adolescence, there are specific windows of time when the brain is malleable, quickly developing, and primed to acquire new skills (Yeager, 2017). Therefore, exposing students to coping strategies during early education and secondary education is of particular import to establishing skills and building future habits.

Adaptive coping skills may be used by students at all grade levels—early education to postsecondary education—to help mitigate academic stress. The establishment of adaptive coping skills helps students become more resilient to future instances of academic stress. Student coping has been examined at the elementary, secondary, and postsecondary levels. Students benefit from coping skills and instruction, and educators can recognize and recommend strategies to reduce academic stress. Therefore, it may not simply be academic stress but a failure to use engaged coping mechanisms when facing academic stress that fosters negative outcomes

such as school burnout and mental health diseases (Bottiani et al., 2019; Kuo et al., 2018).

Adaptive coping skills enable students to learn, grow, and progress (Turner & Simmons, 2020).

Adaptive coping skills have also been linked with positive responses to academic challenges that

elicit stress (Erath et al., 2016; Park & Kim, 2018). Students who engage in adaptive coping

mechanisms experience higher academic achievement (Erath et al., 2016; Gonçalves et al., 2019;

Hirvonen et al., 2019; Kim et al., 2018; Sang et al., 2018). Additionally, adaptive coping has

been connected to facets of academic success such as perceived control, goals, self-esteem, and

conduct (Skinner et al., 2016). Adaptive coping mitigates the negative impact of stress during

secondary school transitions (Erath et al., 2016; Leung & He, 2010).

Maladaptive coping elevates student academic stress and reduces test scores in secondary

students (Wuthrich et al., 2020). In an educational setting, maladaptive coping strategies for

academic stress could manifest as student disengagement, helplessness, confusion, disruption,

procrastination, and avoidance (Sotardi, 2018). Educators may recognize students applying

maladaptive strategies to cope with academic stress and intervene by teaching adaptive coping

strategies (Korinek, 2021). Students may learn adaptive coping strategies by considering

mindset, applying coping strategies, and reflecting on feedback (Rafati et al., 2017). To improve

student coping and reduce stress, researchers have suggested educators apply clear expectations,

affirmation, occasions for student choice, and relationship-building opportunities (Korinek,

2021).

Secondary School Students

Despite school-based interventions to reduce stress and promote social and emotional

well-being, secondary students have experienced an increase in the occurrence of academic

stress over the past decade (Puolakanaho et al., 2019; Sotardi, 2018). Secondary school

encompasses the transitional years between elementary school and college, and is usually

comprised of Grades 6 through 12. Many secondary school students seek to develop an identity, fit in, find ways to achieve, and commit to goals, activities, and beliefs (Yeager, 2017). They may also have an increased fear of interacting with unfamiliar academic experiences during the transitional secondary school years (Erath et al., 2016). Students commonly report that academic stress is an ongoing issue during secondary school (Pascoe et al., 2020).

In the secondary school classroom, student academic stress may be triggered by the challenges of meeting academic, behavioral, and social expectations. Secondary students have reported that comprehension, task management, and comparisons to peers were common sources of academic stress (Turner & Simmons, 2020). According to the concept of signification (Vygotsky, 1978), school can be a previously neutral concept that may take on a different function for adolescents, such as source stress, an opportunity to have social needs met, or a way to please parents. Due to the number of changes that occur during secondary school, educators' observations of students' behaviors may vary. As educators' descriptions of experiences recognizing and addressing student academic stress were considered, mindfulness that adolescence is a transitional period was maintained.

Female Secondary School Students

Academic stress occurs at higher rates in female than male students (Chacón-Cuberos et al., 2019; Khan & Shamama-Tus-Sabah, 2020; Tehrani et al., 2018; Wuthrich et al., 2020). In a study of college students, Chacón-Cuberos et al. (2019) found that academic stress was 6% higher in female students. This finding is consistent with Wuthrich et al.'s (2020) study that the determination of the female gender is a contributor to academic stress and Khan and Shamama-Tus-Sabath's (2020) finding that females perceive more academic stress than their male counterparts. Zarei et al. (2016) found that at the high school level, coping strategy instruction has a significant effect on reducing academic stress in female students. Many other studies about

academic stress include a heterogenous sample of female and male participants (Khan & Shamama-Tus-Sabah, 2020; King & Kabat-Farr, 2022; Luo et al., 2020; Sang et al., 2018; Turner & Simmons, 2020). Therefore, there is a gap in research that examines academic stress specific to female adolescent students. Educators may recognize academic stress differently in different students, and gender may be considered when reviewing how educators work with students experiencing academic stress.

Educating Secondary Students

It is widely accepted that academic ability of secondary students depends on external and internal elements such as mindset, coping skills, parent education, and peer influence, yet society primarily looks to educators to remedy students' academic struggles (Zakaria et al., 2021). The purpose of public school educators today is to provide curriculum in a healthy environment so that students may become contributing members of society (Maykel et al., 2018). However, educators report stressful situations in today's classrooms. Teachers may need to address multiple behavioral disruptions, student learning needs, administrative tasks, and data collection requirements. Additionally, it may be challenging to capture the attention of adolescent students because their engagement declines during secondary school (Herman et al., 2020). Though student engagement may be low, adolescence is also a time when motivation can be encouraged by educators (Herman et al., 2020). The educators' role in student motivation is critical for many students to engage with academic challenges, but the task of teaching does not end there.

Secondary educators are often responsible for both the academic success and the social–emotional wellness of their students. Educators may be expected to recognize student problems and assist them accordingly. However, there are shortcomings in teacher education around teaching educators how to perceive student struggles such as academic stress (Sotardi, 2018). Secondary educators often strive to create positive classroom environments and foster

relationships with students. This may mitigate some stress levels because academic stress is directly related to the learning environments that educators establish as well as the feelings students have about their educators' academic expectations (Luo et al., 2020).

Educators may develop a variety of strategies to help their students achieve academic success. Relationship building is a common classroom strategy, and positive student–teacher relationships may reduce academic stress (Korinek, 2021). Adolescents often seek connections with adults other than parents, and teachers may serve as role models for students (Yeager, 2017). Luo et al. (2020) found that "the teacher–student relationship is important to middle school student's educational success. … Although middle school students often experience academic stress, teachers can provide sufficient methods to help students and enhance their psychological ability to withstand pressure" (p. 2). Educators may also impact student achievement by establishing expectations, providing students a sense of academic control, and involving other educators for specialized interventions. Linden and Stuart (2020) found that students who perceived more control of their academic work experienced lower levels of academic stress than students who did not feel a sense of ownership. Secondary educators may adjust physical items such as desks and décor to set the tone for their classrooms. Teachers may also make curricular and instructional decisions to establish expectations for engagement with academic tasks. An instructional decision to encourage student engagement could be to present a challenging assignment along with the explanation that effort is the most important element. For such an assignment, effort may be graded instead of accuracy to emphasize the importance of engaging with a challenge.

To increase secondary students' engagement and success, educators may present curriculum that meets students within their zone of proximal development (ZPD). Vygotsky posited that intellectual development is dependent on social interactions (Cherry, 2022).

Vygotsky's (1978) sociocultural theory explains that society—including parents, teachers, peers, and mentors—is responsible for individuals' learning. An important concept within the sociocultural theory is the ZPD (Vygotsky, 1978). The ZPD is defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). A child's developmental level reflects what the child has learned already, and the ZPD encompasses the characteristics of a child in the process of learning a skill they have not mastered. According to the sociocultural theory's concept of ZPD, there are two zones of learning (Vygotsky, 1978). The primary zone represents skills children possess, and the secondary level represents skill students can perform with guidance. It is suggested that educators plan for learning to take place in the ZPD and that curriculum be designed to teach students how to reach their next level of mastery. When a child is learning at the developmentally appropriate level and interacting with peers, the child's internal developmental process is active, allowing growth to occur. If a child is offered instruction above or below their level, they will not develop (Vygotsky, 1978). The ZPD represents the right level of instruction for each individual where students are challenged enough that they are engaged in learning but not overwhelmed by the material or task (Vygotsky, 1978).

Secondary educators must challenge students without increasing their perception of academic risk. Educators are encouraged to identify and minimize risks and should assist students in identifying and developing skills to control the impact of academic risks (Dweck & Yeager, 2018; Martin, 2013). Both the presentation of tasks and perceptions of academic control reduce academic stress in adolescent students (Dweck & Yeager, 2018; Linden & Stuart, 2020). However, despite how well an academic task is presented, students with low resiliency could perceive that a challenge will cause them academic stress and may disengage by shutting down,

acting out, looking busy, or rushing to task completion (Yeager & Dweck, 2020). Educators may

reduce student disengagement by implementing interventions to address academic stress in

secondary students. Educators also help students cope with academic risk perception through

teaching adaptive coping skills such as reflection, mindsets, or other coping strategies (Maykel et

al., 2018; Rafati et al., 2017; Sotardi, 2018; Wuthrich et al., 2020; Yeager & Dweck, 2020).

Educators are impacted by student academic stress through student behavior

manifestation and academic performance. In turn, educators may also have a mitigating impact

on the academic stress students experience (Bottiani et al., 2019; Neibauer, 2019; Yeager, 2017).

Students who are not able to utilize adaptive coping may become dysregulated and distracting to

other learners in the classroom environment (Sotardi, 2018). Secondary educators may see

academic stress manifest in students' emotions as anger or anxiety. Angry and anxious students

may, in turn, impact their peers and the learning environment (Zakaria et al., 2021). To support

students struggling with academic stress, educators may provide opportunities for students to

react by applying adaptive coping responses to academic stress, which could build resilience

(Turner & Simmons, 2020).

Educators of secondary students may promote coping strategies that have positive long-

term outcomes such as success in college (Herman et al., 2020). Previous studies have

demonstrated that educators are in a prime position to help their students apply problem-focused

coping strategies (Dweck, 2006; Yeager & Dweck, 2020). Due to recent studies about academic

stress and coping, educators may believe that students can develop new habits and skills and

could connect a growth mindset to a reduction of student academic stress (Burger & Samuel,

2017; Terada, 2018). Educators have reduced student stress and increased academic performance

through mindset instruction interventions, which illustrates that teaching a thought process could

improve academic ability (Dweck & Yeager, 2018; Yeager, 2017; Yeager & Dweck, 2020).

Through growth mindset research and literature, many educators have become aware that directing secondary students to engage in problem solving skills instead of emotional reactions helps reduce academic stress (Puolakanaho et al., 2019).

Other approaches educators may use to reduce student academic stress include family involvement and reaching out for guidance counselor or resource support (Herman et al., 2020). In some settings, educators may also apply religious practices to help students cope. Religious practices may reduce academic stress and help students see challenges as part of God's plan and therefore opportunities for growth (Zakaria et al., 2021). Educators are reliable reporters of students' experiences of academic stress, coping, and engagement (Inbar-Furst et al., 2021; Skinner et al., 2016). Educator participants' perceptions of students have shown strong connections between coping and achievement, whereas many student participants have focused on dissatisfaction and giving up (Skinner et al., 2016).

Changes During Adolescence

Adolescence is the stage of life beginning at the onset of puberty and ending with independence from adults (Yeager, 2017). It is a critical developmental period in which stress sensitivity is heightened (Tejada-Gallardo et al., 2020; van Loon et al., 2020; Yeager, 2017). When stress increases, life satisfaction and academic performance decrease (Linden & Stuart, 2020). Adolescence provides a developmental window for students to acquire adaptive coping strategies so it is particularly critical to address academic stress management during secondary school (Main, 2018).

Adolescence is a major transitional stage in psychological development when students experience significant changes in brain structure and hormonal activity (Tejada-Gallardo et al., 2020; Yeager, 2017). During the period of adolescence, the brain is malleable and grows at its second fastest rate, with the fastest growth occurring in infancy (Yeager, 2017). Stress sensitivity

is heightened during adolescence, and students enter a critical stage for the development of psychological disorders (Feiss et al., 2019; Tehrani et al., 2018; Tejada-Gallardo et al., 2020; van Loon et al., 2020). Stimuli may cause more intense reactions during adolescent years than in previous years so that students who had not experienced academic stress may begin to experience psychological reactions to academic challenges (Yeager, 2017).

Mental health issues increase during adolescence, and 68% of students have experienced trauma that impacts their academic work (Korinek, 2021). In the United States, 52 adolescents per million between the ages of 12–17 and 33 children per million under 12 years of age suffer from mental health issues that lead to suicide each year (Bridge et al., 2015). School is a primary concern for many adolescents, and they may be particularly susceptible to stress as they navigate the pressure of academic tasks (Yeager, 2017; Zarei et al., 2016). It is critical to understand how educators recognize and address student academic stress in secondary students because adolescent students may need support to develop coping strategies (Linden & Stuart, 2020; Wuthrich et al., 2020). Adolescent students who face academic stress and are unable to engage in adaptive coping may experience lower life satisfaction and increases in physical and mental health illnesses (Burger & Samuel, 2017).

The types of stress people experience change during different stages of life (Chacón-Cuberos et al., 2019; Zarei et al., 2016). At the onset of adolescence, students pay more attention to social cues and have increased sensitivity to feedback about their status or level of perceived respect. Feedback in both academic and social situations can impact adolescent students more than elementary or adult students (Yeager, 2017). Adolescent students may be more sensitive than students of other ages, so educators should offer feedback that encourages students to engage in coping strategies and adopt a growth mindset (Yeager et al., 2022). Feedback that encourages a fixed mindset such as "math is not your strongest subject" or "you are a B student"

should be avoided because it establishes a limit to achievement. Academic stress is a predictor of future internalizing disorders, but students who develop the habit of applying engaged coping strategies during adolescence may be better prepared to cope with future instances of academic challenges (Burger & Samuel, 2017; Feiss et al., 2019; Puolakanaho et al., 2019).

Role of Lifestyle in Academic Stress

Academic stress may negatively affect life satisfaction and increase rates of depression, but lifestyle choices such as diet, exercise, and resource management can alleviate academic stress (Linden & Stuart, 2020; Luo et al.,2020). Educators may teach students to make healthy choices about interacting with others, managing time, managing assignments and homework, participating in physical activity, resting, and eating healthfully (Linden & Stuart, 2020). Lifestyle choices, as well as family situation and support, have an impact on student academic stress (Luo et al., 2020). Educators who are able to help students engage in positive lifestyle choices could help students experience reduced academic stress (Park & Kim, 2018).

Nutrition and physical activity are elements of lifestyle that have been found to impact academic stress. The quality and quantity of food people consume impacts brain functioning as well as physical and emotional well-being (Chacón-Cuberos et al., 2019; Godos et al., 2018; Tehrani et al., 2018). Students who are overweight or underweight report more stress, and a high body mass index (BMI) is associated with higher levels of stress (Chacón-Cuberos et al., 2019). In a study of college students, it was determined that students with a BMI above or below average experienced higher levels of stress than respondents who were a healthy weight (Chacón-Cuberos et al., 2019). Therefore, maintaining a healthy BMI reduces levels of academic stress. One well known way to correct BMI is through exercise and diet. Research has found that eating healthy foods such as vegetables, fruit, and nuts helps to improve cognition and reduce

negative psychological states, including stress and depression which are negatively associated with management of academic situations (Godos et al., 2018).

Physical activity (PA) and physical exercise (PE) both play an important role in well-being. PA is a contributor to "the prevention and reduction of academic stress" (Park & Kim, 2018, p. 3). In fact, PE has been shown to improve attention capacity, increase cerebral oxygen flow, and stimulate endorphins that have a positive effect on the learning process (Erickson et al., 2015). PA is defined as all movements that expend energy whereas PE usually includes heart rate and time elements (Chacón-Cuberos et al., 2019). In a study of the relationship between academic stress, diet, and physical activity, researchers found that physical activity positively affects academic success (Chacón-Cuberos et al., 2019). Higher levels of PA help reduce student academic stress and improve academic performance so PA and PE may be considered when examining academic stress in adolescent students (Chacón-Cuberos et al., 2019; Kim et al., 2018). Some students may benefit from PA breaks, or movement breaks, to support focus during academic classes. Educators of secondary students may suggest the adaptive coping mechanisms of activity and exercise when working with secondary students experiencing academic stress. School support staff such as the school nurse, guidance counselors, or support services may work with students and families to support the physical wellbeing of students.

Family Influence

Just as students feel that educators hold expectations, adolescents also feel that their families have academic expectations for them (Luo et al., 2020). Though adolescent students are interested in defining their own goals and exploring independence outside of their immediate families, family life plays an important role in mitigating or perpetuating stress levels in adolescents (Lowe & Wuthrich, 2021; Yeager, 2017). In a study of adolescent students, Luo et al. (2020) found that higher levels of parental warmth correlate to lower levels of academic stress

in students. In middle school students specifically, maternal parental warmth elicited more motivated and positive responses to academic stress in students (Luo et al., 2020). Luo et al. (2020) incorporated research from multiple world regions into their research, but their study sample is reflective of students in China. Parental warmth may be influenced by culture so could vary by region and household. Parental support and warmth may be considered when addressing academic stress.

Parents' perspectives may influence students' attitudes towards academics. A decade ago, popular parenting books began portraying homework as an unnecessary mental challenge to children that caused them discomfort (Bennett & Kalish, 2007; Kohn, 2006; Kralovec & Buell, 2000). One author described homework as "devilish" (Bennett & Kalish, 2007). Another author was an educator and leading expert on parenting, so his claim that research, logic, and experience prove that homework is "modern cod liver oil" had an impact on many parents (Kohn, 2006, p. 147). According to those popular parenting books, the solution to academic stress could be to reduce academic challenges such as homework (Bennett & Kalish, 2007; Kohn, 2006; Kralovec & Buell, 2000). However, the reaction of reducing work does not help students manage stress; it just removes some of the current stress students may experience, leaving them unprepared to cope with stress in the future. Similar to educators, parents may be able to intervene as students experience stress by suggesting adaptive coping skills and mindset to manage academic stress (Khan & Shamama-Tus-Sabah, 2020; Turner & Simmons, 2020). Though some parents do not support homework, others encourage homework and/or academic challenges that provide students opportunities to grow outside of school hours.

Development of Perspectives on Stress

Stress and anxiety increase during adolescence, so students need to be taught how to cope with the challenges they encounter. Adolescents may learn to apply adaptive coping or mindset

instead of associating an anxiety-provoking task with a fixed ability during this critical neurological and psychological development stage (van Loon et al., 2020; Yeager, 2017; Yeager et al., 2022). Educators may teach students to develop and apply mindset to academic tasks, as students can acquire alternate perspectives (Dweck & Yeager, 2018; Yeager et al., 2022). Therefore, a student experiencing an elevated pulse may learn that her alertness will result in better brain functioning and is not a harmful medical issue. Educators influence students' cognitive engagement, including self-regulation (Inbar-Furst et al., 2021). Educators with a fixed mindset may assume that students have set abilities and could overlook instructing self-regulation strategies. Thus, a growth mindset is critical for both students and teachers to develop a positive perspective on academic stress (Dweck, 2006).

Internal perspectives about learning impact academic success and social–emotional well-being (Yeager & Dweck, 2020). Adolescents who learn how to hold a growth mindset may better navigate academic stress because they are focused on internal growth over task performance (Dweck, 2006). Motivation is affected by mindset, and since students arrive at school with different motivators and mindsets (e.g., academic success, socialization, parental approval), they arrive at school with different perspectives about learning. When students view learning as self-improvement instead of proof of intelligence, they may experience higher levels of academic success (Dweck & Yeager, 2018). Educators may encourage students to focus on internal growth instead of perfection as a means of addressing student academic stress in secondary students.

Stress may be associated with the external factors of academic challenges, and students must be motivated to learn how to cope and achieve academic success (You, 2018). When holding a growth mindset, persevering, and being appropriately challenged by external factors, students can learn to apply positive coping strategies to mitigate academic stress (Dweck & Yeager, 2018; Yeager et al., 2022; You, 2018). Students must practice managing academic stress

just as they practice other academic tasks, and educators should recognize and address academic stress in secondary students to help students develop adaptive coping strategies.

Summary

Academic stress is the condition or feeling that occurs when an individual perceives the demands of an academic task extend beyond their personal, social, or psychological resources (Burger & Samuel, 2017; Chacón-Cuberos et al., 2019; Lazarus, 1966; Rainwater, 2019; You, 2018; Zarei et al., 2016). Though frequently looked upon as negative, academic stress (in an appropriate amount) allows students to engage in positive coping strategies (Erath et al., 2016; Turner & Simmons, 2020). Educators may influence academic stress through relationship-building, classroom routines and environment task presentation, and teaching a growth mindset and coping strategies (Korinek, 2021; Yeager et al., 2022). Academic stress may be addressed on both an individual level and a larger, community-wide scale. There are many school-based intervention programs that have been designed to reduce student academic stress, and researchers have explored external and internal factors that reduce stress in adolescents (Dray et al., 2017; Feiss et al., 2019). In addition to examining interventions, researchers have categorized specific coping strategies for academic stress as adaptive or maladaptive strategies (Erath et al., 2016; Park & Kim, 2018). Educators encounter student academic stress at all levels of education, but adolescence presents a unique developmental stage for educators to address stress management because the adolescent brain is rapidly developing and at its most malleable point since infancy (Yeager, 2017). During the transitional middle school years, academic tasks can increase student stress (Erath et al., 2016; Yeager, 2017). Students' home lives and lifestyle may also impact academic stress (Luo et al., 2020).

The transactional model of stress (Lazarus & Folkman, 1984) offers a framework for educators to use to discuss ways that they can help students interact with the coping process. Few

studies have incorporated the perspective of educators in an examination of students' adaptive and maladaptive responses to academic stress, and studies of the relationship between academic stress and coping strategies are limited (Park & Kim, 2018; Skinner et al., 2016). Information from educators about the coping process would profit research, as there is a gap in knowledge about how educators describe and cope with student stress (Neibauer, 2019; Skinner et al., 2016).

School-based interventions and coping mechanisms have been measured in qualitative research studies (Dray et al., 2017; van Loon et al., 2020). However, the experience of educators recognizing and addressing academic stress in secondary students has not been examined through a qualitative study. An examination of educators who seek to recognize and address student academic stress may offer insight into the process of managing academic stress in secondary students. Adaptive coping mechanisms have been found to mitigate student academic stress in quantitative studies, but qualitative information about how educators teach students to manage academic stress is missing from the literature (Erath et al., 2016; Park & Kim, 2018). Quantitative researchers have also found educators may apply mindset and coping interventions to reduce student academic stress, but qualitative data is again absent from the literature (Dweck & Yeager, 2018; Yeager, 2017)

Academic stress has been measured in terms of students' responses to interventions and specific stress influences such as peer interactions, transitions, task presentation, and high stakes examinations. The mediating effects of coping and mindset have been considered, but an examination of educators who seek to recognize and address student academic stress has not been examined qualitatively (Chacón-Cuberos et al., 2019; Erath et al., 2016; Feiss et al., 2019; Gonçalves et al., 2019). Searches of EPSCO, Google Scholar, and Research Gate only yielded one qualitative study about educators' experiences with the phenomenon of student academic stress, and the researcher focused on elementary school, not secondary school (Sotardi, 2018).

Educators' recognition of academic stress and support of student coping are essential to examine (Sotardi, 2018). Adolescent mental health issues have been on the rise for the past decade, and adolescents report that education is a main source of stress. Therefore, the methods educators apply to recognize and address student academic stress are critical to examine (Burger & Samuel, 2017; Feiss et al., 2019; Persike & Seiffge-Krenke, 2012). Intervening in academic stress at a secondary school level could prevent the long-term negative impacts academic stress may have on physical and mental health (Linden & Stuart, 2020). This qualitative study contributes missing information about how educators seek to recognize and address academic stress in secondary students.

CHAPTER THREE: METHODS

Overview

The purpose of this phenomenological study was to explore educators' experiences recognizing and addressing student academic stress. I applied a hermeneutical phenomenological design to examine the lived experiences of educators who worked with students facing academic stress. Academic stress can impact students' psychological and physical health, but educators may teach adaptive coping skills to help students manage academic stress (Khan & Shamama-Tus-Sabah, 2020; Turner & Simmons 2020). This chapter contains details about the design of the study, the setting and participants, data collection methods, analysis procedures, trustworthiness, and ethical considerations.

Research Design

Researchers use qualitative methods to gain a deep understanding of a problem, follow up on quantitative research, and/or reflect the researcher's background (Creswell & Creswell, 2018; Creswell & Poth, 2018; Hatch, 2002). I used a hermeneutical phenomenological qualitative design that allowed me to draw from rich data and reflect on the educators' experiences of recognizing and addressing student academic stress in secondary students. Qualitative studies are needed to explain the gaps in quantitative research that has been conducted on universal and targeted interventions for academic stress (Dray et al., 2017; van Loon et al., 2020). Targeted interventions have been quantitively determined to be more effective than universal interventions at reducing student academic stress, but specific targeted interventions used by educators have not been examined (Feiss et al., 2019). Through this study, qualitative information about how educators recognize and address student academic stress though targeted interventions such as coping or mindset instruction is reported.

Qualitative studies examine the lived experience of a phenomenon and are shaped by a theoretical framework (Creswell & Creswell, 2018). In this study, participants reflected on the experience of seeking to recognize and address academic stress in secondary students. Qualitative data are important to collect because people learn about human experiences through language, and qualitative research allows participants to verbalize their perspectives (Moustakas, 1994). The primary type of qualitative data is interviews, but researchers may also include focus groups, questionnaires, reflective journals, and letters (Hatch, 2002; Merriam & Tisdell, 2015). Meaning is derived from the data through the analysis processes of coding and reflecting on themes and structure (Creswell & Poth, 2018; Moustakas, 1994; van Manen, 1997). Qualitative researchers seek insight into how individuals experience the world by examining the language participants use to describe their experiences (Merriam & Tisdell, 2015). Merriam and Tisdell (2015) also discussed how the human experience is composed of many individual viewpoints. To incorporate multiple perspectives, I collected narrative data from 10 educators about their experiences recognizing and addressing student academic stress. Quantitative researchers measure aspects of a phenomenon that have been realized; therefore, it is necessary to collect qualitative data when little is known about an issue. The data from this qualitative study provided insight into how secondary school educators recognize and address academic stress that could be measured in future quantitative studies.

Phenomenology is one type of qualitative research that provides a systematic way to uncover and describe the structures and internal meaning of lived experiences (van Manen, 1997). Phenomenology emphasizes a single idea and uses the perception of participants as the primary source of knowledge (Creswell & Poth, 2018; Moustakas, 1994). For this study, I examined educators' perceptions of recognizing and addressing student academic stress in secondary students. When researchers use phenomenology, they focus on participants' lived

experiences (Creswell & Creswell, 2018; van Manen, 1997). Phenomenological data analysis investigates how people view experiences by examining the participant's own words (Creswell & Creswell, 2018; Moustakas, 1994). Reflection is applied in phenomenological research to uncover the meaning of lived experiences (van Manen, 1997). I include reflective descriptions of educators' experiences including interview transcripts, focus group transcripts, and participant letters of advice in this study. This phenomenological study provides previously missing information about how educators recognize and address student academic stress in secondary students through an examination of participants' linguistic expression of the phenomenon. To interpret the language-based data, I applied hermeneutical analysis.

Hermeneutical data analysis involves the processes of reflecting, clarifying, and explicating the structure of meaning of a lived experience (Moustakas, 1994). Hermeneutical analysis may be applied to extract meaning from implicit actions (van Manen, 1997). A focus on consciousness and experience is the central element of hermeneutics (Moustakas, 1994). Hermeneutical research is a good fit for examining the lived experiences of educators' recognizing and addressing academic stress as it provides an opportunity for researchers to interpret the texts of the lived experience (Creswell & Creswell, 2018; van Manen, 1997). Hermeneutical research involves the "art" of reading a text to understand how individuals create meaning from the external world (Moustakas, 1994). This examination of educators' experiences working with students exhibiting academic stress provides rich data detailing the nuances of the phenomenon. The data from this study about educator's experiences recognizing and addressing academic stress may provide information about mindset and coping approaches for the mitigation of academic stress.

Setting and Participants

This study took place in a suburban school district with many similarities to other

communities in Massachusetts. Educator participants were of average age compared with their colleagues within the state. Due to similarities to districts in the state, study findings may be generalizable to other educators working in Massachusetts public schools. The setting, participants, and criteria for participation are outlined below.

Setting

The Midview School District (pseudonym) was selected for this study because of the number of veteran educators working with students experiencing academic stress. The district is average for the state in size, demographics, and achievement, which makes the findings generalizable to many educators in Massachusetts communities. Midview Public School System is comprised of four schools serving 2,178 students in Grades K–12 (Department of Elementary and Secondary Education [DESE] School & District Profiles, 2021). Data from the DESE website indicate that per student expenditure, teacher salary, student and teacher retention, and performance on standardized tests are average when compared with schools in the region (DESE, 2021).

The superintendent of Midview Public Schools has held his position for 8 years, during which time the secondary schools have experienced frequent turnover in administrative leadership (M. Public Schools, 2022). The middle school has seen three different principals, five different vice principals, two different housemasters, and two different deans of students in the last 5 years (M. Public Schools, 2022). Each administrator has had unique goals, so the middle school has experienced many changes and new initiatives. Adolescent students experience heightened sensitivity to changes during adolescence (Yeager, 2017). Therefore, the community changes in structure and expectations that result from high administrative attrition may increase adolescents' academic stress. Students have reported elevated school-related anxiety at Midview—and throughout the world—in the past decade (MetroWest Health Foundation, 2019;

Sotardi, 2018; Zarei et al., 2016). The situation of frequent changes and increased student academic stress make the Midview School District an ideal location to examine educators' experiences recognizing and addressing student academic stress. Although the community has expressed interest in reducing student stress through extended recess, proposed scheduling changes, an equity investigation, and SEL initiatives, a formal investigation of how educators recognized and addressed student academic stress had not been conducted prior to this study.

Participants

A qualitative study should include five to 25 participants (Polkinghorne, 1989). I sought to recruit between 12–15 participants so that ample data could be collected even if a few participants withdrew from the study. I received 14 responses, and 10 of the respondents became participants in my study. I followed up with the other four educators via email three times each, but they did not respond so were not included in the study. Inbar-Furst et al. (2021) found that veteran educators have had time to refine their teaching practices and reflect on best practices for supporting secondary students. With this in mind, I decided to include secondary educators with a minimum of 10 years' experience who are working with adolescents in an educational setting as participants in this study.

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Researcher Positionality

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My motivation for this study was a desire to understand how educators recognized and addressed student academic stress in secondary students. Academic stress in secondary students has increased over the past decade, and educators who offer instruction about adaptive coping and mindsets could help students manage academic stress (Sotardi, 2018; Yeager et al., 2022; Zarei et al., 2016). This research constructed meaning from educators' experiences recognizing and addressing student academic stress, so a social constructivist framework was applied. The interpretative framework and philosophical assumptions are described in this section.

Interpretive Framework

A constructivist view is often applied in phenomenological research because researchers are constructing meaning from how participants describe experiences (Check & Schutt, 2012; Creswell & Poth, 2018; Moustakas, 1994). The application of a social constructivist framework supports finding meaning from experiences (Creswell & Poth, 2018; Hatch, 2002). Individuals construct a subjective meaning of the world based on experiences with objects or phenomena (Check & Schutt, 2012; Creswell & Poth, 2018; Merriam & Tisdell, 2015). In this study, educators' experiences recognizing and addressing student academic stress were examined to construct meaning of the phenomenon of working with students experiencing academic stress. Individual views are varied and complex, and a constructivist framework seeks to develop a pattern of meaning in composite individual views through inductive inquiry (Creswell & Poth, 2018). Social constructivist researchers use open-ended questions that flow from broad to narrow and carefully listen to and review the narrative created by participants (Creswell & Poth, 2018; Hatch, 2002). For this study, I carefully constructed questions to elicit information about participants' experiences. Questions became narrower as the inquiry process progressed. I recorded sessions to create opportunities to carefully review interviews. The result of inquiry was a composite representation of how educators view the lived phenomenon of this study (Check & Schutt, 2012; Moustakas, 1994).

Philosophical Assumptions

Philosophical assumptions inform research goals, outcomes, and research-related decisions (Creswell & Poth, 2018; Merriam & Tisdell, 2015). Ontology is the researcher's view of reality, epistemology is how the researcher understands reality, and axiology is the researcher's value-stance (Creswell & Poth, 2018; Hatch, 2002). The researcher's worldview and values may impact choices the researcher makes throughout a study. Outlining the philosophical

assumptions of the researchers may add to the credibility of a study. Ontology, epistemology, and axiology are articulated in the following sections.

Ontological Assumption

Reality and its characteristics appear differently depending on an individual's perspective (Creswell & Poth, 2018; Hatch, 2002). Researchers embrace various realities as they engage in qualitative research, and they bring their own perspectives to their research (Creswell & Poth, 2018; Merriam & Tisdell, 2015). I hold the ontological position that God's truth is the singular reality. My relationship with God is a source of support because God offers strength and guidance throughout challenging times (Blackaby & Blackaby, 2006; *New International Version*, 1978/2013, Psalm 46:1, Jeremiah 29:11-13; Zakaria et al., 2021). Scripture teaches that wisdom is more valuable than gold and implores mankind to "get wisdom … do not forsake wisdom … though it cost you all you have, get understanding" (*New International Version*, 1978/2013, Proverbs 4:5–7). Therefore, I seek to gain understanding and wisdom. God's word also supports ethical research, as God asks that Christians demonstrate love for others (*New International Version*, 1978/2013, 1 John 2:9-11; John13:34; 1 Peter 1:22). In this study I sought to gain a better understanding of educators working with students experiencing academic stress.

Epistemological Assumption

In qualitative studies, the researcher must understand participants so that evidence may accurately reflect individuals' views (Creswell & Poth, 2018; Moustakas, 1994). I can relate to the participants in my study because I am an educator with over 15 years of classroom experience. I taught in the community where I conducted this research, so I may have a deeper understanding of participant perspectives than an educator from outside the district. I am also a parent of three adolescent children, so I can understand educator, parent, and student issues and perspectives. I had no vested interest in the research outcomes beyond conducting an unbiased,

ethical study about the educator experience of recognizing and addressing student academic stress in secondary students.

Axiological Assumption

All researchers hold a position towards research context and setting (Creswell & Poth, 2018). As an experienced teacher, I consider most educators to have students' best interest in mind and work to help students learn and grow. I believe that all individuals may grow and change, as outlined in Dweck's (2006) growth mindset theory. Therefore, I hold the perspective that students and educators could improve performance in all areas of their lives. I also believe higher level functioning may be difficult without first having the basic needs of psychological, safety, belonging, and esteem needs met (Maslow, 1943). Additionally, I believe that leadership is critical to organizational success and that the strongest leaders depend on God and prayer to support their constituents (Blackaby & Blackaby, 2006; Kouzes & Posner, 2017). I applied my axiological assumption by maintaining the perspective that educators' intents are to foster student growth. Through maintaining an awareness of my own values, I was mindful to recognize, reflect on, and include the values of participants.

Researcher's Role

The researcher role includes the researcher's involvement with the participants and setting (Hatch, 2002). I was a human instrument conducting my study, so my relationship to participants and Midview School District may have impacted elements of my study. My position as a seventh-grade English language arts teacher is equal to that of my participants; I hold no authority over my them. The biases I hold that may impact the study include a conservative religious worldview and holding a poor opinion of the supports that are offered to public school educators. My assumption that educators have students' best interests in mind may have led to the assumption that interventions were intended to support student growth. I am practiced at

interpreting language from my experience as an English language arts teacher. My comfort with language, both written and spoken, influenced my choice to conduct a qualitative study. The implications of my biases and assumptions had a limited impact on the study but included a positive perspective of other educators and a negative opinion of the opportunities educators have to learn about student academic stress and supporting coping skills. No data were collected in advance of IRB approval.

Research Questions

Central Research Question

How do educators describe experiences of recognizing and addressing academic stress in secondary students?

Sub-Questions

1. How do educators describe experiences of recognizing academic stress in secondary students?

2. How do educators describe experiences of helping secondary students with a fixed mindset develop a growth mind?

3. How do educators describe experiences of encouraging adaptive coping strategies for academic stress in secondary students?

4. How do educators describe the outcomes of addressing academic stress in secondary students?

Procedures

Procedures are the methods and the steps a researcher follows to conduct a study. Procedures are carefully outlined so that this study of educators working with students experiencing academic stress may be replicated. Appendixes are referenced throughout the procedures section to provide elaborate details about permissions, recruitment, and consent. This

section addresses site permission, IRB approval, and obtaining participants.

Permissions

I received IRB approval, and the letter is displayed in Appendix A. The superintendent of the school district offered the director of health and wellness as a support and resource for the research process. This director provided datasets and was available to discuss student health and wellness data. After IRB approval, I completed a pilot study using all three data collection methods with educators in other school districts who did not participate in the study. To ensure clarity of all planned research methods in this study, before I began to recruit participants or collect data, I tested the individual interview, focus group, and letter of advice data collection methods with a group of educators who did not participate in the study (Check & Schutt, 2012). Following the pilot study, I began the recruitment of participants.

Recruitment Plan

For this study, I used homogeneous purposeful sampling, which provides researchers an opportunity to select individuals that can show different perspectives (Creswell & Poth, 2018). Homogeneous sampling uses similar cases to study what they have in common (Patton, 2015). It is critical that participants in the study have experienced the phenomenon under investigation (Bickman & Rog, 2009; Creswell & Poth, 2018). I selected veteran educators for this study. A combination of middle school teachers, guidance counselors, and high school teachers were included to gain perspectives from a variety of secondary educators who work with students experiencing academic stress. The sample size was 10 participants who had experience recognizing and addressing academic stress in secondary students. Participants were asked to volunteer for a place in the study by responding to a district-wide recruitment email that a gatekeeper emailed to faculty and guidance counselors during the fall of 2022 (see Appendix B). Interested individuals were asked to volunteer by responding to a short Microsoft form screening

survey that was returned to my email (see Appendix C). The screening survey collected information about years of experience and ability to participate.

I selected the participants who had the most experience and who were likely to provide thorough responses, or who had unique perspectives. I selected a variety of educators to create diversity in content and grade level representation. I included guidance counselors from the middle and high school because they offered information classroom teachers may not have possessed. After I purposefully assembled a well-rounded group of participants, I invited them to participate (see Appendix D) and sent the consent form (see Appendix E). Through the inclusion of participants with varying experiences, I gathered information to obtain a thorough understanding of the experience of the phenomenon.

<div align="center">**Data Collection Plan**</div>

Data were collected about educators' experiences through individual interviews, a focus group, and a participant letter of advice. First, I held individual interviews to collect initial data. Then, I conducted focus groups to build on information discovered through the interviews. Finally, participants composed a hypothetical letter of advice to capture recommendations and thoughts that may have surfaced after the interview and focus group. My intent was to gather rich descriptive data from participants about educators' experiences recognizing and addressing students' academic stress through each of the data collection methods. The data collection methods are outlined below.

Individual Interviews

Individual interviews are a means to collect information about how people understand their experiences with a phenomenon and are a key component of qualitative research (Creswell & Poth, 2018; van Manen, 1997). For phenomenological research, in-depth interviews are the primary source of information (Creswell & Poth, 2018; Moustakas, 1994). van Manen (1997)

stated that in a hermeneutic phenomenological research study, interviews hold two purposes. First, he mentioned that interviews are used to gather and explore narrative materials that can provide a deeper understanding of a phenomenon. Second, he noted that interviews are used to establish a conversational feel as the essence of an experience is discussed. In-person, private recorded interviews occurred in a private setting where we were not overhead by others. I listened carefully to participant responses and applied listening strategies such as eye contact, nodding, tracking the speaker, and prompting elaboration to lend the interview a conversational feeling and elicit rich data. The following list contains interview questions that were designed to elicit substantive descriptions of the phenomenon of educators recognizing and addressing academic stress in secondary students.

Individual Interview Questions (see Appendix F)

1. What hobbies or activities are your favorite stress relievers? How did you experience academic stress as a student? Grand Tour & Icebreaker question

2. Try to remember one of the last times you interacted with a student experiencing academic stress and tell me about the situation, how you felt and what you said. CRQ

3. Tell me how you recognize academic stress in students. SQ1

4. Tell me how you recognize maladaptive (non-problem solving) coping in students facing academic stress? SQ1

5. Describe your experience helping students with maladaptive coping skills develop adaptive coping skills. SQ3

6. Tell me which supports your students need to develop adaptive coping skills. SQ3

7. Tell me how you recognize a fixed mindset in students facing academic stress. SQ3

8. Describe your experience helping students with a fixed mindset to develop a growth mindset. SQ2

9. Tell me which supports your students need to develop a growth mindset. SQ2

10. Describe how you support students' assessments of academic tasks. SQ3

11. Describe your experience with the outcomes of addressing student academic stress. SQ4

12. What dimensions and incidents connected to the experience of working with students facing academic stress stand out to you? CRQ

13. How has recognizing and addressing students' academic stress affected you? What changes do you associate with the experience? CRQ

14. What feelings were generated by your experiences working with students experiencing academic stress? CRQ

15. What thoughts stood out to you as you worked with students experiencing academic stress? CRQ

16. Have you shared all that is significant with reference to the experience of recognizing, addressing, and noting the outcomes of student academic stress? CRQ

The above questions were included because of their relation to the central research questions and four sub-questions. Question 1 was an icebreaker and helped participants focus on the topic of academic stress. Question 25 elicited information about how educators feel about student academic stress as well as educator responses to student academic stress, and related to the central research question. Question 3 connected to Sub-Question 1 and was designed to gather examples of how educators recognize student academic stress. Questions 4, 5, 6, and 10 related to the theoretical framework as well as Sub-Question 3 because they asked about recognizing maladaptive coping in students and supporting adaptive coping. Questions 7, 8, and 9 collected information about the growth mindset, and they also related to the theoretical framework and Sub-Question 2. Question 10 asked educators to reflect on how they have responded to academic stress and relates to Sub-Question 4. Question 11 also related to Sub-

Question 4 and collected data about the results of addressing student academic stress. Questions 12–16 were connected to the central research question and asked about the impact of addressing student academic stress, including educator thoughts, feelings, and significant experiences related to addressing student academic stress. Questions were composed to facilitate the collection of rich descriptions of educators' experiences working with students facing academic stress.

Individual Interview Data Analysis Plan

Interview data were transcribed from audio recordings, member checked, and then analyzed. After I completed the transcriptions, I emailed each participant his/her transcription as an attached Word file for member checking. Participants were given 2 weeks to review their transcriptions for accuracy. I asked them to use track changes to make adjustments in their transcripts and then return it to me via email. After participants emailed me their edited transcriptions, I read them to become familiar with the data. Next, I began to apply phenomenological reduction to the interview data. In this step, the horizons of a phenomenon were determined (Moustakas, 1994). I began the process of reduction and considered each extracted phrase in context to ensure accuracy. As I reviewed extracted phrases, I grouped them according to intended meaning. Then, I returned to the interview transcripts and considered the extractions as they relate to the context of participants' descriptions. Through this process of horizonalization, I was able to determine the phrases that carry common intended meaning. Individual interview data analysis included horizonalization and the development of preliminary codes from the interview data.

Focus Group

Focus groups are beneficial to qualitative research when interaction between participants will foster a deeper understanding of the phenomenon, and when participants are similar

(Creswell & Poth, 2018). Educators in this study had a shared vocabulary due to commonality in work environment and profession. Participants were offered a list of available focus group times, depending on availability, and they chose which one to attend by responding to an emailed list of available dates and times. I conducted three focus groups in total. Questions were based on Lazarus and Folkman's (1984) theory of appraisal, stress, and coping and related to the central research question: What are the experiences of educators who work with students experiencing academic stress?

Focus Group Questions (see Appendix G)

1. Try to remember one of the last times you interacted with a student experiencing academic stress after your initial interview and tell me about the situation, how you felt, and what you said. CRQ

2. Have you noticed any change in how you recognize student academic stress since our interview? SQ1

3. What resources do you use to help students develop a growth mindset? SQ2

4. Which elements of the growth mindset are most useful in reducing student academic stress? SQ3

5. What resources do you use to help students develop adaptive coping strategies? SQ3

6. Which adaptive coping strategies do you often encourage students to use? SQ3

7. When do you intervene to support students experiencing academic stress? SQ3

8. What supports are available for educators to help mitigate student academic stress?

Questions 1 and 2 were included to assess any change in perception or management of academic stress following the individual interviews and to center the conversation in the phenomenon of students' academic stress. Questions 3 and 4 related to Sub-Question 2 and are on the topic of the growth mindset. Questions 6 and 7 addressed how and when educators

intervene in the coping process. Question 8 asked about the supports that educators access to help them mitigate students' academic stress.

Focus Group Data Analysis Plan

I recorded and transcribed the focus group interview and sent each participant their part of the focus group with the request that they complete a member check for accuracy. Then, I used the member checked transcripts to apply Moustakas's (1994) method of analysis for phenomenological data using hand coding. As I analyzed data, I considered the context of the expressions to confirm the extractions were accurate. I used horizonalization and phenomenological reduction to find the preliminary codes from the focus group data. During this step, data were horizonalized, and the first part of data analysis for the focus groups continued until preliminary codes were determined.

Participant Letter of Advice

Letters are a qualitative data collection tool, as they are an open-ended form of data collection that encourages participants to freely share their ideas (Creswell & Creswell, 2018). I asked participants to compose a hypothetical letter that offers advice to teachers for encouraging students to engage in the coping process. The instructions for the letters of advice are outlined below.

Letter of Advice Instructions (see Appendix H)

Please write a letter of advice to another educator who may be struggling with students who exhibit academic stress. Please include information about how to encourage students' coping processes. Include any of the strategies that have helped you personally as well as any tips for recognizing or addressing student academic stress. Type your response in this Word document below these instructions. When the letter is complete, please return this document via email.

Participant Letter of Advice Data Analysis

The analysis of the hypothetical letters of advice to teachers occurred after participants composed and submitted their letters. I reflected on each hypothetical letter of advice and transferred the letter into a Word document for analyzation. After rereading each letter, I used Moustakas's (1994) phenomenological method of data analysis to determine horizons and preliminary codes. Data analysis continued until codes were borne from letter of advice data.

Data Synthesis

Hermeneutic phenomenological data analysis involves the processes of reflecting, clarifying, and explicating the structure of meaning of a lived experience (Moustakas, 1994). Often, structure is realized by transcribing, coding, reflecting on, and categorizing themes that emerge (Creswell & Poth, 2018; Moustakas, 1994; van Manen, 1997). Moustakas was a psychologist, and his methods are applicable to phenomenon that relate to psychology (Creswell & Poth, 2018). For this study, I applied Moustakas's method of phenomenological data analysis. The analysis model included the steps of epoche, horizonalization, phenomenological reduction, imaginative variation, and synthesis of composite textural and compositive structural description (Moustakas, 1994). The evidence for phenomenological research comes from narrative description of experiences and is analyzed to determine meaning (Moustakas, 1994).

Throughout this study I was mindful of the importance of bracketing to set aside my biases and create a state of *epoché.* As I noted previously, I composed a reflexive journal in which I recorded and set aside my biases to create a state of *epoché* from which to consider data. Next, I completed horizonalization for each individual data collection method in Word using color coding and notes. I reviewed the member checked interview transcripts, focus groups transcripts, and letters of advice during this stage. All statements were treated as equal in this step.

Then, I began the third step of again using reduction and elimination by determining horizons of the whole dataset. The primary codes from each individual dataset had been determined, and the horizons became the final codes. During this step the horizons—or units of meaning called invariant constituents—were determined (Moustakas, 1994). To be an invariant constituent, an expression must meet two requirements: it must contain a moment of the experience that is necessary for understanding the experience, and it must be possible to extract and label the expression (Moustakas, 1994). I looked for expressions that related to my topic and framework, as well as seeking to discover new elements of the phenomenon. I examined the expressions to cluster and label them. During this step, I considered the expressions in context to help ensure they may be extracted and labeled.

Following this, determining invariant qualities, themes arise from clustered and labeled constituents (Moustakas, 1994). Themes are essential to phenomenological research, as themes are understood as the structures of experience (van Manen, 1997). I validated themes through a check against the complete dataset. The themes were explicitly expressed or compatible with information expressed in at least two of the data collection methods to be relevant; if they were not relevant, they were deleted (Moustakas, 1994). For validation, I reread transcripts to check for accuracy of themes.

Finally, I constructed a composite textual description, the final step in data synthesis. The composite description combined the invariant constituents and themes to create a textural structural description for each of the major themes that emerged. The Results section of Chapter Four provides a table that includes the final codes, the textual structural description of the major themes, and their subthemes. I included narrative discussions with verbatim examples and in-vivo quotes identifying the participants by their pseudonyms and the data source. Paired with the

information in the table, this provides multiple descriptions of the results and creates a deep understanding of the data.

<div align="center">**Trustworthiness**</div>

Trustworthiness in qualitative studies can be achieved through the concepts of credibility, transferability, dependability, and conformability, as established by Lincoln and Guba (1985). A qualitative approach was taken to ensure a deep understanding of educators' recognizing and addressing academic stress in secondary students. The current study utilized methods to ensure that relevant, useful data were collected about the phenomenon under investigation. The steps taken to ensure a trustworthy qualitative study are described in the following sections.

Credibility

Simply stated, credibility is the truth of the findings (Lincoln & Guba, 1985). Credibility may be established through prolonged engagement, triangulation, and member checks (Lincoln & Guba, 2013). I completed member checks, also called respondent validation, to ensure that I understood participants' descriptions as they intended me to understand them (Bickman & Rog, 2009; Bryman, 1988; Lincoln & Guba, 1985). Respondent validation is the most important way to rule out misinterpretation of a participant's responses (Bickman & Rog, 2009). I ensured that individual interview and focus group transcripts underwent respondent validation to achieve credibility. After interviews and the focus group were transcribed, I returned the transcripts to participants so they could check them for accuracy. Triangulation is accomplished when three or more data collection methods are used in a study and corroborate that the data are accurate (Lincoln & Guba, 2013). I ensured this study achieved triangulation through the inclusion of three data collection methods: an interview, a focus group, and a letter of advice. To further establish the use of triangulation in this study, I reported the name of the participant and the data source when I reported my findings in Chapter Four. Prolonged engagement is an element of

qualitative research that required the researcher to spend adequate time collecting data (Hatch, 2002). This helped me understand the data, the participants, the community, and assemble an accurate narrative. I collected data starting in the winter of 2023 and spent sufficient time in the field collecting data and analyzing it to derive credible results.

Transferability

Transferability refers to the generalizability of results in qualitative research (Bickman & Rog, 2009). Transferability allows findings from a study to be applied to other contexts (Lincoln & Guba, 1985). Some features that lend transferability to qualitative research are nonrandom samples, respondents' assessment of generalizability, and the depth of the phenomenon investigated (Bickman & Rog, 2009). I established transferability by collecting deep, rich data, eliciting descriptive statements from participants, and maintaining an audit trail. I kept an ongoing audit trail (see Appendix I) where I recorded all of the steps taken in this study to assist another researcher who may want to replicate this study. An audit trail may help other researchers replicate a study and could allow the inquiry process and data collection to be reviewed (Lincoln & Guba, 2013).

Dependability

Dependability in qualitative research means the findings are consistent and the study could be repeated (Lincoln & Guba, 1985). I will achieve dependability in this study through a peer review or inquiry audit. I found two individuals who are familiar with qualitative research. When I finished the analysis of all datasets and derived the findings of this study, I asked these individuals to review my raw data, analysis process, and how I derived the themes and subthemes. They also reviewed a draft of the results section from Chapter Four to check for accuracy between the raw data, themes, and ensure that my findings were dependable.

Confirmability

Confirmability is the extent to which a study's findings are shaped by the participants and not altered through researcher bias, motivation, or interests (Lincoln & Guba, 1985). For this study, I maintained a reflexive journal to reduce bias and judgement and create *epoché* (see Appendix J). *Epoché* is a way to view phenomenon from a fresh perspective that suspends previous understandings and emotions (Moustakas, 1994). The researcher "brackets" or sets aside prejudices so they do not influence the data collection or analysis process (Merriam & Tisdell, 2015). My reflexive journal helped confirm my bias and judgement that arose throughout the course of this study and allowed me to observe the phenomenon of educator experiences addressing student academic stress from a clear perspective of what the participants reported to me.

Ethical Considerations

Ethical principles guide human science researchers (Moustakas, 1994). I obtained site approval, informed volunteers that their participation was voluntary, maintained confidentiality, and obtained informed consent. Pseudonyms were used, and data were stored on a private drive. Participants were asked to refrain from using student names in the letter of advice and to use pseudonyms instead. Identifying information about minors was removed from all transcripts and data. Additionally, I provided detailed information in response to participant questions about the nature of the study before, during, and after data analysis as outlined by Moustakas (1994). Data were stored and backed up on my personal laptop. My laptop was secured by requiring a fingerprint or pin to log in, and was password protected with a different password. Data will be maintained for 3 years. After 3 years, I will delete data by deleting audio and digital files and shredding paper documents. Findings may be applied to research in the future.

Summary

The research design, research questions, researcher positionality, researcher role, the setting, participants, procedures, data collection, and trustworthiness were presented in Chapter Three. Through this study, I examined the lived experience of educators who sought to recognize and address student academic stress through qualitative hermeneutic phenomenology. I composed questions from the central research question, "How do educators describe experiences of working with secondary students facing academic stress?" I described the education setting in detail and obtained permission for site approval. I collected data from the participant responses to individual interviews, a focus group, and a participant letter of advice. I transcribed the interview and focus group data and completed member checking before beginning the coding process. Then, I synthesized all data and developed the themes and subthemes. Trustworthiness and ethical considerations were maintained throughout the study.

CHAPTER FOUR: FINDINGS

Overview

The purpose of Chapter Four is to present findings about this phenomenological study that explored educators' experiences recognizing and addressing student academic stress. Chapter Four contains the results of data analysis presented as themes, descriptions, and in vivo quotes that provide a deeper understanding of the essence of educators working with students experiencing academic stress. This chapter contains participant descriptions, a theme development table, data in the form of narrative themes, research questions responses, and a summary.

Participants

To select participants, I used purposeful sampling. Ten veteran educators with experience recognizing and addressing student academic stress were selected for the study. Educators were selected based on their years of experience, ability to articulate and clearly communicate their experiences, and their unique perspectives. I received 14 responses to my recruitment survey from which I selected a variety of veteran educators. I purposefully included educators who are content teachers as well as educators who support students' mental health, well-being, and academic success. Most educators worked within the same district. One participant, an academic support specialist from outside of the district, was included for expertise and to confirm findings from within the district. Demographics for the teacher participants are presented in Table 1. Following the table, I included participant profiles reflecting their status and/or personalities at the time of this study. This information was gleaned from my interactions with them during this study or through my personal knowledge of them as an employee at the same school where my research was conducted. The perspectives of the array of educators who address students'

academic stress were combined to create a sphere of viewpoints surrounding the phenomenon of working with students experiencing academic stress.

Table 1

Teacher Participants

Teacher Participant	Years Taught	Highest Degree Earned	Content Area	Grade Level
Alex	20+	Masters	Administration	5–8
Bella	20+	Masters +60	Technology	5–8
Cora	10–14	Masters	Foreign Language	5–8
Doris	15–19	Masters +45	Coach	5–8
Ellie	15–19	Masters	Social Worker	5–12
Francis	20+	Masters	Academic Support Specialist	6–12
Gwen	10–14	Masters +30	English	7
Hazel	10–14	Masters +30	English	8
Iris	20+	Masters +60	Math	6
Joy	20+	Masters +30	Special Education	7–8

Alex

Alex is a special education administrator who is also an expert on trauma. She is an efficient individual who uses brevity in her speech and writing. Alex frequently collaborates with classroom educators and parents to support students facing academic stress. She also supports

students directly, follows up about parent concerns, and coordinates meetings. Alex emphasizes the importance of parent involvement in student struggles.

Bella

Bella is a compassionate technology teacher who views students as flowers waiting for their time to bloom. She has a background in early childhood education and has worked in both elementary and secondary classrooms. Bella is reflective about her teaching practice and seeks the support of other educators when working with challenging students. Bella embodies the importance of kindness in education.

Cora

Cora is an enthusiastic foreign language teacher. She greets her students by their names at the door at the beginning of class. At the end of class, she stands at the doorway to say goodbye to each student in French or Spanish. Her class has many routines that allow for student collaboration and participation. Cora emphasizes the importance of student feedback and often adjusts her practice based on her students' needs.

Doris

Doris is a passionate educator. Doris's educational style matches her sharp and witty personality. Doris has expansive background knowledge about the adolescent brain. She believes that students should be taught how their brains work so they can better understand and navigate the physiological impacts of their emotions. Doris thinks and speaks quicky, which serves her well as she works to support students, teachers, and administrators.

Ellie

Ellie is an astute and caring educator. She often takes her work home with her and communicates with students and parents after school hours, sometimes via her personal phone number. Ellie works with many students who struggle to replace their maladaptive coping

strategies with adaptive coping strategies. She is considered a resource by many other educators in her district. She has guided many families through challenging seasons.

Francis

Francis is a knowledgeable and well-spoken educator with expertise in academic support and attentional difficulties. He wrote a book about supporting students with attention deficit hyperactivity disorder (ADHD) in a school environment. Francis works at a different secondary school than the other participants. He was selected for this study because of his expertise and the insight that he can offer. In his role as an academic support specialist, he collaborates with a mental health worker, other educators, and parents to help students experience success.

Gwen

Gwen is a technology-savvy, good-natured educator. She is highly organized and always seems to have answers at her fingertips. She is known for her ability to quickly locate the documents and data that she needs. She tracks her students' progress closely and rarely allows students or assignments to slip through the cracks. Gwen's former students say she is "awesome," and her colleagues agree.

Hazel

Hazel is an insightful educator with an ability to simultaneously see both the big picture and the details. Hazel emphasizes the importance of building relationships with her students. She frequently shares personal anecdotes to help students understand that she is truly empathetic about their struggles. Hazel has given much of her personal time to her students over the years. In addition to teaching, Hazel has been a coach at the middle school and high school in her district.

Iris

Iris is a structured educator who has a strong ability to create classroom routines. She has high expectations for her students, but also strives to create a relaxed and comfortable learning environment. Iris believes that there are various methods students can apply to arrive at conclusions. She strives to present a variety of skills to her students so that they may select the tools that work best for them. She also encourages her students to collaborate with each other, so they have opportunities to explain complex ideas in "kid language."

Joy

Joy is a kind and inclusive educator. She is known to address students with terms of endearment and has such a calming disposition that even the most anxious students respond well to her. Joy has an ability to accommodate students and modify their work so that they can achieve academic success. Joy builds positive relationships with those around her. Her patience serves her well as she works to support students, parents, and other educators.

Results

In this section, findings about the experience of educators working with students experiencing academic stress are organized by major themes and subthemes. Major themes are presented in tabular form and followed by narrative descriptions. Four themes and their subthemes are included, followed by findings and research question responses. The first theme is presentation of academically stressed students with the subthemes (a) body language, (b) behaviors, (c) student communication, and (d) parents. The second theme is causes of academic stress, with the subthemes (a) internal and (b) external. The third theme is supporting academically stressed students with the subthemes (a) mindset strategies, (b) coping strategies, (c) educator strategies, and (d) ideal school supports. The fourth theme is outcomes of addressing

academic stress with the subthemes (a) student outcomes, (b) veteran educator insights,

(c) feelings, and (d) needs.

Theme Development

      The educators who participated in this study described recognizing student academic

stress through body language, behaviors, student communication, and parents reaching out. The

participants shared their knowledge of the causes of student academic stress as they reflected on

how they interacted with students. Though a question about causes was not directly posed,

educators identified internal and external causes of student academic stress. Participants

explained how they supported academically stressed students through mindset strategies, coping

strategies, and strategies that they have developed over their careers. Additionally, they shared

ideal school supports, which are supports that educators felt every school should have or that

they wished they had access to. Educators emphasized the importance of these supports to best

address student academic stress. When discussing the outcomes of addressing academic stress,

they shared student outcomes, veteran educator insights, feelings, and needs. Participants were

passionate about obtaining resources to support students experiencing academic stress. Table 2

provides the horizons of the whole dataset and displays how the themes and their subthemes

emerged from the final codes. Then, following the table, the themes and their corresponding

subthemes are discussed in narrative form using in vivo quotations from the participants. All of

the participants' quotes given in this manuscript, including grammatical errors in speech and/or

writing, are presented verbatim to accurately depict their voices.

Table 2

Theme Development

Key Words/Phrases	Subthemes
Major Theme 1: Presentation of Academically Stressed Students	
Facial expression, "deer in headlights," head down, flushed face, tense muscles, throwing things, ripping paper, pacing, staring, shrugging, slow to work, absent, panic attack, headaches	Body Language
Shutting down, acting out, work avoidance, not trying, procrastination, fidgeting, absenteeism, leaving class frequently, missing/incomplete assignments, crying/tearful, bothering other students, talking over teacher, calling others names, giving up, inability to accept information, not taking risks, asking many questions, quitting	Behaviors
Student shares in person; student emails; student says this is overwhelming/hard, saying "I can't, I'm not good at-, I'm dumb/stupid, I'm not smart enough, it's too hard, I don't know"; asked to fix grade, tone	Student Communication
Parent emailed/called, more stressed than student, reached out about grade, contacted administrator, reciprocal stress loop, concern about grades, mom stressed	Parents
Major Theme 2: Causes of Academic Stress	
Executive functioning, organizational skills, impacts of, educational "cushioning" during COVID-19, basic needs unmet, autism	Internal
Grades, grades closing, due date/deadline approaching, absenteeism, student overscheduled, lack of resources, math, tests, chemistry, writing/research, studying, difficult tasks, expectation of attending college, parent expectations, parent stress, teacher stress, MCAS	External
Major Theme 3: Supporting Academically Stressed Students	
Analogies (sports, video game, musical instrument, theater, physical strength, toddler), personal anecdotes, practice, realize we grow over the years, positive feedback, team building, teach brain is like a muscle, practice to grow, identify and acknowledge growth, reminders of past growth, emphasize participation, celebrate success, focus on positive, change approach, prompting, time, organizational support, portfolios, point out growth, the power of "yet," the "productive struggle," point out strengths	Mindset Strategies
Breathing, take a breath, breathing exercises, distract brain, communication, consistent language, lists/checklists, schedules, agendas, offer choices of strategies, transferable skills, counting exercises, visualization, tiered group, help students recognize gains, mindfulness, metacognitive strategies, student identify where stuck, teach about amygdala, break for "fresh brain," ask for help, music, sensory tools, calm app	Coping Strategies
Build relationships, take a break, retake opportunities, explain adolescent brain/stress response, modeling, study plan, conversation, extra time/extension, go step-by-step, break it down, reassure students, reassure	Educators' Strategies

Key Words/Phrases	Subthemes
parents, locate source of stress, give students sense of control, examples, chunk work, reminder of skills students have already, acknowledge when work is difficult, stay after school, stating we're in this together, collaborate with other educators, modify assignments, set up situations for success	
School psychologist, guidance counselors, social worker, SEL group, educator teams, administrators, parents, professional development (executive functioning, SEL, mindset, coping, academic stress), consistent systems sand structures, proactive strategies, IST, district/community goals, time, PBiS	Ideal School Supports
Major Theme 4: Outcomes of Addressing Academic Stress	
Ability to move on, increased effort, understanding the physiological side of stress, adjusted schedule, more discussion of stress, feel comfortable, pushing themselves	Student Outcomes
Practice self-care, not all stress is bad, stress can be motivating, stress is "the productive struggle," increased stress, stress has increased over the years, stress is cyclical, myriad of presentations, desire to help, grades are arbitrary, feeling undertrained, anticipate triggers	Veteran Educator Insights
Frustration, challenging, rewarding, evolving, pressure, uncomfortable, undertrained, want to help, want to fix this, want more strategies, want more support, trickle-down effect of administrator stress, grades are arbitrary, becoming more empathetic, increased ability to recognize stress, interest, worry, joy, pride, disappointment, more cognizant/heightened awareness, balancing act, want more strategies	Feelings
Time, practice, common language, consistent strategies/structures, team of educators, school psychologist, parent support, professional development, proactive strategies, school-wide programs, encouragement, education about what stress is/physiological effect, perseverance, accountability, teachers with growth mindset, parents with growth mindset, visuals/posters, confidence, resiliency, communication skills, educator training, being there in moment, ability to tolerate negative emotions	Needs

Note. MCAS = Massachusetts Comprehensive Assessment System; IST = Instructional Support Team;

PBiS = Positive Behavior Incentive System

Presentation of Academically Stressed Students

Educators observe the presentation of students' academic stress in a range of different ways. Some participants recognized signs of stress through students' physical and behavioral presentation while others became aware of a student's stress when the student communicated his or her stress or when a parent reached out. While considering the manifestation of student academic stress, Gwen explained in her letter, "There are a myriad of ways it will appear in your

students, your classroom, and you." Educators recognize the presentation of academically stressed students through their body language, behaviors, communications, and parents.

Body Language. The participants in this study agreed that academic stress may be revealed through students' body language. Hazel advised in her letter, "Body language plays an important role in how students show they are stressed." She continued, "Some students do not yet have the ability to advocate for themselves to express when they are overwhelmed or just not on their A game so it is important to notice body language." Some students can verbally express their academic stress, but others may not have developed those skills yet. Therefore, educators were observant of body language to recognize academic stress. During her interview, Doris described "body language, just like physically moving inward," as a way that she identifies students' academic stress. Iris said during her interview that sometimes she notices students' expressions, but other times "it could just be their body language." Bella described to her focus group that she notices "just very overt body language saying I'm done." Joy said to her focus group, "You can see it—you can see from their face or their body language." In her letter, Iris listed body language that signals academic stress: "students facial features—they look worried, head down … not engaged in lesson." In her letter, Ellie also wrote that "exhibiting heightened emotions" is a sign "that a student might be experiencing academic stress."

Many educators shared descriptors of students' facial expressions, and Cora and Francis elaborated on the physical presentation using the phrase "deer in headlights." Cora explained during her interview, "I'll usually see the deer in headlights. Some of them will just share it, or I'll sense it; they're sweating, or their face is very red." In his interview, Francis also used the phrase "deer in headlights" to describe the expression of a student experiencing academic stress. Iris stated during her interview, "The observation is really in their facial expression." During her interview, Gwen elaborated, "The color starts to rise in their cheeks and they're like getting

stressed and you can see like the shine in their eyes and then the tears start to fall." During her interview, Ellie offered, "Physical presentation. … They tense their muscles, they grimace, put their head down." Hazel shared during her interview, "I think maybe one of the biggest things with that one would be that they get stressed out so they shut down and they do nothing."

Behaviors. Educators frequently become aware a student is experiencing academic stress through observing their behaviors. Alex explained during her interview, "I'm looking at behaviors … are they shutting down, are they acting out?" The participants in this study shared both shutting down and acting out behaviors when asked how they recognized student academic stress. In her interview, Bella explained, "They'll be wiggly in their seat, or they'll be using the bathroom, or they'll be other excuses to leave the room to avoid whatever it is that they can't do rather than try to address it." In her focus group, Cora said, "Fidgeting is very common." She also suggested students fidget with "amber bracelets" instead of "picking at their skin." During her interview Joy shared, "Students acting out, sort of bugging other kids, poking them because something is stressful." Doris shared reasons students leave the room with her focus group: "trying to go to the nurse frequently, like for a headache or for any reason: I need a Band-Aid or I'm hungry and I need a snack." She continued to describe other reasons to leave the classroom, "or I need to go to my locker or I need to go to the bathroom for 20,000 minutes." Iris listed in her letter, "wanting to see the nurse often, irritable, acting out and avoiding a situation." During her interview, Hazel said, "You know I can see students tense up, or bounce a leg, or tap an arm, and all of those like more fidgety things."

Not all behaviors that signal academic stress are acting out behaviors; shutting down was also mentioned. Alex shared in her letter that educators could recognize academic stress "by a student's face, their bunched-up fists, an unexpected outburst, or completely shutting down."

Cora, Ellie, and Iris used the phrase "shutting down" in their interviews to describe signs of students' academic stress. In her letter, Hazel elaborated on her observations of shutting down:

> When an outgoing student is suddenly quiet, a student has their head down, is walking/moving more slowly than usual, or eyes are glazed over it is often a sign that something is off. While sometimes students will say "I'm just tired" I always try to follow up with a general statement about how I am here if they need to talk or if there is anything I can do.

Thus, educators observed that both overaction and lack of action are behaviors that are signs of student academic stress. Hazel's observation provides insight into how an educator may offer support in the moment of a student exhibiting signs of academic stress. In the situation Hazel described, she offered herself as a resource but did not push the student to engage in the moment. Additionally, Hazel did not accept the excuse, but also did not directly state she had a feeling something else was going on.

Student Communication. Some educators recognized student academics stress through student communication. Students communicated their academic stress through email or speaking to an educator in-person. Francis shared during his interview that he recognized academic stress through "the words they say if they're more forthcoming." He explained, "Either they admit they're stressed or it's the tone of their voice." He also explained how some students may not be forthcoming, "It's almost like the lady doth protest too much. it's like oh I'm good I'm fine." Iris shared, "The student actually came up to me and said oh when I come to math, I sometimes get stressed, and I get a lot of anxiety." Gwen wrote in her letter that some students "email wanting to let you know that they couldn't get their work done because of the stress. Others will ask for extra credit all the time."

Participants in this study said that students often ask questions as a way to communicate academic stress. As Joy said in her interview, "Students who ask questions before you think you have the directions out of your mouth, they are already thinking they're going to need help with this." She continued to describe a student who stood up to approach teachers for clarification about directions as the directions were being presented. The student did not take time to hear or process directions but promptly doubted his ability to engage with the academic task. Other students used defeatist phrases to communicate academic stress. During her focus group, Ellie listed statements she hears from students: "I can't do that; I'm not going to do that; it's too hard; I'm not smart enough for that." Joy and Alex also said students verbalize academic stress using the phrase "I can't." While many students express genuine stress, Hazel cautioned during her interview, "I also think to an extent it's been kind of like the buzzword. Oh, I'll just say I'm stressed out and then my teacher will let it slide." In her letter, Gwen wrote, "[Stress] is a default expression for sure, but it also plays a large role in student's lives in today's world despite all our best efforts to help find ways to avoid it."

Parents. Parents communicated with educators about student academic stress. In her interview, Iris said, "Sometimes their parents will let me know. They'll say like, last night it was really hard night they were stressing about this." Other educators also shared that parents email to notify them of academic stress. In her letter, Gwen wrote, "Some parents might email about a meltdown at home." Alex stated in her interview, "I did talk with a kid at a parent's request." Hazel described partnering with a parent to adjust a student's schedule to her focus group. The student had hours of sports practices after school, and "working with students to try to find—and parents to be honest too—that balance" was helpful. Hazel elaborated, "Mom said to me, well, I think we messed up; we signed her up for three different cheer teams … you know, starting

December 1st she's done with one cheer team." Hazel was able to work with parents to adjust the student's schedule so she had time for her academic work.

Educators sometimes noted manifestations of stress in parents as well as in their children. After a conversation with a student, Alex had a more complete view of a situation: "I don't know if the student was stressed out as much as mom was stressed out." Iris explained another instance of a parent with academic stress to her focus group, "She [emailed] right away" after a grade was posted. Iris explained that she prefers to review work with students in class to guide them through revisions, but sometimes parents see a grade posted and reach out for the assignment details "immediately." Parents reached out to teachers on behalf of their child to share the child's concern about academic stress or their own concern about perceived student academic stress, and educators observed that student academic stress and parent stress were related. Francis explained this interaction as a reciprocal stress loop when he said, "Students are stressed and overwhelmed and then the parents get stressed, and the teacher gets stressed and their stress increases, so it's really a reciprocal stress loop." He also said in his interview, "I think the way students respond can be highly indicative of what messages they're getting at home."

Causes of Academic Stress

When asked how they recognized student academics stress, the participants in this study described identifying the source of stress as an initial step to addressing the stress. Gwen explained during her interview, "There are a group of students that are putting all the pressure on themselves. Then I think there's the group that like it's definitely coming from above like there's an adult somewhere saying like you need to do well." She continued to explain,

Then there's the group that like don't really care but because there's literally so many adults now being like but you have to care then there's like this weird academic stress

where they're not stressed about the academics, they're stressed about all the people that are worried about their academics so then like it kind of like spirals from there.

The educators in this study noted that it is not only students' intrinsic desire to do well but also an internal caring that has been developed in them. They also observed that some students put the pressure on themselves, and then parents reach out for help reducing their child's academic stress. During her interview Joy shared, "She gets that their kid is ramped up. … It is helpful when the parents understand." She has also noted the opposite, "Sometimes you talk to the parent and the parent ramps up and [you can see] the full picture." She continued, "But just some kids that just get themselves all churned into butter." Gwen said during her interview, "Being able to partner with parents is helpful as well." In her letter, she wrote, "Partner with parents when you can. They see the stress at home appear in different ways so looping them into your strategies or asking what works for their child will help."

Internal. Poor executive functioning, weak organizational skills, preoccupations with other things, and the educational impacts of COVID-19 were frequently named as internal causes of student academic stress. Educators described the impact of internal factors of executive functioning skills and the impacts of learning during COVID-19. Alex explained during her interview, "I think that academic stress comes from, … I can't initiate it because I have poor executive functioning skills." Explaining the emotional impact of academic stress Alex added, "I see, the feeling of inadequacy. Um, and the sort of the executive functioning, the initiative, the organizational skills." Cora said in her interview, "I've noticed that a lot of the stress that's happening is losing the paper, not having the homework, the executive functioning part of it," and questioned, "Did we do a disservice when we were safety netting during COVID-19?" She explained that grades were inflated during COVID-19, and now students have to put more effort in. Cora explained students' perspectives to her focus group, "I am doing work. But now I'm not

getting a hundred!?" Hazel said during her interview, "I don't like blaming it on COVID, but I also that with COVID we all took a step back and were treating everybody really softly." Bella shared that in her observation, after COVID-19 students and families presented with weaker social skills, and students' maladaptive behaviors increased. She said, "I hate to blame everything on COVID, but these kids don't seem to [have social] skills." She explained that historically, students were explicitly taught social skills during elementary school. Students who missed that explicit teaching due to COVID-19 are now in middle school, and some are unable to communicate their academic and social struggles. Bella said that as a result, "I've seen a lot more picking, and poking, and touching, and grabbing each other than I have in the past." Educators acknowledged the impact of COVID-19 but also expressed not wanting to blame students' struggle on COVID-19.

External. Educators identified grades, deadlines, and being overscheduled as external causes of student academic stress. During her interview, Gwen explained she saw student academic stress when "either grades are closing or like they're trying to get work done by the due date." Joy shared that academic stress cam impact students' families. She explained during her interview how she recently heard from a student's mom "because he's freaking out about his grade." She described her observations of students reacting after grades were posted. Then, their families sometimes reached out to ask for support. Hazel also spoke about the stress deadlines created, "Many students are kind of stressed out. We're wrapping up a unit." When a unit ends, assignments from that unit are due, and there is a final assessment. The participants in this study said that both deadlines and assessments are causes of student academic stress. Student schedules also impacted academic stress. Joy offered, "These kids are so overscheduled. Some of them are just overscheduled, they exhaust me telling me about their day." Hazel agreed, "I think the big thing is really the increase of stress over the last couple of years. And in my very, I guess

objective opinion, a lot of it comes from over scheduling." She added, "Many students are overscheduled and have a lot of interests and passions outside of school." The participants in this study noted an increase in student academic stress over the last couple of years and in relation to grades, deadlines, and being overscheduled.

Educators in this study frequently listed the types of assessments that caused academic stress. Hazel wrote in her letter, "One of the biggest stressors I see for students is when they do not do as well as they expected on an assessment. While this can be due to a multitude of factors, students often perseverate on the failure, not the lesson that can come from that failure." A second major external cause of academic stress is students being overscheduled. Participants recognized some students were overscheduled because they had practices, games, and lessons that interfered with their ability to complete their schoolwork. Hazel said in her interview, "Being overscheduled also leads to stress. Even though 6 hours of training in the night is something that's really fun." Francis explained in his interview, "Every single one of them have activities after school … most days … by the time everything's done it's like 6:00 o'clock." Students who are overscheduled may start their homework later or not have time to complete it before bedtime. Due to overscheduling, students miss out on time to practice their academic skills.

Supporting Academically Stressed Students

After identifying academic stress, the participants in this study intervened to support students. Depending on the source of stress and the situation, educators used mindset strategies, coping strategies, or other strategies they have developed over the years to address student academic stress. In addition to strategies, educators shared recommendations for school-based supports. They also recognized themselves as supports, thus emphasizing the students' need for educators who are not stressed out. Joy explained, "Stressed out teachers aren't helpful to

children either. Some kids are very empathetic and will ask how they could help, or other kids would be like, 'Great, how can we add to this?'"

Mindset Strategies. Educators described their experiences supporting academically stressed students through the interventions of mindset strategies, coping strategies, and their own strategies. They also highlighted ideal school supports. Questions about the growth mindset were posed and the participants in this study shared the different ways they taught and applied the growth mindset. Many participants taught the growth mindset by comparing students' ability to grow in academics to growth in other areas of their lives. Educators overwhelmingly applied analogies to help students understand that the learning process involves practice and growth over the years. Sports, musical instruments, and video game analogies were cited as resources for explaining the concept of the growth mindset. Alex said in her interview, "This often works: either video games or sports." During her interview, Iris described sharing a skating experience with students because her students like hockey. She said, "I'm not good at it but you know I'm going to keep trying." Then, she explained that she relates her growth mindset sports analogies to students' work. She said, "It shouldn't be called homework, it should be called practice." Ellie said she continued to explain to students, "If you've never gone up there and practiced, you're probably going to flop," to help them understand practice is necessary for success. She referred to homework as "practice," quizzes as "scrimmages," tests as "the game," and MCAS as "the Superbowl." Other participants also emphasized the importance of practicing to grow. Doris described brain growth to students to encourage them to continue putting in effort. She taught her students, "Your brain is like a muscle and you're constantly trying to grow your brain."

In addition to analogies, educators in this study also spoke about pointing out students' past growth so they could foster a belief in their ability to continue to grow in the future. They talked about using student portfolios to show growth. Cora said that portfolios are meaningful,

"because there are so many different ways you can grow" and students "look back at their portfolios and see the growth." During their focus group, Bella and Cora spoke about having students look back at their portfolios to reflect on progress. Bella said, "Getting them to go back and almost giggling at their previous work. They could recognize how far they had come and that was a really good feeling." Cora added, "When they go back to their portfolios, they look at did I fulfill my goal?" Bella and Cora both explicitly pointed out student growth through portfolios, and taught students to reflect on their progress. Educators also explained using the phrase "the productive struggle" and "the power of yet" to help students understand time and effort are necessary for growth. The power of yet is a phrase used to emphasize that time is needed for growth, as in, "I can't do that 'yet.'" When her student responded with "I can't," Cora said she responds with, "I'll say you're not there yet. And you shouldn't be there yet. That's why this is a practice sheet." The productive struggle is a concept that highlights how growth can be challenging, and the learning that happens during that growth struggle is necessary. During her interview and focus group, Alex explained growing during adolescence: "This is the productive struggle; they're making a mess, they're making no sense, they are growing so they're tripping over themselves, but they will be okay." Bella said during her focus group, "That productive struggle is necessary for the growth." The participants in this study spoke about helping students develop a growth mindset by recognizing growth in themselves, through practice, portfolios, explicitly pointing out their growth, and reflecting on progress.

Educators and parents who support a growth mindset were critical to students' development of a growth mindset. Doris explained, "You need the teachers to also have a growth mindset and live that and breathe that and use the common language." The participants in this study were asked how they identified a fixed mindset and helped students develop a growth mindset. They frequently identified the fixed mindset through statements such as, "I can't, I

don't know, and I'm not good at." Participants also identified that "shutting down" behaviors are a manifestation of a fixed mindset. The participants in this study described breaking assignments down so students could accomplish one step at a time. By breaking an assignment down, students could see their successes along the way. Doris explained, "It's nice to break it down … it takes the pressure off understanding the whole thing." Bella shared her "break it down" advice for students: "Break projects down into smaller tasks and set aside a little time each day to work on them until the project is complete." Then Bella recommenced, "Celebrate the growth seen in the steps along the way." The participants in this study shared that pointing out growth and explaining a growth mindset as well as subscribing to it themselves helps students develop it.

Coping Strategies. Educators also supported students who were experiencing academic stress through the interventions of teaching and suggesting coping strategies. They overwhelmingly suggested breathing or specific breathing exercises to support students' coping. The participants explained the purpose of breathing exercises was to distract the brain, attain a calmer physiological position, and then return to the task. Joy shared that breathing "gets one thinking about something different." Gwen explained in her letter, "Another strategy is breathing exercises (box breathing, inhale/exhales cues, breathing in through the nose and out through the mouth all work)." Participants expressed an understanding that brains do not work well when stressed. Ellie explained to her focus group that coping strategies must be taught proactively, because it is easier to apply strategies that "are rote, so you need to be practicing." She described how she teaches students about breathing:

> Slowly in and slowly out. By doing that you're distracting yourself from the thoughts, so because you're thinking about that you're not thinking about what's bothering you; you're slowing down your heart rate, and so it takes over the physical component as well as the thought process.

Educators applied breathing exercises to help students take a break and then return to the task with what Iris described to her focus group as a "fresh brain." Gwen teaches students that coping strategies are used when "we need to take some space from the problem because when we're upset it's hard for us to engage." Bella tells her students:

If you have writer's block or are stuck on a math problem, take a brief (10 minute) break, and go for a quick walk or move on to another task. Sometimes, you'll see the problem differently when you return to it.

The participants in this study also provided students breaks within their classrooms. Some educators had areas of their classrooms where students can relocate for a break from their work. Doris described her classroom with a "sensory table" where students could relocate and regulate themselves. She described the "break zone with like a little oozy things or manipulative things with the bean bag chair section where they can kind of cool off." After a break and a conversation, students returned to work. She described using "a lot of conversation" and she "didn't have resources, I just had zones in my area, and manipulatives, and conversations, and breathing exercises." Ellie described her experience helping students identify, practice, and apply the adaptive coping skills of breathing and taking a break to replace their maladaptive coping skills. She often worked with students for a few years and shared, "I can talk to them about this is where you were before, this is where I've seen you make growth." She explained in her interview and focus group that it takes time—often "years"—to replace maladaptive with adaptive coping strategies.

Educator Strategies. In addition to coping and mindset strategies, veteran educators develop a toolbox of strategies over their careers. The participants in this study cited relationship building as foundational to addressing student academic stress. In her letter, Joy wrote, "Building relationships with students and supporting them academically and emotionally will create a safe

learning environment." After developing a relationship, students may be more receptive to learning and applying strategies. Cora said, "I think the major thing was to relieve stress and to build relationships with them, so they weren't stressed. They could have been standoffish, but they were willing to speak to me in class." When a relationship was established, Cora's experience was that students communicated their stress instead of manifesting the stress in standoffish behaviors. Alex described how after a relationship is developed students are more likely to communicate and strategize, "Coming from that relationship building … let's talk about this. What has worked? What can you do?" Hazel found that sharing her experiences has helped her build relationships with students. She said during her interview, "Just sharing that personal stuff and making kids see that, you know, I've lived this as well. Here are the pitfalls that I have encountered and kind of humanizing myself a little bit helps." Hazel also described helping a student navigate academic stress and said, "She and I had a really good relationship and so I think that's one theme" of supporting students' coping. Alex said, "So much of it is relationship building. So, build the relationship, build a positive relationship." Educators said relationship building is important in order for students to be receptive to learning and applying coping strategies for academic stress. When asked what students needed, Ellie said, "Time and relationships." Ellie explained that students are "not going to be willing to work with that person if you don't have a trusting relationship with them."

Doris agreed that relationship building was important and has seen the value in explaining brain functioning to her students to help them understand the physiological impacts of stress:

What you need to understand is that your adolescent brain is messy. It's a dang old mess. And right now, it's lying to you. Your brain is made of neural circuits, and during these teenage years they are firing like CRAZY. Your brain is going through a time when it's

trying to simultaneously grow through learning AND shrink by getting rid of parts it doesn't need. Can you imagine the lightning storm going on up there?!?! This can make it sometimes take things that are not a big deal and turn it into a MASSIVE deal. But guess what, it's your brain doing that, and it makes you feel all like you are about to explode.

Her explanation helped students understand the feelings that accompany stress. After students recognized they were experiencing a response to academic stress, then they could apply coping skills. Educators said relationship building is important for students to be receptive to learning and applying coping strategies for academic stress. During her focus group, Ellie said, "Time and relationships." She explained that students are "not going to be willing to work with that person if you don't have a trusting relationship with them." In addition to relationships, Francis suggested normalizing stress. He said, "The best thing we can do, as educators, is show students that experiencing stress is okay and that everyone experiences stress." In her letter, Alex also advised, "Remind students that we all get stressed, and not all stress is bad. It's when it interferes with our ability to get anything done that we need to use our coping mechanisms."

Francis was an academic support specialist and worked in a different district than the other participants. His role was not a position at the other educators' school district. He described how he collaborated with a therapeutic educator:

I've been in situations with students where we collaborate, and the student is admitting a more sort of social and emotional or depression or anxiety stuff and I don't act as a therapist, so I always channel it back to the academics when I speak with students. Then I'll go to [therapist] and say this is what the student was saying.

Francis had a team that worked with the academic support side of stress. When students were experiencing more generalized anxiety than academic anxiety, they were directed to the school therapist. Francis described an occasional overlap in student needs wherein the student required

support for academic stress as well as generalized anxiety. Working as a team he and the therapist were able to help students resolve both types of maladaptive coping. He explained:

> My team works with the more academic piece. So, her [students] that mesh with mine—that I consult with on—are often students that are really motivated and work very hard and are incredibly stressed by the idea of getting a "B" instead of an "A."

He explained that students with generalized anxiety are often "high achievers" who have "overcome a lot" and "proven a lot." Students who see Francis for academic stress support differ in that they "are just struggling to write a paragraph when they're being called to write a paper, a full essay, or study." In his role, Francis was able to help educators determine what type of stress students were experiencing. Then, he directed students to the appropriate resources for reducing their academic stress.

Ideal School Supports. Educators suggested supports that every school should have in place to best address students experiencing academic stress. Their recommendations included mental health professionals, consistent systems and structures, and grounding the task of addressing student academic stress within district goals. "Every school should have both a counselor or psychologist and an academic support specialist at least one of each," Francis said. When asked what supports students needed to develop the ability to cope with academic stress, Ellie said, "Guidance counselors, social workers, school psychologist." Doris agreed with Ellie and added, "Because they're stressed, and we should refer to guidance and all these things." She added a desire for more profession development and she explained, "It's district to district and it's not consistent." She specified SEL professional development, explaining, "SEL programming helps with stress." Doris continued,

> It's out there. There's PD [professional development] out there I mean, I took a grad class by choice, and I went to at least two PD sessions at my former district. SEL in the

classroom. It's out there, I think it depends on what the goals of the district are at the moment.

Ellie elaborated on Doris's statement about district goals, stating, "Not only having a goal in a district but actually putting it into place in a way that is practical and usable." Other participants expressed needs for a reduction in teacher stress. Joy explained, "But they just keep putting more stress on the teachers; they're going to increase the students stress too." Educators felt that much of the responsibility of addressing increasing student academic stress was on their shoulders. Joy continued,

> We need help. We can't just do it all on our own. We are doing it all on our own, but we need the help from above to recognize that this is a thing, and this is how we are going to help you help them.

Iris emphasized the need for support during adolescence when she questioned, "What's going to happen by the time they get to high school? Or college? So, we have to help them figure it out now. Now is the best time." The strong desire for strategies to help educators address student academic stress was succinctly summarized by Iris: "Give us some strategies." Speaking of strategies and resources, her focus group spoke about data collected from a bi-yearly student survey, the panorama survey. Information about students' academics, growth mindset, and self-efficacy is collected through the survey. Additionally, information about anxiety, depression, bullying, and drug use is obtained. Iris questioned what was being done with the results of the panorama survey: "What's your goal, just to read it and then put it away? Or you gonna do something with it?" She expressed an interest in learning more about the data and how she could apply the data. She continued, "That, to me, that's what I would be using our meetings for." The participants in her focus group agreed that more should be done with the results of the survey.

Joy also applied metacognitive strategies to help her students think about their thinking. She said, "I have my … metacognitive strategies. … You say, 'Okay, what do you already know about this type of problem?'" Participants spoke about the value of metacognitive strategies in helping students understand the resources and knowledge they already had. Educators shared that they had attended PD about metacognitive strategies and SEL. They described the opportunity as valuable and expressed regret that one of the consultants was no longer working with the district. Hazel said that some educators "were in the social emotional group." One of the participants was frustrated that the school was no longer running the SEL committee and shared, "There's no follow through. There's no tell us how this worked or whatever. Or we're going to build on that or whatever." Educators would like to have consistent language, structures, and routines in place to address student academic stress. Joy described, "We need to have things in place in all the classrooms so that we recognize stress in the beginning, and we have strategies in the classrooms [and are using] consistent language." Other educators also emphasized the importance of consistent language throughout a community. Doris suggested that "all teachers in the building having a unified language." The participants in this study agreed that support specialists and consistent routines and structures should be in place to best support students experiencing academic stress.

Outcomes of Addressing Academic Stress

The educators in this study frequently reflected on their practice. As student academic stress was considered, they shared insights and feelings as well as observations of changes in students. Doris explained her empathy for students who experienced academic stress. She said, "I felt bad for them and sad for them and it allowed me to remember how I felt and still do feel sometimes." Cora expressed sorrow for students' coping abilities. She reflected, "I generally feel sad for them because I think some of the things, we are addressing especially with eighth graders

would have been addressed 2 [or] 3 years ago." Then she added, "I feel like I'm mentally drained." Though some elements of supporting students' coping with the process of addressing their academic stress are negative, educators expressed positive emotions when students were successful. Gwen explained,

> When kids are able to get coping strategies that work for them, I feel really good. They find those moments to celebrate and include me in it and I'm super proud of them—super happy for them, and I kind of like go through that with them.

Participants also advocated for their students by sharing the needed elements to best address student academic stress. Participants expressed a desire for district and community support. During her focus group, Iris observed, "It just seems like no one's helping anyone, but I think like if you were to say, 'Hey, look, you know, I would really like to help,' maybe this information we are sharing would be helpful." Ellie said to her focus group that more is needed than a goal: "A district also needs a plan for putting it into place in a way that is practical and usable."

Student Outcomes. Educators shared that addressing academic stress led to a reduction in student academic stress. The participants in this study observed that students who were able to reduce their academic stress could move on and push themselves more academically. Doris shared, "By the end of the year I didn't appear to have a lot of stressed-out kids." Francis shared that a positive outcome of addressing academic stress is that students "are submitting things." He noted that at first the quality of work may not be high, but "the outcome is, are they finishing it and submitting it or not? … That is the victory. I'm less concerned at that point of what high quality the work is." Francis also described how, when students are aware of their academic stress and mindset, they are able to reduce their stress. He said,

Students recognize that they can improve that growth mindset and have that anxiety—

that can be stifling—lessened. So that now, they can be more attentive in class and more

accepting of help and recognize that they can keep improving.

Ellie described a positive experience to her focus group. She helped a student address

academic stress and "the end result was [he said] the size of this problem is small so I'm not

going to be frustrated anymore. I'm going to move on with my day." After learning and applying

skills to reduce academic stress, participants observed that students applied skills and reduced

academic stress, providing them with an ability to move on. Once students identify their

academic stress, they are often able to work through it; they had been equipped with an ability to

cope and move on. Doris also described a positive intervention during an assessment to her focus

group:

The child seemed a little bit more relieved. I said, "Do you want to keep going, like, do

you want to?" They said, "Yeah, I want to, but can you tell me what this one is?" I said,

"Sure, and that's really hard." Then we broke it down and then that sort of propelled them

into being able to finish up.

In her situation, Doris's student was able to pinpoint her struggle and articulate it. Then, Doris

was able to answer the question. After that, the student continued working even after Doris said,

"You're doing fantastic, don't feel the pressure to keep going." The participants in this study said

that once they could identify where students were stuck, they could help students move past their

struggles.

Veteran Educator Insights. Due to the many years of experience that the participants in

this study had, they suggested strategies they had developed over time. Educators emphasized

the importance of self-care and collaboration. Joy advised, "Take care of yourself, laugh often,

and seek support from others, and you will succeed!" Cora wrote, "Ignore the mess outside your

classroom so you can just focus on your goals. … Give yourself grace." She shared that "no matter how many years you have been teaching, it will never be perfect nor should it." Participants were aware that the learning process is not perfect, and when there were bumps in the road, they had to keep going. Bella advised, "Start each day (or class) with a clean slate" because things do not always go as planned when working with adolescents. Many educators recognized the importance of being able to manage their own stress to best support students experiencing academic stress. In her letter, Hazel wrote about the importance of self-care: "It is important to say that with all of this and the pressure we, as educators, feel to take care of our students' academic, social, and emotional needs, it cannot come at the sacrifice of our own." She recommended that educators "regulate their reactions to that stress" and shared, "Often I find myself using the strategies I suggest to my students; I make lists, prioritize tasks, and give myself breaks." During her interview, Hazel described how she used to work in the evenings but has readjusted her practice to obtain a better work–life balance. She said, "I take on a lot of my student stress … or I have over the years. I used to be available to students at all hours." However, Hazel is adjusting her practice: "I'm doing a better job at kind of drawing the line and focusing on taking care of myself. And I don't check my email past 2:30 anymore."

Gwen and Bella both described partnering with students more because of noticing academic stress. Gwen used the phrase "what can we do" to create a partnership between her and her students. Bella explained to her focus group that after her initial interview, "I've been more cognizant of [academic stress]" when she asked students "what specifically" is causing them academic stress. Then, she has tried to "make it a 'we're in this together' kind of focus as opposed to, 'you needed to turn that in.'" Cora also shared she had "a heightened awareness" of academic stress after her initial interview. Additionally, educators shared that grades could feel arbitrary while causing increases in students' stress. Bella said, "I think as a society we put an

awful lot of emphasis on grades and not necessarily growth. And so, that kind of arbitrarily action creates stress that does not necessarily have to be there." Educators agreed that not all stress is bad, and that a little stress is beneficial for students. Students need to experience some stress to be motivated but not so much as to cause panic. Alex said, "Not all stress is bad. You know, yeah the extreme is, but a little stress is okay. It can be kind of motivating."

Feelings. Mixed emotions of frustration and happiness were experienced by participants who worked with students who faced academic stress. Educators described positive feelings such as "pride," "joy," and "happ[iness]" when interventions were successful and "worry," "disappointment," and "sad[ness]" for students experiencing unresolved academic stress. Educators shared the personal impacts of working with academically stressed students. Cora explained a feeling of being "mentally drained" more than in other years because students "are having a hard time seeing what they need to do." As a result, students are "coming here with zeros." When students come to class without their homework, they receive a "0" and must complete that work before playing the game that Cora starts her class with. Students who have completed their work earn their points and get to start class participating in a game. To help students achieve success, Cora takes class time to share strategies for completing homework but shared in her interview, "I kind of do feel sad about having to talk to them about these things and I do address it." She added, "I find it very important, obviously. I love psychology, I love stress. I love dealing with it." However, Cora is a classroom teacher, not a psychologist, and has a curriculum that must also be taught. Ellie shared, "I don't sleep much … I definitely get worried." Iris said during her interview, "You hate to see them stressed."

Educators spoke about feeling frustrated when having difficulty addressing academic stress and feeling positive when successfully helping students navigate academic stress. During her interview, Alex described that her feelings:

Frustration because what have you tried, what haven't you tried. You know that fixed

mindset of I just want to throttle you and have you be a little bit of a growth mindset. And

sadness. Sadness that they're stuck, sadness that they're feeling this way.

Ellie explained both the positive and negative sides she experienced: "Maybe something

that I'm doing is making an impact on people. Maybe this is good. And other times sad and

frustrated." Doris shared, "My feelings were empathy sometimes sad like [academics] was a

huge stressor." Overall, participants' emotions were connected to their students' emotions. When

students struggled, educators felt frustrated, and when students were successful, educators felt

"pride" and "joy," as Gwen said. Cora elaborated, "I find joy in seeing the light bulbs go on in

their heads when they get the concept I am teaching or when they make good choices." During

her interview, Bella reflected,

> The idea that we are not supporting that child to the extent—we are meaning the whole
>
> society—to the extent that [the child] needs is heartbreaking, cause every kid is this
>
> wonderful potential blossom that we hope to see happen sometime.

Needs. Educators articulated the need of time for learning, discussion, and collaboration

to best address student academic stress. After reflecting on the experience of working with

students who faced academic stress, educators emphasized consistency in programs to address

academic stress and language surrounding coping skills and growth mindset. Joy's focus group

spoke about therapeutic classrooms within the building for students experiencing prolonged

periods of dysregulation. Joy summarized for her group, "There's no staff for that," referring to

the therapeutic classrooms. Or, if the administrators feel "that's not for that," meaning the

program is not for that student, the student is not placed in a therapeutic classroom until they

become a threat to themselves or others. Then a staff member is found and temporarily assigned

to the therapeutic classroom. Joy continued, explaining, "If we had consistent systems and

structures in place to help student stress, students may not elevate to the point of needing a therapeutic setting." She described that students would not need the therapeutic classroom if the community had consistent structures to address students' academic stress as it occurred. Hazel added, and "if we were proactive as opposed to reactive every single time." Joy confirmed, "I said that in my interview." The group spoke of sharing student concerns with administrators and feeling that the concerns were not taken seriously until students escalated into self-harm or harm to others. Joy continued,

> We were sort of on our own supporting her you know using [psychologist] … bringing it to administration they sort of pushed back on us until … and then it was recognized like oh you actually need help when it was like this serious thing. So, I feel like that's what it is—it's just always reactive, but it has to be—it has to be something big that they're reacting to.

Participants discussed other situations wherein they communicated student needs, but did not feel that support was received in a proactive or appropriate manner. Hazel shared the anecdote, "There's another student last year something happened, and it was high concern and then come to find out that that was a concern in 7th grade as well." Sometimes student needs went unaddressed from year to year. Iris added, "We have to bring it to their attention right away … we can't keep passing the buck." She explained that when educators share, they should use key words to get the attention of administrators. Alluding to words that referenced self-harm or harm to others, she said, "Once we said that all of a sudden things are happening … we'll make sure we get the parent, and we'll make sure … we'll talk to this one, we'll talk to him, so you know it kind of got amped up. It doesn't get amped up unless we say something." During her interview, Doris described sufficient resources within her district yet a failure to manage the resources. She explained, "There's an abundance of guidance counselors; it shocks me … we had

two guidance counselors and one school psychologist and here there's I mean there are people I don't even know what they do." Doris described a district that "had way more structures in place." She elaborated, "Grades, behavior structures, and consequences." Then, Doris speculated, "Seems to be a lot more fluid and open here and I feel like it's this that causes stress?" The participants in this study expressed a need for proactive, consistent systems and structures.

Additionally, educators shared the value of PD. Joy shared during her interview," I think this is really hard for me because I'm not trained. So, it's hard for me to make sure I'm saying the right things. I mean we have our instincts—whatever, but there's always a part of me like I hope I'm helping them." Other participants requested PD and educational opportunities and time to collaborate with other educators. During their focus groups, they shared that their participation in interviews and focus group was helpful and increased their ability to recognize, address, and note the outcomes of student academic stress; they were interested in more collaborative opportunities. Hazel explained, "It's been eye opening to me in terms of how I approach my students when they're stressed." Bella said she had been "more cognizant" of student academic stress after her interview. Educators also need strategies to address stress in themselves. Hazel shared,

> Often I find myself using the strategies I suggest to my students; I make lists, prioritize tasks, and give myself breaks. If I'm not in a good mental and emotional space it is difficult to guide my students towards regulating and coping with their own stress.

Research Question Responses

This section supplies direct narrative answers to each of the research questions using primarily the themes developed in the previous section. Participants responded to questions about recognizing and addressing academic stress, helping students with a fixed mindset develop

a growth mindset, and the outcomes of addressing student academic stress. Questions were posed during interviews and focus groups, and each participant wrote a letter of advice for an imaginary educator. Participant quotes to support the responses to the research questions are included in this section.

Central Research Question

How do educators describe their experiences of recognizing and addressing academic stress in secondary students?

The participants viewed working with students experiencing academic stress as challenging, frustrating, and rewarding. Alex described feelings associated with the experience working with academically stress students. She said, "Frustration. Frustration because what have you tried, what haven't you tried." Ellie shared that it can feel "sad and frustrating." Bella explained, "It's frustrating. I hate to see a kid at 10 or 11 years old be shut off to, you know, 'I can't do it, I'm not smart enough' that kind of thing." Cora described the modern educators' multifaceted positions, "Teachers are not just asked to teach content anymore. Teachers are also being asked to look out for and care for their students' mental health." Gwen described the challenge of "demands on my time" as she works to "keep on top of the ones that aren't doing [their work] and contact home." Francis described recognizing and addressing students' academic stress as difficult:

> It can be difficult to recognize in students because it manifests differently in everyone … it's important to intervene and collaborate with the student to locate the source of the stress—is the academic content getting harder? Is the amount overwhelming them? Or is something going on at home?

Gwen wrote in her letter, "But once you can identify it then what? What is the next step? How can you help? That is the question we all ask ourselves." In her interview, she said, "I think the

biggest thought that stands out is like what can we do to fix this? Because I think the longer I've

been in education, the more I've seen that stress increase." She questioned, "How do we take the

students that are now feeling this way and how do we get them to a place where like that stress

decreases?" Hazel also noted an increase in student academic stress. During her interview, she

said "I think it has increased over the years and I'm hoping the pendulum swings [back]." Doris

shared during her interview, "I wish kids knew more about the physiological responses to stress

so that they could understand why" they feel the way they do when they experience academic

stress. She also expressed that she "felt sorry for them; some kids though it's like calm down,

calm down." However, as Ellie noted, "I never say calm down. Never."

Throughout the process of recognizing and addressing academic stress, educators noticed

the signs of stress through students' presentations, suggested coping and mindset strategies, and

reflected on the outcomes. In her interview Ellie said that addressing academic stress "is hard for

teachers … for professionals. And when I say hard, it's taxing, it's rewarding. It's challenging

both for the adults and for the kids to figure out how do we navigate this academic rigor." Bella

also shared that helping students address academic stress was rewarding. During her interview,

she said, "When I realize they're stressed it feels like we've found some resolution or some way

to help improve the situation. That feels—it's a great feeling!" Ellie described the rewards of

seeing one of her students learn and apply strategies and said, "That made me feel great." Cora

wrote in her letter that addressing academic stress "is something that requires flexibility,

understanding and a whole lot of patience. You will always be looking for new ideas and

resources to best support your learners." Hazel summarized what she learned from working with

students experiencing academic stress:

> Trying to build that resiliency and rewarding being resilient. You know we live in
>
> a society that's all about the grades. And so sometimes just a Jolly Rancher, or

that was really great I'm gonna email home and let your parent know and just that

kind of stuff. I think it's really helpful too to celebrate the moving beyond that

and not being in such a fixed "I can't" mindset.

Cora, Hazel, Gwen, and Joy each said that they have noticed increased signs of academic

stress; Joy explained, "It's wonderful that we're accepting stress, but we have to teach them how

to work with stress as well." The educators in this study felt a range of emotions between "sad"

and "happy" when working with students experiencing academic stress. Educators observed

increases in students' academic stress and intervened with mindset strategies and coping

strategies to address student academic stress.

Sub-Question One

How do educators describe experiences of helping secondary students with a fixed

mindset develop a growth mindset?

Educators who have a growth mindset are able to help their students understand that they

are capable of growth. First, educators recognized a fixed mindset in their students. Then,

educators explained the concept of the growth mindset to their students. Next, educators

encouraged students to practice so they may grow their abilities. Educators encourage students'

development of the growth mindset through pointing out their previous successes.

Educators described recognizing a fixed mindset and applying strategies to help students

develop a growth mindset. Alex described the way she sees the presentation of students with a

fixed mindset in her interview: "I can't do it. Period. End of sentence, exclamation point. Just

that rigidity of 'I can't do this, you can't make me, I'm too stupid, you can't teach me.'" Doris

also said in her interview she recognized a fixed mindset through the statements, "I'm stupid, I

can't get this, I'm never gonna learn this, I just don't know." She explained students may think,

"Why should I freaking bother? It's not perfect the first time so it's pointless or I shouldn't

bother with it I'm never gonna be like." Francis noted a manifestation of "I can't" in work avoidance. He said during his interview, "I think the fixed mindsets that I see ties in with that work avoidance." He explained students sometimes think, "Why even work on this and try to submit it if this is something that I think is way too hard for me?" Therefore, educators sometimes must remind students, "Just cause it didn't work the first time doesn't mean you can't try it again."

Educators described teaching students the concept of the growth mindset, suggesting or helping students apply strategies, then directing students to notice and celebrate their growth. Educators described using analogies to explain the growth mindset to students and then explicitly pointing out or leading students to self-identify their growth. Many analogies were mentioned including sports, musical instruments, video games, and theater. Bella teaches within earshot of the band practice room, and explained,

> I have the advantage of kids "honking" across the hall. You play an instrument, and you
> have to practice regularly to get better. It's the same thing. This is new to you, give
> yourself a break. It's going to take a while before we get into the grove, so to speak.

Alex shared during her interview, "For the athletes: how many times do you shoot hoops, how many times do you swing that bat, how many times do you connect? So, if that's the hard work that goes into something you're good at," how much more practice is needed for something difficult? Doris shared her workout analogy during her interview, "If I'm going to go work out you know if I'm lifting a pen, … I might get a little muscle but I'm not going to get a lot of muscle. I have to do some working out the muscle that's my brain." In her interview, Cora explained that she tells her students, "We are practicing, just like in a sport. You are not hitting every shot. You're practicing. And you're still not going to hit every shot. It's just not going to

happen." She also tells her students, "Just because you're not seeing [perfection] in January doesn't mean you didn't grow or that you're not doing well."

Cora and Bella both described the value of looking back at student work to identify growth. Bella said to her focus group, "At the end of the semester getting them to go back and look, almost giggling at their previous work. They could recognize how far they had come and that was a really good feeling." Cora said in her interview, "I'm constantly pointing out growth to show them that when we leave in June you are going to see you have grown tremendously." She also said, "I do point out the yet, I do also point out their strengths," and "giving some kind of positive feedback each time." During her interview, Doris shared how she encouraged students to develop a growth mindset: "I was, like, the whole point is to learn, like, you're here to learn and have a growth mindset. Know that you might do it at first." Then she said, "We constantly redid things and improved." Francis explained how growth can be noticed purely through academics:

> I always worked on the academic piece and that allowed them to naturally develop the growth mindset. Like, oh look you're reading better now—see we're tracking your reading and you're reading better—oh I can grow; they can see that they can grow.

Ellie described how she looks for growth to share with her students. She said, "And sometimes I have to go back to this is what you were doing in fifth grade. You're in seventh grade now; let's think about the steps that you've taken to get here and the growth that you've shown us." Then she said, "And some of them are like absolutely I'm doing so much better now academically, socially." Francis described drawing attention to work completion and said during his interview, "Calling attention to … you turned this in … just turning things in—look how much you're turning in." During her interview, Hazel also talked about pointing out student growth. She said that developing a growth mindset goes back to "that positive reinforcement and

being able to show them ways where they are successful. So, you push past this and look at what you were able to do." Educators did not reference looking at grades to show students their growth. In fact, Gwen said in her interview, "I also just think trying to take a little bit of the academics out of it, like it's not about the grade you're getting." During Bella's interview, she described grades as "arbitrary." Lastly, educators described the importance of adults having a growth mindset for students to develop a growth mindset. Francis said,

> It needs to come from all parties, too. I think it shouldn't just come from the one providing the support, but I think parents need to be on board with it as well and reinforcing the growth mindset and success when they see it in their student—and from teachers. I think whoever is in that support system needs to reinforce it because if they're getting mixed messages—and I've worked with students who were. I would work with students privately one on one and see growth and maybe the teacher would see growth, but the parent was still not fully seeing the growth that they wanted. I see that mixed messages are really detrimental. So, I think that it's important for everyone to be on board.

Francis explained that when any of a student's adults expressed a fixed mindset, the student may not be able to develop a growth mindset. Students sometimes need the support of others believing in them to develop their own confidence. When a teacher or parent has a fixed mindset, the student may not develop a growth mindset. Through embracing a growth mindset, explaining what it is, supporting practice, and pointing out improvement, educators encouraged students' management of academic stress.

Sub-Question Two

How do educators describe experiences of encouraging adaptive coping strategies for academic stress in secondary students?

First, educators noticed the signs of academic stress through students' body language, behavior, or through a verbal or written communication. Then, if the student experiencing academic stress was dysregulated, educators intervened with a strategy for regulation. After the student was regulated, educators suggested coping strategies to help students engage in their academic tasks. The participants in this study described the importance of self-care when supporting students' coping strategies. They acknowledged that they are resources for students and are less effective if experiencing stress themselves. Hazel explained, "If I'm not in a good mental and emotional space, it is difficult to guide my students towards regulating and coping with their own stress."

Educators perceived coping strategies as central to students being able to rebound from a stressful situation and return to academic engagement with what Iris has denoted as a "fresh brain." In her focus group, Iris explained that her goal when she has students apply adaptive coping strategies is to "get them going in a different direction—that seems to help." She explained that she had taken a class to "learn more about the amygdala." She shared how distracting students from the source of stress is helpful to redirection.

> I just really like that "let's step away from this for a few minutes" because maybe you've just been sitting here stuck for so long especially with math. And your stress level just went up so let's just talk about something else, you know. Then I'll pick something I know—whether it's a vacation or a sport or their dog or something. And it just seems like all of a sudden like oh, they're just relaxing through talking and thinking through some things.

Gwen agreed that a strategy that distracts students' brains is helpful and added, "I think having the kids step away is great [strategy]. Like whether it's still in the classroom, or taking a walk outside of the classroom … just removing themselves from the space." Then she added,

"Another strategy is breathing exercises. … Breathing is a simple way to help anyone reset." Breathing exercises were referenced frequently as a tool to encourage adaptive coping. Gwen, Hazel, Iris, and Joy discussed different breathing exercises in their focus groups. Gwen introduced "box breathing," a breathing exercise that includes tracing an imaginary box in the air. Iris explained, "In the moment it's hard to deep breathe but if they have something more physical to do it kind of helps." Iris explained to the focus group that shared breathing strategies should distract the brain for at least 5 seconds: "When you were talking about the box, that's about that 5 seconds. So, if you count backwards from five, something's happening in your brain. It's able to get you also de-stressed." The participants in the focus group thought that it took at least 5 seconds for students to be able to reset, though it often took longer.

Along with teaching coping strategies, educators taught students the purpose of the strategies. They explicitly taught students that they needed to apply strategies to regulate their brains so that they could engage with their academic tasks. Gwen shared with her focus group, "I just normally say that … clearly, it's not working right now. So, we need to take some space from the problem because when we're upset it's hard for us to engage." Iris added that she says something similar:

> Kind of like you need to step away a little bit because right now—right now you just can't get past this, so we need to just not think about it and then we'll come back to kind of when you have a fresh brain.

Joy explained during her focus group that she explicitly teaches students to pay attention to their physiological states while applying coping skills. She said, "Show them like what happens to your breathing and you're thinking when you're just sitting and not thinking, just listening to me, the rain, or music." In her letter, Ellie suggested, "Strategies that the student can try in order to alleviate stress …: movement break, breathing exercises, sensory tools, listening

to music, visualization, meditation, conversation with adult/friend." After intervening to help students regulate themselves, educators described working with students to help them apply coping strategies for accomplishing their work such as breaking it down, making a list, and planning time to work. In her interview, Gwen described teaching about "the different digital tools … Google Keep … Google calendar." She added, "create a list," and described showing students how to "block their time." She also talked to them about being "well balanced" as opposed to "overscheduled." In her interview, Alex said, "Remind the students of the tools in their toolbox." As students proceed and adaptively cope, educators may point out their growth. Ellie described acknowledging students' efforts: "An acknowledgment thing where a kid is going to be like, 'Oh, I was actually good at something and like I didn't realize that I was.'" Pointing out successes built students' confidence, which educators said was necessary for developing coping skills. As Cora said in her interview, students "need the confidence of yes, I can do it."

Sub-Question Three

How do educators describe the outcomes of addressing academic stress in secondary students?

After addressing academic stress, the educators in this study found that students had a better understanding of the physiological side of academic stress and showed increased effort. Participants also noted outcomes in themselves. One of the results of addressing academic stress was realizing it is a real thing. Bella said during her interview, "I have come to realize it's a real thing." Students also became more aware of their academic stress as it was addressed. Cora noticed that students recognize their academic stress levels by the end of the year. She shared during her interview, "One of students said, 'I'm never stressed for the exams in here.' I said, 'Tell me why, are they too easy?' and he said, 'No, I just know what's going to be on them.'" Ellie noticed outcomes in her students also, and said in her interview, "For some of them they're

really proud of themselves and they're able to say, 'Yes, look at the progress I've made.'" In her interview, Iris shared how students "feel more comfortable where they're able to either talk to me more or work with their partner." She explained that students need to feel comfortable to collaborate with their peers and teachers. Iris said there was an "outcome of just being able to feel comfortable to talk to others and admit the fact that you're struggling." Though initially there may be an increase in academic stress, as students engage with adaptive coping strategies, academic stress declines. Francis explained in his interview, "There is an initial hit to their self-esteem, their confidence, in addition to their stress." He continued, "Ideally, what you see in the ensuing weeks, months, is significant stress reduction because (a) they feel like they're being supported and (b) they realize it's not the end of the world to get extra help."

Francis also explained that he sees more work being submitted as an outcome of addressing student academic stress. He said in his interview, "The outcome is they are finishing and submitting" work. He continued, "If they are students that are just struggling to perceive that work is doable for them, turning it in—them just completing stuff and turning it in is a victory." Then, he explained that after students are turning work in, they start acknowledging, "Okay. I can do work at this school." Francis described that skill improvement was a next step: "Once they're at that level, and they're submitting things, now let's look at your actual writing now let's look at how you can study better, certain things in math that you're having difficulty with." Students need to have confidence in the routine of doing the work before they can work on doing it better.

Doris helped students understand their physiological responses to stress. She described the results of addressing students' academic stress: "By the end of the year I didn't appear to have a lot of stressed-out kids … I always had good rapport with parents and good rapport with students, and students seemed to enjoy coming to my class." Educators noted that it takes time to

develop coping and mindset skills to combat academic stress. Bella said in her interview, "Often times there is not an immediate result." She sometimes saw changes in students from year to year, but not usually within a semester. She shared during her interview, "It's something I won't see during the semester I have the child and if I'm fortunate to have them 1 or 2 years down the road then I might see it then." She continued, "Sometimes it's when they come back and visit and they're high schoolers and say thank God they finally got there, you know?" However, in her interview, Hazel noted that sometimes students do demonstrate overnight improvement. She said,

> So, I think oftentimes when they've tried a strategy if the strategy worked for them then they come in being like, "Yeah, I did it." Or like I will be the one to be like you did it like you got all this stuff done; this was amazing. Then you can kind of see like the small smile and like "Yeah, I did do it" like "I am—I am proud of myself for that."

Educators believed that some amounts of stress were positive. Alex explained, "Not all stress is bad … a little stress is okay. It can be kind of motivating." Educators described the process of addressing students' academic stress as helping students engage in "the productive struggle." Francis summarized, "The best thing we can do, as educators, is show students that experiencing stress is okay and that everyone experiences stress."

Summary

Educators recognized academic stress through familiarity with a myriad of student presentations. After identifying academic stress, educators worked with students by applying mindset strategies, coping strategies, and their own tried and true strategies. The participants in this study emphasized the benefits of collaboration with other educators. Sometimes, students directly communicated their academic stress, but often the participants recognized academic stress through students' body language and behaviors. Educators identified both internal and

external causes of academic stress. Internal struggles were skill-based whereas external struggles were connected to grades, deadlines, and expectations. In addition to mindset strategies and coping strategies, veteran educators accumulate their own strategies over the years. Educators shared ideal school supports including mental health workers, student groups, and shared community goals and language. The outcomes of addressing student academic stress were increased student effort and an ability to move on. Educators emphasized that not all stress is bad, and self-care is important in being able to help students develop coping skills to reduce academic stress. The experience of working with students facing academic stress was frustrating, challenging, rewarding, and evolving.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this phenomenological study was to investigate the experience of secondary educators who sought to recognize, address, and note the outcomes of supporting students experiencing academic stress. Educators recognized signs of academic stress and intervened to support students with mindset strategies, coping strategies, or other strategies they have accumulated over the years. Using Moustakas's process of data analysis, I revealed the themes and subthemes that offered insight into the experience of working with students facing academic stress. This chapter includes an interpretation of findings, implications for policy and practice, theoretical and methodological implications, limitations and delimitations, and recommendations for future research.

Discussion

In this section, I discuss findings viewed through the lens of my theoretical framework and in light of the developed themes. The interpretation of the findings is discussed, followed by implications for policy and practice. Theoretical and empirical implications are included. Then limitations and the limitations of the study are provided. A conclusion and recommendations for future research are presented.

Summary of Thematic Findings

The major themes unearthed from the data analysis process were (a) presentation of academically stressed students, (b) causes of academic stress, (c) supporting academically stressed students, and (d) outcomes of addressing academic stress. The theme "presentation of academically stressed students" contained the subthemes of body language, behaviors, student communication, and parents. Educators described recognizing student academic stress through the ways students carried themselves, the expressions on their faces, and the behaviors of either

acting out or shutting down. Participants shared that sometimes students or parents communicated academic stress directly via a conversation or an email. After recognizing students' academic stress, participants intervened to help students reduce their stress levels.

The participants in this study spoke about the "causes of academic stress," the second major theme. Though educators were not directly asked what caused academic stress, they naturally identified causes as they reflected on their experiences interacting with academically stressed students. Participants noted "executive functioning" was an internal cause of academic stress. Another internal cause of academic stress was the residual impact of COVID-19. Educators often prefaced descriptions of the effects of COVID-19 with "I hate to blame it all on COVID but …" The participants in this study identified that COVID-19 resulted in a misalignment of work quality and grades earned, missed time to practice social skills, and missed explicit instruction around social emotional learning that would normally have occurred during elementary school. Preoccupations, unmet basic needs, and autism were also cited as causes of academic stress.

The third major theme was "supporting academically stressed students." Educators discussed mindset strategies, coping strategies, their own strategies that they have developed over the years, and ideal school supports. They described teaching students the concept of a growth mindset and encouraging students to apply the growth mindset to their self-perception and thoughts about achieving their academic goals. Educators encouraged students to see their growth by explicitly pointing out an improvement in skills over time. The participants in this study applied coping strategies when they recognized that students' academic stress was causing dysregulation. Educators taught students coping strategies and explained how the strategies may help "calm down" their brains so that they can engage with their academic challenges. As veteran educators, the participants in this study had developed their own strategies over time.

They recommended building relationships, taking a break, providing opportunities to retake the assessment, and explaining how the adolescent brain works and how it responds to stress. The participants in this study conveyed feeling unsupported in their work to address student academic stress. They suggested consistent routines and structures for students, common language for developing mindset and coping strategies, community goals around SEL and academic stress, and professional development opportunities for educators.

Participants reflected on the outcomes of addressing academic stress. The subthemes were student outcomes, veteran educator insights, feelings, and needs. After addressing academic stress, educators noted that students were able to move on, show increased effort, and understand the physiological elements of stress. Educator participants had at least 10 years of experience, and some participants had 20 years of experience. Therefore, the participants in this study offered insightful information due to the collective centuries of experience they had. They recommended practicing self-care and emphasized that not all stress is bad, and some stress can be motivating. Participants noted an increase in stress over the years, a "myriad of presentations" of student academic stress, the "cyclical nature" of stress, and the arbitrariness of grades. Educators described their feelings about working with students experiencing academic stress as frustrating, challenging, and rewarding. Overall, educators felt "happy" when their students were successful and "sad" when their students were struggling. The participants shared the supports students need to address and reduce their academic stress. They spoke about the need for time to practice and a common language for teaching mindset strategies, coping strategies, and other strategies to manage academic stress. Educators emphasized that a school must have consistent routines, structure, and strategies to successfully intervene and support students experiencing academic stress.

Interpretation of Findings

Based on the themes that emerged from this study, I identified four elements that are essential for reducing student academic stress. First, I found that educators recognized behavior as a symptom of academic stress. Through understanding students' presentation, speech, and communication, educators became aware that students were experiencing academic stress. Secondly, I found that once educators noticed the students' behavioral symptom of stress, they applied either mindset interventions or coping interventions to help students navigate their academic stress and reengage with their schoolwork. Lastly, I found that participants emphasized the importance of consistent routines and structures to support students experiencing academic stress.

Recognizing Behavior as a Symptom of Stress

According to the data, educators identify and respond to academic stress based on students' presentations. The first step to recognizing students' academic stress is noticing a change in their behaviors. When students presented unexpected behaviors, such as shutting down or acting out, educators could identify academic stress as a source for their dysregulation. Educators reacted differently to students' academic stress depending on behaviors. Participants described some students needed space, some needed a break, and some needed help learning or applying strategies to become unstuck.

I found that once educators recognized students' behaviors, they were able to use their observations and background knowledge about the students to guide the student towards appropriate strategies. Had educators not recognized students' behaviors as manifestations of academic stress, they may not have been able to intervene. The participants in this study noted that adolescent students are not always able to verbalize their struggles and advocate for the support that they need. In fact, students may not even realize where they are stuck or that they

need help. Educators could not rely on students directly communicating their feelings of academic stress. Noticing and interpreting student behaviors was critical to identifying student academic stress.

Mindset Interventions

Mindset was a major interpretation of this research study. Participants in this study believed that educators who have a growth mindset also encourage a growth mindset in their students. They frequently applied growth mindset interventions to support students experiencing academic stress. The participants in this study revealed that subscribing to a growth mindset, teaching growth mindset strategies, teaching students that their brains grow, and pointing out student growth reduces academic stress. Educators frequently applied analogies to help students understand the concept of a growth mindset. Many students within the school district participate in extracurricular activities, so sports analogies were applied often. Educators explained that players practice for sports games by repeating skills over and over. Repetition and practice in sports are necessary for performing well during games and becoming a better athlete. Student athletes can relate to sports analogies such as this because it is something that many of them have experienced. For students who are not involved in sports, educators described using music, video games, and theater for growth mindset analogies.

After explaining a growth mindset, educators must help students understand that their brain is like a muscle that can also be grown with practice. I recommend showing students videos of neurological growth. This helps students understand that although the brain does not grow in physical size, it can grow new neurons and synapses because they will then have a visual to understand the concept of brain growth. With the sports analogy, students may understand the idea of muscle growth because they have experienced it themselves or seen it in athletes who are role models. However, it may be hard for adolescent students to subscribe to the ideas that their

brain can grow when they do not see their brain physically getting bigger. After viewing videos of neurological growth, students may be more likely to embrace the idea that their brains grow.

The participants in this study also noted that it takes time for students to develop a growth mindset. They observed that students who are in the fixed mindset state of "I can't" are not able to directly move to "I can." Students need time so that they can practice and for their teachers to point out their success along the way. To help students experience success and notice their growth, educators recommended breaking tasks down. When a task was broken down, students could approach it one step at a time and celebrate their successes along the way. When students got to the end of the task, whether it was homework, a test, a semester, or a portfolio, they had the ability to look back at the steps they took and notice their growth. Students may not naturally break assignments down or reflect upon their growth. Their teachers may need to support them to separate their work into steps and celebrate their successes. I found that educators who teach growth mindset strategies reduce academic stress in their students. My research supports previous research that determined educators may teach students to adopt a growth mindset to help students engage in adaptive coping, reduce academic stress, and improve academic skills (Dweck & Yeager., 2018). The findings of my study also support research that found when the growth mindset is applied to academic stress, educators may teach students to adjust their response to stressful academic situations (Yeager & Dweck, 2020).

Coping Interventions

I also found that when the participants in this study addressed students' academic stress they often began with coping strategies. As one focus group was discussing different types of breathing exercises, I asked them what they told students about the breathing exercises. They explained to me they taught students that their brains could not work well if they were experiencing stress, so they needed a break to engage with their work again. After coping,

engagement with the work could take different forms such as strategizing an approach, asking a specific question, or finding the correct resource. However, none of that engagement could happen until students were able to regulate their responses to academic stress. Participants' observations of students being unable to cope while experiencing a stress response is consistent with the stress response explained in Lazarus and Folkman's (1984) transactional model of stress. According to this theory, as stress arises, individuals determine if that stress is a challenge, a threat, or a potential cause of harm or loss. As individuals appraise the stressor, adaptive or maladaptive coping strategies surface (Lazarus & Folkman, 1984; Rafati et al., 2017; Skinner et al., 2016). The perception of an academic task as a challenge may elicit adaptive problem-solving skills, whereas viewing academics as a threat may cause a maladaptive response. Students who appraised their academic task as beyond their ability or resources reacted to the task as a threat to homeostasis and experienced a physiological reaction. Educators had students apply an adaptive coping strategy to give the brain and body time to process their physiological response and return to a regulated state. Once students were regulated, educators helped them reengage with their academic tasks. Often, teachers helped students reappraise the academic task by breaking the task down and reminding students of the skills and resources they had to help them proceed.

Educators mentioned the importance of practice and time for students to develop coping strategies. Students were able to replace maladaptive coping strategies with adaptive coping strategies, but success takes a range of different timelines and practice methods depending on the student and the initial maladaptive response. Students who experienced mild stress responses such a red face or acting out were supported by interventions of breathing, taking a break, and breaking an assignment down to approach it step by step. Other students may have more intense or longer lasting physiological responses to academic stress. Those students may require more

support and practice to acquire adaptive coping skills. Students with strong academic stress responses may benefit from working with the school psychologist or school academic support specialist. Both psychologists and academic support specialists can offer instruction about coping strategies and opportunities to practice applying strategies prior to experiencing the stressor. During one of the focus groups, participants discussed how students' responses need to be "rote," so students would be better able to recall and apply them during stressful moments. Participants concurred that adaptive coping responses should be taught before the moment of stress and practiced multiple times in advance for automaticity.

Strategies, Routines, and Structures

The participants in this study spoke about routines and structures that are necessary to support students experiencing academic stress. Educators recommended personnel resources, school structures, and school and classroom routines. As participants noted, building-based specialists or outside consultants could teach educators strategies for recognizing and addressing academic stress and connect educators and students with the resources. The first step in addressing student academic stress was recognizing that students were experiencing stress. Educators recognized academic stress through students' presentation, so a system for recognizing behaviors that signal academic stress should be created and applied. Similar to visual information about curricular elements, schools should have visuals in classrooms and hallways to help community members remember to identify the signs of student academic stress. During this study, participants recommended the strategy of visuals in every classroom to help them with consistency. A visual showing signs or phrases related to student academic stress would help both educators and students remember what academic stress may look like. Noticing that a student is experiencing academic stress is the first step towards intervening. Visuals that draw

attention to this critical first step are an important element to helping a school community consistently recognize academic stress and a simple strategy to put into place.

I found that a school needs to have routines and structures to support students experiencing academic stress as it occurs so an intervention can be applied as soon as possible. The participants in this study spoke about the importance of having a routine to support students who were struggling with academic stress. They discussed a program the school formally had that allowed students who were experiencing struggles to work with a specialist in a therapeutic environment. This program was in a classroom within the school and was used as a short-term intervention to teach students the coping skills they needed to return to the classroom. The structure of a therapeutic classroom for academic support and the routine of referring students for specialized interventions should be established. Left unaddressed, academic stress escalated to a point of the students being unable to engage. In this study, participants shared that students received support when their stress reaches a level of potential self-harm or harm to others. In some cases, participants had requested additional support from administrators but were told either the support was not available or the student did not need the support. In these cases, the student's academic stress escalated and impacted students' social and emotional well-being.

Implications for Policy or Practice

An analysis of the empirical literature confirms research that academic stress has increased over the past decade (Sotardi, 2018). Adolescents reported that school and academic work are among their top three stressors (Skinner et al., 2016). Unaddressed, academic stress during adolescence may lead to physical and mental health issues, such as substance abuse, absenteeism, risky behavior, diabetes, obesity, and decreased sleep (Linden & Stuart, 2020; Pascoe et al., 2020; Puolakanaho et al., 2019; Zarei et al., 2016). The trajectory of academic stress is that it will continue to increase. As academic stress leads to other physical and

emotional ailments, it is important that policy is created to ensure students' access to strategies that may reduce it. Adolescence is a critical stage of brain development, and habits established during adolescence often continue into early adulthood. Therefore, the implications for policy and practice have significance for secondary schools.

Implications for Policy

An analysis of the findings reveals that access to supports for academic stress and the opportunities to practice coping skills and apply a growth mindset are the greatest needs for educators and their students. Veteran educators acquire strategies over the years. However, unseasoned educators, educators who do not hold a growth mindset, and educators who do not have a background in coping may not have adequate supports for students experiencing academic stress. Educators need ongoing professional developments and access to an academic support specialist within their school buildings. Schools should anticipate a continued increase in student academic stress and ensure that they have the staff and educator training to support students experiencing academic stress.

Just as schools have guidance counselors and psychologists, the state should also require secondary schools to have at least one academic support specialist. Academic stress is a specific type of stress and, therefore, requires specific interventions. School psychologists deal with generalized stress and anxiety, but academic support specialists can support students who are experiencing purely academic stress before the stress escalates and requires the need of a psychologist. An academic support specialist supports students experiencing academic stress, their teachers, and their parents. As educators noted in this study, all significant adults in students' lives need to subscribe to a growth mindset for students to develop it. Parents and community members should receive information about the importance of having a growth mindset, and workshops or presentations should be available for families. Through collaborative

work with students, teachers, and parents, an academic support specialist intervenes to combat student academic stress before it escalates to a critical stage and requires outside mental health or medical interventions.

Implications for Practice

The data collected from the educators in this study led me to conclude that while each educator has uniqueness in how they address student academic stress, they all reacted to student presentation and offered supportive strategies. Participants were eager to share how they identified student academic stress and the strategies that they had found successful. They were also strong advocates for their students as they identified supports that they wished they had and encouraged me to help them obtain additional resources for their students. Participants requested strategies and expressed a fervent desire for research-based methods they could apply to reduce student academic stress. The first implication for practice is providing professional development opportunities for all educators to learn strategies to reduce student academic stress.

The research conducted in this study found that educators valued their colleagues' advice. The participants in this study are members of a professional learning community and hold each other in high regard. Throughout the study, participants affirmed each other's methods and perspectives and highlighted the positive contributions other educators have made to the community. Given the strong relationship between educators in this community and the high number of veteran educators, a series of teacher-led professional developments on mindset strategies, coping strategies, and adolescent brain development would be beneficial to the community. These findings apply to all communities wherein there are a significant number of veteran educators who are supportive of one another.

Additionally, findings revealed that goals around reducing student academic stress should be tied to district goals or the school mission statement. The participants' mission statement

includes supporting the needs of all learners, including diverse learners. I recommend that the districts consider academically stressed students a diverse type of learner and obtain appropriate supports towards fulling the leadership's vision for the district. Currently, there are students within the district who are unable to attend school due in part to experiencing academic stress. To support all learners, the district needs to supply resources to mitigate student academic stress. I recommend that classroom educators refer students to the personnel resources of an academic support specialist or psychologist prior to students' academic stress escalating. My research found that educators work to address academic stress when they first notice it. However, they do not have access to adequate supports until the student's safety becomes a concern. Therefore, I recommend the personnel resources of academic support specialists and psychologists in every school. I also recommend schools have systems for educators to refer students experiencing academic stress to a specialist at the onset of academic stress.

I also recommend the classroom resources of a break zone, visuals for coping strategies, mindset, and neurological growth. Of course, the most important classroom resource is a teacher. Educators need to be well informed to do their best work. Therefore, I also recommend professional development opportunities around the topics of SEL, growth mindset, stress, coping, the adolescent brain, and neurological growth. In this study, participants expressed recalling and applying material from professional development over their years of teaching. Educators considered professional development opportunities valuable and retained and utilized information from them, even years after the profession development. Educators' passion to learn paired with their desire to support students makes professional development opportunities an important measure for school districts to take in order to help reduce student academic stress.

Finally, participants in this study spoke about the panorama survey which collects data about students' SEL, growth mindset, and academic performance. Participants noted that they

did not, nor did they observe other educators, use this data to inform their work with students. Educators would benefit from time to review data from the panorama survey and create data-based interventions for academic stress. The panorama data sites display SEL scores, growth mindset scores, and academic ratings for each student with whom the educators work. It also contains a system for creating and tracking specific student interventions. I recommend that an academic support specialist work with educators to interpret the panorama data and select and apply interventions for students facing academic stress.

Theoretical and Empirical Implications

The findings that were revealed in this phenomenological study had theoretical and empirical implications. The theories used to create the framework for this study were Lazarus and Folkman's (1984) transactional model of stress and Dweck's (2006) theory of mindset. Educators recognized students' coping process and intervened at the stage Lazarus and Folkman (1984) described as the "appraisal" stage. They applied adaptive coping strategies or growth mindset strategies based on Dweck's (2006) theory of mindset. According to the implications of this study, recommendations for identifying students' academic stress and intervening in the coping process are presented in this section.

Theoretical Implications

The theoretical framework for this study was Lazarus and Folkman's (1984) transactional model of stress and Dweck's (2006) theory of mindset. This phenomenological study examined the experiences of educators who sought to recognize and address student academic stress. Lazarus and Folkman's transactional model of stress explained students' adaptive and maladaptive coping as they appraised academic tasks but did not explain how to recognize that a student was experiencing academic stress. The findings of this study suggest that educators may identify students experiencing academic stress through their presentation, including body

language and behaviors. Prior to this study there was a gap in theoretical application of the transactional model of stress and the growth mindset to examine educators addressing academic stress in secondary students. This study has advanced the transactional model of stress by collecting new information about how educators recognize the process of appraisal, stress, and coping in their students and how they intervene to address student academic stress. The results of this study indicate that educators can intervene in students' stress reactions through coping instruction, mindset instruction, and their own strategies.

The findings of this study have confirmed what is known about the growth mindset. The theory of mindset, also referred to as growth mindset theory or incremental theory, states that people can grow, change, and revise their judgements and abilities over time (Dweck, 2006; Dweck & Yeager, 2018; Yeager & Dweck, 2020). Through interventions, individuals may be taught how to apply mindsets to academic, social, work-related, and health-related issues (Dweck & Yeager, 2018; Tejada-Gallardo et al., 2020; Yeager & Dweck, 2020). Educators applied the growth mindset for students facing academic stress to encourage them to persevere, put it into practice, and celebrate their successes along the way. Educators also applied the growth mindset to help students develop coping strategies. The findings of this study confirmed that it takes time and practice to replace maladaptive coping strategies with adaptive coping strategies. The participants in this study applied growth mindset strategies to help students develop a growth mindset and increase their ability to cope. Additionally, all members of a school community, including parents, teachers, and administrators, need to learn about and adopt a growth mindset for students to develop it.

Empirical Implications

This study confirmed previous research about the value of teaching mindset and coping strategies and what has been known about students' academic stress. Before this study it was

known that educators could teach coping strategies and that adaptive coping reduced academic stress (Erath et al., 2016; Leung & He, 2010; Rafati et al., 2017; Yeager et al., 2022). However, there was no literature about how educators recognized academic stress or interacted with secondary students to address it. The findings of this study indicated that educators intervened when they recognized academic stress through students' presentations, and supported students through the use of mindset strategies, coping strategies, or their own strategies. Sotardi (2018) found that veteran educators had reported an increase in student academic stress over the past decade; the veteran educator participants in this study confirmed the rise in student academic stress over the years.

This study also confirmed Sang et al.'s (2018) research that students who experience academic stress may feel its impact not just during school hours but throughout the day. Participants shared how parents communicated the impact academic stress had on students at home. Additionally, it was known that stress may not always be negative, and academically stressful situations could have positive results (Sang et al., 2018; Sotardi, 2018; You, 2018). Stress at some levels could be beneficial, although academic stress could have the potential to be harmful (Zakaria et al., 2021). The participants in this study confirmed these findings as they shared that stress can be a good thing, and not all stress is bad. Prior to this research, there was a gap in knowledge about how educators described and coped with student stress (Neibauer, 2019; Skinner et al., 2016). Participants in this study provided details about their experiences coping with students' academic stress and elaborated on how they supported students. Information about how to identify the signs of student academic stress should be shared with secondary educators to increase the likelihood that students' academic stress is recognized and addressed.

Limitations and Delimitations

Limitations existed in my investigation of educators' experiences recognizing and addressing student academic stress. First, this study was limited to educators of students in Massachusetts. This constraint was a result of potential participants being located within or in near proximity to the research site. Secondly, participants were limited to colleagues or acquaintances who had an understanding of both the research and researcher. Though my initial recruitment email solicited all secondary educators within my district as I attempted to include participants I did not have experience working with, they did not respond after the initial survey. As a result, all participants were comfortable speaking with me and were open and forthcoming in the information they provided. Additionally, my screening survey asked educators if they used the growth mindset or coping strategies to support students experiencing academic stress. Participants signified through their responses that they understood mindset and coping strategies. Therefore, participants represented educators who have knowledge of mindset and coping strategies. Other educator samples may not contain as high a percentage of educators with experience using coping and mindset strategies.

The delimitations of this study were created by parameters I established. One delimitation of this study was my choice to select educators who work with secondary students. I selected this parameter because adolescence is the second and last period of rapid brain development wherein coping strategies can be acquired with relative ease when compared to early adulthood. Additionally, I selected veteran educators who had at least 10 years of experience working with students facing academic stress. The cumulative years of experience of educator participants deepened and enriched the quality of data I was able to collect.

Recommendations for Future Research

Recommendations for future research are derived from the findings, limitations, and delimitations of this study. This studies' participants were selected from secondary schools located in suburban communities in Massachusetts. Future research may focus on recruiting participants from urban or rural demographics, or from different regions of the country. In consideration of the study findings, this study examined how educators recognized student academic stress through students' presentation and intervened in the coping process with adaptive coping or mindset strategies. This study revealed that veteran educators recognize student academic stress and intervene to support students. Additionally, the findings of this study reflected educators' needs for professional development around SEL, coping strategies, the growth mindset, and brain development. Research involving the impact of professional development on educators' ability to recognize and address student academic stress may be beneficial for educators and school communities.

A qualitative study to examine the preparedness of novice educators could be valuable to determine which skills they are prepared to use and which skills they need to develop. A case study design could be useful in investigating the work academic support specialists do to mediate student academic stress. As evidenced in this study, educators try their own interventions, and if students' symptoms escalate, teachers may refer students to a school psychologist. As school communities work to integrate academic support specialists, obtaining more information about the supports and strategies they offer could be of high value to school communities looking to combat student academic stress. A case study design may also be applied to investigate the reciprocal stress loop between a teacher, a parent, and a student. Future research might also include a narrative study of students experiencing academic stress to offer insights into the perspective of an adolescent student.

Conclusion

This phenomenological study examined the experience of secondary educators who sought to recognize, address, and note the outcomes of student academic stress. Using Lazarus and Folkman's (1984) transactional model of stress and Dweck's (2006) growth mindset theory, this study examined how educators recognized students' academic stress and intervened with strategies to support students. Data were collected from individual interviews, focus groups, and hypothetical participant letters of advice. The findings of this study indicated that educators recognized student academic stress through students' body language and behaviors. After recognizing symptoms of stress, educators intervened with coping strategies, mindset strategies, or their own strategies to help students engage with their academic challenges.

Educator participants subscribed to a growth mindset and strongly believed that the important adults in students' lives needed to have a growth mindset for students to develop one. They also advocated for consistent routines, structures, and language. Educators instructed students about the concept of the growth mindset, used analogies to help students understand their brains could grow, and supported continued engagement with academic tasks through coping strategies. Educators also taught students that coping strategies are applied when their brains need a break and that they should reengage with their tasks once they have a "fresh brain." Educators described mindset and coping strategies to support students experiencing academic stress and shared their needs for additional strategies. In addition to strategies, educators expressed a need for professional development opportunities to learn more about academic stress, districts and community goals around supporting students experiencing academic stress, and specialized school personnel to support the communities' increasing number of students experiencing academic stress.

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Appendices

Appendix A: IRB Approval Letter

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

November 29, 2022

Lisa Konieczna
Gail Collins

Re: IRB Exemption - IRB-FY22-23-414 A PHENOMENOLOGICAL STUDY OF THE LIVED EXPERIENCES OF EDUCATORS WHO SEEK TO RECOGNIZE AND ADDRESS ACADEMIC STRESS IN SECONDARY STUDENTS

Dear Lisa Konieczna, Gail Collins,

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

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

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

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

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

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

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix B: Recruitment Letter

19 June 2022

Middle School & High School Educators

Midview School District
█████ Street
M., MA 00000

Dear Educators,

      As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirement for a doctoral degree. The purpose of my research to understand how educators recognize and respond to student academic stress.

      Participants must be 18 years of age and have at least five years of experience working with students in a school setting. Participants, if willing, will be asked to complete an interview, participate in a focus group, and compose a letter of advice. It should take approximately 45 minutes to complete the interview, 60 minutes to complete the focus group, and 30 minutes to complete the letter. After interviews and your part of the focus group are transcribed, I will ask you to review the transcripts, which should take about 15 minutes. Names and other identifying information will be requested as part of this study, but the information will remain confidential.

      To participate, please click here to respond to the brief survey attached to this email, which will take approximately 5 minutes to complete.

Sincerely,

Lisa Konieczna
Doctoral Candidate, Liberty University
████████████.edu

Appendix C: Screening Survey

1. Are you at least 18 years old?

   Yes _____ No _____

2. How many years have you worked with students in an educational setting?

   ____1-4 years ____ 5-9 years ____10-14 years _____15-19 years _____20+ years

3. During your time working in education, have you sought to recognize or address

   student academic stress?

   Yes _____ No _____ Other _____

4. How have you addressed student academic stress? (Select all that apply)

   a. Through teaching coping strategies ____

   b. Through teaching mindset _____

   c. Other:

   _____

5. What is your role in the school setting?

   a. Teacher _____

   b. Guidance counselor _____

   c. Administrator _____

   d. Other: _____

Appendix D: Email Response to Screening Survey

EMAIL TO SELECTED PARTICIPANTS

Dear _____,

       I hope this correspondence finds you well! Thank you for completing the "Screening Survey for Academic Stress." You have been selected to participate in the study, *A phenomenological study of the lived experiences of educators who seek to recognize and address academic stress in secondary students.* In order to participate, please complete and return the consent form. (Paper copies are also available and will be mailed to you upon request.). Information about interview and focus groups dates will follow. I look forward to listening to and learning from your experiences.

       With Appreciation,

       Lisa Konieczna

EMAIL TO NON-SELECTED INDIVIDUALS WHO COMPLETED SCREENING SURVEY

Dear _____,

       I hope this correspondence finds you well! Thank you for completing the "Screening Survey for Academic Stress." You have not been selected to participate in the study, *A phenomenological study of the lived experiences of educators who seek to recognize and address academic stress in secondary students.* Educator participation in research is critical, so please consider participating in future studies.

       With Appreciation,

       Lisa Konieczna

Appendix E: Consent Form

Title of the Project: A phenomenological study of the lived experiences of educators who seek to recognize and address academic stress in secondary students
Principal Investigator: Lisa Konieczna, BFA, Mass Art; MAT, Simmons College; EdD Candidate, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 18 years old, have 10 years of experience working as an educator with adolescents in a school setting, and seek to recognize and address student academic stress. Taking part in this research project is voluntary.

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

What is the study about and why is it being done?

The purpose of the study is to understand educators' experiences recognizing and addressing academic stress in secondary students. This qualitative phenomenological study will provide missing information about how educators approach the mitigation of student academic stress.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:
1. Participate in a recorded individual interview that will take 30-45 minutes to complete.
2. Participate in a focus group interview with other secondary teachers that will take 45-60 minutes to complete.
3. Compose a letter of advice that consists of your recommendations for educators addressing academic stress, and will take 30 minutes to complete.
4. Review the transcripts of your individual interview and your part of the focus group to check for their accuracy. This should take about 15 minutes.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study. However, you may benefit from taking part in a collaborative conversation with other secondary educators about how they recognize and address student academic stress.

Benefits to society include creating a deeper understanding of the phenomenon of educator recognition of and responses to student academic stress.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be confidential. Participant responses will be kept confidential through the use of pseudonyms. Interviews will be conducted in a location where others will not easily overhear the conversation.
- Data will be stored on a password-locked computer and may be used in future presentations and a future grounded theory study. After three years, all electronic records will be deleted.
- Interviews and the focus group will be recorded and transcribed. Recordings will be stored on a password locked computer for three years and then erased. Only the researcher will have access to these recordings.
  Confidentiality cannot be guaranteed in focus group settings. While discouraged, other members of the focus group may share what was discussed with persons outside of the group.

Does the researcher have any conflicts of interest?

The researcher serves as a teacher at ▮▮▮▮▮▮▮▮▮▮▮▮▮. To limit potential or perceived conflicts the study will be confidential, and data will be confidential. This disclosure is made so that you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate or not participate in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or M. Public Schools. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please inform the researcher that you wish to discontinue your participation, and do not submit your study materials. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Lisa Konieczna. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at ▮▮▮▮▮▮▮▮▮▮edu. You may also contact the researcher's faculty sponsor, Dr. Gail Collins, at ▮▮▮▮▮▮▮▮▮▮edu

Whom do you contact if you have questions about your rights as a research participant?

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

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You will be given a copy of this document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.

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

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

_____

Printed Subject Name

_____

Signature & Date

Appendix F: Interview Questions

1. What hobbies or activities are your favorite stress relievers? How did you experience academic stress as a student? Grand Tour & Icebreaker

2. Try to remember one of the last times you interacted with a student experiencing academic stress and tell me about the situation, how you felt and what you said. CRQ

3. Tell me how you recognize academic stress in students. SQ1

4. Tell me how you recognize maladaptive (non-problem solving) coping in students facing academic stress? SQ1

5. Describe your experience helping students with maladaptive coping skills develop adaptive coping skills. SQ3

6. Tell me which supports your students need to develop adaptive coping skills. SQ3

7. Tell me how you recognize a fixed mindset in students facing academic stress. SQ3

8. Describe your experience helping students with a fixed mindset to develop a growth mindset. SQ 2

9. Tell me which supports your students need to develop a growth mindset. SQ2

10. Describe your experience helping students with maladaptive coping skills develop adaptive coping skills. SQ3

11. Describe your experience with the outcomes of addressing student academic stress. SQ3

12. What dimensions and incidents connected to the experience of working with students facing academic stress stand out to you? CRQ

13. How has recognizing and addressing students' academic stress affected you? What changes do you associate with the experience? CRQ

14. What feelings were generated by your experiences working with students experiencing academic stress? CRQ

15. What thoughts stood out to you as you worked with students experiencing academic stress? CRQ

16. Have you shared all that is significant with reference to the experience of recognizing, addressing, and noting the outcomes of student academic stress? CRQ

Appendix G: Focus Group Questions

1. Try to remember one of the last times you interacted with a student experiencing academic stress after your initial interview and tell me about the situation, how you felt and what you said. CRQ

2. Have you noticed any change in how you recognize student academic stress since our interview? SQ

3. What resources do you use to help students develop a growth mindset? SQ2

4. Which elements of the growth mindset are most useful in reducing student academic stress? SQ

5. What resources do you use to help students develop adaptive coping strategies? SQ

6. Which adaptive coping strategies do you often encourage students to use? SQ3

7. When do you intervene to support students experiencing academic stress? SQ3

8. What supports are available for educators to help mitigate student academic stress?

Appendix H: Participant Letter of Advice Instructions

Please write a letter about how to encourage students' coping processes. You may include strategies that have helped you personally as well as any tips for recognizing or addressing student academic stress.

Appendix I: Audit Trail

5/12/2022	District Approval for Study
12/3/22	first pilot interview, conducted and transcribed
12/8/22	sent out recruitment email to middle school and high school staff.
12/6/22	second pilot interview
12/12/22	Sent out consent to first 8 respondents
12/12/2	Pilot focus group
12/18/22	sent the last two respondents consent forms. Sent all respondents interview dates and times for January 2023
1/5/23	first interview
1/5/23	sent follow up emails with interview times
1/10/23	interview with CF (followed by conversation about God, heaven, Eve, Genesis, and the modern woman)
1/11/23	interview with ML (followed by conversation about Christian music, Jesus, and miracles; Question 10 skipped – include in focus group)
1/14/23	established focus group times and date for participants to choose from through February
2/17/23	Completed interviews and focus groups
2/27/23	Completed transcription of interviews and focus groups
2/28/23	Began determining horizons by using comments to mark and label horizons. The horizon codes from comments were copied and pasted into a Word doc. Codes from the other transcripts have been added to the doc, and repeated codes will be labeled with all participant numbers
3/5/23	Completed initial extraction of interview and focus group transcript horizons

Appendix J: Researcher's Reflexive Journal

4/29/2022	My thinking about thinking has improved throughout this process [of reflecting on stress, appraisal, and coping], and I am more aware of what my mind is doing, and how to think productively
6/14/22	Recently, I traveled to NY city by train for the first time. I had mapped out the ¾ mile walk to catch a train for my return trip, and thought it would be an easy walk. However, the streets did not appear familiar, my navigation was inaccurate, and I was running out of time. I felt my brain shut down, and I struggled to think but could not come up with any plan at all. Fighting back tears, I said, "I don't like this—I don't like doing things that make me uncomfortable!" Instantly aware that I had appraised the situation as more threatening than it was, I knew I was living my research—caught in a moment of appraisal and stress—and wanted to remember that even though I was aware of the theoretical and physiological reasons for feeling stress, the effects were still intense and caused confusion and distress
6/28/2022	My oldest twin daughter asked me what I was reading earlier today. I started to explain epoche, and was surprised when she stuck around to listen. I defined and explained epoche as best I could. I explained that Epoche is similar to seeing through Hevel. Setting aside the transient aspects of the word—the Hevel—we can consider the elements of life that are eternal. My daughter pointed out there is less Hevel in the forest than in the city, thanked me for teaching her what I was reading, and excused herself.
6/29/2022	In a review of Moustakas's description of Epoche, I have considered the biases about academic stress and coping that I have. First, I feel that struggle is necessary, and may be biased about individuals who avoid struggles. I also need to be aware that people all have different gifts and abilities. Even with my heightened awareness of the coping process as described through the transactional model of stress, I still have a knee jerk reaction to slip into maladaptive/emotional responses in certain stressful situations. I need to accept that both adults and children need support coping at different levels in different situations.
7/1/2022	I have described my research to a few people recently. Parents of children in elementary and middle school have recognized the growth mindset theory and shared how their children learned about it in school. One of my aims in selecting a theoretical framework was creating an understanding of findings that parents and teachers would be able to recognize and understand. I was pleased to see parents outside of my study and profession could describe the growth mindset and recognize its importance to their children's perceptions of learning.
7/2/2022	I can feel my reaction to stress as I appraise a situation. I am also aware of the time it takes me to recover from the uncomfortable feeling of a racing heart, unclear thought, and a desire to control the situation or flee from the situation. At the lake dock earlier, a group of children joined us, loudly talking about the fish and throwing pretzels in the lake. My daughters expressed annoyance, so I passed

	on my appraisal and told them to be nice. However, my daughters disregarded my appraisal of the situation as kids having fun that we should be patient with. Immediately I felt my heart beat more quickly. I waited a few moments, but with my frustration growing, I felt compelled to take control. I politely said hi, and asked where their parents were. They pointed out to mid lake at a man on a paddle board, and said everyone else was at the river. So, I told them to stop throwing pretzels, then sat back down and tried to read my book. I was not completely at peace, but doing something about the situation helped me feel better. This experience has shown me that taking a problem-solving source of action to address even part of the stressful situation reduces psychological symptoms of stress. Additionally, others' perspectives (in this case my daughter's) can interfere with the appraisal and coping process.
9/6/2022	Today I showed my students two short videos about the growth mindset. The lesson plan I was following presented classroom principles, and one of them was "your brain is like a muscle." I explained to students that their brains could grow. I know concepts often come alive for students through videos, and I wanted my students to know I was not just saying nice teacher words; I wanted them to fully believe that their brains were going to grow as they worked to engage with learning tasks. I believe students need to be taught how their brains work to best engage with learning. I expect that teachers who share information about the science of learning may have students who are more aware of the learning process and thus better able to engage with academic challenges.
3/23/23	Over the almost two decades I have spent in education, I have found that educators have students' best interests in mind. From my perspective, the interventions that teachers design for their students are tailored to support student growth. I hold the bias that educators work to support their students and want to see their students grow.
3/23/23	I have a poor opinion of the supports that are offered to public school educators. Frequently, educators do the best they can with few resources. From classroom needs such as pencils and books to personnel support such as mental health professionals, many districts come up short. So teachers are left to locate the supports their students need. Generally administrators have control over the resources but do not disseminate them in a way that is equitable for classroom teachers