Examining Influences on Academic Resilience Among Minority Adolescent Students

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Abstract

This quantitative and correlational study aimed to investigate which variables of minority adolescent students promote academic resilience and focus on African American and Hispanic students within a public charter school located in Southeast Texas. Grounded on resilience theory, the research investigated the cognitive and emotional regulation of students and student–teacher connections in the process of academic resilience. A purposive sample composed of more than 100 students was used to collect data using the Cognitive Emotional Regulation Questionnaire, the Inventory of the Student–Teacher Relationship, and the Academic Resilience Scale for an online survey. Data analysis indicated that cognitive and emotional resilience mitigating coping skills demonstrate significant or greater adaptation to academic hardships. Furthermore, the correlations of the strong teacher–student ties on academic resilience emphasized the mediation effect on the repercussions of emotional regulation. This research highlights the importance of identifying and cultivating factors that give academic success among vulnerable groups of students. In this case longitudinal aspects of the influence of resilience strategies and broader demographic factors emerged as an important direction of further investigation. This research study sought to deliver valuable recommendations to educators who are not only learning specialists but also psychologists and policymakers striving to improve the academic achievements of minority students who are studying in disadvantaged environments.

Keywords: Academic resilience, racial minority, minority middle school students, adolescents, academic success.

Copyright Page

Dedication

I dedicate this dissertation to my mother in heaven, Catherine Joan Oliver Okpon. You were always my biggest cheerleader and now, my guardian angel. I am indebted to you for molding me into the woman I am today. I know you are beyond proud of all the things I have accomplished. You were the epitome of a resilient, intelligent, and beautiful woman. I am honored to be a part of you.

To my father, Sylvester Okpon, I pray that I continue to always make you proud. I am grateful to have you witness this significant milestone in my life.

To all my previous, present, and future students, I encourage you to remain resilient throughout your academic journeys. Remember that you matter and hold a significant place in this world. You have the strength within you to overcome any obstacle you face.

Lastly, I dedicate this academic achievement to the entire Okpon family. Your unwavering support, love, and belief in me have been my foundation. This accomplishment is as much yours as it is mine. Together, we celebrate this milestone and the many more to come.

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List of Abbreviations

Academic resilience (AR)

Academic Resilience Scale (ARS–30)

Analysis of Variance (ANOVA)

Cognitive Emotional Regulation Questionnaire (CERQ)

Cognitive emotional regulation (CER)

English language learners (ELLs)

Hypothesis (H)

Interpersonal Teacher–Student Relationship Scale (ITSR)

Inventory of the Student–Teacher Relationship (IT-SR)

Number of participants (*N*)

Relationship with parents (RWP)

Research question (RQ)

Socioeconomic status (SES)

Statistical Package for the Social Sciences (SPSS)

CHAPTER ONE: INTRODUCTION

Overview

The first chapter introduces the study with a comprehensive background as well as presenting the purpose of the study. Specifically, the chapter starts with the background in terms of current scenario as well as former research studies, leading to the problem statement. After the elaborate statement of the problem, the purpose of the study is presented. Moreover, the significance of the study is also discussed to highlight the contribution of the study in theory as well as practice. Based on the research objectives, research questions are presented which pin down the scope of the present research. Definitions of the key variables of this study are also presented. The chapter ends with a brief summary of the particulars mentioned in this chapter.

Background

In American educational systems, racial minority students have tended to have disproportionately negative educational experiences (Lewis & Manno, 2020). One essential strategy for preventing these children from slipping through the cracks in the state education system has been identifying determinants of academic resilience, allowing students to excel academically in challenging times (De Feyter et al., 2020). As research regarding resilience has blossomed in recent decades, authorities and research have become more attentive towards the notion suggesting that resilience initiatives be incorporated into schooling techniques (Greaves et al., 2021). Consequently, the current study aimed to uncover fundamental determinants that are significant and crucial in increasing the chance of academic resilience among minority students enduring hardships.

Previous research has identified a significant number of resilience-related variables. Theoretical approaches to resilience have historically relied primarily on psychosocial phases of

research to obtain causal models (Landers & Marin, 2021). However, the role of emotion regulation in describing effective performance in the face of tribulations, or resilience, has been underappreciated (Kay & Merlo, 2020). As a result, by offering substantial relevant resources for students in academic contexts, instructors have been in a distinctive position to provide positive experiences that build resilience in vulnerable students (Greaves et al., 2021). Similarly, a supportive teacher–student relationship has enhanced students' emotional stability and cognitive skills, boosting their resilience (Lee & Lee, 2020). Furthermore, this research examined African American and Hispanic students' cognitive emotional regulation and student–teacher relationships to determine if these characteristics play a role in their academic resilience.

Academic resilience research has increased in popularity in recent decades. Policymakers and scholars have become deeply involved in the concept with a rising need to close achievement gaps by integrating resilience-building programs into national and international curricula (Hart & Heaver, 2015). Unfortunately, minority students face major emotional stressors, which have often manifested in negative social outcomes (Graves et al., 2014). This population is considered vulnerable in terms of schooling and has faced a tough battle to improve their academic success (Karlidag-Dennis et al., 2020). Emotional regulation, defined as the mechanisms or behaviors that allow people to monitor, evaluate, and influence the path, course, and communication of their emotions (McMahon & Naragon-Gainey, 2019), has been important in stressful situations. Depression, often associated with repetitive suicidal thoughts, has been closely related to cognitive processes (Cha et al., 2019). Furthermore, supportive teacher–student relationships aimed to ease the situation and effectively boost learning resilience in some situations (Froiland et al., 2019).

Problem Statement

The problem addressed in this study was that a number of challenges have been identified as contributing to the learning and adaptation issues of minority students in educational institutions. Racial minority students in White schools faced lower academic standards, making it difficult for them to complete their education (Boykin, 2020). Minority students have been expected to work even harder to offset social and educational pressures while balancing daily educational duties (Brower & Ketterhagen, 2004; McGee et al., 2019). In addition to the basic concerns of starting schools, students in predominantly White educational institutions have faced a host of issues.

Apart from a lack of campus support, they have expended a great amount of effort and time dealing with feelings of alienation, loneliness, and frustration with their surroundings (Lancaster & Xu, 2017). Students have felt compelled to seek out other minority students as a safeguard against unfavorable encounters of exclusion (Lawrence & Tatum, 1997; Verkuyten et al., 2019). Given these negative school interactions, it has been important to investigate the factors that support their academic resilience (Campbell et al., 2019). Moreover, has been unclear if the teacher–student relationship mediates the connection between racial minority adolescent students' cognitive emotional control and academic resilience.

Purpose Statement

The purpose of this quantitative research was to examine the cognitive emotional control of minority students (specifically African American and Hispanic) and their relationships with their teachers to assess if these aspects contribute to their academic resilience. The research examined the effect of cognitive emotional control on academic resilience, as well as the interaction between teachers and minority students. The research concentrated on adolescent

students because greater resilience at an early age provide students with better chances to achieve higher levels of academic success and outcomes.

Significance of the Study

Considering the shortage of research on the issue of academic resilience among minority students in America, this study, through the lens of coping and interrelationship among students and teachers, the study contributes to the body of knowledge in the fields of education, psychology, and minority studies. The study aimed to support adaptive coping and positive student–teacher relationships in enhancing the academic resilience of adolescent minority students in America (Gartland et al., 2019). Although the study focused only on African American and Hispanic students as minority students, the study also holds great importance to other minorities such as Latinos, American Asians, and Pacific Islanders, among others. Moreover, despite the study's focus on adolescent students, the findings could be generalized to minority students at other educational levels as well.

The study offered practical implications for psychologists, academic counselors, educationists, and teachers. The results could assist in fostering the academic resilience of minority students according to their capacities. Psychologists and academic counselors, in particular, could utilize the findings to address the issues of minority students and potential obstacles hindering their academic resilience (Beale, 2020). Furthermore, they could use the results to enhance resilience-related behavior in an educational setting. Educationists and other academic authorities could use the study's results to design minority-friendly policies that enable them to thrive as much as their White counterparts (Frydenberg, 2018). Teachers could improve their relationships with minority students based on the study's findings, considering the

significance of their interrelationship with minority students on their academic resilience (Nguyen et al., 2020).

Research Questions

RQ1: To what extent does cognitive emotional regulation influence the academic resilience of minority adolescent students?

RQ2: To what extent do student–teacher relationships influence the academic resilience of minority adolescent students?

RQ3: Do student–teacher relationships influence cognitive emotional regulation on the academic resilience of minority adolescent students?

Definitions

This section presented the scholarly definitions of key variables in this study.

Academic resilience is defined as a student's capacity to conquer obstacles which occur momentarily or ongoing, and are considered as the principal causes of interruption in their academic track (Cassidy, 2016).

Cognitive emotional regulation is defined as the process through which individuals mobilize, synchronize, regulate, and control their actions (particularly behavior, temperament, focus, intelligence, and physiology) in the face of adversity, risk, or bereavement throughout their lives (Zimmer-Gembeck & Skinner, 2011).

Student–teacher relationship is defined as the two-way association among teachers and students related to their academic activities either inside or outside the classroom (Verkuyten et al., 2019).

Summary

This current chapter identifies several problems that contribute to concerns about minority students' learning and adaptation in educational institutions. In addition to typical difficulties of starting school, such youngsters in White educational institutions confront a slew of other issues. They are expected to strive much harder to balance everyday school tasks with social and educational expectations. Given these negative school interactions, it is critical to explore the components that play a part in their academic resilience. Furthermore, it is unknown if the teacher collaboration mediates the relationship between racial minority adolescent students' cognitive emotional control and academic resilience.

To discover if these factors contribute to the academic resilience of minority students, notably African American and Hispanic students, this research focused on their connections with their teachers and cognitive emotional control. Due to the paucity of research on the issue of academic resilience of minority students in America, this study adds to the body of knowledge in the fields of education, psychology, and most significantly minority studies by examining this issue through the lens of coping and relationships between students and teachers. The rest of the study provides useful recommendations for academic advisors, psychologists, education researchers, and teachers in general. In Chapter 2, the existing literature and theoretical frameworks that guided this study are discussed. Followed by Chapter 3, the research procedures are outlined. This quantitative and correlational study aimed to investigate variables of minority adolescent students that promote academic resilience and focuses on African American and Hispanic students within a secondary public charter school located in Southeast Texas. Chapter 4 outlines the research findings, which addressed the gaps in literature by exploring varied

experiences of each participant and how they influenced their academic resilience. Finally, Chapter 5 concludes the study with recommendations for future research.

CHAPTER TWO: LITERATURE REVIEW

Overview

The study investigates the emotive antecedents of academic resilience in students with racially marginalized backgrounds (specifically African Americans and Hispanics) in terms of cognitive emotional regulation and student–teacher relationships. The current literature review discovers, analyzes, and integrates research that influenced the study's objectives and aided in the formulation of research questions by identifying gaps in the body of literature.

This review elucidates connections between previous and new results on the current issue, therefore enhancing the case for this investigation. Furthermore, it examines how the idea of academic resilience has changed through time and expands knowledge of theoretical foundations. Significant and relevant narratives on academic resilience were identified from a variety of sources and then synthesized using the study's aim as a blueprint.

The conception of academic resilience in the framework of cognitive emotional coping and the student–teacher relationship was explained in this literature review by actively exploring the resilience theory, past and current literature on academic resilience, and the connection to adaptive and maladaptive coping strategies; the student–teacher relationship and demographic factors such as age, race, and gender. Chapter 2 includes the discussion of what researchers have uncovered and what this research on academic resilience guided by coping mechanisms with interplay of student–teacher relationships revealed. The main points of the discussed literature are summarized at the conclusion of this chapter.

Theoretical Framework

Natural catastrophes, political conflicts, pandemics, and poverty endanger the development of children across the world with life-altering implications for people, households,

and the destiny of all communities (Masten & Barnes, 2018). In the face of challenges to social progress, resilience guided by empirical research became crucial to educate policymakers and action measures that minimize risks and promote resilience in students (Luthar et al., 2020). Academic performance, in particular, is seen as vital in most contemporary civilizations as a kind of adaptability (Yazon & Ang-Manaig, 2019).

Kahu and Nelson (2018) highlighted that individual and societal repercussions of academic success or failure can be severe. Regrettably, notwithstanding academic research in child resilience, there is still a relative absence of integrative knowledge of the academic resilience of students from diverse socioeconomic backgrounds mechanisms that contribute to academic resilience in development among disadvantaged children (Liu & Ngai, 2019). Research has shown that the causes and procedures that enable discriminated children to outperform their more advantaged classmates is quite different (Sattler et al., 2018).

In American educational systems, African American (Grace & Nelson, 2019) and Hispanic (Tudor & Spray, 2017) students tend to have major detrimental academic experiences. One essential strategy for keeping them from sliding through the gaps in the education system is to understand the antecedents of academic resilience (Neal, 2017). Academic resilience allows students to excel academically in the face of adversity (Bala & Verma, 2019). African Americans historically have had limited opportunities, and some have established an “oppositional” culture in which performing well in school was linked with “playing White” or “selling out” (Durkee et al., 2019). De Feyter et al. (2020) also contended that students from marginalized backgrounds, such as racial minority students or immigrants, are subjected to extreme struggles in the American educational system. Such struggles lead to negative attitudes in the face of adversity (Henari & Singh, 2021).

Drawing from evolutionary psychology, a growing body of educational research has found individual characteristics that enhance academic resilience (Kim et al., 2021). Scholars have increasingly turned their recognition to the opposite side of risk, concentrating on the characteristics that enable marginalized students to "beat the odds" and excel academically (Mestre et al., 2017). As a consequence, the goal of this study was to uncover critical factors that are significant and necessary for increasing the chance of academic resilience (success) among minority students who endure struggle.

Adversity is an inherently emotional experience (Thomson & Jaque, 2018). Understanding the emotional journey and acknowledging how individuals deal with emotions is crucial when analyzing the possibility or effect of "rebounding" from a traumatic or continuing incident (Luo et al., 2020). Emotional control and resilience are inextricably linked (Klimoski, 2016). Former research has supported a considerable number of resilience-related variables. Theoretical approaches to resilience have traditionally relied completely on psychosocial phases of research to obtain causal models (Crockett, 2021). However, the position of emotion regulation in elaborating competent functioning in the face of tribulation, or resilience, is underappreciated (Mestre et al., 2017).

Research suggests that students who are severely weak in these qualities can be taught resilience and that all individuals have the capacity to build resilience within themselves (Stoffel & Cain, 2018). After these personality traits are recognized, they can be improved and reinforced through time (Mirza & Arif, 2018). As a result, instructors are in a particular position to provide substantial, relevant resources for students in academic settings, therefore fostering resiliency in vulnerable pupils (Henderson & Milstein, 2003). A helpful teacher–student relationship enhances students' emotional stability and cognitive skills, boosting their resilience (Zhao et al., 2020). As

a result, the current research explored the cognitive emotional control and teacher connections of minority students to determine if these characteristics play a role in their academic resilience. The study addresses the research question of how the academic resilience of underprivileged students from racial minority backgrounds could be fostered by psychosocial factors such as their emotional regulation and association with their teachers. This study was based on the resilience theory's theoretical underpinning.

Traditionally, the term *resilience* was used to describe favorable mental health results despite psychological stresses (Garmenzy, 1991). However, as academic outcomes were examined, it evolved into a perspective through which improbable academic accomplishment could also be regarded (Bolton et al., 2017). There is disagreement about whether resilience should be seen as an outcome or a process when it comes to conceiving it (McCubbin, 2001). In the current study, the word *resilience* pertains to the outcome and process of outstanding academic success despite the existence of potentially harmful risk factors. Although academic resilience happens to be an area of study that has lately gained traction in the social science literature (Hartley, 2013), research on positive outcomes is still insignificant in comparison to the vast amount of research on student failure (Morales, 2014). Resilience studies and theories thrive on examining positive outcomes and can assist with grasping the bigger picture when it comes to the academic performance of poverty-stricken and minority children.

In the context of education, resilience theory has referenced the statistically unusual academic performance of students who have faced risk factors that predict poor performance for most students in comparable situations (Morales & Trotman, 2005). Resilience theory looks at individuals who have excelled up close and personally and then examines why and how (Andrews et al., 2019).

Educational institutions can use a resilience paradigm to try to improve and reproduce the characteristics and situations that successful impoverished students have recognized as important to their success (Hodges, 2017). Additional strength of resilience theory is that it examines achievement across time and permits for the evaluation of the long-term effects of certain characteristics and situations (Stainton et al., 2019). Finally, the resilience model provides an understanding of how many protective variables work together to supplement one another, contributing to the student's success (Anderson et al., 2019).

Notwithstanding the ominous numbers mentioned before, the fact stands that a fraction of students actually outperforms the odds. The notion of resilience is founded on the idea that by understanding how at-risk students achieve, educators can assist others who have the capacity to prosper (Calhoun et al., 2019). As a result, a quick rundown of the resilience paradigm and theoretical framework was beneficial. In resilience theory, the four dynamics most commonly used are risk factors, protective factors, vulnerability domains, and coping techniques (Kitano & Lewis, 2005; Stainton et al., 2019). Any (typically environmental) dynamics that serve to, or have the potential to, negatively influence a person on his or her road to academic achievement are referred to as risk factors (Pascoe et al., 2020). Inadequate classrooms, a lack of accessibility to technology, or scarce funding for standardized state testing or high-standard literature texts are just a few examples. To some level, these are always there because resilient students, by definition, encounter considerable risk factors on their path to academic success (Peña et al., 2018).

In comparison, protective factors are used to counteract or minimize risk factors and can take many different forms (Heffernan & Ward, 2017). Caring instructors, mentors, high-quality schools, and inspiring parents/role models are all examples. A vulnerability area is a specific

concern that arises in a certain scenario. While not having the opportunity to enroll in honors classes is a risk factor, the subsequent shortfall in students' college applications was the vulnerability area (Casad et al., 2017).

Compensatory methods are protective factors in activities that reduce or eliminate risk factors and vulnerabilities (Zolkoski & Bullock, 2012). A strong college admissions letter that details the student's accomplishments was an example. Original research was used to shape resilience-focused protective variables and compensatory techniques. These suggestions, attitudes, and beliefs can help universities and teachers create a resilient atmosphere (Hodges, 2017).

There are a plethora of strategies for increasing retention and many of them are being tried in schools around the country. Scholarships, summer enrichment programs, freshman convocations, mentorship groups, tutoring, and additional education initiatives, to mention a few, are available to help students avoid having to work (Morales, 2008). Many of these techniques are effective and should be continued; however, they are found outside of the classroom, where students spend the bulk of their time (Kezar & Holcombe, 2020).

According to resilience theory, people can deal with instability's repercussions while avoiding its damaging consequences (Jones, 2022). Dunn and Brown (2021) contended that although resilience is crucial for achievement of students, it is equally critical to consider resilience from a variety of ethnic and geographical viewpoints. This consideration is essential because students' resilience frequently grows as a result of their real encounters and sociocultural upbringing (Van Breda, 2018). Such plausible reasoning serves as the underpinning of using resilience theory as the theoretical foundation for the study. Accordingly, the study

carried on with a nuanced focus on the ethical background and cultural setting of the target population to effectively use the resilience theory.

Related Literature

Academic Resilience

Academic resilience and resilience are directly associated. According to Cassidy (2016), resilience is a psychological concept that describes achievement in the face of hardship and is viewed as a beneficial trait in human attributes, describing the capacity to rebound and transcend challenges. *Academic resilience* is a phrase that comes from the notion of psychological resilience (Ahmed et al., 2018). Psychological resilience stresses the building of mental well-being through challenge adaptability, whereas academic resilience encourages academic performance despite significant challenges (Gartland et al., 2019).

Academic resilience relates to strong academic accomplishment regardless of risk variables that typically indicate poor academic performance (Wills & Hofmeyr, 2019). Academic resilience is specified as the process and outcomes of a person who has achieved academically in spite of challenges that would likely restrict the majority of others with similar backgrounds from excelling (Morales, 2008). Cassidy (2016) described academic resilience as a student's capability to deal with temporary or continuous obstacles that are seen as the primary source of disruption in their academic journey. Various definitions of resilience have emerged during the last two decades, with considerable differences throughout the literature (Fletcher & Sarkar, 2013). Notwithstanding the differences in definitions and concepts, most definitions are centered on the basic concepts of adversity and positive adaptation (Windle et al., 2011).

Academic resilience alludes to a student's capacity to overcome obstacles academically, such as stress and pressure related to studying that are common among minority students

(Morales & Trotman, 2005). Academically resilient students maintain greater intensities of accomplishment despite traumatic situations that could lead to their failure (Ahmed et al., 2018). Despite the problems some students have academically, a considerable percentage of individuals are able to turn their academic success around (Beale, 2020). Students who are resilient succeed academically because they feel they can comprehend the content and information provided in the classroom and exceed expectations on assignments and examinations (Fallon, 2010).

The urge to acquire knowledge and promote resilience to lower-performing groups is the fundamental goal of academic resilience research (Morales, 2008). Borman and Overman (2004) stated the need for thorough study in the subject of academic resilience to uncover achievement disparities and learn why people thrive despite the face of difficulty. According to a Gartland et al. (2019), resilient children are more likely to achieve academically than non-resilient adolescents. Durham (2009) sought to uncover the important elements that accounted for minority students' academic resilience. Durham's outcomes revealed the most important variables to be linked with the community of the campus are students' and groups' involvement and activities, and spiritual or religious viewpoints (p. 3)

An extensive body of research has focused on academic resilience and how to direct advancements academically for at-risk youth pertaining to academic failure. Fletcher and Sarkar (2013) compared students on the basis of resilience and excelling academically in the face of hardships (Fletcher & Sarkar, 2013). Ahmed et al. (2018) discovered differences in home life, classroom perceptions, school community, and obstacles associated with poverty, health, and other socioeconomic factors are. In a case study, Rojas (2015) explored the components affecting the academic resilience of secondary school students regarding family-related factors (guidance, support, and opportunities) and personal factors (optimism, motivation, and perseverance) in

relation to fostering positive academic outcomes, specifically academic resilience among marginalized students.

Practitioners can employ techniques to help students improve their academic resilience. Morales (2008) looked at the disparities between marginalized female and male students for academic resilience and found women to be more driven by their career ambitions after college compared to men . Sinay (2009) tried to determine the characteristics related to academic resilience and found personal aspects such as class engagement, information usage, problem-solving family influences, and parent-related variables. Martin et al. (2010) examined the impacts of motivation on academic buoyancy, another term for academic resilience, and found confidence, coordination, commitment, composure, and control to be strong predictors of academic buoyancy (p. 474). Martin looked at the distinctions between academic buoyancy and academic resilience, as well as their influence on students, and found academic buoyancy to be more pertinent in determining low-level negative impacts but academic resilience as more relevant in projecting severe negative consequences.

Studies have demonstrated various factors that foster academic resilience among marginalized students. Perez et al. (2009) examined the academic resilience of undocumented Latino students and found individual and situational coping mechanisms (such as support from friends and family) predicted significantly greater academic achievement and progress compared to students with comparable risk factors and relatively low levels of individual and situational resources. Gabrielli et al. (2021) comparatively assessed the academic resilience of native- and immigrant-origin students in Greece, Italy, and Spain and found a favorable family setting, and supportive linguistic attitudes at household all supported successful academic integration among immigrant children, leading to academic resilience.

Aliyev et al. (2021) explored the influence of internal and external protective factors on academic resilience. External determinants included parental style and ecological education value perception, and internal components included academic self-efficacy and academic motivation. Regardless of external protective elements for resilience, internal protective factors were substantially required for students to become intellectually more robust. Moreover, Aliyev et al. revealed that having intrinsic drive and protective traits is a requirement for academic resilience.

Ahmed et al. (2018) demonstrated that academically resilient students achieved greater and more positive academic outcomes. Moreover, according to Durham (2009), a number of variables marginalize students and require them to be resilient to achieve academic success. If the characteristics and conditions that encourage resilience can be identified, they can be developed or modified to build resilience (Walsh et al., 2020). Resilience research offers useful insights on fostering adaptability and strength through preventive and proactive initiatives (Khalaf, 2014).

Gabrielli et al. (2022) highlighted that the examination of academic resilience among marginalized students enables the emphasis of linked determinants that enhance social progression and inclusivity and minimize the persistent disparities to be included in strategies to build equality and inclusivity. This is significant specifically in the context of minority students at institutions with predominantly White students where there is lack of inclusion and integration (Greaves et al., 2021). Moreover, Rich et al. (2022) assessed the academic resiliency of minority students through their cognitive emotional regulation and student–teacher relationship of adolescent students and showed that the best way to overcome the disparities faced by minority

students at predominantly White institutions could be to introduce school-based programs to address academic resilience effectively addressed at initial stages

Cognitive Emotional Regulation

All individuals have weaknesses and resources, and in everyday life both risk and protective factors relate to identities people hold (McGee & Spencer, 2013). Adaptive coping mechanisms (resilience) or maladaptive coping methods are the result of a mix of multiple factors, progressive procedures, relational interactions, and perception-centered views (McCain et al., 2018). A resultant identity gradually emerges as an effect of these experiences, and reactions influence how they are used in the future, which forms a habitual feedback loop (Tope-Banjoko et al., 2020). Coping is strongly related to how people manage difficult feelings and discomfort, according to psychological methods (Kobylińska & Kusev , 2019).

Coping is coined as continuously shifting cognitive and behavioral efforts to control certain external and/or internal demands (and conflicts among them) that are assessed as demanding or surpassing the person's resources (Folkman & Lazarus, 1984, p. 141). The said method centers on the procedures employed in certain situations, usually directed by their assessment of the circumstance, which is frequently aware and adaptable, as well as responsive to eventualities and situational needs (McCain et al., 2018). The base of the problems and the assortment of environments influence coping methods, which individuals use to relieve stress when they are in a difficult circumstance (Beer et al., 2021). Zimmer-Gembeck and Skinner (2011) described coping as how individuals mobilize, coordinate, manage, and control their behavior, emotion, attention, cognition, and physiology in circumstances of challenge, threat, or loss during the course of their lives. Their concept emphasizes the links between coping and the

normal expansion of emotive, and interactive control, as well as the constitutional and social factors that influence coping (Zimmer-Gembeck & Skinner, 2011)

Folkman and Lazarus (1984) defined two dimensions of coping: problem-focused coping and emotion-focused coping. Learning or advice seeking, achievement, choosing, and striving towards are all instances of problem-focused coping and efforts to actively advance the circumstance externally or stressor (Boumans & Dorant, 2018). People adjust to difficult circumstances through as emotion-focused coping (Ben-Zur, 2020), which requires altering or adjusting through processing emotions to ignore or divert selective attention from adversity and denials to cognitively reconfigure the stressor to focus on positive parts of the situation or acknowledge and talk about a problem (Compas et al., 2017).

Cognitive emotional regulation is defined as a cognitive technique for regulating the intake of emotionally stimulating information (Mestre et al., 2017). Emotional regulation through cognition is closely linked to an individual's life (Nieto et al., 2020). Emotions help people manage and regulate feelings, as well as maintaining control over them or avoiding being overwhelmed by them, such as during or after traumatic situations (Beer et al., 2021). The importance of cognitive-emotional control in academic performance has been highlighted in previous research. A student with more maladaptive qualities has a lower chance of academic achievement than one with more adaptive characteristics (Kurtovic et al., 2019).

Gross (2001) outlined nine cognitive-emotional control methods for responding to unpleasant situations. Dimensions of positive adaptive coping are acceptance, positive refocusing, refocusing on planning, positive reappraisal, and putting things into perspective (Chan et al., 2016, p. 239). Self-blame, ruminating, catastrophizing and blaming others are all dimensions of maladaptive (negative) coping (Garnefski, van Rood, et al., 2017, p. 145).

Negative coping is linked to depression and low academic achievement, whereas positive coping is linked to resilience (Cromley et al., 2015).

Coping mechanisms change from a lifelong developmental standpoint (Compas et al., 2017). The nature of such changes is determined by a variety of elements. Such viewpoints are necessary to comprehend how these many factors affect people's susceptibility, stress experiences, and problem-solving abilities (Abdi & Sharyati, 2019). Coping techniques change as people grow up, from childhood through adolescence, and eventually to maturity (Sheffler et al., 2019). These changes are accompanied by an improvement in cognitive emotional control. As juveniles try out various coping techniques, they see that some of them are more effective than others (Boykin, 2020). As a result, their coping strategies grow more complicated and distinct (Aldwin, 2011).

In racially stressful circumstances, minority students report well-planned problem solving as well as less evasion and contemplation coping strategies (Hoggard et al., 2012). According to studies, females are more likely to participate in emotion-focused coping, whereas males are more likely to be involved in problem-solving coping (Li et al., 2019). Conversely, Helgeson (2011) contended that such statements about coping on the basis of differences in gender are too sweeping only a few coping techniques exhibit such gender-based differences . According to the literature, owing to a taboo against emotional display, minority students are inclined to keep their issues to themselves instead of discussing them with others (Lems, 2020). Consequently, minority individuals are less likely to employ emotion-focused coping techniques such as expressing feelings, private concerns, and stress (Lee, 2018; Yeh & Inose, 2002).

Maladaptive coping is commonly regarded as "avoidance" coping methods (Tran & Lumley, 2019). Some students are ill-equipped to deal with difficult circumstances and are more

likely to engage in passive coping methods, such as being silent about being harassed at their educational institution, or engage in avoidance behavior, which is linked to maladaptive behaviors (Bagla & Saxena, 2020). Avoidance behavior is defined as rejecting or avoiding a troublesome issue or traumatic circumstance such as school examinations or tough assignments (Suls & Fletcher, 1985). Because the aspect of not being conscious is fundamentally part of the behavior, the latter is difficult to observe or evaluate.

Maladaptive Coping

In children and adolescents, structural avoidance has been studied in connection to maladaptive emotional and societal growth (Golombek et al., 2020). Avoidance behavior has been shown to be unsuccessful in terms of gaining social support and engaging in problem-solving strategies in empirical investigations (Hu et al., 2019). Avoidance coping has a relationship with long-term malpsychological adjustment, including depression and psychological discomfort (Lewis et al., 2013).

Half of Snyder's (2016) participants used internalization, avoidance, and isolation as coping strategies, which are linked to emotions of despair and sadness. According to Snyder's findings, although these methods are considered maladaptive, based on the circumstances, environment, and available resources, they can be turned into adaptive strategies. If unpleasant feelings persist, maladaptive emotion management can become emotional dysregulation, a particularly acute type of emotion regulation. Emotional dysregulation is defined as the inability to control the strength and length of negative feelings, as well as the incapacity to recuperate from unpleasant emotional responses before they become chronic (De la Fuente et al., 2018). Maladaptive emotion-focused coping does not lead to dysregulation in less severe situations, but it does have consequences for maladaptive behavior (Avila, 2021).

The majority of research focuses on anger as an adverse affective condition that leads to violence and aggression (Brown et al., 2019). However, other negative affective states such as stress, grief, dread, remorse, complete disgrace, and mood swings warrant further investigation because they can also add to maladaptive behavior (Walters, 2014). If left untreated, maladaptive emotional control can have severe repercussions (Avila, 2021). Withdrawal methods, such as avoidance and behavioral detachment, are termed *maladaptive* because they increase the impacts of inequality by preventing individuals from challenging their devalued position and isolating them in a state of suffering (Tran & Lumley, 2019). Venting is yet another approach that has been labeled as maladaptive coping because it encourages reminiscing, which is harmful to a person's mental health (Partow et al., 2021).

Individuals with negative emotions take longer than usual to move from an unpleasant emotional state to a balanced emotional state (Li et al., 2019). This delay happens when significant individuals in a child's or teenager's surroundings, such as family, educators, or other authority person, do not accept their emotional responses as real or proper (Walters, 2014). Obfuscating surroundings continually convince teenagers that their thoughts, feelings, and actions are unreasonable (Garnefski, Hossain, et al., 2017). Adolescents begin delegitimizing their surroundings to avert negative emotions or implications by being verbal or conveying despair for dread of being admonished by a parent or being upset or violent to receive the consideration they alternatively cannot receive from parental figures (Avila, 2021).

Researchers have explored the role of coping strategies in general population as well as medical students, minority students, adolescent students, and doctoral students. Gonçalves et al. (2019) studied adaptive and maladaptive academic coping and highlighted the role of coping

strategies among elementary and middle school students. They contended how students react to academic challenges can have an influential impact on their education and development.

Jones et al. (2021) conducted a study which was intended to determine the existence of variations in self-efficacy and maladaptive coping methods among minority and nonminority university students. Their findings demonstrated no distinctions in coping levels between minority and nonminority university students based on the intrinsic factors. In a similar regard, Terrell et al. (2022) investigated the influence of life stresses on recorded symptoms of depression, as well as how adaptive and maladaptive coping techniques moderated that association in college students. According to the findings, college students who faced life pressures and engaged in more negative over positive coping mechanisms were more likely to suffer from depressive episodes.

Dimensions of Maladaptive Coping

According to Gross (2001), dimensions of maladaptive coping include: self-blame, rumination, catastrophizing and blaming others; self-blame is the act of blaming oneself for what you have gone through. Although there have been mixed results in terms of the exact relationship, most research has indicated an association among attributing self-blame and hopelessness in the form of depression (Anderson et al., 1994; Kouros et al., 2020). According to Straud and McNaughton-Cassill (2019), minority students become increasingly concerned about structural impediments that restrict their own success and begin to attribute their poor life outcomes to external factors. External attributions like this keep people from blaming themselves and boost their success factors.

Goodwill (2022) conducted a study on depression and suicide ideation link with the moderating role of self-blame among the Black college students. Goodwill highlighted that self-

blame as a coping strategy significantly relates to the suicide ideation and serves as a substantial moderating variable among the relationship between depression and suicide ideation. Goodwill clearly established that while trying to establish an initiative-taking culture of protection, it is vital to recognize certain coping mechanisms that expand or lessen the risk of suicidal behavior in minority students.

Catastrophizing is the act of thinking about and stressing the dread of a situation. Catastrophizing is closely linked to maladaptation, mental discomfort, and depression in general (Sullivan et al., 1995). Vinter (2021) examined academic burnout in terms of profiles and coping patterns among adolescents and noted that rumination was the most significant coping strategy that differentiated various student groups based on their profiles. Vinter contended that among teenagers in particular identifying psychopathic personality symptoms is more significantly connected to rumination as a coping mechanism (Vinter, 2021).

Rumination is the process of reflecting on the feelings of bad events and ideas. It has been established that ruminative coping styles are linked to greater depression levels (Eisma & Stroebe, 2017; Nolen-Hoeksema et al., 1994). Amemiya and Wang (2018) conducted a study concerning minority (African American) students' coping behavior and its association with their academic achievement. For African American females, they discovered the opposite tendency—females who employed engagement coping had inferior success in favorable educational environments. Females who exhibit higher levels of commitment coping in a supportive setting were more likely to catastrophize the severity of the setback leading to the consideration of how the failing adversely affects long-term aspirations as well as academic achievement (Amemiya & Wang, 2018).

Blaming others refers to the idea of blaming others for what a person has gone through. People who have encountered various types of frightening situations or traumatic experiences are more likely to blame someone else (Green et al., 2013). Focusing on the cultural identity, Jones and Lee (2020) conducted a study on enhancing the academic achievement of African American females in middle schools through engagement. They found that minority students used engagement through negative coping by blaming others to improve performance at school. Such lack of agency resulted in various levels of engagement among the studied sample of minority students (Jones & Lee2020).

Adaptive Coping

Many definitions of resilience among youth focus on a person's ability to cope with life's dangers and challenges (Rutter, 2000). Adaptive coping involves acceptance, avoidance, tolerance, or reduction in the stressor as an attempt to manage stress, which is a relatively more conventional concept (Palupi & Findyartini, 2019). The behavior one adopts in managing is intricately connected to one's community means, which is dependent on previous definitions of coping methods and resilience (Garmezy, 1985). People with greater social resources are less prone to adopt avoidance coping techniques—Adolescents in supportive homes employed more problem-focused methods and positive adaptive strategies in comparison with the ones who belong to least supportive households and family members (Ebata & Moos, 1994; Frydenberg, 2018).

Stern and Zevon (1990) discovered a link between teenagers' emotional-based coping mechanisms and the amount of family conflict they experienced. Despite the expanding research on teenage coping, little is known about what factors influence the techniques adolescents adopt to deal with stressful situations (Evans et al., 2018). Cross-cultural coping techniques also have

more similarities than differences (Smith et al., 2019). In a study on college adjustment, Latinos used more avoidant-type tactics than Black students (So et al., 2021). When dealing with stressful situations, Latino students tended to employ more hopeful thoughts, higher optimism, and greater techniques to reduce tension than African American students (Crean, 2004).

Lemieux et al. (2020) performed research on the views of social work students after severe flooding. African American students outperformed their White peers on all indicators of adaptive coping, protective variables, severity symptoms of mental health, and drug use as a coping strategy. Van der Merwe et al. (2020) examined the resilience and coping of undergraduate medical students to expand appropriate interventions aimed at preventing stress and increasing resiliency. Academic strain was identified as a primary cause of stress, whereas adaptive coping mechanisms were related to greater resilience ratings.

Franklin (2019) examined the foundation for racial battle fatigue in African American and Mexican American university students, as well as the influence of coping on racial and ethnic strain. Franklin showed that racial discriminatory practices have a distinct influence on stress reactions among African Americans and Mexican Americans; however, coping helps relieve the burden of racial battle fatigue. Yun et al. (2019) sought to thoroughly comprehend social work students' stress levels and coping techniques, with the goal of developing approaches to assist students improve their capacity to handle stress. Adaptive coping strategies, such as active coping, religion and positive framing were found to be strongly associated with reduced levels of stress.

Understanding, assessing, and naming one's experiences with racism and discrimination can be beneficial for people who encounter racial microaggressions and resultant racial battle weariness (Smith et al., 2020). Although understanding the repercussions of racism, such as

racial battle fatigue, is vital, adopting adaptive coping techniques to resist racism's pervasiveness is also critical (Sindhi, 2021). In the racial battle weariness paradigm, adaptive coping techniques can reduce some of the damaging effects of racial microaggressions after accounting for them. Coping reduced the impact of racial microaggressions on psychological and behavioral stresses for African American students (Franklin, 2019). Tope-Banjoko et al. (2020) studied the influence of different coping methods on academic success and concluded that positive/adaptive coping leads to favorable academic outcomes including academic resilience.

Dimensions of Adaptive Coping

Adaptive coping comprises five dimensions—acceptance, positive refocusing, refocusing on planning, positive reappraisal, and putting things into perspective (Gross, 2001). Acceptance is defined as someone thinking about accommodating what they have gone through and submitting themself to the situation (Lindsay et al., 2018). Miller and Orsillo (2020) carried out a study on the acceptance as a coping mechanism of minority students who are underrepresented at graduate schools. They contended that while institutional reforms are required to alleviate the disparities that minority graduate students confront, assisting students in developing an acceptance behavior and living consistently with personal convictions mitigated the consequences of these the racial stressors on their psychosocial adjustment. In the context of academic resilience, Aliyev et al. (2021) examined the mediating role of internal factors and acceptance has been established to be one of the major protecting factors to foster resilience.

Positive refocusing occurs when someone thinks about happy and pleasant things instead of a real incident (Osmanoğlu & Toksun, 2018). Scherer et al. (2017) assessed personal factors in the academic behavior of minority students. They characterized positive refocusing as a capability the minority students used to shift their emphasis of thought to something more

favorable. However, rotating or redirecting views to more constructive subjects to forget and forgo a real situation might be considered a type of mental disengagement (Jahromi, 2017). Redirecting thoughts to more positive subjects could be a useful short-term reaction (Koh, 2018), but it hampers adaptive coping in the long run (Harris & Murray, 2017).

Thinking about measures to adopt and how to handle negative occurrences is referred to as refocusing on planning (Wallenda et al., 2021). It is the mental aspect of action-focused coping, and it does not always indicate that real activity followed (van der Veek et al., 2009). All available coping surveys contain action-focused coping methods. Tope-Banjoko et al. (2020) studied academic resilience by college students through the relationship between coping and students' overall grade point average. They found that college students used refocusing on planning when they overlook challenges with an intent to focus on what they do best and perform accordingly. Scherer et al. (2017) noted that minority student used their coping capabilities to emphasize productive strategies, which led to the adoption of a course of action concerning a challenge rather than focusing on the thoughts underlying it.

Positive reappraisal is the positive interpretation of an incident in terms of individual development (Garnefski, van Rood, et al., 2017). According to Carver et al. (1989), practicing positive reappraisal as a coping mechanism is favorably connected to buoyancy and confidence but adversely related to nervousness. Recently, Baumgartner and Schneider (2021) studied mindfulness-based stress reduction on the academic outcomes in terms of resilience and performance in college students. They highlighted that in predominantly White institutions, the campus climate is unfriendly toward minority students, who came to use positive reappraisal as a coping mechanism.

Putting things into perspective represents the idea of downplaying the gravity of an event or stressing its insignificance in comparison to other occurrences (Allan & Gilbert, 1995). Extant literature demonstrates that minority students minimize the seriousness of an unpleasant campus atmosphere or emphasize how little it is in relation to other events as a coping mechanism (Palupi & Findyartini, 2019). Salami et al. (2021) studied the future employment concerns of Black college students in the context of microaggressions and discussed how adaptive coping practices assist minority students in fighting the microaggressions on campus and aiming for long-term objectives.

Both adaptive and maladaptive coping strategies have been found important in terms of having an impact on the academic resilience of marginalized students either directly or indirectly (Avila, 2021; Yun et al., 2019). Accordingly, the study assessed both coping strategies as minority students' cognitive emotional regulation to examine their impact on the academic resilience of marginalized students at predominantly White institutions. The study is intended to assess both the coping strategies separately to assess the influence at individual levels.

Student–Teacher Relationship

Extensive studies in educational and developmental psychology have demonstrated the importance of students' interactions and connections with their instructors in terms of academic and social adjustment (Ewing & Taylor, 2009). According to Verkuyten et al. (2019), minority pupils are more likely to have negative connections with their instructors. Although conflicting results have been achieved for Latino students (Murray et al., 2008), Black students in comparison to White students had less intimate, more reliant, and contentious relationships with their instructors (Hughes et al., 2005).

Over the last decade, there has been a significant amount of attention paid to figuring out how teacher–student relationships affect students' outcomes (Nguyen et al., 2020). A great amount of literature illuminated student–teacher interactions with elementary students, being the most appropriate focus considering the research that suggests that children and teachers form stronger bonds while they are young (Valiente et al., 2020). Student–teacher relationships change as students go through the levels, especially as they move from elementary school to high school, according to many studies (Hughes & Cao, 2018).

Lynch and Cicchetti (1997) observed differences in elementary and middle school students' patterns of teacher affiliation. Middle school students were likely to possess a detached arrangement of affiliation with their teachers than elementary students were (Herrero Romero et al., 2019). Middle school students were also more likely to have stable peer relationships than elementary school students (Gazelle & Faldowski, 2019), and with the middle school shift, Furrer and Skinner (2003) discovered indications of reductions in pupils' arrangements of affiliation to instructors. Between third and fifth grade, students' feelings for their instructors grew considerably; following the move to middle school, however, their sense of connectedness and relationship to instructors plummeted (Valiente et al., 2020).

In studying the student–teacher interaction with elementary-aged children, researchers has typically looked at it from the instructors' viewpoint (Burchinal et al., 2002). It has been suggested that various parts of the relationship are linked with whether students get good grades or low grades (Gazelle & Faldowski, 2019). In this regard, McNally and Slutsky (2018) discovered that preschool students with strong student–teacher relationships were more prone to demonstrate cognitive preparedness, exhibit interest in learning at school, and be more autonomous in their academic progress.

Students whose teachers indicated interpersonal reliance and disagreement had lesser tendency to establish cognitive comprehension skills, remained sad in school, less hated school, dreaded school greatly, have been less self-directed, and obedient (Maithreyi, 2021). By monitoring a sample of preschoolers through eighth grade, Hamre and Pianta (2001) explored the contribution to which instructors' perceptions of their contact with teachers anticipated students' emotional and cognitive outcomes. In terms of academic success, kindergarten teachers' perspectives on interpersonal pessimism explained a significant amount of the difference in lower primary grade composites, as well as test scores in elementary school (Hamre & Pianta, 2001). While respondents were taught to describe their feelings on the student–teacher relationship, the results were similar.

Murray and Greenberg (2000) discovered that students in the fifth and sixth grade who had poor teacher connections had worse self- and teacher-rated social and emotive adaptation than those who had more favorable contacts with teachers. Additionally, student outcomes were linked to peer assessments of the relationship between teachers and their students. Hughes et al. (2001) observed that classmates' selections of students who matched interpretations of experiencing conflicting and constructive connections with teachers indicated their assessment of abilities socially and for students in a unique way. Although studies have found a correlation between student–teacher interactions and academic success (Hamre & Pianta, 2001), the writings on involvement of students have provided awareness on how the student–teacher relationship affects educational attainment. The relationship between students' sense of affiliation to teachers and academic success has been demonstrated to be mediated by their inability to communicate (Furrer & Skinner, 2003).

In the research, certain student characteristics were connected to variations in the effectiveness of student–teacher relationships. There has been relatively little research on how the student–teacher connection influences results regarding minority students (Redding, 2019). However, additional evidence suggests that the relationship between a teacher and a student could highly contribute to determining the outcomes of at-risk students (Maithreyi, 2021). Close relationships between students and teachers, in particular, have been related to improved academic and social outcomes for adolescents (McNally & Slutsky, 2018).

Mitchell-Copeland et al. (1997) observed that children with avoidant connection to both their mother and their teacher were more emotionally stable than children with unstable connections to both their mother and their instructor. A strong attachment link with a teacher was thought to be able to substitute for a weak attachment relationship with one's mother. Burchinal et al. (2002) also identified a correlation between children's teacher connections and their development of language skills and core reading abilities. Significantly, for children of color, teacher–child proximity was strongly connected to receptive language scores than for White children, and this connection varied with time.

Earlier, huge samples of young children were researched to see how important teacher–student interactions are (Pianta et al., 2003). Nevertheless, a rising amount of data suggests that relationships between teachers and students are beneficial for marginalized and minority students. Decker et al. (2007) investigated the links between teacher and student perspectives on teacher–student interactions in 44 cognitively marginalized African American students from kindergarten to sixth grade. Teachers' judgments of student relationships were found to be indicative of interpersonal skills and school participation in both students and teachers.

Hughes et al. (1999) investigated the relationship linking student and teacher accounts of teacher–student interactions and physical aggression in a group of hostile second and third graders. Both student and teacher evaluations of the strength of the teacher–student relationship were connected to teacher and peer-rated aggression, according to the findings of this study. Moreover, cross-lagged correlations between hostile conduct and consequences were not considerable, implying that the effectiveness of the teacher–student relationship is more important in forecasting consequent assertiveness than the value of the teacher–student relationship is likely to anticipate assertiveness (Neppl et al., 2020).

Recent studies also demonstrate the beneficial role of student–teacher relationship in amplifying the students' academic outcomes and development, specifically for the minority ones. Cureton and Gravestock (2018) investigated the cognitive connection that exists between students and their instructors, which is essential to student achievement specifically belonging to ethnic minorities. According to the authors, one of the reasons that contribute to disparities in student achievement stems from variations in the reported and observed learning interactions among learners and their instructors. Legette et al. (2020) explored instructors' ability to build and arbitrate student–teacher interactions that recognize and effectively fight African American youth marginalization in schools. They offered suggestions for social emotional training for instructors to successfully humanize learning settings for minority children.

Prewett et al. (2019) focused on middle school students' interactions with their math instructors to investigate teacher and student characteristics that influence students' nature of relationships with their teachers. Findings confirmed that instructors' assessments of student relationships strongly influenced their students' opinions, and students' evaluations of mathematics engagement and self-efficacy significantly reflected teacher relationships.

In a similar regard, Zee et al. (2020) used drawings to investigate the effect of students' externalizing, internalizing, and interpersonal conduct, as well as classroom setting, in their mental depictions of student–teacher interactions. The multilevel analysis revealed that children with externalizing behavior drew more antagonism, detachment, emotive seclusion, and a reduced amount of contentment. In addition, children representing minority origins tend to demonstrate lesser emotional attachment in their drawing and greater inherent disorganization, which was portrayed by strange graphic symbols. According to these studies, constructive student–teacher relationships are linked with societal and academic adjustment between African American students and those with behavioral issues.

The level of relationship a teacher maintains with a student affects how competent the instructor thinks the student is, and this opinion directly affects the chances the student receives to develop their skills. Particularly for low-income and underrepresented student populations, a warm and supportive teacher–student engagement improves learning. Thus, the study was designed to measure the student–teacher relationship of minority students at predominantly White institutions. It was assessed in terms of having a direct relationship with academic resilience as well as playing the role of mediating variable among cognitive emotional regulation and academic resilience.

Summary

Racial minority students in American school systems have experienced racial educational oppression. Identifying the causes of academic resilience, which permits pupils to thrive academically in difficult circumstances, is an important approach for protecting marginalized children to help them excel in the public education system. In recent decades, resilience research has increased, and authorities and researchers have begun to pay more attention to the concept,

with recommendations for fostering resilience efforts to be included into education methods. This study identified key variables that are important and vital in enhancing the likelihood of academic resilience among minority students who are facing challenges.

A substantial number of resilience-related factors have been found in previous studies. To generate causal models, theoretical approaches to resilience have historically depended almost entirely on psychosocial phases of study. The function of emotion regulation in characterizing effective performance in the face of adversity (resilience) has been underestimated. Consequently, teachers are in a unique position to promote resilience in vulnerable students by providing considerable relevant resources for students in academic situations. Students' emotional stability and cognitive skills and thus their resilience have improved as a result of supportive teacher–student interaction.

The current study examines the cognitive emotional regulation and student–teacher interactions of minority students (specifically African American and Hispanic) to determine if they play a role in their academic resilience. The results of the study are organized by three control variables—age, gender, and race. Cognitive emotional regulation are measured through two perspectives: adaptive and maladaptive coping strategies. Adaptive coping comprises five dimensions: acceptance, positive refocusing, refocusing on planning, positive reappraisal, and putting things into perspective.

Dimensions of maladaptive coping include self-blame, rumination, catastrophizing and blaming others, which are embedded in the framework of resilience theory as variables. I hypothesized that greater adaptive coping and less maladaptive coping enhance the academic resilience of minority students in educational settings. In addition, direct and mediating impacts of student–teacher relationships were also hypothesized considering that positive and healthy

affiliation among students and their teachers fosters their academic resilience and prompts them to excel in academic outcomes.

For the current study, a quantitative approach was preferred. It was carried out by using an online, survey-based questionnaire technique due to the restrictions of COVID-19. The quantitative approach, specifically the survey, was also preferred due to the sensitive (race-based) nature of data being collected and privacy concerns. The findings of this study accommodated the policymakers and educators to develop tailored initiatives based on the population's differing requirements. Empirical research on academic resilience of marginalized minority students in the United States fostered the positive and constructive academic outcomes, leading to a prosperous and content community, which is vital in most contemporary civilizations. In Chapter 3, the methodology adopted for this study is outlined. The rationale behind selecting a quantitative correlational approach and the techniques employed for data collection and analysis are discussed. The procedures involved in the study are described, including the participant selection criteria and the selected setting.

CHAPTER THREE: METHODS

Overview

The present study explored how minority (African American and Hispanic) adolescent students' academic resilience is influenced by their cognitive emotional regulation and the student–teacher relationship. Online surveys were used to collect data. The research design, research questions, hypotheses, participants and setting, instrumentation, procedures, and data analysis are presented in this chapter. The purpose of the methodology was to enable me to acquire data that addressed the research questions, generate recommendations for future study. I sought to develop recommendations for policymakers and academic authorities for program development aimed at fostering academic resilience among the marginalized community, resulting in improved academic outcomes.

Design

The research was conducted using a quantitative correlational research design. The study concentrated on positivist philosophy, which holds that the social environment should be evaluated objectively (Saunders et al., 2015). The deductive method was used to arrive at the conclusions, which was based on current theories in the literature (Sekaran & Bougie, 2016). A monomethod analysis design with a quantitative focus was used in the study. The research strategy involved surveys, with data obtained using a questionnaire via an online platform, Qualtrics. Given the nature of the study (deductive–quantitative), the indicated method was chosen as the most appropriate (Wellington & Szczerbinski, 2007). People generally regard survey strategies as objective, and it is relatively easy to define and comprehend (Saunders et al., 2015).

Given the study's goal of determining the impact of cognitive emotional regulation and the student–teacher relationship on minority adolescent students' academic resilience, the preferred strategy allowed for the collection of necessary data that can be analyzed quantitatively using descriptive and inferential statistics. The sixth grade to eighth grade students enrolled in tuition-free public charter schools located in Southeast Texas were invited to indicate their willingness to participate through email. Because the population of the study was not in the formal capacity to provide consent (under 18 years of age), parental agreement was required. Accordingly, proper consent was obtained through parental consent as well as child assent. Child assent is a child's decision to engage in research. Lambert and Glacken (2011) highlighted that even if child assent is granted, informed consent from the participants' parents or guardians is still required, so a parental agreement form was sent to the parents by email, to obtain complete consent.

Parents or legal guardians of students who took part of the study's data collecting procedure received an explanation of the study's aims as well as its expectations from their child. Additionally, parents got the chance to learn more about the study so that they could ask pertinent questions and determine whether or not they want their child to participate in the study. The research adhered to the fundamental components of a permission form while creating the form for parents, replacing the second person (*you*) with the third person (*your child*). The permission form's signature line read, "The individual, being a minor, considered in the stated study does not carry the capacity to consent for his/her participation. Therefore, you are allowing your child to participate in this study by signing this form." All pertinent information about the study, its goals, and areas of data collection were included in the parental permission form.

The students' oral and written assents were requested when the parents of the expected research participants gave their permission. The oral assent process included a voiced description of the rationale and steps involved in the data gathering by me. The assent form, which outlines the themes intended for data collection and includes a declaration of assent as assent to participate in the study, was created specifically for the anticipated research respondents (students). Additionally, it outlines the rules and the procedure for submitting data and replies for the questionnaire so that the actual respondents were provided with the information necessary to make an informed choice. Every participant had a chance to select if they wished to participate and could decline if they were not interested in doing so. The form was given to the parent or guardian, who could read it to or with their child based on their reading comprehension and aptitude. Any questions that the students asked regarding points that were unclear were addressed. Both oral and written assent were obtained to ensure that the students are completely aware of the process and their participation.

For parental consent, permission of only one of the parents or legal guardians was considered necessary. The consent and assent forms were retained and stored with the study records to comply with institutional regulations. In addition, it was duly mentioned that verbal assent was also obtained from the potential research participants. The survey link was provided with the teachers who expressed their willingness through email after receiving clearance from the Liberty University Institutional Review Board (IRB). The respondents were invited to complete the survey within a week after getting the link. No formal restrictions were in place to prevent participants from working together to complete the survey.

Research Questions

RQ1: To what extent does cognitive emotional regulation influence the academic resilience of minority adolescent students?

RQ2: To what extent do student–teacher relationships influence the academic resilience of minority adolescent students?

RQ3: Do student–teacher relationships influence cognitive emotional regulation on the academic resilience of minority adolescent students?

Hypotheses

H1: There is a statistically significant, positive impact of cognitive emotional regulation of minority adolescent students on their academic resilience.

H2: There is a statistically significant, positive impact of student–teacher relationships on the academic resilience of minority adolescent students.

H3: Student–teacher relationships play a statistically significant mediating role among the association between cognitive emotional regulation and academic resilience.

Participants and Setting

During the Spring semester of the 2023–2024 academic year, a purposive sample of adolescent students from a public, tuition-free charter school located in Southeast Texas were selected to participate in the study. The school is considered a Title I school (a school in which at least 40% of students come from a low-income family), which was ideal for gathering data regarding children from vulnerable backgrounds. Qualtrics software, which can compute statistical power for a wide range of statistical tests, was used to calculate the required sample size. For this study, over 100 respondents were required according to the medium impact size,

two predictors (cognitive emotional regulation and student–teacher relationship), and 95% confidence interval.

The desired sample was obtained using purposive sampling, which allows participants to be chosen depending on the study's particular objective (Sekaran & Bougie, 2016). Purposive sampling, as one of the most effective sampling methods in regard to time and cost, and it allows to specific information to be extracted from chosen respondents in the most logical way possible (Saunders et al., 2015). Some key benefits of selecting purposive sampling are that it can contribute to dealing with research bias and present better insights. It also assists in presenting precise research results and arriving at the population of interest. The purposive sampling strategy enabled the extraction of extensive information related to the research topic to describe the impact of the research findings on that population. This strategy also involves processing the research characteristics relevant to the study.

The study followed certain inclusion and exclusion criteria. Because the study targets minority adolescent students, the inclusion criteria comprise the student's grade (Grades 6–8), regardless of their ethnic background. All students at the school were considered as potential respondents. Formal permission in terms of written parental consent followed by verbal as well as written assent from the children was obtained. Parental consent was the first step in which the consent form was sent to the parents or legal guardians of adolescent students (Grades 6–8) through email and a hard copy. The parents/guardians were supposed to provide permission for the participation of their child in the research process of data collection. The second step was to obtain oral and written assent from the students, which included an explanation of the data collection process as well as record keeping of assent for institutional use, respectively. Following the permission attainment, students were provided with a link to an online survey

through their emails registered at their school campus. The respondents were asked to visit the link to provide their responses regarding the three variables of the study—CER, student–teacher relationship, and academic resilience. Those who met the inclusion criteria were recruited for the study as per the purposive sampling. All the study participants were offered compensation in the form of additional (two to five) marks in their upcoming (exam/quiz/assignment) and also a chance to enter a raffle to win a gift card in the amount of $25.

Instrumentation

The research instrument is defined as the tool that assists a researcher in collecting, analyzing, and measuring data related to research interests. Research instruments include surveys, observations, focus groups, and interviews. The instrument used in the current study was a survey provided to the participants to gather their responses. A survey of 71 questions adapted from previously established scales, including demographic questions on age, racial background, gender, grade, socioeconomic background, and relationship with parents, was included in the instrumentation. Demographic factors were added based on prior research findings and were used to supplement the study's findings. The impact of positive and negative coping elements of CER, as well as the student–teacher relationship, on academic resilience of African American adolescent students, was examined in this study.

Cognitive emotional regulation was measured using the 18-item the Cognitive Emotional Regulation Questionnaire (CERQ) short scale developed by Garnefski and Kraaij (2006). CERQ is a widely used instrument that can contribute to assessing cognitive emotional regulation strategies. This instrument also directly contributes to measuring the individual's potential to maintain and respond to emotional experiences. The scale also has higher reliability (>.7, which is the standard to check Cronbach's alpha value) and its internal consistency was also analyzed

by calculating model-based composite reliability coefficient (Saloni et al., 2022). Also, it has adequate psychometric properties, widely used as a screening tool within research practices. CERQ can be used to assess nine cognitive strategies and has better constructed validity with good discriminative properties.

This scale measures adaptive and maladaptive coping strategies: acceptance, positive refocusing, focusing on planning, positive reappraisal, and putting things into perspective are described as adaptive coping, whereas self-blame, ruminating, catastrophizing, and blaming others are described as maladaptive coping (Lasa-Aristu et al., 2019). Sample items include "I often think that what I have experienced is much worse than what others have experienced," "I think about how to change the situation" and "I am preoccupied with what I think and feel about what I have experienced." The stated scale is set on a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*). The reliability of the original short version CERQ scale was measured through Cronbach's alpha, which resulted in .81 (α=.81) for all its elements, ensuring high internal consistency. The scale has demonstrated significantly good factorial, discriminant, and construct validity (Garnefski & Kraaij, 2006). Researchers have validated this scale by using it in multiple other contexts. Specifically, the scale has been validated in multiple languages for s Turkish (Cakmak & Cevik, 2010), Persian (Abdi et al., 2012), Portuguese (Santos et al., 2021), Spanish (Orgilés et al., 2019) and South African students (Propheta & Van Zyl, 2019). The CERQ scale has also been used to study cognitive emotion regulation in the context of COVID-19 pandemic (Frondozo et al., 2022; Muñoz-Navarro et al., 2021).

Another scale that was used to examine the student–teacher relationship is the Inventory of the Student–Teacher Relationship (IT-SR). This scale contributed to measuring different relationship patterns in teachers and students based on closeness, conflict, and dependency. It

also has robust psychometric properties to examine the perceptions and relationships among students and teachers. Seventeen items of the IT-SR (Murray & Zvoch, 2011) were used to assess teacher–student relationship. Sample items include “My teacher respects my feelings” and “My teacher doesn’t understand what I’m going through.” The said scale is scored from 1 (almost never/never true) to 4 (almost always/always true) as a 4-point Likert scale. The reliability of the scale mentioned by Murray (2018) indicates reliability in terms of Cronbach’s alpha value of .89 (α=.89) which is highly significant. Moreover, criterion related to concurrent validity has been ensured by the authors and it was found significant at 99%, considering the student ratings as well as teacher ratings.

Pham et al. (2018) used the IT-SR while investigating the social relationships of teachers, parents, and students in terms of grades, behaviors and engagement. In most research studies, the said scale has been used to examine the behavior of differently abled students or students coming from marginalized backgrounds. Knowles (2018) conducted a similar study where IT-SR has been used to measure the contextual variables concerning the students with disorders in terms of emotions or behaviors. Similarly, Taghvaienia and Zonobitabar (2020) assessed the intervention of depression and student–teacher relationship with some extent of depression through a controlled trial using IT-SR and found significant positive results. In the recent past, the scale for IT-SR is being used in studies involving cultural humility in educational professionals (McPhee, 2020) and diverse youth (Srisarajivakul, 2021).

The Academic Resilience Scale (ARS–30) developed by Cassidy (2016) was used to assess academic resilience with 30 items. Sample items include “I would give myself encouragement” and “I would not change my long-term goals and ambitions.” The said scale is scored on a 5-point Likert scale ranging from 1 (unlikely) to 5 (likely). The reliability of the

scale has been established through item-scale analysis which indicated Cronbach's alpha value of .90 which is highly significant internal consistency. The validity of the scale was also established through robust correlations, factorial and constructs validity with significant results. Hunsu et al. (2022) have assessed the dimensionality of this scale through single vs. multiple resilience factors. The validity analysis demonstrated that the said scale offers better measurement when used as a one-dimensional scale instead of multidimensional (Cassidy, 2016).

ARS-30 has previously been used to measure the academic resilience of students with different backgrounds in multiple diverse contexts. Ramezanpour et al. (2019) conducted a psychometric evaluation of the scale in Iran, whereas Trigueros et al. (2020) have used the same scale for the validation in Spanish context. Eva et al. (2020) measured the resilience and well-being in the academic context among college students during the pandemic through ARS-30. Moreover, Grande et al. (2022) have extensively used ARS-30 to evaluate nursing students' quality of life, as well as their academic resilience.

All items were graded on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Validity and reliability were duly established for the current study. Face validity was assured by two academic experts doing a comprehensive examination of the measurement instrument (questionnaire). After these steps, the questionnaire was updated to get the most effective survey design by ensuring reliability and validity. The psychometric properties of all the three scales being used in the study have proven to be good in the previous studies. Cronbach's alpha values range from .73 to .90 which indicates the internal consistency of items (α=.90 for academic resilience scale, α=.89 for student–teacher relationship and α=.81 for CER).

The scales also demonstrated a significant and good construct validity and discriminant validity when used in the previous studies. In the present study, the said scales were assessed in

terms of their construct reliability, construct validity and discriminant validity through structural equation modeling. Because the questionnaire items have been adapted from the published scales designed for adults, the questionnaire was examined by two experts in the field in terms of language and comprehension aimed at adolescent students. This procedure was done to establish the face validity of the questionnaire. Based on the review of experts, the language and difficult terms in the adapted scales were revised to ensure their appropriateness with adolescent students.

Reliability in psychometrics and social sciences is a key concept that should be taken seriously, particularly when talking about the consistency of a psychological measure or test. Cronbach's alpha is the most widely used statistics for assessing the reliability, or the internal consistency, of a scale. This study used the ARS-30, the Interpersonal Teacher–Student Relationship scale (IT-SR), and the CERQ. Each scale has a Cronbach's alpha value that reflects the reliability of this particular scale based on the data of the given sample.

Table 1

Reliability Analysis of ARS-30 Scale

Cronbach's alpha	*N*
.631	30

The ARS-30 scale in Table 1, with a Cronbach's alpha of .631 based on 30 items, demonstrates the extent to which items on the ARS-30 are intercorrelated, thus, the formation of a reliable scale that consistently measures a single construct—academic resilience in this case.

Cronbach's alpha values vary from 0 to 1, and the higher the value, the greater the internal consistency. This threshold can differ depending on whether the area and the complexity of the construct being measured are under investigation. Usually, .70 is deemed to be acceptable,

.80 good, and .90 excellent (Saidi & Siew, 2019). Alpha of .631, while not a desirable value, can be regarded as acceptable in exploratory research or for complex constructs where the large variability is anticipated. A refined scale was used to enlarge the alpha value in the academic and professional environment. This could include rephrasing the scale items to avoid ambiguity, eliminate redundancy, or remove the irrelevant items that do not reflect the main construct of academic resilience.

Table 2

Reliability Analysis of IT-SR Scale

Cronbach's alpha	*N*
.709	17

The IT-SR scale in Table 2 has a Cronbach's alpha of .709 computed from 17 items. This value is a bit lower than .70 which is a criterion frequently cited as the lower boundary of tolerance for reliability. This means that there is a fair level of internal consistency for the construct, and the IT-SR scale can be considered as a reliable measure of this construct, which seems to be connected with the quality of relationship between teachers and students. In professional settings such as educational psychology or school psychology, .709 alpha is a measure that can be employed to assess the interpersonal relations among students and teachers, but it should be used with caution and also corroborated with other measures or more research.

Table 3

Reliability Analysis of CERQ Scale

Cronbach's alpha	*N*
.731	18

The CERQ scale in Table 3 was produced with a Cronbach's alpha of .731 and 18 items, meaning that the scale has good internal consistency. Therefore, the components of the CERQ questionnaire work properly as one to give a measuring system with good reliability. In most academic studies, α value of .70 usually is considered to reflect reliable measurement of a scale that is measuring one construct. Individuals who are clinicians or educators using the CERQ in a clinical or educational setting such as assessment or interventions, they can have confidence that the scale is capable of reliably identifying the pattern or entry level of cognitive emotional regulation in the individual.

When one is interpreting these alphas, it is important to think of a few things. In the first place, the scale quantity alters the alpha value. However, an increase of items also enhances the alpha, and therefore, the right balance should be reached between this number and the minimum number of items which are enough to completely measure personality traits. Moreover, the essence of the construct itself also plays a role– some constructs are intrinsically more complicated and complex thereby making the internal consistency higher.

Cronbach's alpha is informative about the internal consistency of a scale; however, it is not an indicator of a valid scale—that is, whether the scale measures the construct it is intended for. Moreover, reliability is a characteristic of a scale, not a property of scale scores derived from specific samples of subjects. Correspondingly, the same scale has varied reliability coefficients

depending on whom it was used. They were considered in professional and academic contexts as well as the other psychometric properties such as construct validity, content validity, and criterion validity, along with the practical considerations such as the scale's length, its ease of administration, and the relevance of the scale for the specific population being studied.

Overall, the revealed Cronbach's alpha's values for the ARS, ITSR, and CERQ scales show that each of them possesses sufficient internal consistency, with an opportunity for improvement, which is especially relevant for the ARS-30 scale. This scale is suitable for initial or exploratory purposes in the academic context, but additional refinement and validation studies are needed for improved reliability. However, the scales could be employed only with certain reservations and the results of such measurement could be considered in connection with other info and assessments to get a more accurate picture of the constructs being measured.

Procedures

CERQ, IT-SR, and ARS-30, were added in Qualtrics to obtain data from the participants. Qualtrics allows users to generate reports, create surveys, and download results. The reason for choosing Qualtrics is that it contributed to presenting comprehensive and impactful surveys that also facilitate the effective management of the respondents. Additionally, Qualtrics assisted me in securing data processing and presenting relevant statistics based on different insights and trends. It also provided an opportunity to ensure real-time response monitoring and data insight report. The three targeted surveys in Qualtrics also assisted me in reaching a wide range of populations and validated the use of different models to gather data from participants over 100 sample sizes.

Once official approval was granted by the IRB of Liberty University, the study commenced. The adolescent students were chosen as the study's participants because they were

the most appropriate, eligible, and accessible individuals to offer data based on the study's aim. The survey was conducted online for the data collection. The questionnaire consisted of three sections. Section 1 consisted of an introduction and guidelines to participate in the survey. In Section 2, the participants of the study have to answer demographic questions like age, gender and race, and in Section 3 questions were asked to measure the CER, student–teacher relationship, and academic resilience. The responses were scrutinized based on the ethical background of the target population.

The essential adjustments to the questionnaire were made to guarantee that it was appropriate in terms of design, language, and respondent convenience. Following that, final data collection was conducted with a sample of over 100 adolescent students, selected by purposive sampling technique. The study involved sending an email to students at the target school inviting them to participate in the survey through a thorough process. The student email address was created by the school district for each student. The students are familiar with and already use their school-provided email address for other educational purposes. First the parental consent form was sent to the parent/guardian of potential participants to obtain their approval. Parents who were interested filled out the consent form and returned it to the sending email address. Then oral and written assent was obtained from the students whose parents/ guardians agreed for them to participate in the research and provide their input through the online survey. Those who were interested were screened to meet the inclusion criteria (Grades 8–12). Interested participants who meet the inclusion received an email with a link to the survey questionnaire and a 1-week deadline to answer. If the required number of responses is not obtained, a reminder email is sent to the unresponsive interested students after the deadline. The quantitative data

from obtained responses was retrieved from the response spreadsheet from. The IRB approval, consent form and questionnaire were attached in the appendix.

Data Analysis

The data collected from the surveys were examined when they were finalized. The survey data were descriptive in nature and offered quantitative data for this investigation. The survey examined the influence of cognitive emotional regulation and the student–teacher relationship on minority adolescent students' academic resilience. It also explored the significance of student–teacher relationship in mediating the link between cognitive emotional regulation and academic resilience. These correlations were statistically evaluated in regard to demographic factors—age, race, gender, grade, socioeconomic background, and relationship with parents. Descriptive statistics were assessed through Statistical Package for Social Sciences (SPSS version 26) including the mean, median, mode, and standard deviation to describe measures of central tendency (Mishra et al., 2019). Such statistics were used to obtain a brief summary of the study sample.

The main analysis of the study used SPSS to examine the data statistically. The reason for choosing SPSS is that it offers reliable and fast answers and can contribute to presenting useful insights with effective data management. SPSS helped me conduct Pearson correlation and regression analyses, which answered the research question. Pearson correlation measured the relationship between cognitive emotional regulation and academic resilience for Research Question 1: To what extent does cognitive emotional regulation influence the academic resilience of minority adolescents? Regression analysis was used for Research Question 2: To what extent does student–teacher relationships influence the academic resilience of minority adolescent students? and for Research Question 3: Do student-teacher relationships mediate the

relationship between cognitive emotional regulation and academic resilience? ANOVA was used in the analysis in observing variance within different components for additional tests. It was particularly used to understand the relationship between the dependent and independent variables, addressing the research questions on how cognitive emotional regulation and student–teacher relationships impact academic resilience.

Internal and external validity concerns arise throughout the research. Testing, for example, jeopardizes both internal and external validity if it is assumed that the responses from the pilot research affect or direct the responses in the main study. Respondents from the pilot research were not included in the main survey to address this issue. Furthermore, sampling bias poses a risk to external validity because target respondents differ significantly from the general population (sixth to eighth grade students). It is also possible that students from various racial backgrounds attend the target school. This problem was addressed by carefully screening the respondents to ensure that they were enrolled in grades 6–8. The acceptable alpha range for construct reliability was .07 to .09.

Summary

Minority students are more prone than other students to suffer severe relational stresses, which frequently result in negative social and scholastic outcomes (Lewis & Manno, 2020). Academic performance and resilience have been shown in the literature to enhance the academic results of marginalized students. To generate causal models, theoretical approaches to resilience have historically concentrated almost entirely on psychosocial aspects of exploration. The importance of emotion regulation in explaining competent strategies in the face of resilience, on the other hand, have been underestimated. Academicians have suggested that cognitive emotional control and supportive teacher–student interactions can help students cope with stress

and thereby improve their academic resilience. Yet, it is quite unclear if the teacher–student relationship mediates the association between minority adolescent students' cognitive emotional control and academic resilience. As a result, the focus of the research was on the influence of cognitive emotional regulation on academic resilience, as well as the relationship between teachers and students.

The study was undertaken using an exploratory research method. The focus of the study was on positivist theory and a quantitative-deductive methodology. The research strategy involved online surveys to collect data. The participants in this study were minority high school students in the United States. Purposive sampling was used to determine the sample size of 123 participants. The hypothesized correlations were statistically evaluated using the demographic factors of age, racial background, gender, grade, and socioeconomic background. The study's descriptive statistics were evaluated using SPSS Version 26 and ANOVA. The findings of this study could assist policymakers and academics in incorporating resilience-building initiatives into national and international curriculum, specifically for students from marginalized backgrounds. In the next chapter, the research findings and responses to the research questions are described.

CHAPTER FOUR: FINDINGS

Overview

This chapter presents the analysis and findings of the research. The first section provides a descriptive summary of the study participants, with information obtained from the demographic survey and details from the survey. The next section presents reliability analysis. The following section discusses the correlation in between the variables to test research hypotheses based on the primary data. This study examines the influence of academic resilience among minority adolescent students.

Descriptive Statistics

Table 4

Demographic Data of the Participants

	N	Range	Mean	*SD*	Skewness	Kurtosis
Age	123	1.00	1.00	.09	11.09	123.00
Gender	123	2.00	1.46	.53	.47	-1.07
SES	123	2.00	2.03	.40	.26	3.28
RWP	123	5.00	2.13	1.10	1.06	1.05
Grade	123	7.00	1.65	.93	2.84	15.63

Table 4 presents descriptive statistics summarizing the demographic data of participants. Analyzing the descriptive statistics consists of careful examination of measures that represent or characterize the set of data. In Table 4, the statistics include the number of observations (*N*), range, mean, standard deviation, skewness, and kurtosis for several variables: age, gender, socioeconomic status (SES), relationship with parents (RWP), and grade. Each of these factors

provides information on the distribution of the data, central tendency, and dispersion which are also connected with the shape of the distribution.

N indicates the number of participants (123) in the sample or the number of observations. One observation was made for each variable, which implies that the dataset is consistent across the variables and there are no missing values because valid *N* (listwise) is 123.

The range is the distance between the maximum and the minimum values in the data set. Regarding age, the range is 1.00, representing small differences between the participants' ages. A value range of 2.00 for both gender and SES indicates that the variables are most probably categorical, coded 1 or 2 for gender (with boys assigned the value of 1 and girls the value of 2), and 2 or 1 for SES (with one socioeconomic group assigned the value of 2 and the other the value of 1). RWP has a variability of 5.00, and grade has a variability of 7.00, showing the widest in these parameters.

The arithmetic mean is the value of the observations. The mean of the age is 15 (as 1 represents age less than 15 years, 2 represents ages between 16 to 20 years and 3 represents ages more than 20 years) The sample mean of gender is 1.46, which indicates a higher number of girls in the sample than boys. The SES mean of 2.03 indicates tilt toward higher SES in the sample. The mean for RWP and grade are 2.13 and 1.65, respectively, with the use of scales, but without such information, the numbers cannot be given any significance.

The standard deviation expresses the amount by which the values are varying or dispersed in a set. The standard deviation of age is .090, which is very small and an indication that the ages are close to the mean. The standard deviation of the gender values is .53, which is quite high (the range 2) suggesting that about equal numbers of male and female participants. SES has a standard deviation of .40, which indicates that there is some truth in the notion of

different socioeconomic statuses. The higher values of RWP and grade signals that there is more variability in children's parental relations and grade performance.

Skewness is a measurement of the asymmetry of the values. A value of skewness near to 0 indicates a symmetrical distribution. The highest skewness of age is 11.09, indicating spatially asymmetric distribution. Gender's skewness is .47 and its value is lower, thus, students can assume slight imbalance. SES's kurtosis .26 (value close to 0) exhibits a distribution that is close to being symmetric. RWP's degree of skewness with a measure of 1.06 means a moderately skewed distribution, and the measure of 2.84 for grade is very high and highly asymmetric distribution, indicated that most participants earned lower grades.

Kurtosis evaluates the tailedness of the distribution. A kurtosis value close to 0 indicates that the distribution has tails similar to a normal distribution. Age has a kurtosis of 123.00, which indicates that either the distribution has heavy tails or outliers. Gender is characterized by a negative kurtosis of -1.07, meaning that the distribution has tails that are lighter than those of a normal distribution. The kurtosis of 3.28 indicates a slightly heavy tail distribution. RWP's kurtosis of 1.05 indicates a moderate tail length. The excessively high kurtosis of grade—15.63—shows the presence of heavy tails or more outliers.

Gender was to be a two-state coded variable. The median is closer to 2, which could mean a sample that has perhaps slightly more females than males providing the coding of 1 for males and 2 for females. The distribution is not extremely skewed, but the presence of skewness and the negative kurtosis indicates distribution of gender deviates from the norm, taking into consideration that it is a dichotomous variable.

SES is categorical rather than continuous because it has two levels; lower SES was coded as 1 and higher as 2. The skewness and kurtosis scores show a common distribution, whereas the positive skew indicates more students were on the lower end of the SES scale.

The RWP variable ranged from 1 to 5, with the mean closer to the lower end of the scale,. The distribution is positively skewed; the tail of the distribution is longer on the right side, which indicates some cases with very high positive ratings, which were not common in the sample.

Grade has a 1–7 range, with the majority of respondents scoring at the lower end of this scale. Extreme skewness points to an asymmetric distribution, with a longer tail on the right side, which means that more students have lower grades and fewer have high grades. The extremely high kurtosis indicates, or a small fraction of students with much higher grades, which steepens the curve of the distribution.

The descriptive statistics of Table 4 present a snapshot of the dataset's features. Age seems to be abnormally written apart, and its interpretation is obscured without further clue. Male–female distribution is slightly biased in favor of girls. SES displays a somewhat bell-shaped distribution. For RWP the majority of participants considered their relationship with their parents less positive, with a few seeing it as very good. For Grade, most students earned lower grades but several had higher. The high skewness and kurtosis in age could a symptom of an input error, need for data transformation, or a nonstandard coding style. The RWP and grade distributions suggest underlying factors have an impact on the outcomes (e.g. stress, academic pressure or sociocultural context).

The descriptive results prepare for further inferential statistical analysis that examines the links and possible causality relationships between the variables. The research should also

consider the context of the study, the measures of scales used, and the sampling method when interpreting these results.

Results

For H1, the cognitive emotional regulation variable describes mental management and response to emotions. This variable captures cognitive reappraisal, emotional suppression, and other mimicking mechanisms. academic resilience refers to a student's ability to manage adversity, stress, or pressure in an academic setting. It is a critical factor both in the attainment of educational level and the overall state of student affairs.

Hypothesis 1

In scientific and professional research, hypotheses are formulated to be verified or disproved empirically. H1 is that cognitive emotional regulation is positively correlated and statistically significant in enhancing the academic resilience of minority adolescents. It was tested with statistical analysis via a Pearson correlation, which measures linearity and the strength of the relationship between two continuous variables. Correlation analysis results provided in Table 5 answer RQ1: To what extent does cognitive emotional regulation influence the academic resilience of minority adolescent students?

Table 5

Correlation Analysis

		ARS	CERQ
AR	Pearson correlation	1	.332**
	Sig. (2-tailed)		.000
	N	123	123
CER	Pearson correlation	.332**	1
	Sig. (2-tailed)	.000	
	N	123	123

Note. **Correlation is significant at the $p<0.01$ level (2-tailed).

Pearson's correlation coefficient (denoted as *r*) can range from -1 (perfect negative linear relationship), to 0 (no linear relationship) to +1 (perfect positive linear relationship. The Pearson's correlation between academic resilience and cognitive emotional regulation is .332, a moderate positive correlation, which indicates a positive correlation between cognitive emotional regulation and academic resilience. The significance level (p = .37) is .000, which is statistically significant at 0.01 level (two-tailed), which indicates a 1% probability of the existence of correlation being by chance.

The coefficient of correlation .332 is moderate and indicates a positive correlation between cognitive emotional regulation and academic resilience. Yet it is not a remarkably close one, showing that there is a connection although it is not too intensive. This suggests that there could be other factors also that contribute to the academic resilience of the students.

The *p* value of .000 means that there is a statistically significant relationship between academic resilience and cognitive emotional regulation, and the chance that the result is

attributed to randomness is extremely low. Consequently, the null hypothesis, which claims that there is no connection between these variables, was rejected.

The positive direction of the correlation supports the initial hypothesis, which argued that academic resilience was positively influenced by cognitive emotional regulation. Because the hypothesis is not specific about the strength of the relationship, but only its direction and its significance, the outcomes support H1. However, the hypothesis is also corroborated by the outcome; it is, therefore, important to note that correlation does not imply causation. The mere fact that two variables are correlated does not mean that one is causing the other. The other variables that play a part in cognitive emotional regulation and academic resilience are also at play. To give an example, family background, SES, and educational environment can affect both.

Moreover, the resultant correlation of only moderate strength indicates that even though there is a positive relationship between the two variables, cognitive emotional management is not the unique predictor of academic resilience. It is probable that academic resilience is a complex phenomenon that results from the interaction of varied factors considering cognitive and emotional skills regulation. This study concerns minority adolescents who encounter special stressors and difficulties that influence their educational resilience. As a result of this, the findings cannot be generalized.

The insights from the study have practical applications in the workplace, for instance, in educational psychology or school counseling. It is possible that cognitive and emotional self-regulation is related to academic resilience. For this reason interventions to enhance emotional regulation skills could lead to better academic outcomes for the students. These findings can be used to explore the causes of relationships that are between emotional repair and academic resilience in academia. Longitudinal studies could highlight how these factors interact over time,

and experimental designs could be useful in proving the potency of the interventions for the improvement of emotional regulation.

Pearson's correlation analysis answers the first question by describing a statistically significant, moderate and positive relationship between cognitive emotional regulation and academic resilience in minority adolescent students. The findings add to the literature that highlights the great role of emotion regulation in educational settings. The correlation is of moderate strength, and more research would help determine what affects academic resilience. This study draws attention to the positive impact of incorporating emotion regulation strategies in educational programs on minority student achievement and resilience.

Hypothesis 2

It was hypothesized that there was a statistically significant, positive impact of student–teacher relationships on the academic resilience of minority adolescent students. To test the hypothesis, analysis was conducted to answer the second research question, To what extent do student–teacher relationships influence the academic resilience of minority adolescent students?

Table 6

Table for r *Regression*

Model	*R*	R^2	Adjusted R^2	*SE* of estimate	Change statistics				
					R^2 change	*F* change	df1	df2	Sig. *F* change
1	121[a]	.015	.007	.392	.015	1.79	1	120	.183

a. Predictors: (Constant), AR

Table 7

ANOVA for Interpersonal Teacher–Student Relationship Scale

Model	Sum of squares	*df*	Mean square	*F*	*p*
.27	.27	1	.27	1.79	.18[b]
18.52	18.52	120	.15		
18.79	18.79	121			

Note. a. Dependent variable: ITSR. b. Predictors: (Constant), AR

Table 8

Coefficients for Interpersonal Teacher–Student Relationship Scale

Model	Unstandardized coefficients		Standardized coefficients	*t*	*p*	95.0% CI for B	
	B	*SE*	Beta			Lower bound	Upper bound
(Constant)	2.95	.32		9.13	.000	2.31	3.60
ARS	-.17	.12	-.12	-1.34	.183	-.42	.08

Note. Dependent variable: ITSR score.

The teacher–student relationship has been the focus of many recent studies aimed at evaluating its possible impact on different educational outcomes. In the analysis, it was discovered that the student–teacher relationship produces statistically significant and positive impacts on the academic resilience of minority teenage students. Academic resilience is one of the most important keys to educational success, especially for minority students who encounter common systemic barriers. It is considered as the skill to differentiate oneself from others and to be successful academically in the face of adversities. The student–teacher relationship is the most

important element of educational surroundings, with components such as mutual respect, trust, support, and the quality of communication between students and their teacher.

To test this hypothesis, a regression analysis was performed with the IT-SR score as the dependent variable and academic resilience as the independent variable. The IT-SR scale assesses the perceived quality of the relationship between teacher and student from the students' point of view, which includes and evaluation of the extent to which teachers make students feel supported, understood, and encouraged.

These findings are outlined in the model summary (Table 9), ANOVA (Table 10), and the coefficients (Table 11) tables. These outcomes offer different perspectives from the teacher–student relationship to academic resilience. The model summary presents a brief view of the model's explanatory ability. The *R* value is the correlation coefficient, which, at .12 indicates a highly positive but very low relationship between academic resilience and IT-SR score. The R^2 or the coefficient of determination value is .015, indicating that only 1.5% of the change in the IT-SR score is explained by the ARS-30 score. This is a small effect size, which becomes even smaller in case of the adjusted R^2 value that takes the number of predictors and sample size into account, coming down to .007. The standard error of the estimate' corresponds to the average distance the observed values fall from the regression line, .39 which without context is hard to interpret and can therefore suggest some variability in IT-SR scores that are not explained by academic resilience.

Table 10 provides information about the general significance of the regression model. The value of .183 indicates that the model does not predict the IT-SR scores statistically significantly from the academic resilience scores because it is above the conventional alpha level

($p < .05$). This lack of importance is also observed in the *F* value, which stands at 1.79 and cannot be taken as the model is a good fit to the data.

Last, the academic resilience coefficients (Table 11) offers more insight into the impact of academic resilience as a predictor of IT-SR score. A nonstandardized coefficient means that when the independent variable increases by one unit, it is expected that the dependent variable increases by the specified amount. In this case, *b* value for academic resilience is -.17, which surprisingly is a negative relationship with IT-SR score that is quite close to the hypothesis. The significance value for the coefficient is .18 mathematically equivalent to the ANOVA and denoting the nonstatistical significance of this finding. Standardized coefficients or beta is a measure of the standard deviation changes of the independent variable, per the change of one standard deviation, corresponding to the dependent variable. It is here where beta value of -.12 in addition to the negative B value suggests the small effect size. The 95% confidence internal for B is -.42 to .08, which includes 0, signifying that the academic resilience impact on IT-SR score is statistically ineffective.

Contrary to the hypothesis, the outcomes answer the second research question by not showing the desired pattern. A statistically significant, positive influence that the student–teacher relationship had on the academic resilience of minority adolescent students in that sample cannot be demonstrated. The negative beta coefficient together with the lack of statistical significance confidently state that this finding is not reliable and does not represent the expected direction.

It is important to acknowledge that academic resilience is a complex construct that is shaped by a range of factors, not just the relationship between students and teachers. These could be personal traits, family background, SES, peer relationships, school culture, and so on. The student–teacher relationship is only one among many, and its impact on academic resilience can

be indirect or moderated by other factors not considered in this model. Besides, the measure of the student–teacher relationship adopted here does not catch all the subtleties of this kind of relationship. The quality of these relationships can differ much and can be influenced by factors that are difficult to measure. Also, the unique struggles of minority teenage students need a more focused approach to examine the overall effect of these relationships on academic perseverance.

Hypothesis 3

The third hypothesis is that student–teacher relationships play a statistically significant mediating role among the association between cognitive emotional regulation and academic resilience. Regression and ANOVA analysis were used to test this hypothesis statement. The results presented in Table 9 answer RQ3, Do student–teacher relationships influence cognitive emotional regulation on the academic resilience of minority adolescent students?

Table 9

Regression Analysis Model Summary

R	R^2	Adjusted R^2	*SE* of estimate	Change statistics				
				R^2change	*F* change	df1	df2	Sig. *F* change
331[a]	.110	.09	.26	.11	7.34	2	119	.001

a. Predictors: (Constant), ITSR, CER

Table 10

ANOVA for Academic Resilience

Model	Sum of squares	*df*	Mean square	*F*	*p*
Regression	1.05	2	.52	7.34	.001[b]
Residual	8.54	119	.07		
Total	9.59	121			

Note. Dependent variable: AR. b. Predictors: (Constant), ITSR score, CER

Table 11

Coefficients for Academic Resilience

Model	Unstandardized coefficients		Standardized coefficients	*t*	*p*	95.0% CI for B	
	B	*SE*	Beta			Lower bound	Upper bound
(Constant)	3.13	.19		16.51	.000	2.755	3.506
CER	-.16	.04	-.312	-3.56	.001	-.259	-.074
ITSR	-.05	.06	-.072	-.82	.412	-.175	.072

Note. a. Dependent variable: AR

The hypothesis being investigated (H3) claims that student–teacher relationship does have a statistically significant mediating effect between the two variables cognitive emotional regulation and academic resilience among minority students. Briefly, this hypothesis postulates that the degree to which the student–teacher relationship is of high quality strongly influences students' ability to control emotions and develop academic resilience. If the independent variable exerts its effect on the dependent variable by a mediator variable, then mediation occurs.

Therefore, regression analysis was used to evaluate the direct effects of cognitive emotional regulation and student–teacher relationship on academic resilience, which is the first

mediation step. Full mediation analysis regressions consist of a set of regression models that sequentially assess the paths between the variables. The results presented do not explicitly examine the mediation effect, such as the Sobel test, or Baron and Kenny steps, or any of the bootstrapping methods.

ANOVA and the model summary in the model summary (Table 9), the *R* value is .331, which is moderate, indicating a moderate correlation between the predictors (cognitive emotional regulation and student–teacher relationship) and the dependent variable (academic resilience). The *R* squared value is .11, indicating that approximately 11% of the variation in academic resilience scores is explained by the combined predictors. This adjusted *R* squared value is set to .14 to account for the number of predictors, which indicates a slight reduction in the model's explanatory power when the model's complexity is considered. The value of the standard error of the estimate is .26, which provides information on the typical distance between the observed academic resilience scores and the scores suggested by the model.

The ANOVA table (Table 10) shows a significant *F* statistic (7.34) with a *p* value of .001, which means the model predicts academic resilience scores significantly given the presence of both student–teacher relationship as variable/instrument and cognitive emotional regulation and that the combination of them makes a greater contribution to explaining the variance in academic resilience better than what was expected by chance.

The coefficients table (Table 11) shows the preset the direct effects of each predictor on academic resilience. The unstandardized coefficient for cognitive emotional regulation is -.166 with a significant *t* statistic (-3.566) and a *p* value of .001, indicating a significant negative effect of cognitive emotional regulation on academic resilience. Contrary to what is intuitively expected, higher cognitive emotional regulation, should it be matched with greater academic

resilience, is not associated with cognitive disruption. Here, negative correlation suggests that the cognitive emotional regulation is not working well as expected in this context or there is a more complex relationship between cognition and emotion than researchers supposed at first.

For student–teacher relationship, the unstandardized coefficient -.05 is not significant (p = .412), which suggests no evidence of a cause from this analysis between the student–teacher relationship and the academic resilience. The possible effect of student–teacher relationship on academic resilience is also included in the confidence interval, thus confirming the lack of significance for the direct effect of student–teacher relationship's direct effect.

This finding answer the third research question by indicating that although cognitive emotional regulation has significant direct effect on academic resilience, no such relationship is found to be trending between student–teacher relationships and academic resilience. Similar to the conclusion that cognitive emotional regulation has no indirect effect on academic resilience, student–teacher relationship was not shown to have a direct mediation role between cognitive emotional regulation and academic resilience either. Such mediation is a particular indirect effect, and nonsignificance of the direct link does not completely eliminate mediation. It is possible that student–teacher relationship could serve as a mediator because its effect on academic resilience could be through its interaction with cognitive emotional regulation. Mediation was mainly tested to see if including student–teacher relationship in the model reduced the connection strength between cognitive emotional regulation and academic resilience, which was not testable with the given data.

Because the student–teacher relationship's coefficient is insignificant, another hypothesis should be examined as well. The impact of the student–teacher relationship on academic resilience was not captured by a straightforward regression model and in fact has a more

cumbersome mechanism. For example, the student–teacher relationship interconnect with a third variable was discounted in this model, which masked its mediation property. Notably, the ITSR scale could be a factor because it that may not properly measure the aspects of student–teacher relationship that contribute to academic coping, in which case, the effect of the student–teacher relationship on academic resilience could not be measured (Walenda et al., 2021).

However, the negative coefficient for the CERQ score, although significant, also encourages a rethinking on how cognitive emotional regulation is conceived and measured in relation to academic resilience. Possibly, having the right emotional regulation is accompanied by a positive relationship to resilience. Whether the CERQ measures a kind of emotional regulation that is maladaptive or if minority students use it to employ cognitive processing techniques that are less effective in a context where they are more prominent, this situation could be behind the flow of negative relationship in question (Vinter, 2021).

It is important to note that the R square value is moderate. Although the model shows statistical significance, unexplained variation in educational resilience exists, which indicates that there are other crucial variables that have not been considered in the analysis. Hence, in practical terms, cognitive emotion regulation and student–teacher relationship are significant, but their impact is limited. Other crucial factors that play a role include family support, peer relationships, cultural expectations, socioeconomic status, and more.

These results suggest that professionals must be careful not to overestimate the impact of student–teacher relationships without considering the broader context of a student's life. For educators and policymakers, such findings reveal the need for a multidimensional approach to building resilience in academic performance among minority students. Interventions require

consideration of the specific emotional regulation strategies used by students and of school environment factors like relationships (Verkuyten et al., 2019).

These results in the field of academic research could stimulate further investigation into the relationship between cognitive emotional regulation and student–teacher relationship and how they interact to impact academic resilience. In addition, qualitative studies could add depth to the understanding of these dynamics, and longitudinal research could show how relationships are created and evolve. Van der Merwe et al. (2020) highlighted the elements of the student–teacher relationship beyond trust, such as emotional support, pedagogical support, and classroom environment, to know the factors that mediate this relationship most strongly.

In summary, the current results do not support the idea that the mediating relationship between cognitive emotional regulation and student–teacher relationship is responsible for the relationship between academic resilience. Instead, they raise questions about the complexity of relationships between these factors. The research results reinforce the necessity for a reflexive process of research and intervention in academic context, especially for minority students who could confront the specific problems and opportunities in the school environment.

Summary

This chapter includes descriptive and reliability analysis and correlation and regression analysis. The analysis indicates the effects of the relationships and the variables on academic resilience. Academic resilience and cognitive emotional regulation should reinforce each other. Cognitive emotional regulation involves learning to manage and edit emotions to attain goals. Academic perseverance involves overcoming obstacles and succeeding. Academic resilience and cognitive emotional regulation were shown to be positively correlated, which confirms Hypothesis 1. The results suggest that emotionally resilient individuals are academically

resilient. The results showed a significant beneficial correlation of a stronger student–teacher connection and academic resilience, which supports Hypothesis 2. Positive teacher–student relationships support scholastic vulnerability to acute stress, according to this hypothesis. The results of the regression analysis of the IT-SR score (dependent variable) and academic resilience (independent variable) indicated that the student–teacher connection did not explain significant variance given the measurements used. Hypothesis 3 concerned cognitive emotional control and academic resilience. A third variable mediates a predictor variable's effect on an outcome variable. Student–teacher relationship and cognitive emotional regulation indicated academic resilience in this hypothesis' regression and were statistically significant. Emotional regulation and student–teacher connections were shown to predict academic resilience. These findings are significant due to the complexity of these dimensions and the difficulty of quantifying delicate interpersonal and internal interactions. H1's moderate association suggests cognitive emotional control promotes academic resilience and other elements also. Significant results did not support H1 and H2, suggesting that the student–teacher relationship may indirectly affects academic resilience (Valiente et al., 2020; Van Breda, 2018). In Chapter 5, the summary of the research study, the summary of research findings, a discussion of the significance of the study, and the contributions to existing research are outlined and recommendations and suggestions for future research are offered.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of the study was to investigate the influence of cognitive emotional regulation and the student–teacher relationship on the academic resilience of minority adolescent students using a quantitative research method and correlational design. This chapter interprets the findings outlined in Chapter 4 in the context of the literature on educational psychology and the unique challenges educational settings pose to minority adolescents. The limitations of the study are acknowledged next, followed by recommendations for future research based on the outcomes of the study. The conclusion summarizes the key points and their relevance to educators.

Discussion

The discussion section of a research paper bridges the gap between the interpretations of the finding and its relevance to the field of research. This section focuses on the intricacies of the outcomes, providing various avenues through which their importance and the ways in which they contribute to existing knowledge can be assessed. Along with the structure and guidelines below, researchers can assemble a discussion outline of a study about the interaction of cognitive emotional regulation and student–teacher relationship on academic resilience among minority adolescent students.

This investigation aimed to uncover the complex web of contextual factors of CER, student–teacher relationships, and their interplay and effect on the academic resilience of minority adolescent students. Taghvaienia and Zonobitabar (2020) used a qualitative approach grounded in the correlational design to establish the strength and direction of these relationships quantitatively. The decision about the method was a major starting point in the empirical

examination of the hypotheses, which laid the groundwork for the statistical analysis of the data collected from the sample of the minority adolescent students.

The study is structured around the three research questions, considers the hypotheses thoroughly, and develops arguments and interpretations logically. Through dialogue, the audience has a chance to dissect the results in accordance with each question, which reveals the complex nature of academic resilience, as well as factors affecting it. It follows that the succeeding paragraphs are written precisely, taking into consideration a formal tone and tense loyalty as a demonstration that the study is academic in its nature.

Research Question 1

RQ1: To what extent does cognitive emotional regulation influence the academic resilience of minority adolescent students?

The complex relationship between cognitive and emotional regulation on academic resilience is the core of the study as the first research question. Particularly in view of the growing realization that academic achievement is substantially reliant on emotional regulation, such investigations are strategically crucial. This is especially true for minority students whose path is usually marked by many challenges. The result of the correlational research quantitatively indicated a statistically significant, moderate positive correlation between cognitive emotional regulation and academic resilience. In this part, the findings obtained through this research are compared with the latest literature as well as with the theoretical perspectives that support the understanding of these concepts.

The findings of the study, therefore, revealed that cognitive emotion regulation enhances the level of academic resilience in the minority adolescent students. Particularly, the Pearson correlation coefficient was found to be correlated with a moderate positive student’s ability to

regulate emotions that leads to the development of resilience. This finding is important as it not only highlights the relevance of coping strategies that involve emotional regulation skills but also shows how these skills assist students in dealing with the academic challenges and stressors that they face while studying, ultimately resulting in their resilience or persistence in their educational careers.

In the context of comparing the results with current literature, some similarities and divergences come up. Emotional regulation in education consistently receives empirical support. For example, studies have found that those students who use a reappraisal approach as an adaptive emotional regulation strategy are more likely to register better academic outcomes, such as higher grades and greater engagement (Aldwin, 2011; Aliyev et al., 2021). These results concur with the finding of a strong relationship between the emotional cognitive regulation and academic resilience.

The literature indicates subtle details that researchers are starting to uncover in their investigation. For instance, some studies show that the role of emotional regulation in school performance is moderated by the types of strategies used as well as the particular emotional challenges that students face (Abdi et al., 2012). Moreover, minority students use different coping ways in response to specific stressors, such as discrimination, cultural conflicts, which have some influence on their academic resilience (Ahmed et al., 2018). Hence, while the findings match the overall literature which recognizes the pivotal role of emotional regulation, they invite further examination of how these processes are in the social context of minority adolescents.

The theoretical framework that was followed as the basis of the investigation is mainly taken from Gross's (2001) process model of emotional regulation, which holds that individuals regulate their emotional experiences through a series of cognitive processes. Such a model

implies that good emotional regulation could enhance the individual's ability to deal with stressors, thus leading to healthy outcomes including resilience. Empirically the data support the dimensional model with emotion regulation being the factor that correlates with higher resilience.

It also needs a reconsideration and a review of the model's applicability in different situations. Though the process model helps in the understanding of the emotional regulation, it is not sufficient in capturing the complexity of minority students' experience. The model underscores the universality of emotional regulation processes; however, it overlooks the cultural, social, and systemic factors that shape how these processes appear among minority adolescents. For example, the function of cultural differences in emotional expression and in the regulation strategies (Amemiya & Wang, 2018) indicates that the pathways connecting emotional regulation and academic resilience are probably more complex than the model predicted.

Similarly, the results are aligned with resilience theory that prioritizes the complex connection between individual competencies and ecological challenges and its role is to facilitate resilience (Anderson et al., 2019). This theoretical view assumes that emotional cognitive regulation should not be only defined as an individual skill but as a part of a wider socioecological system which shapes the resistance of the learner. The outcome of the study invites resilience theory to reevaluate the relationship between emotional regulation with teacher support, peer relationships, among others, and their impact on academic resilience (Avila, 2021).

These results contribute to the academic literature: these constructs have a substantial, positive correlation that strengthens the assertion about the crucial importance of emotional regulation in education success. The results are evaluated against recent literature and the

existing frameworks, revealing overlaps as well as areas in need of further research. The research conducted reveals the significance of the unique circumstances and experiences of minority students in the studies of emotional regulation and academic resilience.

Research Question 2

RQ2: To what extent do student–teacher relationships influence the academic resilience of minority adolescent students?

The investigation of the effect of student–teacher relationship on academic resilience, especially with the context of minority adolescent students, is an imperative research area. This research question seeks to examine the inner dynamics of the relationships and the extent to which they can support the students to cope and succeed academically amid problems. The correlational design of the study yielded quantitative results that give insights on these interactions, thereby supplementing existing information that provides a more comprehensive picture of educational resilience with intricate details. Such a debate examined the above findings in detail, made appropriate comparisons with the existing literature, and assessed the degree of their congruence with the theoretical models drawn from educational psychology.

Contrary to projected implications of current literature indicating beneficial effects of supportive student–teacher relations on academic and psychological well-being of minority students, the study conducted did not show the existence of such a relationship. This result engenders a huge discussion of the unpredictable forces at play in the dynamics of student–teacher relations and their different impacts on students' academic performances.

The literature to do with the student–teacher relationships is voluminous, with numerous articles bringing out the positive association between high-quality relationships and student success with different indicators such as academic performance, engagement, and emotional

well-being (Bagla & Saxena, 2020). For example, studies have demonstrated a correlation between positive teacher–student relationships and improved resilience in academic challenges, which suggests that teachers' emotional and social support could make the students cope with academic difficulties better (Bala & Verma, 2019).

Yet, the findings contradict this body of studies showing a lack of correlation between the quality of student–teacher relations and academic resilience among the minority adolescent students in the sample (So et al., 2021; Srisarajivakul, 2021). This disparity creates doubt about the contextual factors that influence the nature and outcomes of these relationships. Such factors as mismatches in cultural values between teachers and students, different views on the role of education, and systematic barriers within schools are among the many factors that affect the student–teacher interaction and academic resilience (Beer et al., 2021).

Attachment theory (Bowlby, 1969) and self-system model of motivational development (Connell & Wellborn, 1991) are theoretical lenses through which the impact of student–teacher relationships on academic resilience can be understood. Secure attachment, developed through consistent and supportive interactions, can result in many positive developmental outcomes according to attachment theory. The application of this theory to the educational context was that the secure student–teacher relationships created an environment that supports the growth of resilience, where students can freely take academic risks and persevere through challenges (Sheffler et al., 2019).

The self-system model of motivational development explores this by placing an emphasis on the role played by supportive relationships in meeting students' basic psychological needs for autonomy, competence, and relatedness. These needs are assumed to improve students' engagement and motivation which are the key academic resilience elements (Beale, 2020). The

study's results question these theoretical assumptions with an insight that those pathways could be more intricate and less straightforward than had been expected.

The absence of the finding is a possibility that mean that relationships between teachers and students are important, but their role in the academic resilience of minority adolescents is mediated by other factors, like the students' perception of the educational system, their experiences of discrimination, or their opportunity to access other forms of social support (Scherer et al., 2017). This also variably reflect the differences in the quality of the student–teacher relationship in the different educational settings and cultural contexts thus necessitating culturally responsive pedagogies that accommodate and value the diverse backgrounds and experiences of minority students (Ben-Zur, 2020).

Furthermore, this implies that notwithstanding the individual and collective responses of various ecological systems on students' academic resilience as raised by Bronfenbrenner's (1979) ecological systems theory. This point of view takes the position that student–teacher relationships are one of a constellation of factors affecting the academic resilience of minority students and that more complete understanding of factors influencing minority student resilience is needed (Rich et al., 2022).

Finally, engaging in the exploration of the effect of the relationships between students and teachers on academic resilience leads to a diverse scenario that involves issues not covered by most studies (Redding, 2019). In spite of the tremendous importance of supportive relationships between students and teachers, the results of the research suggest that a more complex conception of these dynamics is needed, particularly on the background of the educational situation of minority adolescents. The theoretical perspectives of attachment theory and the self-system model provide useful insights into the potential operation of these links, but

the results show that other factors and contextual variables are to be considered. This discussion plays a role in the academic discourse on educational resilience, and also highlights the fact that a truly inclusive, supportive, and culturally responsive educational environment is the only solution to many learning problems (Bolton et al., 2017).

Research Question 3

RQ3: Do student–teacher relationships influence cognitive emotional regulation on the academic resilience of minority adolescent students?

Research Question 3 concerns the a complex linkage between CER, student–teacher relations, and academic resilience, particularly testing the possible mediating impact of student–teacher relations on the connection between cognitive emotional regulation and academic resilience with minority adolescent students. This research is crucial as it unveiled the intricate interactions between the internal psychological processes and the external social encounters within an educational context, offering explanations on how these two aspects collectively affect students' coping mechanisms in the academic domain (Prewett et al., 2019).

Cognitive-emotional regulation and academic resilience were linked, although the mediating role of student–teacher relationships was not significant according to the findings derived from a correlational design. This outcome can be viewed as an indication that both executive emotional regulation and student–teacher relationships have a definite impact on academic resilience in the study group, but the latter does not act as a mediator between the first and the last variables. It also leads to a complex debate on the nature of these relationships and their influence on the experience of the youth minorities in the educational sphere.

The literature concentrates on the role of student–teacher relationship in educational outcomes, and it is proved that these relationships play a great role in students' academic

performance, engagement and emotional wellbeing. Research has shown that supportive, caring student–teacher relationships can impact fundamental aspects of academic performance, including resilience (Borman & Overman, 2004). In contrast, the findings propose a more complex pathway where the cognitive emotional regulation efficiency is not statistically mediated by student–teacher relationships. This unequal distribution of student–teacher relationships can be understood as a barrier or a facilitator in the link between emotional regulation and educational persistence (Peña et al., 2018).

From the theoretical point of view, the self-determination theory suggests that satisfying individuals' needs of autonomy, competence, and relatedness drives more motivation and involvement which are key elements of resilience (Ryan & Deci, 2000). In this framework students'—teacher relationships which are believed to satisfy these psychological needs are seen as key in mediating the effect of personal attributes such as emotional regulation on academic outcomes. Despite the research findings not supporting this notion, it has been argued that the mediating role of student–teacher relationships can be dependent on additional factors that could not be captured by the analysis (Partow et al., 2021; Perez et al., 2009).

Likewise, the transactional model of stress and coping (Folkman & Lazarus, 1984) provides the view via which to evaluate the interaction of cognitive emotional regulation and environmental factors such as student–teacher relationships. In this model, responses to stress are affected by their appraisals of the stressor and their perceived coping abilities, and with supportive relationships being the main resource. The nonsignificant mediating effects in the study point to the fact that the channels through which student–teacher relationships affect the coping process, and the resilience as a result, are more direct or are influenced by other mediating factors (Boumans & Dorant, 2018).

A statistical relationship that is significant and positive was shown between cognitive emotional regulation and academic resilience implying that students who can successfully manage their emotions, show a greater academic resilience (Neal, 2017). This supported Gross's (2001) theory where effective emotional responses management is associated with favorable psychological and behavioral outcomes. However, Crean (2004) demonstrated that emotional regulation is equally important in the educational environment. It contributes to an increase in academic performance and lower emotional distress.

The anticipated mediational role of student–teacher relationships between cognitive emotive regulation and academic resilience was not backed by the data. The results do not agree with the theoretical predictions as per attachment theory (Bowlby, 1969) and self-system model of motivational development (Connell & Wellborn, 1991) which stress on the supportive relationships and their importance in developing psychological well-being and motivation persistence (Murray, 2018). Literature commonly outlines the positive effects of student–teacher bonding on students' resilience and success provided in multiple dimensions, such as resilience (De Feyter et al., 2020; Decker et al., 2007).

Also, this does not suggest any mediation effect in the study but on the contrary it suggests that the interaction between student and teacher and the academic resilience is more complex than previously thought. It elicits debates on the immediate character of these impacts and the possible presence of other intervening or moderating variables missed in the current study. For instance, culture, as well as systemic factors within the educational systems, as well as the differential responses by the students to the relationships could all be key variables in determining the success of such interactions (De la Fuente et al., 2018).

The difference between the results that have been observed and the ones that have been predicted using the attachment theory and the self-system model calls for a critical rethinking of the level of these theories' generalizability across the diverse educational contexts. By providing valuable insights into the mechanisms by which social and self-affirming processes affect developmental outcomes, the existing models have established a connection that would make it crucial to have a more sophisticated view that can incorporate the challenges and experiences of the minority adolescents (Dunn & Brown, 2021).

This reexamination is especially relevant when Bronfenbrenner's ecological systems theory (1979) is taken into consideration, it focuses on the multilayered factors influencing individual development, such as the microsystem (e.g., family, school), mesosystem (e.g. interactions between different microsystems) and macrosystem (e.g., cultural norms). The specific aspects of the study highlight the necessity of paying attention to the broader ecological setting within which student–teacher relationships and emotional management processes occur, indicating that factors beyond the immediate educational environment should not be excluded because they can contribute significantly to academic resilience (Durkee et al., 2019).

It is evident from this study's results that emotional regulation has the same role in the development of resilience; the key questions related to the mediating effects of student–teacher relationships were merely outlined. This gap creates an avenue for future research to investigate the dominant dynamics between students and their learning environment that entailed the use of qualitative methodologies to capture the complex patterns in the contexts of the learning environment (Morales & Trotman, 2005).

Second, the implications are also important with regards to educational practice. They argue that interventions that give priority to developing emotional regulation among minority

students can promote academic resilience. Also, they suggest that multifaceted student–teacher relationships should also be considered. Culturally sensitive teaching methodologies that consider and prize the dissimilar background, and experiences of students could be very good tools to build safe, supportive, and caring environments where resilience can grow (Durham, 2009).

Summarizing, this in-depth analysis showed the complicated nature of the relationships between the emotional regulation of learning, the connection with the teacher and the academic resilience in minority adolescent students. The integration into the recent literature and theoretical frameworks allows the findings to give both the alignment and the divergence that enrich the understanding of the relevance of these constructs. The study functions as a pertinent contribution to the broader discourse on educational psychology, as it underscores the complex interplay of internal and external factors in the realm of academic performance (Morales, 2014). With the journey ahead, it is evident that a multifaceted approach, which accounts for the ecological contexts of student development, is a key necessary factor to keep up with the progress of the understanding and support of academic resilience for diverse student populations (Mirza & Arif, 2018).

Implications

The significant role of student–teacher relations in the study carries some theoretical and practical implications. These are provided in the subsequent sections below.

Theoretical Implications

The research provides a strong theoretical foundation for an understanding of the interactive mechanisms that regulate cognitive and emotional control, and relationships among teachers and student's academic resilience. It subtly rephrases the debate by showing through

empirical examination that though emotional-cognitive regulation is a positive factor for academic resilience, the mediating function of the student–teacher relationship in this dynamic is less clear than assumed before. Moreover, when these processes interact the effects can vary. This result questions and enriches existing conceptual models like Gross's (2001) process model of emotional regulation and the self-determination theory, which indicated that the mechanisms of impact of student–teacher interactions on resilience are intricate and apparently dependent on a multitude of factors that current models do not account for (Lindsay et al., 2018).

The findings underscore the complexity of the mechanisms by which cognitive emotional regulation affects academic resilience, indicating that there can be other factors like peer support, family background, or personal strategies which are more important. Furthermore, it puts the spotlight on the possible differences in the roles and consequences of student–teacher relationships among different student populations because these relationships can vary depending on culture, context, and individual differences (Pascoe et al., 2020).

Furthermore, this finding raises the question of inclusion of environment systems into student–teacher relationships and emotional regulation. By Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1979), human beings are influenced by multifarious interrelated systems at different levels, from the immediate microsystems (e.g., family, school) to the broader macro systems (e.g., societal norms, cultural values). Therefore, the student–teacher relationship can act as a mediator and be affected by different aspects at various levels in these contexts, for example, school climate, community support or systemic inequalities (Boykin, 2020).

In summary, this examination of the mediatory function of student–teacher relationships between cognitive emotional regulation and academic resilience results in a contradictory anatomy that differs from certain existing theoretical proposals and previous empirical results.

Although the findings of the study did not reveal the statistically significant evidence in support of the postulated mediating role, it contributes to the discussion that is currently underway about the variables that affect the academic resilience of minority adolescent students (Orgilés et al., 2019). Spotlighting the intricacies and subtleties of these relationships, the work reveals the need for taking a multifaceted, ecology-centered way to comprehend and aid the academic resilience of the students. While you look at the matter, it is necessary to clarify the situations rendered mediators or moderators by student–teacher relationships in the relationship between emotional regulation and academic achievement, keeping in mind the varied experience of minority students, as well as their challenges in educational environments (Compas et al., 2017).

Researchers have explored the intricate relation among students' CER, student–teacher relation and academic resilience among minority high school students, which have challenged the stereotype that it is only plain too hard. This comparative assessment endeavors to contrast the results of the present study between recent literature and the theoretical foundations that explain these concepts, to clarify the ways these elements are connected to motivate / dis-motivate minority students' academic progression.

The implication of the study revolves around understanding the context of CER, the student–teacher interactions, and academic resilience with regard to minority adolescent students has major implications for educators, policymakers, and stakeholders that are dedicated to forging an inclusive and supportive educational atmosphere (McGee et al., 2019). This research does not only add to the theoretical framework of these concepts but also fills in the gaps found in the literature, offering suggestions that can guide the development of intervention and policy comprehensive enough to address the educational disparities between minority students and their majority counterparts.

Not only does the study address an important gap in the literature in regard to the experiences of minority adolescent students, but it also points out that there is no specific knowledge of this population in the current research. Research conducted before has typically disregarded these students' specific challenges and strengths as well as how the cultural diversity and experiences of marginalization that they had mold resilience (Li et al., 2019). This study contributes to highlighting the nuanced pattern of emotional control, relationship dynamics, and resilience that represents unique features of educational institutions that are inhabited by a diverse community. It contributes a dynamic aspect to the literature with the merger of an insightful analysis and verified evidence highlighting the role of culture, society, and system in an educational research and practice (Landers & Marin, 2021).

Practical Implications

The outcomes of this study are of utmost importance to the minority adolescent students, educators, as well as the community. In addition, students were able to identify the role of emotional regulation in developing resilience which is important for building strategies that enabled them to succeed in their academic pursuits. One important benefit of this understanding is that students learn how to participate in practice that makes them regulate their emotions better, therefore improving their academic outcomes and well-being (Green et al., 2013).

For educators, the study reinforces the necessity of creating a positive and nurturing classroom environment with students' emotional health equally important with academic performance. Aware of the multifaceted role of student–teacher relationships in determining the students' resilience, educators are encouraged to adopt pedagogies that use a culturally responsive approach that affirms the identity and experiences of the minority students. Therefore,

such methods contribute to development of trust and rapport which are fundamental for a quality teacher–learner relationship (Karlidag-Dennis et al., 2020; Kezar & Holcombe, 2020).

The study findings give the educators more reason to develop and integrate practical strategies to emotionally regulate the students within the classroom, as this yields better academic resilience. This knowledge provides evidence for the education system and pedagogical approaches to understand the connection between cognitive and emotional regulation as well as resilience. It is therefore important to introduce the curriculum that focuses on emotional intelligence, mindfulness training, and coping mechanisms in the hope that these help in a better way to handle academic challenges. This approach involves the shift of pedagogy toward greater holism in education that regards emotional health as core to academic achievement (Frondozo et al., 2022).

At the level of policy makers, they can take from these insights to provide policy organizations and administrations that promote and implement educational policies which include the emotional and social learning (SEL) in the curriculum. Hence, the practice of emotional regulation in academic resilience has become a cornerstone for education policies that prioritize SEL programs, teacher training in emotional intelligence, and the development of a supportive school climate to end up with a perfect system that meets the needs of a wide range of the learning community (Froiland et al., 2019).

A representation of study's outcome also has a bearing on a larger educational system such as school psychologists, counselors, as well as community organizations, indicating the importance of cooperating to promote pseudo- and emotional development of students (McCain et al., 2018). Initiatives that are enabling to develop a profound connection between students and teachers and also, give students the opportunity to learn of emotional regulation skills can help

achieve a more resilient student body, especially among minority groups that could face additional stressors (Frydenberg, 2018).

This study provides a significant contribution to the body of knowledge about academic resilience through the exploration of the intricate dynamics between multilevel factors. With cognitively based emotional regulation and student–teacher relations being investigated empirically, the study expands conceptual frameworks by offering a nuanced understanding to Gross's (2001) process model of emotional regulation and the self-determination theory. It reflects the multilayered nature of resilience in which although emotional regulation is an important internal asset, the external interactiveness of student–teacher relationships do not always as previously presumed protect against its psychosocial effects (Gabrielli et al., 2021).

While the study augment specific problems and merits of students to get due attention and educators become enthusiasts of practices that are culturally, socially, and individually sensitive, literature lacks a thorough understanding of how minority adolescents' CER, student–teacher interactions, and academic resilience interact (Garnefski, Hossain, et al., 2017; Garnefski & Kraaij, 2006).

The present study is a considerable contribution to the existing body of knowledge about the link that can be drawn from CER, student–teacher relationships, and academic resilience culture among minority adolescent students. As a part of its theoretical and empirical contributions, it helps bridge the scholarly gaps by providing new insights and evidence that can materially affect the stakeholders that are students, educators, and even the communities (Masten & Barnes, 2018). This culminates into practical recommendations which focus on enhancing the academic resilience among the minority teens, with a consequent outcome of better educational outcomes for such students (Greaves et al., 2021).

Communities, in turn, benefit by being able to understand the key role of education systems in helping minority students to achieve resilience and success. Communities, parents, and policy makers can use these insights to lobby for educational practices that put emotional and social learning, cultural sensitivity, and systemic support for students and teachers at the core (Heffernan & Ward, 2017).

After gathering information from the research outcome, the suggestions that can be applied and intervention points include improving academic resilience among students. Schools can combine social and emotional learning (SEL) that targets specifically emotional regulation skills and helps students recognize and use coping mechanisms against stress, personal difficulties and improving relationships (Kay, 2016). Development opportunities for teachers who have cultural competence, emotional intelligence and strategies for empowering student resilience can be additional tools to produce effective student–teacher interactions. Also, students and their families must become more networked with the educational system, community organizations, and with this student as well as society were educated about the importance of resilience and wellness for successful learning (Kay & Merlo, 2020).

In general, this study reveals the complex patterns of CER, student–teacher relationships, and academic resilience in particular minority adolescent students. It is an efficient addition in terms of theoretical discussion as it fills the empirical literature gaps and puts forward practical implications for stakeholders. The results highlight the importance of comprehensive approaches that consider not only the emotional, social, and cultural dimensions of educational resilience but also the relationships between them. Going forward, it is important to continue examining these choices, making sure that research, policy, and practice are consistently on course to deal with the varied needs and abilities of all students. This research goes beyond understanding and

propels into collective efforts to create classroom environments where every student is a success (Helgeson, 2011).

Limitations

Although this research provides useful information on the relationship between CERs, student–teacher relationship, and academic resilience among minority adolescent youths, various limitations should be considered to put this study into a larger context. One of the major limitations is the correlational design of the study. This design makes the exploration of the relationship between variables easier, but it does not make it possible to establish causality. Thus, while the correlations between cognitive emotional regulation and academic resilience and the potential mediating role of student–teacher relationships were significant, the study cannot confirm that changes in one variable result in changes in another. This inherent weakness of correlational research calls for future studies that use experimental or longitudinal designs to assess causality (Claxton & Barthlow, 2024) more directly (Kahu & Nelson, 2018).

Another limitation has to do with the use of self-reported measures for evaluating CER, student–teacher relationships, and academic resilience. Although self-report instruments offer a lot of useful information about the self-perceptions and experiences of individuals, they are also vulnerable to biases such as social desirability and response bias, which sometimes distorts the data that is collected (Claxton & Barthlow, 2024). Future research could be improved by using a multimethod approach, such as observational data or teacher assessments, to provide a more holistic picture of these concepts.

The study’s sample is also a limitation. Centered on the minority adolescents, the results are not applicable to the entirety of students. The findings for minority students are affected by particular cultural, social, or systemic factors that are relevant to this group; hence, they are

unique and not common to all students. Although this is an advantage in bridging a research gap the findings have limited application to wider populations. More research with diverse samples is required to determine if the observed relationships occur universally (Claxton & Barthlow, 2024).

Threats to internal validity such as maturation, history, and selection bias were considered and minimized as much as possible in the design and methodology of the study. On the other hand, the cross-sectional nature of the data collection makes it difficult to control for all the confounding variables or changes over time. Longitudinal studies can provide helpful results on the changes of the relationship between CER, student–teacher relationships, and academic resilience during adolescence (Hughes & Cao, 2018).

External validity, or the degree to which the findings are generalizable beyond the study sample, is also a concern. The contexts in which the study was conducted, including the geographical location, educational systems, and cultural backgrounds of the participants, affect the relationships observed. Replication studies are essential in different settings to verify the findings and evaluate their effectiveness in different student populations (Claxton & Barthlow, 2024).

In addition to this, the study did not deeply investigate the possible moderating or mediating variables that could affect the relationships between CER, student–teacher relationships, and academic resilience. The next research should consider aspects like family support, peer relations, and school climate which have a huge impact on these dynamics (Hu et al., 2019).

Furthermore, the incentive of extra credit points for students' graders from their teachers and VISA gift card compensation may have acted as factors of coercion and influenced students'

willingness of participation and provided responses. This potential coercion is a noted limitation because of the possible impact of validity of the data collected. Students who were struggling academically or financially may have felt pressured to participate because they were driven by their needs. Responses potentially may have been rushed, thoughtless, or influenced solely by the desire to complete the survey quickly to obtain the offered incentives. Ultimately, this could have resulted in data that was not reflective of their true experiences, introducing significant biases in the study.

Students with disabilities, developmental delays, and language barriers such as English language learners (ELLS) were also not explicitly accounted for in this study. These oversights were noteworthy as these factors could impact students' overall understanding and comprehension of academic resilience and their responses to the survey. Factors associated with students' language backgrounds could reduce the accuracy and validity regarding their content knowledge (Abedi, Courtney, & Leon, 2003). Accommodations during tests are frequently provided to students with disabilities to eliminate unconnected obstacles to ensure an accurate assessment of their knowledge and skills (Sireci, Scarpati, & Li, 2005). Students who were identified as ELLS may have struggled with understanding the terminology of the questions being asked. Not being proficient in English could have impacted their ability to reflect their experiences and perceptions of academic resilience, cognitive-emotional regulation, and student-teacher relationships. Future research should ensure that students who require accommodations are identified and that their specific accommodations are met, which may include but are not limited to translating questionnaire items, reading the survey aloud, or providing extended time to enhance their performance and ensure both comprehension and accurate responses (Sireci, Scarpati, & Li).

In sum, though the research knowledgeably explains the impact of some variables on the academic resilience of the minority students, the shortfalls listed above should be considered when directing similar studies and defining their next steps. The directions above were vital to address these limitations in future studies for the development of more targeted interventions that target the achievement of the minority students. Such acknowledgements highlight the necessity for more critical deliberations on results, leading to a more sophisticated interpretation and application in practice and policy (Claxton & Barthlow, 2024).

Recommendations for Future Research

Future research would examine other moderators of these relationships (Tudor & Spray, 2017). The findings inform minority teen cognitive emotional management interventions that enhance academic resilience. Recent findings suggest that curricula should reflect the modest importance of student–teacher connections (Trigueros et al., 2020). On the basis of the findings of this research, which explored the effect of cognitive emotional regulation as well as student–teacher relationship on academic resilience among minority adolescent students, there are several opportunities that the future research on this subject can exploit (Hodges, 2017). These recommendations are a step forward toward improving the knowledge base about these complicated situations and literacy on the response to the educational environment.

The future studies are able to set a boundary in determining the universality or specificity of the findings by involving different populations. Studies could be made concentrating on students from different cultural backgrounds, age groups, or educational systems to contrast and compare the relation between cognitive emotional regulation and psychological resilience among students as well as the impact of student–teacher relationships on resilience in academics. This

brings the informative data as to how these dynamics are influenced by cultural, developmental, and systemic factors.

However, the tools of this study have been great in provision of quality data, the different employed measures of CER, student–teacher relationships, and academic resilience could deepen the understanding. Further work is needed in the future as it would use tools to capture the details of these constructs completely or would be designed for the purpose of serving the different populations and such that the findings were reliable and valid.

A different research design, for example, based on an experimental or longitudinal study could complement the current findings on CER, student–teacher relationships, and academic resilience. Longitudinal studies, for example, can be employed to help track changes over the course of time, thus giving evidence of the relationships and the effect they have on the students' academic performance (Herrero Romero et al., 2019).

Future studies could use some more advanced data analysis methods like SEM or HLM to study the interactions between variables in great detail. With the use of advanced statistical methods these direct and indirect effects on academic resilience in research about cognitive emotional regulation and student–teacher relationships can be unfolded providing a more complicated view of these relationships.

Employing qualitative methods in future study can supplement the current results and further research CERs and student–teacher relationship's link to academic resilience. Interviews, focus groups, or case studies can be the sources of detailed stories of students' activities that reveal the complex ways in which the factors under consideration could affect the resilience of education in real-life settings.

A mixed-methods method, which combines the quantitative and qualitative methodologies, allowed for the building of a more complete perspective of the study issues. The method enables the triangulation of data, thereby making the findings more robust and yielding a much more vivid picture of the intricacies of the academic resilience which is within the minority students.

Future studies could apply various approaches, for example, intervention studies posing to elevate students' cognitive emotion-regulation skills or strengthen the bonding between teachers and students. These research contributions can open the opportunity for developments toward targeted academic resilience interventions, and the potential knowledge can be extremely useful for educators, policymakers, and practitioners (Henderson & Milstein, 2003).

Each of these recommendations can yield tremendously to unravel the intricate complexity of CER, student–teacher relationships, and academic resilience. Through the study of these dynamics using a number of lenses and methodologies, researchers can expand upon the foundation built by this research and develop further, more efficient methods of supporting the education and well-being of minority teenagers.

Overall, the study revealed crucial insights about cognitive emotional regulation and student–teacher relationships in shaping minority adolescent children's academic resilience, as well as several research opportunities. The statistically substantial positive link between cognitive emotional control and academic resilience emphasizes the relevance of emotional regulation abilities in academic success. The student–teacher relationship did not directly affect academic resilience or mediate cognitive emotional control and academic resilience, but it is still crucial to have strong ties with instructors. Such results challenge some educational psychology beliefs and suggest more complicated relationships between academic success determinants than

previously considered. Theory-wise, this study examines the controversy over emotional regulation in education and finds a link between emotional management and academic resilience. The study's findings suggest that student–teacher interactions may not always mediate resilience, calling into question the universality of their impact on student outcomes. The report provides educators, policymakers, and practitioners with useful advice. It underlined the need of developing emotional regulation curriculum and interventions and teaching pupils cognitive, social, and emotional abilities. To comprehend the student–teacher connection, culturally responsive pedagogies must take into account student variations and experiences.

Summary

The chapter discusses the findings of this research study, which focuses on the impact of cognitive emotional regulation and student–teacher relations on the academic resilience of minority adolescent students. The research adopted a qualitative design with a correlational approach to quantitatively examine these variables. It explores the relation between cognitive emotional regulation and academic resilience, uncovering a moderate positive relationship that suggests that emotional regulation skills appear to be of great importance for students' ability to cope with stressors and academic difficulties. This finding fits with the findings of researchers that emotional regulation is key to academic success. and it brings new opportunities to explore the role of social environment for minority adolescents.

The study focuses on the influence of student–teacher relationships on academic resilience. No substantial associations were found between the level of these relationships and academic persistence among minority students. This has raised the issue of contextual factors informing these relationships and their ability to aid academic persistence, pointing to the promotion of culturally responsive pedagogies.

The second research question concerned the mediation of the relationship between cognitive emotional regulation and academic resilience by student–teacher relations. The results do not show a mediation effect, which indicates a more complicated connection between these factors than previously imagined. This implied that the other factors, probably cultural and systemic influences, have as much impact as well.

This chapter points out the need to consider cultural, social, and systemic factors to understand academic resilience among minority students. The findings imply that developing culturally sensitive emotional regulation and teaching strategies may promote academic resilience among minority groups. This conflict provided an opportunity to reconsider existing theoretical models and seek for more research to discover the complex interaction of internal and external factors underlying academic resilience. This study adds to the literature by providing fresh perspectives on the role of emotional regulation and student–teacher relationships in the academic success of minority teenagers and stresses the importance of holistic education that accounts for the diverse needs and experiences of students.

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Appendix A: Recruitment Flyer

Dear Parent or Guardian,

As a doctoral candidate in the School of Behavioral Sciences at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The purpose of my research is to examine students' cognitive emotional control and their relationships with their teachers to assess if these aspects contribute to their academic resilience and I am writing to invite your child to join my study.

Participants must be a 6^{th}-8^{th} grade student enrolled in STEP Charter School. Participants will be asked to take an anonymous, online survey. It should take approximately one hour to complete the procedure listed. Participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, please provide the following survey link to your child to complete the survey: https://liberty.co1.qualtrics.com/jfe/preview/previewId/fa29c130-4fac-42ad-b61e-8c836db1e0f9/SV_6EdvxQtIcRO3l6C?Q_CHL=preview&Q_SurveyVersionID=

A parental opt-out and child assent form are attached to this email and will be sent home with your child. The documents contain additional information about my research. If you choose to allow your child to participate, please review the parental consent form and provide the student assent form to your child to review prior to completing the survey.

Participants will be entered in a raffle to receive one of four $25 Visa gift cards.

Sincerely,

Sylvia Okpon
Doctoral Candidate
[redacted]

Appendix B: Demographic Questions

1. What is your age?
    - Less than 15 years
    - 16-20 years
    - More than 20 years

2. What is your gender?
    - Male
    - Female
    - Prefer not to say

3. What is your racial background?
   (Fill in the blank)

4. What is your socio-economic background?
    - High socioeconomic status
    - Middle socioeconomic status
    - Low socioeconomic status

5. What is your grade?
   Fill in the blank.

6. What is your relationship with parents?

    - Very close
    - Close
    - Neutral
    - Strained
    - Distant
    - Deceased

Appendix C: Parental Opt-Out

Title of the Project: Examining Influences of Academic Resilience Among Minority Middle School Adolescents

Principal Investigator: Sylvia Okpon, Doctoral Candidate, Community Care and Counseling Community Care and Counseling Department/School of Behavioral Sciences, Liberty University

Invitation to be Part of a Research Study

Your student is invited to participate in a research study. To participate, he or she must be a 6th-8th grade student enrolled in STEP Charter School. Taking part in this research project is voluntary.

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

What is the study about and why are we doing it?

The purpose of the study is the purpose of my research is to examine the minority students' (specifically African American and Hispanic) cognitive emotional control and their relationships with their teachers to assess if these aspects contribute to their academic resilience.

What will participants be asked to do in this study?

If you agree to allow your student to be in this study, I will ask her or him to do the following:

1. Complete an online, anonymous survey at school that will take no more than 1 hour.

How could participants or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study. Benefits to society include a contribution to the body of knowledge in the field of education, psychology, and minority studies, addressing existing and potential issues of minority students that hinder their academic resilience, and increase student success to close achievement gaps.

What risks might participants experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks your student 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 and the faculty chair will have access to the records. Participant responses will be

anonymous. Data will be stored on a password-locked computer. Hardcopy data will be stored in a locked file cabinet when not in use. After three years, all electronic records will be deleted, and all hardcopy records will be shredded.

How will participants be compensated for being part of the study?

Participants may be compensated for participating in this study. Upon completion of the survey, participants will show proof of survey completion to their teacher to receive a physical raffle ticket for a chance to win a $25 Visa gift card.

Is the researcher in a position of authority over participants, or does the researcher have a financial conflict of interest?

The researcher serves as a teacher at Houston Independent School District. To limit potential or perceived conflicts, data collection will be anonymous, so the researcher will not know who participated. This disclosure is made so that you can decide if this relationship will affect your willingness to allow your student to participate in this study. No action will be taken against an individual based on her or his decision to allow his or her student to participate in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to allow your student to participate will not affect your or his or her current or future relations with Liberty University. If you decide to allow your student to participate, she or he is free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should be done if a participant wishes to withdraw from the study?

If you choose to withdraw your student from the study or your student chooses to withdraw, please have him or her exit the survey and close his or her internet browser. Your student's 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 Sylvia Okpon. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted] or [redacted]. You may also contact the researcher's faculty sponsor, Tracy Baker, at [redacted]

Whom do you contact if you have questions about 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 IRB. Our physical address is Institutional Review Board, [redacted]; our phone number is [redacted], and our email address is [redacted]

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.

Appendix D: Child Assent to Participate in a Research Study

What is the name of the study and who is doing the study?
The name of the study is Examining Influences of Academic Resilience Among Minority Middle School Students, and the person doing the study is Sylvia Okpon.

Why is Sylvia Okpon doing this study?
Sylvia Okpon wants to know if students having a healthy, academic relationship with their teacher can make them more successful academically.

Why am I being asked to be in this study?
You are being asked to be in this study because you are a student enrolled in 6th. 7th, or 8th grade at STEP Charter School.

If I decide to be in the study, what will happen and how long will it take?
If you decide to be in this study, you will take an online, anonymous survey that was sent to your parent, and it will take no more than one hour to complete.

Do I have to be in this study?
No, you do not have to be in this study. If you want to be in this study, then tell the researcher. If you don't want to, it's OK to say no. The researcher will not be angry. You can say yes now and change your mind later. It's up to you.

What if I have a question?
You can ask questions any time. You can ask now. You can ask later. You can talk to the researcher. If you do not understand something, please ask the researcher to explain it to you again.

Sylvia Okpon
[redacted]
Tracy Baker
[redacted]
Liberty University Institutional Review Board
[redacted]

Appendix E: Permission Request

Research Request (Additional Information)

Okpon, Sylvia Alice [redacted]
Tue 1/16/2024 4:18 PM
[redacted]

Hi Mr. Clark,

I hope you and your family are warm and safe in the current weather conditions. I sent an e-mail to you earlier today and I wanted to provide you with some additional information prior to your response.

I am currently conducting a research study for middle school students for my doctoral program. I have been on this journey even while working at STEP, which was originally one of my motivations for carrying out the study initially. I noticed how resilient the students were and what wonderful educators they had to teach and guide them, especially in a nurturing environment like the one at STEP. Some key things to be noted are:

1. I will not have to come to campus physically or interact with any students directly. Ashlyn has been working with me over the years and she is familiar with the research that is to be carried out. If allowed, I will have her under the supervision of Mr. Abara to be the facilitator of the study.
2. The questionnaire can be completed at home. This is to prevent disruption of any classroom instruction.
3. Collecting these surveys will not last longer than one week.
4. Students who participate will be entered in a raffle to receive a gift card of their choice.
5. I will provide you with the results of the study directly.

If you have any questions or concerns, please feel free to contact me. If you choose to allow this study, please reply to the first e-mail that was sent by me as it is the formal request. Thank you in advance!

Sylvia Okpon

[External] RE: Research Request (Additional Information)

[redacted]

Wed 1/17/2024 10:23 AM

To:Okpon, Sylvia Alice [redacted]

You don't often get email from [redacted]. Learn why this is important

---

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Thanks Sylvia,

Good to hear from you.

Sounds interesting, but we haven't done this in the past.

Let me speak to Mr. Abara about this first and we will get back to you.

William

[External] RE: Research Request (Additional Information)

[redacted]

Wed 1/17/2024 7:14 PM

To:Okpon, Sylvia Alice[redacted]
Cc:'Aabara' [redacted]

You don't often get email from [redacted] Learn why this is important

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[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Sylvia,

I spoke with Andre and you can proceed.

Good luck, I hope this helps you!

Willima

Appendix F: Survey Questions

Examining Influences of Academic Resilience Among Minority Adolescent Students

Start of Block: Demographic Questions

Q1 What is your age?

- ☐ Less than 15 years (1)
- ☐ 16-20 years (2)
- ☐ More than 20 years (3)

Q2 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Prefer not to say (3)

Q3 What is your racial background?

_____

Q4 What is your socioeconomic background?

- ○ High socioeconomic status (1)
- ○ Middle socioeconomic status (2)
- ○ Low socioeconomic status (3)

Q5 What is your grade?

_____

Q6 What is your relationship with parents?

- ○ Very close (1)
- ○ Close (2)
- ○ Neutral (3)
- ○ Strained (4)
- ○ Distant (5)
- ○ Deceased (6)

End of Block: Demographic Questions

Start of Block: Academic Resilience Scale (ARS-30)

Directions: Please read the following paragraph and do your best to imagine that you are in the situation being described: You have received your mark for a recent assignment, and it is a ‘‘failure’’. The marks for two other recent assignments were also poorer than you would want as you are aiming to get as good a degree as you can because you have clear career goals in mind and don’t want to disappoint your family. The feedback from the tutor for the assignment is quite critical, including reference to ‘lack of understanding’ and ‘poor writing and expression,’ but it also includes ways that the work could be improved. Similar comments were made by the tutors who marked your other two assignments. If you were in the situation described above, how do

you think you would react? Read each of the statements below and tick (□) the box between 1 (strongly agree) and 5 (strongly disagree) that best reflects how much you think each statement describes how you personally would react. Please make sure that you give a response to ALL the statements and try to be as sincere and precise as possible in your answers.

Q7 I would not accept the tutors' feedback.

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Neutral (3)
- ○ Disagree (4)
- ○ Strongly disagree (5)

Q8 I would use the feedback to improve my work.

- ○ Strongly agree (1)
- ○ Agree (2)
- ○ Neutral (3)
- ○ Disagree (4)
- ○ Strongly disagree (5)

Q9 I would just give up.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q10 I would use the situation to motivate myself.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q11 I would change my career plans.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q12 I would probably get annoyed.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q13 I would begin to think my chances of success at university were poor.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q14 I would see the situation as a challenge.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q15 I would do my best to stop thinking negative thoughts.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q16 I would see the situation as temporary.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q17 I would work harder.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q19 I would probably get depressed.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q20 I would try to think of new solutions.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q21 I would be very disappointed.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q22 I would blame the tutor.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q23 I would keep trying.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q24 I would not change my long-term goals and ambitions.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q25 I would use my past successes to help motivate myself.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q26 I would begin to think my chances of getting the job I want were poor.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q27 I would start to monitor and evaluate my achievements and effort.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q28 I would seek help from my tutors.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q29 I would give myself encouragement.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q30 I would stop myself from panicking.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q31 I would try different ways to study.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q32 I would set my own goals for achievement.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q33 I would seek encouragement from my family and friends.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q34 I would try to think more about my strengths and weaknesses to help me work better.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q35 I would feel like everything was ruined and was going wrong.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q36 I would start to self-impose rewards and punishments depending on my performance.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

Q37 I would look forward to showing that I can improve my grades.

- Strongly agree (1)
- Agree (2)
- Neutral (3)
- Disagree (4)
- Strongly disagree (5)

End of Block: Academic Resilience Scale (ARS-30)

Start of Block: Inventory Teacher Student Relationship (IT-SR)

Q82 Directions: Answer the following questions.

Q26 My teacher respects my feelings.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q27 I feel my teacher is successful as a teacher.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q28 My teacher accepts me as I am.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q29 My teacher can tell when something is upsetting me.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q30 I get upset easily at school.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q31 I get upset a lot more than my teacher knows about

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q32 My teacher trusts my judgment.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q33 My teacher helps me understand myself better.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q34 I tell my teacher about my problems and troubles.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q35 My teacher encourages me to talk about my difficulties.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q36 My teacher understands me.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q37 When angry, my teacher tries to be understanding.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q38 I trust my teacher.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q39 My teacher doesn't understand what I'm going through.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q40 Count on teacher need to get something off chest.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q41 I feel that no one understands me.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

Q42 If teacher knows sometimes bothering me, they ask me about it.

- Never true (1)
- Sometimes true (2)
- Often true (3)
- Always true (4)

End of Block: Inventory Teacher Student Relationship (IT-SR)

Start of Block: Cognitive Emotion Regulation Questionnaire (CERQ-short)

0 Directions: How do you cope with events?
Everyone gets confronted with negative or unpleasant events now and then and everyone responds to them in his or her own way. By the following questions you are asked to indicate what you generally think, when you experience negative or unpleasant events.

Q43 I think that I have to accept that this has happened.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q44 I often think about how I feel about what I have experienced.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q45 I think I can learn something from the situation.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q46 I feel that I am the one who is responsible for what has happened.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q47 I think that I have to accept the situation.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q48 I am preoccupied with what I think and feel about what I have experienced.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q49 I think of pleasant things that have nothing to do with it.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q50 I think that I can become a stronger person as a result of what has happened.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q51 I keep thinking about how terrible it is what I have experienced.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q52 I feel that others are responsible for what has happened.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q53 I think of something nice instead of what has happened.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q54 I think about how to change the situation.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q55 I think that it hasn’t been too bad compared to other things.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q56 I think that basically the cause must lie within myself.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q57 I think about a plan of what I can do best.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q58 I tell myself that there are worse things in life.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q59 I continually think how horrible the situation has been.

- (Almost) Never (1)
- Sometimes (2)
- Regularly (3)
- Often (4)
- (Almost) Always (5)

Q60 I feel that basically the cause lies with others.

- ○ (Almost) Never (1)
- ○ Sometimes (2)
- ○ Regularly (3)
- ○ Often (4)
- ○ (Almost) Always (5)

End of Block: Cognitive Emotion Regulation Questionnaire (CERQ-short)

Appendix F: Permission to Use Survey Questions

[External] Re: Permission to Use Scale

Chris Murray [redacted]
Mon 12/19/2022 12:26 PM
To:Okpon, Sylvia Alice [redacted]

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Hi, you can find the measure in apa psych net (apa tests) and it says in there that anyone can use for research purposes. So, yes you can use it and good luck with your work!

Christopher Murray
UNIVERSITY OF OREGON
CENTER ON HUMAN DEVELOPMENT

[redacted]

From: Okpon, Sylvia Alice [redacted]
Sent: Monday, December 19, 2022 10:14:37 AM
To: Chris Murray [redacted]
Subject: Permission to Use Scale

Dear Dr. Murray,

I hope this email finds you well. I am a graduate student in the Community Care and Counseling Department/School of Behavioral Sciences at Liberty University, and I am conducting research as part of the requirements for a doctoral degree. The current title of my quantitative research project is Examining Influence of Academic Resilience Among Minority Adolescents, and the purpose of my research is to examine the minority students' (specifically African American and Hispanic) cognitive emotional control and their relationships with their teachers in order to assess if these aspects contribute to their academic resilience. I am writing to request your permission to use the questions from your scale, Inventory of Teacher-Student Relationships (IT-SR). I would like to incorporate these questions as part of the survey instrument for my study that will begin after my dissertation proposal this year. Thank you for considering th[redacted]pose to grant permission for the use of these questions, please kindly respond by email to sokpon@liberty.edu. Thank you for your time and consideration.

Sincerely,

Sylvia Okpon

[External] Re: Permission to Use

Simon Cassidy [redacted]
Tue 12/20/2022 7:33 AM
To:Okpon, Sylvia Alice [redacted]

3 attachments (838 KB)
ARS-30.pdf; REQUEST FORM_ARS-30.docx; Scoring Key.pdf;

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Dear Sylvia

We are attaching the scale and scoring key. Please do not distribute these and ensure that any copies of the scale, including those available via online platforms, are destroyed or removed once the project is complete.

Please complete and return the attached Request Form for our records. Best of luck and we look forwarding hearing about your work when it is available.

- Cassidy, S. Mawdsley, A. , Langran, C. Hughes, L. Willis, S.C. (2022). A Large-Scale Multicentre Study of Academic Resilience and Wellbeing in Pharmacy Education. American Journal of Pharmacy Education, 86(2). DOI: https://doi.org/10.5688/ajpe8998

Best wishes,

Dr SIMON CASSIDY CPsychol CSci AFBPsS SFHEA
Senior Lecturer in Psychology
Programme Leader MSc Applied Psychology (Therapies) /
School of Health and Society
[redacted]
T: [redacted]
University of Salford [redacted] / www.salford.ac.uk health-society-small

the british psychological society
chartered psychologist

Member of the Academic Resilience Consortium

Permission to Use

Okpon, Sylvia Alice [redacted]
Mon 12/19/2022 12:16 PM
To: [redacted]

Dear Dr. Cassidy

I hope this email finds you well. I am a graduate student in the Community Care and Counseling Department/School of Behavioral Sciences at Liberty University, and I am conducting research as part of the requirements for a doctoral degree. The current title of my quantitative research project is Examining Influence of Academic Resilience Among Minority Adolescents, and the purpose of my research is to examine the minority students' (specifically African American and Hispanic) cognitive emotional control and their relationships with their teachers in order to assess if these aspects contribute to their academic resilience. I am writing to request your permission to use the questions from your scale, Academic Resilience Scale (ARS-30). I would like to incorporate these questions as part of the survey instrument for my study that will begin after my dissertation proposal this year. Thank you for considering this request. If you choose to grant permission for the use of these questions, please kindly respond by email to [redacted] Thank you for your time and consideration.

Sincerely,

Sylvia Okpon

Sylvia Okpon

Permission to Use Scale

Okpon, Sylvia Alice [redacted]

Mon 12/19/2022 12:12 PM

To: [redacted]

Dear Dr. Garnefski and Dr. Kraaij,

I hope this email finds you well. I am a graduate student in the Community Care and Counseling Department/School of Behavioral Sciences at Liberty University, and I am conducting research as part of the requirements for a doctoral degree. The current title of my quantitative research project is Examining Influence of Academic Resilience Among Minority Adolescents, and the purpose of my research is to examine the minority students' (specifically African American and Hispanic) cognitive emotional control and their relationships with their teachers in order to assess if these aspects contribute to their academic resilience. I am writing to request your permission to use the questions from your scale, The Cognitive Emotion Regulation Questionnaire (CERQ-short). I would like to incorporate these questions as part of the survey instrument for my study that will begin after my dissertation proposal this year. Thank you for considering this request. If you choose to grant permission for the use of these questions, please kindly respond by email to [redacted]. Thank you for your time and consideration.

Sincerely,

Sylvia Okpon

[External] RE: Permission to Use Scale

Garnefski, N. (Nadia) [redacted]
Tue 12/20/2022 3:19 AM
To:Okpon, Sylvia Alice [redacted]

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Dear Sylvia

Thank you for your interest in the CERQ.
Please visit our website https://www.universiteitleiden.nl/en/research/research-projects/social-and-behavioural-sciences/cognitive-emotion-regulation-questionnaire-cerq and fill in a request form to obtain permission to use the CERQ.

Kind regards

Nadia Garnefski

****
N. Garnefski, PhD.
Associate Professor
Faculty of Social and behavioural Sciences
Division of Clinical Psychology
[redacted]
tel: [redacted]
fax: [redacted]
email: [redacted]

[External] CERQ for research approved

[redacted]

Tue 12/20/2022 10:27 AM

To:Okpon, Sylvia Alice [redacted]

You don't often get email from [redacted] Learn why this is important

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[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

Dear Sylvia Okpon

Your request for the use of the CERQ has been approved

You can download the CERQ here.

The password is [redacted]

Please only download the files you have permission for. The password changes regularly, don't wait too long for obtaining your downloads.

This mail has been automatically generated, please do no reply directly.

For more information mail to Nadia Garnefski or Vivian Kraaij

Appendix G: IRB Approval

[External] IRB-FY23-24-182 - Initial: Initial - Expedited

[redacted]

Tue 1/30/2024 12:50 PM

To:Okpon, Sylvia Alice [redacted] Baker, Tracy N (Community Care and Counseling) [redacted]

[EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content.]

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

January 30, 2024

Sylvia Okpon
Tracy Baker

Re: IRB Approval - IRB-FY23-24-182 Examining Influences of Academic Resilience Among Minority Middle School Students

Dear Sylvia Okpon, Tracy Baker,

We are pleased to inform you that your study has been approved by the Liberty University Institutional Review Board (IRB). This approval is extended to you for one year from the following date: January 30, 2024. If you need to make changes to the methodology as it pertains to human subjects, you must submit a modification to the IRB. Modifications can be completed through your Cayuse IRB account.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

For a PDF of your approval letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study Details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your stamped consent form(s) and final versions of your study documents can be found on the same page under the Attachments tab. 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.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office