Quantitative Examination of Spiritual Intelligence as a Predictor of Emotional Resilience, Self-Efficacy, General Well-Being, and Academic Achievement Among College Students

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Abstract

The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being. The purpose of this quantitative, descriptive, and correlational study was to describe the levels of spiritual intelligence among undergraduate college students and examine their associations with and contributions to variance in measures of emotional resilience, self-efficacy, general well-being, and academic achievement, measured as grade point average. A convenience sample of 138 undergraduate students between 18 and 25 years of age enrolled full-time in a four-year public or private nonprofit or for-profit university within the United States completed an online survey to collect data on all variables. The final path model demonstrated that students with higher levels on the spiritual intelligence subscale of personal meaning-making were better equipped to cope with academic and life challenges through improved emotional resilience, ultimately leading to better adjustment and general well-being in college. This sequential mechanism fuels resilience, which in turn boosts well-being—reflects the core assertions of spiritual intelligence theory and has been well supported by prior research. The fact that personal meaning-making, and no other spiritual intelligence subscales, demonstrated significant indirect effects through emotional resilience highlights the theory's emphasis on the meaning-making dimension as the engine of psychological adaptation and flourishing. However, the final path model was not a good fit with the data and future research and more data are needed to establish its validity. The results establish a baseline of data regarding spiritual intelligence within a sample of undergraduate college students and reveal the potential for integrating spiritual intelligence and related constructs into educational practices and policies for holistic approaches to student development.

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Chapter 1: Introduction

The mental health of college students is of critical importance as it influences their academic performance, along with other variables associated with retention, such as general well-being and self-efficacy (Antunes-Alves & Langmuir, 2021; Cavioni et al., 2020). Undergraduate students are vulnerable to external challenges and internal conflicts that may cause them to lose hope in their ability to reach their goals and fulfill their academic obligations, resulting in dropouts (Cavioni et al., 2020; Draaisma & Chiasson, 2019). These challenges often extend across developmental, social, academic, physical, mental, emotional, and financial domains. Moreover, anxiety, depression, and other mental health issues are currently of greater concern for university counseling centers than in the last 20 years (Auerbach et al., 2018). According to Sagar-Ouriaghli et al. (2020), 69% of university suicides are males, who are less likely to seek help and show lower rates of seeking help. Students navigate a complex and evolving network of factors and barriers to seek help with their mental health issues (Dunley & Papadopoulos, 2019). Additional factors, such as natural disasters (Wynne et al., 2019) and the COVID-19 pandemic, have also caused seemingly insurmountable stress levels among college students, affecting their academic performance and well-being (Warshawski, 2022). As a result, there is a growing need for institutions of higher education (IHEs) to deploy varied strategies to ensure student retention and targeted intervention approaches, within university policy and guidelines, to respond to calls for mental health support for students (Antunes-Alves & Langmuir, 2021).

For many students, transitioning into college comes with more liabilities or imposing obligations than benefits (Antunes-Alves & Langmuir, 2021). The National College Health Assessment (Alberta Reference Group, 2019) reported that of 55,284 students surveyed from 58

Canadian post-secondary institutions, 69% of them experienced anxiety at overwhelming levels. Fifty-one percent of those students reported feeling stifling depression to the point of losing functionality; 16% of those surveyed had seriously considered suicide as an option for ending their distress, and 2.8% had attempted suicide. The mental health crisis among college students has made its way into the media as it steadily increases and tragically lays claim to students' lives by suicide (Draaisma & Chiasson, 2019; Flanagan, 2018; Scelfo, 2015). Barriers to mental health support have been identified in three categories: stigma, lack of support and on-campus resources, and the severity of the current mental health problem (Drysdale et al., 2022). Additionally, the waiting list of students seeking mental health support on and off campus is very long despite the efforts of IHEs to meet the demands (Kupfer, 2020; Payne, 2019).

Using data from the National Healthy Minds Study from the National Institute of Health, Lipson et al. (2022) found that among all racial/ethnic groups, mental health worsened over the study period between 2013 and 2021; levels of flourishing decreased and depression and anxiety increased. Lipson et al. (2022) revealed a 135% increase in depression and a 110% increase in anxiety among all college and university students in their sample of over 350,000 students across 373 campuses. With a 50% increase since 2013, more than 60% of students self-reported they met criteria for one or more mental health problems. Lipson et al. (2022) also noted the same disparities in treatment access by race/ethnicity in 2013 as in 2021. This lack of progress toward equity adds to the disparaging elements affecting undergraduate student morale and their general sense of well-being (Lipson et al., 2022). Moreover, racial, and ethnic subgroups such as Native Americans are often omitted or combined in generalized groups when large-scale data are used which makes it impossible to fully understand their needs and access to mental health support and care. Structural racism also exacerbated the effects of the pandemic, bringing

disproportionate adverse effects to Native American, Latinx, and Black communities (Hooper et al., 2020; Kakol et al., 2021). Asian and Pacific Islanders, as another example, were objectified due to xenophobia caused by the COVID-19 pandemic (Hahm et al., 2021).

Institutions of higher education (IHEs) must continue to expand and explore avenues contributing to improved well-being and achievement (Chatterjee et al., 2022). As an example, a program titled From Intention to Action was developed to address the interrelated issues of student retention, mental health, distress, and retention. The program had consistent results after piloted at several post-secondary institutions across Ontario, Canada. Results consistently improved student mental health and retention (Antunes-Alves et al., 2018). These programs are not as ubiquitous as they should be. Regardless of existing programs and interventions, additional research is needed to examine other factors that could play a role in helping undergraduate students address challenges they encounter and to relieve further the burden IHEs report in battling poor retention.

Over the past 20 years, empiricists and theorists have provided various models emphasizing different aspects of the coping process. Some have explored the role of spirituality in providing significance and meaning through challenging experiences (Wright et al., 2018) and how it allows one to be confidently accountable for maintaining control and finding comfort through fellowship and a relationship with God (Holmberg & Vetere, 2021; Kornas-Biela & Zysberg, 2020). Beyond spirituality, spiritual intelligence (SI) is one factor that needs additional attention (Lee-Fong et al., 2022). King (2008) defined SI as “a set of mental capacities which contribute to the awareness, integration, and adaptive application of the nonmaterial and transcendent aspects of one’s existence, leading to such outcomes as deep existential reflection, enhancement of meaning, recognition of a transcendent self, and mastery of spiritual states" (p.

57). Characteristics such as the adaptive use of mental capacities and skills in everyday life distinguish SI from spirituality, though they are related. Spiritual intelligence integrates spiritual experiences with religious beliefs and practices in innovative and resourceful ways (Lee-Fong et al., 2022). In a world where millions of gods and goddesses are worshipped in at least 12 recognized religions, spirituality and religion are inseparable aspects of people's lives that affect how individuals live, think, and behave (Swaran Lata, 2020). People seek comfort and refuge within the concept of a higher power, and for many, self-efficacy and quality of life are enhanced by their SI (Holmberg & Vetere, 2021; King & DeCicco, 2009; Lee-Fong et al., 2022; Nasrollahi et al., 2020; Pourkord et al., 2020).

Emotional resilience (ER) is another factor that may work in concert with SI and should be examined to a greater degree in the context of student well-being, self-efficacy, and academic achievement. Emotional resilience refers to an individual's ability to produce positive emotions despite negative emotional stimulation and adapts to external experiences that would otherwise impede psychological well-being by recovering quickly (Anyan & Hjemdal, 2016; Scholes, 2013; Warshawski, 2022). Development of ER is not incorporated into the general curriculum of early education and secondary education; rather, such curriculum is reserved for social work and psychological professionals for use in remedial programs targeting victims, survivors, and marginalized populations (Dörra & Perels, 2019; Holmberg & Vetere, 2021; Lee-Fong et al., 2022; Malandraki, 2022). Challenges and events that threaten individuals as they encounter them in daily life are known as negative life events, and they trigger anxiety and a host of other maladies (Li et al., 2020). Emotional resilience can mitigate the risk of maladjustment, depression, anxiety, unhappiness, failed relationships, interpersonal violence, substance abuse, and unhappiness (Anyan & Hjemdal, 2016). Spiritual intelligence also encompasses mental

capacities, skills, and abilities that allow for adaptive use in everyday applications such as problem-solving (Emmons, 2000a; King & DeCicco, 2009). Spiritual intelligence may contribute to emotional resilience and provide students with additional capacity to overcome events and situations that would otherwise inhibit their mental or physical resources by helping them recognize and manage emotions, establish positive relationships, solve problems effectively, and ultimately enhance academic performance (Emmons, 2000a; Grant et al., 2003; Yap et al., 2022).

The World Health Organization (WHO) defined well-being as "a positive state experienced by individuals and societies" and wellness as "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity" (Chatterjee et al., 2022, p. 2). Even though stressors and traumatic experiences endured by individuals pose a threat to their psychological well-being, the experience of traumatic events can also lead to personal growth in individuals of significant SI (Lee-Fong et al., 2022). For example, resilience and spiritual growth can occur when refugees can positively reframe traumatic experiences to derive significant meaning from them (Calhoun & Tedeschi, 2014). During instances of existential crisis and in times of tremendous adversity, SI can be highly adaptive (King, 2008). For many, isolation experienced during trauma, loss, and death of loved ones can cause life to appear void of meaning and significance (King & DeCicco, 2009). Spiritual intelligence can contribute to the awareness of a transcendent self, which can support the construction of new meaning via existential contemplation and help one to make sense of past events and present circumstances (Lee-Fong et al., 2022).

Research supports that SI and ER positively contribute to general wellness and quality of life (Cavioni et al., 2020; Drigas & Mitsea, 2020; Holmberg & Vetere, 2021; Malandraki, 2022). Self-efficacy (SE), one's confidence in their ability to execute behaviors they believe are needed

to accomplish a targeted performance or achievement (Bandura, 1997), is an additional construct relevant to and often intertwined with how students behave and approach challenges they encounter. For example, students reporting lower levels of SE and ER are at a higher risk of stalling their academic progress (Guo et al., 2019). Guo et al. (2019) found a negative association of ER and SE with academic procrastination, and SE bridged the relationship between ER and academic procrastination. A lack of SI and ER is conducive to rumination, anxiety disorders, and anhedonia, among other maladies (Barthel et al., 2020; Holmberg & Vetere, 2021). Further research is needed that focuses on how these variables may work in the context of one another and the role they can play specifically with undergraduate students in addressing the challenges they encounter that can influence retention. If SI and ER do indeed play significant roles in variables of interest such as well-being, self-efficacy, and achievement, then IHEs can focus some of their efforts on programs to increase these capacities in students.

Statement of the Problem

The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020). Duffy et al. (2019) reported that mental health symptoms among undergraduate students have increased by almost 100% in the past 10 years, and mental health issues among college students indicate decreased academic success. In 2018, the WHO reported a significant need for mental health services, representing a major challenge to IHEs (Auerbach et al., 2018). Over the past 6 years, suicide and self-harm have become more prevalent among U.S. college students (Xiao et al., 2017). Antunes-Alves and Langmuir (2021) found that mental distress negatively impacts

academic functioning and performance, leading to dropout in college students. There is also a strong association between depression and undergraduate dropout rates (Lipson et al., 2022).

College students may lack substantial SI and ER to overcome challenges affecting their well-being, efficacy, and academic performance (Drysdale et al., 2022; Holmberg & Vetere, 2021; King & DeCicco, 2009). While strengthening students' SI and ER may reduce academic procrastination (Chatterjee et al., 2022; Drigas & Mitsea, 2020; Guo et al., 2019), more studies are needed to demonstrate the roles SI, ER, and SE can play in academic performance and wellbeing (Malandraki, 2022). More information is also needed regarding the congruence of various constructs and whether there are significant correlations across similar psychological constructs (Nishimi & Dunn, 2021; Ryff et al., 2019). The average levels of undergraduate students' SI and if and how it may work in concert with measures of ER, SE, general well-being, and academic achievement have not been thoroughly examined (Nishimi & Dunn, 2021). A country's long-term growth, prosperity, and economic stability rely heavily on increased levels of their population's level of education (Dörra & Perels, 2019; Nolan et al., 2021). As IHEs struggle to address undergraduate student retention and related mental health challenges, a continuing lack of knowledge regarding the role of SI may prevent the development of strategic interventions and opportunities for student development programs that could serve to improve student outcomes.

Purpose of the Study

The purpose of this quantitative, descriptive, and correlational study was to describe the levels of spiritual intelligence (SI) among undergraduate college students and examine their associations with and contributions to variance in measures of emotional resilience (ER), self-efficacy (SE), general well-being (GWB), and academic achievement, measured as grade point

average (GPA). Descriptive data on reported levels of SI, ER, SE, and GWB among undergraduate college students can help establish a baseline within this population and provide a foundation to evaluate their role in maintaining mental health when meeting the challenges faced during the college years. Examining relationships among these constructs and how they contribute to positive student outcomes can provide confidence in recommending practices for IHEs to implement programs and practices to promote SI and ER. The target population included undergraduate students between 18 and 25 years of age enrolled full-time in a four-year public or private nonprofit or for-profit university within the United States. An online survey administered using Centiment was employed to collect data on all variables. Spiritual intelligence was measured using the Spiritual Intelligence Self-Report Inventory (SISRI-24; King & DeCicco, 2009). The Connor–Davidson resilience scale (CD-RISC; was used to measure ER. Self-efficacy was measured using the abridged version of the Self Efficacy for Learning Form (SELF-A; Zimmerman & Kitsantas, 2007). General well-being was measured using the Mental Health Continuum Short Form (MHC-SF; Keyes, 2002). Academic achievement was measured using self-reported GPA. Convenience sampling was conducted through Centiment Data Collection Service. The target sample of 114 was determined using a G*Power sample size estimate calculated using F Test for multiple regression, with effect = .15; power set to .80, and nine predictors. A total of 138 members of the target population completed the survey. The first research question was answered with descriptive statistics. The second question was answered via correlational analysis. The remaining questions were answered using multivariate regression analyses and path analysis.

Introduction to Theoretical Framework

The theoretical framework serving to inform this study is an integration of (a) Emmons and McCullough's (2003) spiritual intelligence (SI), a set of related capacities and abilities that enable people to solve problems and reach goals in daily living, and (b) Malandraki's (2022) emotional resilience (ER) as a capability of being tested and stretched to the limit while maintaining the ability to rebound and find ways to cope with personal and professional challenges, often in the face of an unrelenting workload. According to Emmons (2000a), the four components comprising spiritual intelligence are: (a) the capacity for transcendence; (b) the ability to enter into heightened spiritual states of consciousness; (c) the ability to invest in everyday activities, events, and relationships with a sense of the sacred, and (d) the ability to utilize spiritual resources to solve problems in living. Noble (2000) added two additional core abilities in agreement with Emmons's (2000a) construct of spiritual intelligence: (a) the conscious recognition that physical reality is embedded within a larger, multidimensional reality and (b) the conscious pursuit of psychological health, not only for ourselves but for the global community.

Spiritual intelligence has been incorporated as a concept in some curricula (Chaudhary & Aswal, 2013; Emmons, 2000b; Noble, 2000). Midi et al.'s (2019) findings supported that SI is a viable predictor of academic achievement and psychological well-being. In their study, SI accounted for 40% of the variance in academic achievement and 25% of psychological well-being. Applying spiritual values to environmental adaptation and problem-solving led to greater academic achievement and psychological well-being among participants (Midi et al., 2019). Rakhshanderou et al. (2021) studied the relationship between SI and self-efficacy and revealed a positive and significant relationship between spirituality, spiritual capability, and self-efficacy.

In concert with SI, emotional resilience (ER) is a capability that can be honed and requires active engagement in self-care strategies to develop (Grant & Kinman, 2012). Malandraki (2022) described ER as a personal attribute that allows individuals to withstand and grow from adversity. The documented mental health challenges that threaten the nation's students have been regarded as a call to action, which in itself is an opportunity to increase the level and quality of education and training to incorporate education on wellness, self-care, and ER in its core curriculum, allowing students to develop life-long habits and capabilities (Malandraki, 2022). Shah and Galantino (2019) demonstrated that short, consistent ER instruction in getting centered, emotional awareness, emotional regulation, and communication and conflict management over a semester significantly improved self-esteem, emotional regulation, and communication competence.

Constructs of SI and ER are often examined in isolation from one another. However, they have been related to similar positive outcomes associated with academic achievement and well-being, such as self-efficacy. The environmental climate students are exposed to within their higher education institution plays a role in students' development of internal resources. Students' personal and academic resources serve as capital for academic performance and general well-being, contributing to personal and professional development. The academic environment can also play a role in helping students increase SI and ER as coping mechanisms for addressing and mitigating daily stress and problem solving (Rakhshanderou et al., 2021). The interest in benefits from SI and ER extends beyond academics and is conducive to outreach and growth experiences that student services can provide.

According to Rakhshanderou et al. (2021), the ability to trust in God, among other religious beliefs, is a precious resource that can eliminate weakness and increase self-efficacy,

one of many factors affecting students' performance. Rakhshanderou et al. (2021) argued that high self-efficacy leads to more significant effort, better performance, better mood, lower anxiety and depression, and potentially higher job satisfaction in the future. University officials should consider creating mechanisms conducive to promoting and improving SI and ER as they work towards providing more comprehensive and better services to address student mental health challenges. Thus, the theoretical framework integrating SI and ER served as an appropriate foundation for informing the study. It assisted in framing how to address the study problem and contributed to clearly defining variables of interest within the purpose of the study. Answering the research questions posed with regard to the variables of interest, expanded understanding and application of how these constructs might serve university stakeholders in determining practices and services that can address students' psychological and emotional vulnerability to external events and circumstances that impede their academic achievement, efficacy, and general well-being.

Introduction to Research Methodology and Design

A quantitative methodology was chosen to achieve the purpose of the study. The focus on describing relationships among the variables of interest and determining if and how SI contributes significantly to the variance in measures of ER, SE, GWB, and academic achievement necessitated a quantitative methodology. A quantitative methodology is most appropriate when predictability and generalizability are needed to provide external validity (Mertler, 2020). Within a quantitative methodology, stable and measurable data are collected and analyzed to describe, explain, manage, or predict the examined variables and phenomena (Gay et al., 2009), inform theory, and facilitate future studies. The focus of quantitative research is on objectivity, permitting future researchers to generalize findings related to similar populations and

contexts. These characteristics aligned with the goals of this study. This quantitative study required the calculation of (a) descriptive statistics to measure self-reported levels of spiritual intelligence, emotional resilience, efficacy, well-being, and academic achievement among undergraduate college students, (b) correlations to examine relationships between reported levels of spiritual intelligence, emotional resilience, academic achievement, self-efficacy, and well-being, and (c) multivariate regression and path analyses to determine any direct and indirect effects of SI, ER, and SE on undergraduate students' GWB and academic achievement.

The quantitative research designs chosen, descriptive and correlational, aligned with the study's purpose and the analyses required to achieve it. A descriptive design is appropriate when observational and survey search data are used to interpret the current status of individuals and settings (Mertler, 2020) and aligned best with reporting levels of SI and other constructs among undergraduate college students to help establish a baseline within this population and provide a foundation to evaluate its role in maintaining mental health when meeting the challenges faced during the college years.

A correlational design is appropriate when analyzing relationships between two or more variables is a research focus (Edmonds & Kennedy, 2017). From a research perspective, the word relationship means that an individual's status on one variable tends to be reflected on another variable or is associated with it forming a relationship (Edmonds & Kennedy, 2017). Traits, abilities, or conditions that covary, or co-relate, with each other are an essential part of correlational research in education as they provide an understanding of the nature and strength of the relationship between two or more variables (Mertler, 2020). Correlational designs also can be used to address research goals related to prediction (Edmonds & Kennedy, 2017). Measures of reported SE, GWB, and academic achievement allowed for examining relationships among these

constructs and for determining if and how SI contributes to predicting variance in ER, SE, GWB, and academic achievement (Bandura, 1997; Cavioni et al., 2020; Cefai & Cooper, 2017). Examining how these variables contribute to positive student outcomes provided confidence in recommending practices for IHEs to implement programs and practices to promote constructs identified as significantly contributing to desired student outcomes related to GWB and academic achievement (Chaudhary & Aswal, 2013).

Research Questions

RQ1

What are the reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students?

RQ2

What significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students?

RQ3

What direct effects do undergraduate college students' spiritual intelligence have on their emotional resilience, self-efficacy, general well-being, and academic achievement?

RQ4

What direct effects do undergraduate college students' emotional resilience and self-efficacy have on variance in their general well-being and academic achievement?

RQ5

What indirect effects, if any, do undergraduate college students' spiritual intelligence have on their general well-being and academic achievement within the final path analysis model?

Hypotheses

The first research question was descriptive, so no hypotheses were needed. The null and alternative hypotheses for the remaining questions are as follows:

$H2_0$

No significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students.

$H2_a$

One or more significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students.

$H3_0$

Spiritual intelligence has no significant direct effects on variance in undergraduate college students' emotional resilience, self-efficacy, general well-being, and academic achievement.

$H3_a$

Spiritual intelligence has one or more significant direct effects on variance in undergraduate college students' emotional resilience, self-efficacy, general well-being, and academic achievement.

$H4_0$

Measures of emotional resilience or self-efficacy have no significant direct effects on variance in undergraduate college students' general well-being and academic achievement.

$H4_a$

Measures of emotional resilience or self-efficacy have one or more significant direct effects on variance in undergraduate college students' general well-being and academic achievement.

$H5_0$

None of undergraduate college students' spiritual intelligence subscales have a significant indirect effect on their general well-being and academic achievement within the final path analysis model.

$H5_a$

One or more undergraduate college students' spiritual intelligence subscales have a significant indirect effect on their general well-being and academic achievement within the final path analysis model.

Significance of the Study

Cefai and Cooper (2017) and Weare and Nind (2011) performed systematic reviews of interventions related to mental health. They discovered that intervention programs must support universal mental health promotion and address social, emotional, and behavioral problems for maximum efficacy. Research in the field has identified complementary lines of intervention in school-based mental health initiatives aimed at enhancing mental health and well-being by encouraging the development of social and emotional competencies and resilience (Cavioni et al., 2020). However, a comprehensive framework that analyzes the relationship between the specific competencies of SI along with ER and SE and their contributions to GWB and academic performance is also needed to determine how these constructs work together in the context of one another, specifically in undergraduate students who are experiencing increasing reports of

psychological and emotional vulnerability to external events and circumstances that impede their academic achievement, efficacy, and general well-being, and the potential for targeted interventions that IHEs might be able to implement to combat decreasing retention.

Due to the complex, evolving, and varying network of factors adding to the multitude of barriers that students must face to navigate and receive help for mental health issues before they can effectively engage in academic pursuits (Dunley & Papadopoulos, 2019), the examination of relationships among SI, ER, SE, GWB, and academic achievement was pursued to explore possible avenues for IHEs to further consider for targeted efforts at supporting students' mental health and address academic achievement and retention. Evidence of relationships and indirect and direct effects of SI on ER, SE, GWB, and academic achievement might warrant additional examination into how student services programs can be designed to promote SI and ER towards prevention and mitigation of stress-related factors contributing to academic failure. Researchers have determined that improved ER impacts well-being; however, more studies are needed to show a direct or indirect impact on college students' academic achievement (Schoeps et al., 2020). The hope of this study was to fill the current gap in investigations of SI within college populations and its potential contribution to addressing the psychological and emotional vulnerabilities hampering undergraduate students' retention.

Definitions of Key Terms

Academic Achievement

Academic achievement is a multifaceted construct comprising different domains of learning. It represents a student's performance outcomes indicating their accomplishment of specific goals in school, college, and university. It also includes the acquisition of knowledge and understanding within specific intellectual domains. It involves critical thinking and reaching

cognitive goals across multiple subject areas (Steinmayr et al., 2014). For this study, the definition of academic achievement was modified by the indicators used to measure it.

Emotional Resilience

Emotional resilience allows people to readily adapt to external experiences that could impede psychological well-being. Such external experiences include major health problems in the family, the death of a loved one, divorce, and a lack of a supportive environment and relationships (Warshawski, 2022). A person's temperament or internal predispositions can also contribute to a person's ER or lack thereof (Pearce & Davis, 2021).

General Well-being

General well-being refers to a sense of purpose in life, self-acceptance, personal growth, positive relationships, environmental mastery, and autonomy that assure physical and psychological well-being (Ryff et al., 2019) and contribute to optimal wellness (Taormina, 2015; Tarnowska et al., 2020).

Self-Efficacy

Self-efficacy refers to an individual's reflective assessment of their power and ability to address life challenges and affect desirable outcomes (Bandura, 1997). A strong sense of efficacy is linked to an individual's belief in their ability to perform effectively and achieve proficiency (Zhang et al., 2022).

Spiritual Intelligence

Spiritual intelligence is the ability to utilize one's spirituality and cumulative experiences of a spiritual nature to mitigate the adverse effects of internal and external challenges (Yavuz & Dilmaç, 2020). Empiricists and theorists have provided various models emphasizing different

aspects of the coping process that are congruently aligned with the pivotal role of spirituality in providing significance and meaning through challenging experiences (Wright et al., 2018).

Summary

Today, mental health and emotional issues are a more significant concern for university counseling centers than in the last 20 years (Auerbach et al., 2018). College students' academic performance and general well-being hinges on their mental health and self-efficacy. Many external events and circumstances can impede students' academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020). Institutions of higher education must continue to expand and explore avenues contributing to improved well-being and achievement. The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020). College students often lack substantial SI and ER to overcome challenges affecting their well-being, self-efficacy, and academic performance (Drysdale et al., 2022; Holmberg & Vetere, 2021; King & DeCicco, 2009).

The purpose of this quantitative, descriptive, and correlational study was to describe the levels of SI among undergraduate college students and examine their associations with and contributions to variance in measures of ER, SE, GWB, and academic achievement, measured as grade point average (GPA). Data gathered from undergraduate college students can provide a foundation for evaluating the role of SI in maintaining mental health and their effect on academic performance. The theoretical framework is based on Emmons's (2000a) spiritual intelligence and Malandraki's (2022) emotional resilience as a set of related capacities and abilities that provide problem solving solutions and allow students to reach realistic goals and manage emotions when

faced with challenges (Mugisha, 2018). The examination of relationships among SI, ER, SE, GWB, and academic achievement is a significant pursuit in that such evidence might provide additional insight into how student services programs can promote students' capacities for managing challenges inherent in undergraduate students' pursuit of higher education to optimize student outcomes and increase retention (Schoeps et al., 2020). The following chapter presents a review of the literature using to inform and support this study.

Chapter 2: Literature Review

Students must navigate developmental, social, academic, physical, mental, emotional, and financial domains as they pursue their academic goals. Undergraduate college students' general well-being and academic performance are at risk when faced with internal and external events that challenge their ability to overcome challenges associated with one or more of these domains in order to continue pursuing academic progress (Kornas-Biela & Zysberg, 2020). Researchers addressing this crucial period often focus on factors and resources associated with students' resilience, adjustment, and performance in college (Antunes-Alves & Langmuir, 2021). Older studies have examined demographic variables (DeStefano et al., 2001), including ethnicity, culture, and background (Kalsner & Pistole, 2003), in relation to achievement and adaptation to college life. Others have explored intelligence and other cognitive-related abilities (Zuffianò et al., 2013). Personality traits like emotional resilience (ER) and self-efficacy (SE) are also commonly used constructs among studies examining student well-being and academics (Zimmerman et al., 1992). However, spiritual intelligence (SI) is an understudied construct within the college student population and in relation to what might contribute to students' general well-being during the college years. Spiritual intelligence, self-efficacy (SE), and emotional resilience (ER) are key variables that may contribute to variance in general well-being and, ultimately, academic performance and retention (Nishimi & Dunn, 2021).

Spiritual intelligence is a set of adaptive mental capacities based on non-material and transcendent aspects of reality (King, 2008). Early studies such as DeStefano et al. (2001) associated religiosity and effective coping with diverse life challenges. However, what DeStefano et al. (2001) referred to as religiosity is more likely regarded as SI in current research (Navya & Sharma, 2022; Pant & Srivastava, 2019; Pawar, 2018). Wright et al. (2018) regarded

religiosity and spirituality as spiritual connectedness, which is somewhat distinct from spiritual intelligence. Being spiritually connected has significant value and is a prerequisite for applying religiosity or spirituality in appropriate, meaningful ways, which requires spiritual intelligence.

Masten and Obradovic (2008) characterized resilience as the positive adaptation to any complex system upon facing challenging circumstances. Aman (2020) characterized individual resilience as the degree to which a person adapts to challenging situations without compromising their ability, ambition, and manner of achievement. Tranter et al. (2021) examined the influence of ER and the extent to which trauma victims perceive their traumatic events to be integral to their life on post-traumatic growth (PTG) and post-traumatic stress (PTS) following adverse childhood experiences (ACEs). Effective development and management of ER could positively affect psychological well-being. Resilience is characterized by an individual dispositional attribute with the ability to learn and grow from the experience (Mestre et al., 2017). Simultaneously, when faced with challenging circumstances, students' positive adaptability in any complex system requires a degree of self-efficacy (Masten & Obradovic, 2008) and confidence in their ability to adapt to challenging situations without making any changes to achieving their aspirations.

The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020). Mental health symptoms among college undergraduates has increased nearly 100% in the past ten years, indicating the need to consider the roles that mental health and well-being have to play in student decline in academic progress (Duffy et al., 2019). The role of student well-being in academic outcomes is under increased scrutiny within higher education environments. Nevertheless, there

is still a scarcity of evidence regarding associations between well-being and achievement-related behavior (Holzer et al., 2022), and studies on the relationship between well-being and achievement are inconclusive (Bücker et al., 2018).

The purpose of this quantitative, descriptive, and correlational study was to describe the levels of SI among undergraduate college students and examine their associations with and contributions to variance in measures of ER, SE, GWB, and academic achievement, measured as grade point average (GPA). Analysis of self-reported levels of SI, ER, and SE among undergraduate college students can provide descriptive statistics to establish a baseline within this population and a foundation for evaluating the contribution of these variables to levels of students' well-being and academic performance. Tyurina and Stavkova (2020) argued that the modern educational system is aimed primarily at developing the left hemisphere mechanisms of the brain, which are responsible for an analytical perception of reality, and rational, logical thinking, thus violating the conformity of nature principles in the process of perception and cognition of the world and depriving students of sufficient development of figurative, spiritual-intuitive thinking at all levels of contemporary education. The goal of the current study was to examine the possible role that SI might play in students' ability to psychologically and emotionally manage external events (i.e., ER) and circumstances that can impede their efficacy, general well-being, and academic achievement.

Current literature for inclusion, analysis, and synthesis was identified through conducting keyword searches using Northcentral University Library's Roadrunner Search Discovery Services of various databases. The databases included DOAJ, Journals@OVID, Open Access, OVID, ProQuest, Science Direct, and Wiley. Keywords used included: *spiritual intelligence, spirituality, religiosity, emotional intelligence, resilience, emotional resilience, self-efficacy,*

student mental health, academic achievement, academic progress, undergraduate students, and *psychological well-being*. The search parameters included full-text references and scholarly, peer-reviewed journals with publication dates from 2019 to 2025; older seminal works were also included as needed. This review of literature includes an examination of the SI and ER theoretical frameworks that explain why and how these variables may play critical roles in addressing the psychological and emotional vulnerability of undergraduate students and serve to build SE and GWB among undergraduate students such that they can manage challenges they encounter and make academic progress. The focus of the exploration of the current literature was on how concepts associated with SI, ER, and SE relate to students' general well-being (GWB) and academic performance. This review also included examination of research gaps regarding the multidimensionality of student mental health issues to better understand poor academic progress and retention rates among university students. The literature deemed most relevant to informing the current study was analyzed, synthesized, and organized for presentation within the following themes: (a) theoretical frameworks of spiritual intelligence and emotional resilience, (b) self-efficacy, (c) general and academic well-being, and (e) academic achievement.

Theoretical Framework

The theoretical framework serving to inform this study is an integration of (a) Emmons and McCullough's (2003) spiritual intelligence (SI) as a set of related capacities and abilities that enable people to solve problems and reach goals in daily living, and (b) Malandraki's (2022) emotional resilience (ER) as a capability of being tested and stretched to the limit while maintaining the ability to rebound and find ways to cope with personal and professional tragedy, often in the face of an unrelenting workload. To understand the complex criteria for sound academic performance, researchers and scholars over several decades have examined the critical

elements that influence academic performance and contribute to academic failure (Antunes-Alves & Langmuir, 2021; Auerbach et al., 2018; Warshawski, 2022). Integrated wellness is commonly conceptualized with many dimensions, yet few researchers have evaluated how spiritual, physiological, and psychological dimensions are related to overall wellness. Adams et al. (2000) explored the relationship between measures of spiritual and psychological wellness and perceived wellness in a college student population; their findings suggested that an optimistic outlook and sense of coherence must be present for life purposes in order to achieve an enhanced sense of overall well-being. Many researchers have examined constructs associated with well-being in the context of academics and professionalism. Researchers in the education and social sciences, nursing, and other helping professions have consistently revealed that more self-assured students have greater SE and are more resistant to poor clinical practice, are emotionally resilient, and manage stress more readily (Cavioni et al., 2020; Gardner, 1993; Green & Noble, 2010; Malandraki, 2022; Pourkord et al., 2020). However, a variable often absent of consideration is that of SI.

Noble (2000, 2001) argued that the construct of SI has both theoretical validity and practical implications. Spiritual experiences are precursors to SI and are conducive to self-actualization (Noble, 2000). In describing the construct, Green and Noble (2010) suggested that as an individual seeks to understand the meaning of their spiritual experiences and to intentionally integrate them into the totality of their life experience - including personal, community, and social levels - their capacity for SI evolves and the level of SI increases. Not to be confused with spirituality, SI is a product of spirituality (Gardner, 1995). Spiritual intelligence is essential for personal empowerment and can serve a role in conflict management and foster a

peaceful coexistence in society; SI enables one to maintain both inner and outer peace and to display love regardless of the circumstances.

To understand the difference between SI and spirituality, one must first recognize the distinction between what is defined as intelligence and what is known as a domain (Devi et al., 2017). Gardner (1995) discussed several myths that have evolved about multiple intelligences, such as the idea that intelligence is the same as a domain or a discipline or that intelligence is the same as a learning, cognitive, or working style. The biological ability to analyze certain kinds of information in specific ways is what Gardner (2011) identified as intelligence; in contrast, a domain is what he described as a culturally organized activity where individuals can be ranked in relative experience (Gardner, 1995). Moreover, separate from SI, spirituality or religion is distinguished by individuals' regard for sacred, transcendent realities (Gardner, 2011). Spirituality helps people cope with stressful work environments (O'Sullivan & Lindsay, 2023). However, spirituality is a controversial construct in psychological literature due to its practical and theoretical limitations (Atroszko et al., 2021).

The ability to utilize spiritual information derived from spiritual experiences to facilitate problem-solving makes SI a fundamental element in the current study (Green & Noble, 2010). Noble (2000) argued that the intelligent application of spiritual concepts and experience is critical to this process because the experiences can have significant biological, psychological, intellectual, and interpersonal effects. Such intelligence can aid in developing higher skills and tolerance of uncertainty (Chaudhary & Aswal, 2013). Spiritual experiences provide far-reaching insights into enigmatic issues and more significant phenomena of consciousness and ultimate reality (Green & Noble, 2010). Spiritual intelligence is an ability that distinguishes humans from other beings (Baezzat et al., 2019; Gardner, 2000). Baezzat et al. (2019) affirmed that SI is not

specific to any particular religion or spiritual orientation. Nevertheless, it provides self-awareness and self-control with a profound understanding of the meaning of life. It adds purposefulness, increases peace of mind, and facilitates the ability to communicate effectively with others, which supports mental health and enhances general well-being (Amram, 2009; Baezzat et al., 2019).

Emmons's (2000b) four core components of SI include (a) the capacity for transcendence, (b) the ability to enter into heightened spiritual states of consciousness, (c) the ability to invest in everyday activities, events, and relationships with a sense of the sacred or divine, and (d) the ability to utilize spiritual resources to solve problems in living. Emmons (2000a) included a fifth component in his original core components - the ability to engage in virtuous behavior - which he modified and later excluded (Emmons, 2000b). These competencies are standards for what Green and Noble (2010) defined as intelligence and what Mayer et al. (1999) considered as qualifying characteristics of intelligence. Rakhshanderou et al. (2021) considered spirituality the most crucial existential dimension among many people because it is a powerful force linked to positive and comforting emotional experiences (Farahaninia et al., 2006). Feldman and Snyder (2005) found that spirituality mitigated negative emotions conducive to anxiety and depression in life and reduced the risk of mental health diseases and disorders. Feldman and Snyder (2005) also noted that hope is a component common to all theories of meaning in life and discussed the effects of life meaning and hopeful goal-oriented models of hope on anxiety and depression. Snyder et al. (1991) defined hope as "a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy) and (b) pathways (planning to meet goals)" (p. 287).

Previous studies have demonstrated links between SI and psychological well-being (Atroszko et al., 2021; Bayrami et al., 2014; Bücker et al., 2018; Chan & Siu, 2016). Midi et al. (2019) showed that the more proficient students were at applying spiritual values when dealing with problems and adapting to new environments (i.e., using spiritual intelligence), the higher their academic achievements and psychological well-being. The findings of Lee-Fong et al. (2022) and Midi et al. (2019) provided insight to mental health professionals regarding the need to develop more culturally appropriate, holistic treatment plans for addressing trauma and indicated to educational administrators the value of SI as an academic construct for assuring academic and psychological well-being.

Charkhabi et al. (2014) examined students in an experimental group who received an intervention of SI. As a result, they experienced reduced anxiety, interpersonal sensitivity, somatization, depression, obsessive-compulsive, aggression, phobic, paranoid ideation, and psychosis compared to the control group. The concept of raising awareness among teachers and support from parents in integrating SI among students through the curriculum was a vital implication noted by Charkhabi et al. (2014). The new insight and perspective derived from a person's spirituality enables the person to find solutions for life problems and has other applications. There is a paucity of studies on how SI relates to the professional performance of individuals in higher education, despite the widespread interest.

The importance of mental health in schools has been addressed since the early 1900s (Cavioni et al., 2020). Many attempts to address mental health have come under social and emotional education, transpersonal education, emotional intelligence, SI, moral education, and others (Cavioni et al., 2020; Cefai & Cooper, 2017; Chan & Siu, 2016). Atroszko et al. (2021) investigated the factorial validity of the Polish version of King's Spiritual Intelligence Self-

Report Inventory (SISRI; King, 2008) in the context of research on a general factor of SI. Atroszko et al. (2021) aimed at empirically establishing validity to assure that it was possible to (a) estimate the distribution of the levels of SI in the population, (b) investigate its relationship with other variables, including antecedences and consequences, (c) conduct intervention studies to improve SI among students. The controversy of spirituality in psychological literature and a lack of widely accepted definitions of spirituality and consciousness hindered their study.

More recently, Giannone and Kaplin (2020) did not show any association of SI with anxiety, depression, or substance use in examining the relationships between SI components and mental health, suggesting that the model they used lacked cohesiveness about mental health. However, they did find an association between the capacity to critically examine existential issues with increased depression and anxiety and an association between the ability to draw meaning and purpose from experience with improvements in all mental health outcomes. Due to their findings, Giannone and Kaplin (2020) voiced some doubt regarding the construct of SI, inferring that existential thinking and drawing meaning from life experience may be more closely related to mental health instead. Di (2020) warned that becoming too occupied with day-to-day details and transactions of life can hinder one's awareness and consciousness. This is true given that consciousness is a natural and integral part of each individual and is fundamental to physical, mental, emotional, and spiritual functions. Individuals who tend to be overly engaged in materialistic or emotional concerns with limited consciousness limit their ability to connect with their deeper consciousness and capacity (Di, 2020).

The theoretical framework of the current study is based on the hypothesized relationships between SI and ER and several aspects of well-being that are primarily consistent with existing research (e.g., Bayrami et al., 2014; Giannone & Kaplin, 2020; Keykhosrovani et al., 2012;

Khosravi & Nikmanesh, 2014; O'Sullivan & Lindsay, 2023). Other correlational research has found that positive emotions build personal resources, contributing to ER and general well-being. (e.g., Fredrickson et al., 2003). The focus of the current study was on examining the relationship between SI as an independent variable and its association with ER, self-efficacy, well-being, and academic performance. In support of the role SI might play, Kinman and Grant (2014) believed that a pedagogy of education focusing explicitly on personal and social competencies such as spiritual and emotional intelligence is required within the affective domain of each student. While there may be overlapping elements and roles spiritual and emotional intelligence may play in daily life, the concepts can be distinguished and defined separately.

Emotional intelligence is defined as a person's ability to regulate their feelings and emotions and manage the same in others while being able to rationally lead all their thoughts and actions (Salovey & Mayer, 1990). Personal competencies within emotional intelligence also include self-awareness and self-management, and social competencies include social awareness and social management skills (Morrison, 2007). Emotional intelligence is comprised, in part, of personal and social intelligence; it involves the ability to make specific use of the knowledge derived from emotional experiences to become psychologically flexible and to develop better insight and confidence, a positive approach, good problem-solving abilities, and a compassionate, collaborative, or helping attitude and to convey their emotions appropriately as well and are psychologically flexible.

In contrast, emotional resilience (ER) refers to an individual's ability to produce positive emotions and recover quickly from negative emotional stimulation (Li et al., 2020). A lack of ER poses a risk factor for psychological problems, including mood disorders, depression, anxiety, and mania (Anyan & Hjemdal, 2016; Wang et al., 2016); Substantive ER, on the other hand, is

conducive to positive emotional bias among individuals (Arce et al., 2009). The qualities and characteristics of ER arise from emotional intelligence (Atroszko et al., 2021). Although emotional resilience and emotional intelligence are directly related to individuals' well-being (Bano & Saba, 2020), there is no empirical determination of their mutual inclusivity or exclusivity. Emotional resilience provides evidence of the existence of emotional intelligence in an individual, and it would stand to reason that emotional intelligence may automatically develop as a result of a cyclical feedback mechanism.

Yang et al. (2022) described the concept of resilience as an emotional practice that accounts for a singular dimension of emotion in the discourse of teaching. Ong et al. (2006) found that differences in psychological resilience accounted for significant variations in everyday emotional responses to stress. Those with higher levels of trait resilience tend to show weaker associations between positive and negative emotions, especially on days with higher stress levels. They also found that, over time, the experience of positive emotions reduced the recovery time, allowing individuals with high resilience to recover quickly from daily stress.

Emotion is commonly emphasized in relevant discussions of ER, even though its exact meaning is often disputed. Emotions have multiple functions (Fried et al., 2015); especially positive emotions, which play a vital role in the processes of building and sustaining resilience, which is a complex, dynamic, and multidimensional phenomenon conceptualized as the capacity for positive adaptation and perpetual commitment and growth in the face of challenging circumstances. Various aspects of this complexity are revealed via diverse theoretically focused perspectives (Yang et al., 2022). Resilience helps to process emotional experiences among intricately woven constructs. Emotional resilience helps students establish and develop an integrated academic identity (Yang et al., 2022).

Etherton et al. (2022) explored underlying mechanisms through which ER may affect academic outcomes, especially in academic contexts. They used self-regulation theory as a framework for examining the effects of student resilience on outcomes. Using a path model analysis from data of a sample of 141 undergraduate students from a Midwestern university in the U.S., Etherton et al. (2022) tested state anxiety, self-set goals, and self-efficacy as mechanisms through which resilience influences performance and subjective well-being. They found evidence supporting their structural model wherein student resilience (a) indirectly affected performance via self-efficacy and self-set goals, (b) indirectly affected state anxiety via self-efficacy, and (c) accounted for unique variance in subjective well-being after controlling for state anxiety. Their study was limited by the academic context wherein some measures were academic-focused while others were more global. In the academic context, they measured self-efficacy, self-set goal level, and performance and observed a significant indirect effect of resilience on performance. In the more global context, however, they measured subjective well-being through state anxiety and failed to observe an indirect effect of resilience on subjective well-being (Etherton et al., 2022).

Emotional resilience is derived from emotional intelligence, wherein individuals learn to manage and regulate their emotional environment at personal and social levels (Aman, 2020; Gardner, 1993; Mayer et al., 1999; Pourkord et al., 2020). Grant (2014) stated that social workers' well-being, professional judgment, and practice all hinge upon the accuracy of their empathy. Utilizing a multidimensional model of ER and examining how these factors relate to general well-being provided greater insight into the construct of ER and the potential influence the development of an emotional curriculum for students could have on building resilience. The inter-relationships between various competencies and their impact on academic performance are

also vital (Grant, 2014). Engagement, assessment, observation, decision-making, planning, and interventions are skills and abilities that can be developed in undergraduate education (Grant, 2014; Kinman & Jones, 2001; Morrison, 2007). The World Health Organization's (WHO) Global School Health Initiative of 2000 emphasized the importance of improving the psychosocial environment in schools to foster emotional and social well-being (Auerbach et al., 2016).

Mugisha (2018) cited a case study in England wherein researchers tried to support students struggling in their social work placement due to a lack of ER, making a case for an ER or emotional intelligence curriculum. Mugisha (2018) contended that current social work educators and education policymakers lacked the wherewithal to develop an ER curriculum relevant to social work practice. The development of ER, self-awareness, and how the concept of resilience is perceived through reflective practice is a crucial mechanism for reinforcing the process of accurate empathy attainment (Grant & Kinman, 2012; Lent et al., 1994; Mugisha, 2018). To this end, remedial professional training for educators and faculty that would provide substantial spiritual literacy and bolster ER among staff is worthy of consideration, especially for social work and educational professions (Grant, 2014; Mugisha, 2018).

Malandraki (2022) defined ER as adapting positively to tragedy, trauma, adversity, hardship, and ongoing significant life stressors. Emotional resilience at high levels is strongly associated with reduced burnout and compassion fatigue among helping professionals because it allows individuals to develop effective coping strategies that facilitate their ability to manage stressful work and overcome emotional demands (Grant & Kinman, 2012). Yang et al. (2022) proposed using ER to explore identity tensions among students in teaching-focused institutions where research excellence is essential. In such institutions, identity and role come into play as

academics face challenges to meet the demands and expectations of active researchers. Students and teachers experience a rise in tension with the misalignment between performance and professionalism (Dugas et al., 2020; Siekkinen et al., 2020). This context reveals that the vulnerability due to mental and emotional issues is more pervasive than just the student body, as it also impacts teachers. in Yang et al. (2022), academician's capacity for ER came into play as research subjects began recognizing the resources at their disposal and demonstrated varied capacities of ER. Approaching academic identities can be facilitated by strategically using emotions (Tran et al., 2017), and coping with change involves emotional wherewithal (Chubb et al., 2017).

The importance of mental health in schools has been addressed since the early 1900s (Cavioni et al., 2020). Many attempts to address mental health have come under social and emotional education, transpersonal education, emotional intelligence, SI, moral education, and others (Cavioni et al., 2020; Cefai & Cooper, 2017; Chan & Siu, 2016). A positive environment and high spirituality might increase students' self-efficacy, which is essential in creating incentive, effort, and academic progress (Atroszko et al., 2021). O'Sullivan and Lindsay (2023) suggested that when SI increases, general well-being also increases. They also found beneficial relationships between SI and the specific mental health indicators of depression, stress, and resilience. Several researchers (e.g., Aman, 2020; Amram, 2009; Anyan & Hjemdal, 2016; Atroszko et al., 2021; Baezzat et al., 2019; Bano & Saba, 2020; Bayrami et al., 2014) have indicated one of the most robust relationships being between SI and depression scores. Examining the relationships and associations of SI, ER, and self-efficacy with general well-being and academic outcomes addressed the need for continued examination and attention to student mental health within student support services on college campuses.

Self-Efficacy

Self-efficacy (SE) is the belief in one's capabilities to learn or perform behaviors at desired levels (Bandura, 1997). Life satisfaction among adults is related to their SE beliefs. Adults with high levels of SE avoid risky behaviors, maintain social competence, and achieve academic success (Zamirinejad et al., 2016). Conversely, people who worry and do not believe they can manage potential threats harbor higher anxiety levels as they exaggerate the threat of many situations and regard environmental dimensions as hazardous due to their lack of SE. Such individuals are pessimistic, expect failure in routine actions, and respond poorly to challenges (Sullivan & Atkins, 2009).

Upon examining the contribution of SE beliefs in the self-regulation of learning, Zuffianò et al. (2013) discovered the importance of educators identifying student characteristics that can be modified in school practice to promote enhanced academic performance – precisely, those transcendent of the role of other individual predictors such as intelligence, personality traits, and self-esteem. They agreed that intelligence predicted academic achievement and concluded that building solid SE beliefs in self-regulated learning as early as possible allows students to use those skills more readily. Children's academic motivation and scholastic achievement depend heavily on their beliefs in their efficacy to regulate their learning activities and master complex subject matter. Efficacy beliefs during early formative schooling considerably impact human development and adaptation and shape career aspirations and pursuits (Bandura et al., 1996; Betz & Hackett, 1986; Lent et al., 1994).

Exploration of the motivational mechanisms that mediate the SE-achievement relationship should increase understanding of how SE affects academic achievement. Effective instructional programs add to the existing evidence to support the direct effects of SE beliefs on academic achievement (Doménech-Betoret et al., 2017). Doménech-Betoret et al. (2017)

examined the relationships among academic SE, students' expectancy-value, satisfaction with the teaching process, and academic achievement. They used a socio-cognitive perspective of motivation to identify underlying motivational processes through which students' academic SE affects their achievement and satisfaction. Doménech-Betoret et al. (2017) considered student achievement and satisfaction as two essential learning outcomes and regarded them as critical indicators of education quality.

During the first weeks of the teaching-learning process in Doménech-Betoret et al.'s (2017) study, students' personal efficacy expectations are activated or generated as they are drawn from performance accomplishments, vicarious experience, verbal persuasion, and psychological states (Bandura, 1986). Their SE beliefs were developed as students interpreted information from these significant sources; they continued to revise their self-beliefs of competence according to these interpretations. Expectancy-value beliefs predicted student achievement and satisfaction with the course's teaching process (Doménech-Betoret et al., 2017). According to Doménech-Betoret et al. (2017), an initial diagnostic evaluation of secondary students' expectancy-value beliefs can detect potential shortcomings and design an action plan to overcome them. They can also use the results to predict a student's success in any subject and implement remedial action where necessary to improve students' academic SE with resulting improvement in academic skills.

Optimistic expectations and SE are directly related to performance, health, and general well-being. High SE depends on how well an individual can process and regulate stress and elevate their self-confidence (Karademas, 2006). An individual's SE influences their behavioral choices and the volition with which they set and pursue academic and life goals. It also influences how people approach or avoid life's barriers and challenges (Zamirinejad et al., 2016)

and makes a difference in how people think, feel, and act. This is especially true in academic settings where teachers and faculty actively and passively influence students (Schwarzer & Hallum, 2008).

Bandura et al. (1996) theorized that purposive human behavior is regulated by actualizing preconceived goals with forethought. An individual's self-evaluated capabilities influence their goal setting. People will set higher goals for themselves and establish a firmer commitment to them according to their perceived SE. The stronger their perceived SE, the higher their goals and commitment (Bandura, 1992a). Students are more likely to consider more occupational options and prepare more efficiently for them if they have stronger beliefs in their efficacy. They will also demonstrate perseverance and are more apt to succeed in their academic coursework.

Perceived SE operates at three levels contributing to academic development (Bandura, 1993). Teachers affect their learning environments with their personal efficacy beliefs regarding their ability to motivate and promote learning. This, in turn, affects their students' level of academic progress. Students' aspirations, level of motivation, and academic performance are determined by their beliefs in their ability to manage their learning and master their academic activities. Finally, faculty's belief in their collective instructional efficacy also contributes to their school's level of academic achievement as student body characteristics influence them by altering faculty's beliefs in their collective efficacy (Bandura, 1993).

Onwubiko and Chidiadi (2022) investigated the relationship between academic SE, peer influence, and examination anxiety with academic achievement drive among library and information science students. They used three research questions to formulate and test three hypotheses to guide a descriptive survey research design. They collected data from 399 randomly selected library and information science students from universities in Nigeria and analyzed the

data using multiple regression analysis (MRA). Using Bandura's (1997) definition of SE, they found that academic SE, peer influence, and examination anxiety statistically significantly influence the academic achievement drive. A measure of control over an individual's thoughts, feelings, and actions is attributed to their SE beliefs. Neither self-confidence nor self-esteem can predict the performance effectiveness of individuals as well as SE can. People are motivated to work hard and persevere in adversity when their perceived SE is strong (Bandura, 1992b). Academic SE is an essential factor influencing academic performance. When students believe in their ability to excel, they see the need to take their studies seriously, forming achievable academic goals with the habits and best practices to achieve them (Onwubiko & Chidiadi, 2022).

Zhang et al. (2022) studied the influence of the perceived threat of the COVID-19 pandemic on the psychic anxiety of 646 Chinese university students and the role of response efficacy and SE in mediating the impact. They applied the Fear Appeals Theory and Social Learning Theory to study college students under these circumstances because they believed this population was more vulnerable since their health was threatened. The pandemic fundamentally altered their lifestyle and academic practices, including how they study. They distributed an online cross-sectional survey when the pandemic was in its early stages, so they could provide an essential reference for coping with generalized public mental health issues. They found a positive correlation with the perceived threat of the COVID-19 pandemic, which involved perceived severity, susceptibility, and psychic anxiety. Self-efficacy mediated the effects of perceived severity and susceptibility, while the response efficacy only mediated the perceived susceptibility effect, not the severity effect. Also, response efficacy and SE mediated the relationship between perceived susceptibility and public anxiety. The cognitive appraisal of the threat perspective

reveals a relationship between perceived threat and psychic anxiety that can be mitigated by positive efficacy.

Bandura (1997) believed that efficacy beliefs influence people's thoughts and feelings about the world, their life, their goals, and the goal-oriented actions they achieve. Recent studies have highlighted the role of spirituality and spiritual health regarding psychological constructs such as SE (Rakhshanderou et al., 2021). Kim and Seidlitz (2002) indicated that spirituality is significantly related to reduced stress and blood pressure and improved long-term coping strategies. Oman et al. (2009) discovered a positive relationship between spiritual training and development in people and their cognitive abilities, behaviors, and skills. Heydarzadegan and Kochakzaei (2015) demonstrated that SE is closely related to spiritual health in as much as SE beliefs and spirituality are compelling incentives for enhancing life quality. However, given the limited research specific to SI within college populations, how SI might influence SE within academic contexts and serve to influence other student well-being constructs is underexplored.

General and Academic Well-being

Well-being is more than just the absence of illness and negative emotions. The WHO (2021) defined well-being as "a positive state experienced by individuals and societies. Similar to health, it is a resource for daily life and is determined by social, economic, and environmental conditions" (p. 16). The Organization for Economic Cooperation and Development (OECD, 2017) and other researchers in the field of positive psychology describe well-being as a profile of indicators spanning across multiple domains rather than as a single factor (Forgeard et al., 2011; Kern et al., 2015; Ryff et al., 2019). Given the various independent dimensions of general well-being, there are varied approaches and aspects that can be fostered towards developing positive general well-being (Centers for Disease Control, 2000). The proliferation of various

conceptualizations of well-being has caused some confusion on how to define and measure positive health and functioning correctly. The varying conceptualizations have been categorized into four broad approaches. The first two approaches are the hedonic and eudemonic schools in psychology. The focus of the third approach is on quality of life (QoL), primarily used in medicine, causing the term QoL to be often used interchangeably with well-being in the literature. Wellness is the fourth conceptualization, used mainly in counseling (Cooke et al., 2016).

Jayawickreme et al. (2012) and Lent (2004) proposed theoretical models to explain relationships among components of well-being and the processes involved in developing and maintaining well-being, but neither discussed or proposed any instruments for these new conceptualizations. The Ryan and Deci (2001) hedonic approaches to conceptualizing well-being focus on pleasure and happiness. They explained that hedonism has varied from a relatively narrow focus on bodily pleasures to a broader focus on appetites and self-interests. As a view of well-being, early Greek philosopher Aristippus taught that the goal of life was to experience the most pleasure possible, as happiness was the totality of one's hedonic moments. His philosophy was followed by others who taught that self-interest and pursuing happiness through sensational and pleasurable experiences were ways to establish and maintain well-being. The most prominent hedonic model is *subjective well-being*, a tripartite model consisting of satisfaction with life, the absence of negative affect, and the presence of positive affect (Diener et al., 1998). Proponents of this perspective tend to conceptualize well-being in terms of all three of these constructs, though some focus on life satisfaction alone when assessing well-being from this perspective.

The eudemonic approaches to conceptualizing well-being suggest that psychological health is achieved by fulfilling one's potential, functioning optimally, or realizing one's true nature (Lent, 2004). In contrast to the focus on affect and life satisfaction in the hedonic models, eudemonic models tend to focus on a more significant number of life domains. However, they vary significantly regarding the fundamental elements that determine well-being. For example, one of the more prominent eudemonic models is the psychological well-being model (Ryff, 1989b; Ryff & Keyes, 1995), which conceptualizes well-being as consisting of six elements: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. While the hedonic viewpoint focuses on subjective well-being, the eudemonic viewpoint focuses on psychological well-being, which involves the fully functioning person and has been operationalized as either a set of six dimensions of happiness and meaningfulness (McGregor & Little, 1998; Ryff, 1989a) or as a set of wellness variables such as self-actualization and vitality (Ryan & Deci, 2001). However, the eudemonic model proposed by Ryan and Deci (2001) included that well-being is fulfilled by three basic psychological needs: autonomy, competence, and relatedness. These models overlap, but they also illustrate the variation found within the eudemonic approaches to understanding well-being.

A third category of approaches to conceptualizing well-being focuses on quality of life (QoL). Quality of life and the potential for individual and societal contribution to the world with a sense of purpose and meaning are also considered a part of well-being. The WHO tracks the equitable distribution of information and resources by focusing on well-being (WHO, 2021). According to WHO (2021), "A society's well-being can be observed by the extent to which they are resilient, build capacity for action, and are prepared to transcend challenges" (p. 16). For individuals, well-being comes with health, family, work, and economic sustainability benefits.

The term QoL is often used interchangeably with well-being in the literature. For example, the authors who developed the Quality-of-Life Inventory use the terms quality of life, subjective well-being, and life satisfaction interchangeably (Frisch, 1992). However, those studying QoL generally conceptualize well-being more broadly than the hedonic or eudemonic models, including physical, psychological, and social aspects of functioning. This approach has been influenced by various disciplines, including medicine, sociology, and psychology, and is often employed in medical contexts (Lent, 2004). In oncology, for example, the QoL measurement for cancer patients has become highly developed (Cella & Stone, 2015). The WHO (1996) defined QoL as a "broad range concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships and their relationship to salient features of their environment" (p. 1570).

Psychological well-being is often regarded as a combination of high personal and societal functionality and consistent positive affective states. Individuals with higher levels of psychological well-being are reported to have higher living standards and live longer, healthier lives (Kubzansky et al., 2018; Ugwuanyi, 2022). Psychological well-being involves all aspects of human performance affecting academic outcomes, which includes the experience of positive emotions, participation in work, developing a sense of autonomy, socialization, and finding a purpose in life. The social status and ability to generate income due to academic achievement make learning an essential well-being element (Ugwuanyi, 2022). Academic well-being is a dimension of general well-being that promotes societal contribution and individual performance (Wald, 2020; WHO, 2021). The contextual influence of academic factors and aggregate variables such as economic, familial, and other factors determines academic well-being (Afrashteh & Rezaei, 2022). Phan (2016) conducted a longitudinal study to explore a conceptual model that

depicted sequential interrelations between the four significant orientations: optimism, SE beliefs, personal well-being experiences, and achievement goal orientations. Motivation towards learning is an achievement-related attribute of student well-being that emphasizes the importance of deep, mastery learning and enriched academic experiences. It also reflects a positive, non-deficit approach to academic experiences (Phan, 2016). According to Phan (2016), a heightened state of motivation for students in a subject matter may enhance academic achievement outcomes.

The Center for Collegiate Mental Health (CCMH, 2020) reported a rise in self-reported levels of depression, anxiety, self-harm, and suicidality and that not all students are inclined to seek professional help; they suggested improvements to make the network of mental health services to meet student need. Nash et al. (2017) reported several reasons why psychological counseling for students constitutes a strategic resource. The primary reason is that psychological counseling services are not perceived as traditional mental health services because they are a part of the everyday student environment. As a result, the perceived stigma and the hesitancy of seeking help from them are mitigated (Vogel et al., 2019). Secondly, organizational barriers common with traditional mental health services are reduced by a flexible setting, wherein anonymous, brief interventions are generally delivered free of charge. Increased well-being and functioning can result from delivering brief and effective treatment (Stallman et al., 2018). Early intervention can minimize the consequential effects that accompany student mental health issues.

Managing academic and non-academic challenges to improve students' well-being and academic performance requires improved access to counseling (Ebert et al., 2019). Seligman et al. (2009) introduced positive education as a resource for self-inquiry and self-management. Positive education is defined as education that includes happiness as an outcome along with traditional academic skills (Seligman et al., 2009). The prevalence of depression and

dissatisfaction among young people and the synergy between learning and positive emotion present a compelling argument for teaching skills conducive to happiness. Seligman et al. (2009) suggested skills that increase resilience, positive emotion, engagement, and meaning can and should be taught in schools. The psychological characteristics developed through positive education have been linked to fewer risky behaviors, academic achievement, and better physical health as an adult. Seligman et al. (2009) speculated that positive education would form the basis of a new prosperity politics that values wealth and well-being. Similarly, Arthur (2005) held that public values, such as the character-building values taught in British schools, have a definite though indirect influence on students' private lives (Arthur, 2005). Still, empirical evidence for well-being programs is lacking, and the lack of evidence concerns researchers (Spence & Shortt, 2007). Benninga and Smith (2006) reported that parents, educators, and politicians share the concern that such programs may potentially distract students and thus lower their achievement while wasting money. Seligman et al. (2009) argued that well-being programs accomplish three objectives; they (1) promote skills and strengths valued by most parents, (2) produce measurable improvements in students' well-being and behavior, and (3) facilitate students' engagement in learning and achievement.

Holzer et al. (2022) investigated relationships between students' school-related well-being, achievement goals, and academic achievement. They assumed achievement goals would mediate the relationship between well-being and achievement, but the hypothesis was rejected. However, they identified several effects of the school-related well-being components on achievement goals and academic achievement. Among the identified effects were: optimism on goals of academic mastery, perseverance, associations of engagement, and academic achievement. Holzer et al. (2022) believed that education in the 21st century should take a

holistic approach to academic learning and strive to develop the whole student. Although their examination focused primarily on secondary school students, their findings may generalize to students at various levels.

The holistic approach embraces the full spectrum of emotion and effectively and efficiently manages the entire emotional experience (Fredrickson, 2004; Ong et al., 2006). The benefits of optimizing the emotional experience have been well-documented (Wald, 2020). Wald (2020) examined the educational disruptions that tend to create significant anxiety for students regarding completing requirements and achieving competencies in the medical field and saw the need for medical educators to foster well-being among their trainees. She proposed that educators support their trainees using adaptive flexibility for innovating curriculum and culturally sensitive interventions that focus on building resilience and well-being. She presented 12 strategies for optimizing resilience and well-being using an integrative approach of individual, learning environment, and organization/systems factors.

Samios et al. (2013) explained that Fredrickson's (2004) broaden-and-build theory explained that positive emotions that produce interest and contentment, such as joy, do more than indicate optimal well-being; positive emotions also broaden a person's attentional focus and behavioral processes while augmenting their enduring personal resources (Samios et al., 2013). Over time, positive emotions can increase an enhanced sense of purpose in life, social support, and a range of other personal resources, including mindfulness, all of which are conducive to reduced depression, greater life satisfaction, and a better quality of life (Samios et al., 2013). Di (2020) extended further and questioned how humans choose their consciousness and how they can apply it to optimize well-being through education.

Di (2020) examined the layers of human consciousness and a lack thereof from a philosophical perspective to learn how an understanding of consciousness influences holistic well-being and growth. Di went beyond biological, psychological, neurological, and other compartmentalized analyses and engaged a holistic, metaphysical perspective, including relational and dialectic approaches. Di (2020) posited that an intentional, purposeful, consistent focus on consciousness is required to optimize well-being through education. More supporting research is needed to provide an epistemological foundation for academic well-being and the phenomenological study of consciousness. According to the 2002 National Board for Professional Teaching Standards, responsibly managing one's resources is vital to teachers' well-being, resulting from successful self-regulation (Bilz et al., 2022).

Di (2020) and Holzer et al. (2022) aided in characterizing the evidence regarding the investigated constructs supporting the application of multidimensional measures for well-being and achievement goals. Phan's (2016) conceptual model is derived theoretically and empirically from existing research studies such as Bandura (1992a,1992b), who highlighted the correspondent interrelations among the four constructs, including SE. Phan (2016) was limited by the use of non-experimental, correlational data and, admittedly, would have been able to make statistical inferences regarding causal effects between variables only with quasi or experimental approaches. Holzer et al. (2022) held that psychological functioning relies on well-being and achievement goals as relevant conditions.

Well-being was traditionally seen as one-dimensional. However, more recent conceptualizations of well-being highlight the eudaemonic aspect of well-being as a process that enhances development. According to Holzer et al. (2022), well-being should be regarded as a facilitator of adaptive behavioral and motivational patterns. The multidimensional approach to

conceptualizing well-being allows for more differentiated assumptions regarding outcomes of well-being which may include academic achievement (Holzer et al., 2022). Student achievement goals are defined as future-focused cognitive representations, guiding behavior to states individuals will approach or avoid (Hulleman et al., 2010). While Holzer et al. (2022) found no clear associations between well-being and achievement, they found that achievement goals set by students caused substantial variation in achievement-related behavior.

Academic Achievement

After considering and testing multiple factors such as gender, prior academic performance, and personality **(**Gagné & St Père, 2002), intelligence has remained consistently prominent as a predictor of academic achievement (Zuffianò et al., 2013). Personality traits have also been examined closely in relation to cademic achievement. According to McCrae and Costa (1999), the five-factor model (FFM) of personality traits summarizes what most psychologists term personality. They include openness/intellect, conscientiousness, extraversion, agreeableness, and neuroticism/ emotional instability (McCrae & Costa, 1999). Of these traits, conscientiousness and openness have shown a strong association with academic achievement. Agreeableness, emotional instability, and extraversion have not shown consistently significant associations with academic success (Zuffianò et al., 2013). According to McCrae and Costa (1999), FFM is not a personality theory. However, it does adopt the basic tenets of trait theory, for example, (a) that individuals can be characterized in terms of relatively enduring patterns of thoughts, feelings, and actions; (b) that traits are quantitatively assessable; and (c) that they show some degree of cross-situational consistency.

Few research studies have been conducted to determine the relationship between SI and students' academic achievement (Mosavinezhad et al., 2019). However, Mosavinezhad et al.

(2019) concluded that SI plays a pivotal role in different academic domains, and students with a high level of SI are better at problem-solving and can avoid the distraction of negative feelings. Moreover, Azizollah (2013) found a significant positive relationship between SI and academic achievement among students at the University of Isfahan. Turi et al. (2020) asserted that academic prosperity hinges upon its students' emotional and SI and enthusiasm for lifelong learning. They linked academic prosperity to economic and technological disruptions and asserted that underdeveloped countries must be elevated academically to overcome them and thrive. They also believed that emotional and spiritual intelligences are essential tools for students to acquire because they charge the environment socially, emotionally, ethically, and psychologically while providing intrinsic motivation to the learner (Turi et al., 2020).

Yagobi (2010) conducted a descriptive, correlational study on the relationship between SI and students' happiness at Bu Ali Ramadan University. Findings included significantly higher academic achievement among students with higher levels of SI, implying that SI increases motivation and facilitates academic achievement (Yagobi, 2010), which is consistent with Arani and Moghadasi (2014). Olson (2008) discovered evidence that SI has the potential to enhance students’ lives. However, more research is needed to determine the relationship between SI and students’ academic achievement (Khan & Kumar, 2019).

Pant and Srivastava (2019) conducted a correlational study among college students in Haridwar, Uttarakhand (India) to examine the relationship between the level of SI and mental health and to identify the difference in SI and mental health across gender and arts and science educational backgrounds. The results included no significant difference between male and female students regarding SI and a significant positive relationship between SI and mental health among male and female art and science students separately (Pant & Srivastava, 2019). Turi et al.

(2020) revealed that emotional and spiritual intelligences present excellent constructs of consequence to academic performance.

Summary

The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020). The purpose of this quantitative, descriptive, and correlational study was to describe the levels of SI among undergraduate college students and examine their associations with and contributions to variance in measures of ER, SE, GWB, and academic achievement, measured as GPA. The importance of student mental health has been recognized for over two decades (Cavioni et al., 2020) and attempts to address mental health have been approached in relation to various constructs and within different domains. The analysis of the data within this study can provide statistics to establish a baseline needed to evaluate the contribution of these variables to levels of other variables conducive to students' well-being and academic performance, specifically the potential role of SI and ER in facilitating students' ability to psychologically and emotionally manage external events and circumstances that threaten their efficacy, general well-being, and academic achievement. Spiritual intelligence and ER are potential resources needing further exploration and application regarding their contribution to achieving optimal functioning conducive to academic achievement. Institutions of higher learning are charged with developing new generations of learners capable of productivity, efficiency, and effectiveness beyond their academic performance (Khan & Kumar, 2019). The following chapter presents the research method and design employed to achieve the purpose of the study.

Chapter 3: Research Method

The mental health of college students is of critical importance as it influences their academic performance, along with other variables associated with retention, such as general well-being (GWB) and self-efficacy (SE) (Antunes-Alves & Langmuir, 2021; Drysdale et al., 2022; Cavioni et al., 2020). Undergraduate students are vulnerable to external challenges and internal conflicts that may cause them to lose hope in reaching their goals and fulfilling their academic obligations, resulting in dropouts (Cavioni et al., 2020; Draaisma & Chiasson, 2019). The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020).

Spiritual intelligence (SI) is a potential resource needing further exploration and application regarding their contribution to students achieving optimal functioning for academic achievement. Institutions of higher education (IHEs) are charged with developing new generations of learners capable of productivity, efficiency, and effectiveness beyond their academic performance (Khan & Kumar, 2019). Spiritual intelligence, along with emotional resilience (ER), should be considered in the early phases of framing retention policies affecting teachers, faculty, and students, given the potential to contribute to student well-being and academic achievement. The purpose of this quantitative, descriptive, and correlational study was to describe the levels of SI among undergraduate college students and examine their associations with and contributions to variance in measures of ER, SE, GWB, and academic achievement, measured as grade point average (GPA). The research questions and associated hypotheses posed to achieve this purpose are as follows:

RQ1

What are the reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students?

RQ2

What significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students?

$H2_0$

No significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students.

$H2_a$

One or more significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students.

RQ3

What direct effects do undergraduate college students' spiritual intelligence have on variance in their emotional resilience, self-efficacy, general well-being, and academic achievement?

$H3_0$

Spiritual intelligence has no significant direct effects on variance in undergraduate college students' emotional resilience, self-efficacy, general well-being, and academic achievement.

$H3_a$

Spiritual intelligence has one or more significant direct effects on variance in undergraduate college students' emotional resilience, self-efficacy, general well-being, and academic achievement.

RQ4

What direct effects do undergraduate college students' emotional resilience and self-efficacy have on variance in their general well-being and academic achievement?

$H4_0$

Measures of emotional resilience or self-efficacy have no significant direct effects on variance in undergraduate college students' general well-being and academic achievement.

$H4_a$

Measures of emotional resilience or self-efficacy have one or more significant direct effects on variance in undergraduate college students' general well-being and academic achievement.

RQ5

What indirect effects, if any, do undergraduate college students' spiritual intelligence have on their general well-being and academic achievement within the final path analysis model?

$H5_0$

None of undergraduate college students' spiritual intelligence subscales have a significant indirect effect on their general well-being and academic achievement within the final path analysis model.

$H5_a$

One or more of undergraduate college students' spiritual intelligence subscales have a significant indirect effect on their general well-being and academic achievement within the final path analysis model.

The focus of this chapter is on detailing the elements of the proposed study, including the (a) research methodology and design, (b) population and sample, (c) instrumentation, (d) operational definitions of variables, (e) study procedures, (e) data analysis, (f) assumptions, limitations, and delimitations, and (g) ethical assurances.

Research Methodology and Design

A quantitative methodology was chosen to achieve the purpose of the study. The focus of this study was on describing relationships among the variables of interest and determining if and how SI contributes to the variance in measures of ER, GWB, SE, and academic achievement, necessitating a quantitative methodology. Stable and measurable data are collected and analyzed in quantitative research to describe, explain, manage, or predict the examined variables and phenomena that inform theory and facilitate future related studies (Blitz & Schulman, 2016). Various quantitative designs are available for exploring relationships and associations among variables in a non-causal manner (King & DeCicco, 2009). Moreover, a quantitative methodology is appropriate to establish external validity through predictability and generalizability (Mertler, 2020). With a focus on objectivity, results from quantitative studies permit stakeholders to generalize findings to similar populations and contexts (Mertler, 2020). These characteristics of quantitative methods aligned with the goals of the study.

Accomplishing the goals of this quantitative study required the calculation of (a) descriptive statistics to measure self-reported levels of SI, ER, SE, GWB, and GPA among undergraduate college students, (b) correlations to examine relationships between reported levels

of SI, ER, SE, GWB, and GPA, and (c) multivariate regression analyses to determine any direct and indirect effects of SI and ER on undergraduate students' SE, GWB, and GPA. The quantitative research designs chosen were those that aligned with the study's purpose and the analyses required to achieve it. First, a descriptive design was appropriate in this study as observational and survey data were used to interpret the current status of individuals and settings (Mertler, 2020). A descriptive design also aligned best with reporting levels of SI among undergraduate college students to help establish a baseline within this population and provide a foundation to evaluate SI's role in maintaining mental health when meeting the challenges faced during the college years.

The research focus of this study also required a correlational design, which was appropriate because of the analysis of relationships among several variables (Blitz & Schulman, 2016; King & DeCicco, 2009). Relationships are formed when an individual's status is associated with or tends to be reflected in another variable. Traits, abilities, or conditions that covary or co-relate with each other are an essential part of correlational research in education as they provide an understanding of the nature and strength of the relationship between two or more variables (Mertler, 2020). A correlational design also addressed research goals related to prediction (Edmonds & Kennedy, 2017), which were also central to the purpose of the study.

Several other designs were considered and dismissed as less appropriate. With evidence supporting that SI and ER positively contribute to general wellness and quality of life (Cavioni et al., 2020; Drigas & Mitsea, 2020; Holmberg & Vetere, 2021; Malandraki, 2022), it might have seemed appropriate to choose an experimental design or quasi-experimental design to examine the cause and effects of the multiple variables. However, given the nature of these variables, manipulating or controlling levels of these variables in students to conduct such a study made

choosing either of these designs inappropriate. In the current study, examining how these variables contributed to positive student outcomes could provide confidence in recommending practices for IHEs to implement programs and practices to promote SI (Chaudhary & Aswal, 2013).

A cross-sectional survey study, which provides a snapshot of the relationships at a single point in time, would have allowed for the examination of correlations between variables (Turi et al., 2020). This type of study is efficient and cost-effective; however, a cross-sectional survey study still could not establish causation and requires a larger sample size. Another consideration was secondary data analysis, which involves using existing datasets, such as national surveys or institutional records, to analyze the relationships between the variables of interest. Secondary data analysis is a cost-effective method since data are readily available. Secondary data analysis may also have extensive and diverse samples to enable a researcher to examine historical trends. On the other hand, secondary data analysis has limited control over data collection methods that cannot be precisely tailored to the needs of the study and, therefore, may lack specific measures relevant to research questions (Boslaugh, 2007). Finally, another consideration was the experience sampling method (ESM), which involves using experience sampling to collect real-time data on participants' emotions, experiences, and spiritual insights several times a day over a defined period to capture momentary fluctuations in variables. While ESM reduces recall bias and allows for dynamic analysis of associations, it requires intensive participant engagement, which was not feasible for the goals of this study.

While the aim of various qualitative methods was to describe a phenomenon and its characteristics, so may have been a methodology to consider for the current study, such methods are more concerned with what or why the phenomenon exists, often requiring observation (Gall

et al., 2007). Content analysis of self-reflections could have been considered, by asking undergraduate college students to write self-reflection essays or journals discussing their spiritual experiences, emotional experiences, self-efficacy, well-being, and academic achievements. This method can provide in-depth qualitative insights and a nuanced understanding of the participants' experiences. Content analysis of self-reflections can also uncover unexpected themes and patterns. In contrast, the current study was focused on determining measured levels of the various phenomena of interest and how these reported levels relate to other variables associated with student academic success. This study was based on probabilities or likelihood using p-values, power analysis, and other quantitative methods to ensure the study's rigor and the generalizability of its results to other populations. The design required data to be gathered in a more organized and objective way to generalize findings to other persons or populations (Nassaji, 2015). The purpose of this study aligned to a descriptive, correlational design (Barroga & Matanguihan, 2022).

Population and Sample

The target population in this study included undergraduate university students between 18 and 25 years of age enrolled full-time in a four-year public or private nonprofit or for-profit university within the United States. The total number of undergraduate students enrolled in United States degree-granting postsecondary schools in the fall of 2021 was 15.4 million. Of the 15.4 million undergraduate students enrolled in fall 2021, 7.8 million were White; 3.3 million were Hispanic; 1.9 million were Black; 1.1 million were Asian; 663,100 were of two or more races; 107,000 were American Indian/Alaska Native; and 41,000 were Pacific Islander. Of these, 8.9 million students (58%) were female, and 6.5 million (42%) were male (National Center for Education Statistics, 2023). This population has a global representation and lends itself well to

descriptive analysis and correlational studies (Zhang et al., 2022). This diverse student population allowed me to examine the factors and variables affecting college students' academic achievement and well-being. Many in this population remain psychologically and emotionally vulnerable to external events and circumstances that impede academic achievement (Kornas-Biela & Zysberg, 2020). This target population facilitated the subsequent descriptions of the levels of SI among diverse undergraduate college students and examination of their associations with and contributions to variance in measures of ER, GWB, SE, and GPA (Kozina, 2020).

The sampling method employed was convenience sampling. The Centiment Data Collection Service was used to administer the online survey. Their database was used to invite and obtain volunteers who met the criteria to complete the online survey. The survey included measures for all variables of interest. Enrolling participants who fit this study's criteria and who volunteered to complete the survey constituted a convenience sample (Emerson, 2021). The advantages and limitations of convenience sampling were carefully considered. With convenience sampling, researchers can gather data quickly and affordably, essential in preliminary and exploratory research. Although convenience sampling lacks randomness and is susceptible to sampling bias, the sample selection is representative of the targeted global population (Emerson, 2021). Convenience sampling also allowed for data collection of individual perspectives while preserving anonymity. Convenience sampling enables researchers to collect and examine the relationship among variables while gathering information about specific individuals and their demographic groups, making it possible to build generalizations about larger groups in the future (Emerson, 2021). Applied to a broader population of undergraduate college students, convenience sampling allowed for the assessment of multiple variables of interest simultaneously. At the least, it facilitates expeditious assessment because

each participant can provide data on multiple variables in a relatively short period (Emerson, 2021). However, convenience sampling carries risks of over and under-representation, bringing an indelible level of uncertainty to the information (Emerson, 2021).

Recruitment of participants in this study was accomplished via email invitations to members of the target population using Centiment Data Collection Service. Measures were taken to ensure that recruitment materials were explicit, engaging, and adhered to ethical standards. National University Institutional Review Board (IRB) approval and informed consent from participants were obtained following IRB directives. I provided my contact information within the invitation to participate to address any questions or concerns about the study. A well-crafted and compelling email message explained the purpose and benefits of the study and included a link to the survey. The survey included measures for all variables of interest. The target sample size was 114. This sample size was derived using a G*Power sample size estimate calculation using the F Test for regression, with effect = .15; power set to .80, and nine predictors. A power (1 - β) level of 0.80 (80%) will provide an 80% chance of detecting a significant effect if it truly exists in this study. A final sample of 138 participants was obtained.

Instrumentation

There were multiple variables of interest being measured in the study. Four instruments were chosen to operationalize these variables. These instruments were chosen based on their alignment with how the variables were defined and applied in the study and established evidence of reliability and validity. Spiritual intelligence was measured using the Spiritual Intelligence Self Report Inventory (SISRI-24; King, 2008; King & DeCicco, 2009). Emotional resilience was assessed with the 10-item Connor–Davidson Resilience Scale (CD-RISC-10; Campbell-Sills &

Stein, 2007). Self-efficacy was measured using the Self-Efficacy for Learning Form – Abridged (SELF-A; Zimmerman & Kitsantas, 2007).

General well-being was measured using the Mental Health Continuum Short Form (MHC-SF) (Keyes, 2002). Academic achievement was measured using self-reported GPA.

The Spiritual Intelligence Self Report Inventory (SISRI-24)

Development of the SISRI-24 (see Appendix B) was based on established SI theories and was initially developed by King (2008) for measurement of SI of college students and has been widely used in research and clinical settings (King & DeCicco, 2009). The 24-item self-report scale consists of four subscales: Critical Existential Thinking (SICET), Personal Meaning Production (SIPMP), Transcendental Awareness (SITA), and Conscious State Expansion (SICSE) (King & DeCicco, 2009). The SICET subscale assesses an individual's ability to think critically and reflectively about existential and spiritual questions (Nayyar et al., 2019). It measures their capacity for deep contemplation and philosophical inquiry regarding life's meaning and purpose (King & DeCicco, 2009). The SIPMP subscale evaluates an individual's ability to generate personal meaning and purpose in life (Nayyar et al., 2019). It measures their capacity to derive significance from spiritual experiences and beliefs and apply them to their life's journey (King & DeCicco, 2009). The SICSE subscale assesses an individual's ability to experience altered states of consciousness, such as mindfulness, meditation, or peak experiences, and their capacity to integrate these states into their daily life for personal growth and spiritual development (King & DeCicco, 2009) The SITA subscale measures an individual's level of awareness and connection with higher spiritual or transcendent realities. It assesses their sense of unity with the universe, connection to something greater than themselves, and their ability to transcend ego-centered perspectives (King & DeCicco, 2009). Separate scores are calculated for

each subscale, and the scores on each subscale are added to form a total SI score. Higher scores represent higher SI.

The SISRI-24 has demonstrated good reliability and validity. The reliability of the SISRI-24 has been demonstrated in previous research, with Cronbach's alpha coefficients ranging from 0.82 to 0.89 for the SI subscales (King & DeCicco, 2009). Greco et al. (2022) examined the internal reliability of the full scale and found Cronbach's alpha was .92, the split-half reliability was .91, and the 4-month test-retest reliability was .89. With regard to construct validity, the scores on the SISRI-24 full scale were significantly correlated with scores on the Meta personal Self-Construal Scale (MSCS; $r = .67$, $p < .01$) and the Mysticism Scale-Research Form D ($r = .63$, $p < .01$). As for the subscales, SIPMP was highly correlated with the Presence of Meaning subscale of the Meaning of Life Questionnaire (MLQ; $r = .65$, $p < .01$), but not with the Search for Meaning subscale ($r = .05$, $p > .05$). However, SICET was significantly correlated with the Search for Meaning subscale of the MLQ ($r = .39$, $p < .001$) (Greco et al., 2022). These results further demonstrated that the SISRI-24 has discriminant and convergent validity.

Connor–Davidson Resilience Scale (CD-RISC)

The Connor–Davidson Resilience Scale (CD-RISC) is a 25-item scale that measures resilience, defined as a person's ability to bounce back and thrive despite adversity, challenges, stressful events, or trauma (Davidson et al., 2012). The five basic components of resilience measured by the CD-RISC are: (1) Personal Competence: A person's abilities, standards, and characteristics, (2) Tolerance of Negative Affect: A person's ability to cope with and manage stress or negative emotions, which includes emotional regulation and the capacity to trust their intuition and handle distressing feelings, and recover from stress, (3) Positive Acceptance of Change: A person's willingness and ability to embrace change and find growth or meaning in

difficult experiences, (4) Control: A person's perceived sense of control over their own life and circumstances as well as their environment and their ability to make choices that affect their well-being, and (5) Spiritual Influences: An individual's sense of purpose and the extent to which their spirituality contributes to their resilience. For each of the 25 CD-RISC items, respondents evaluate statements on a five-point Likert scale ranging from 0 to 4: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4). The ratings are summed across all items resulting in a number between 0 and 100, with higher scores indicating higher resilience. The only versions of the scale authorized for use are CD-RISC-2, CD-RISC-10, and CD-RISC-25.

Davidson et al. (2012) demonstrated that the CD-RISC exhibits strong test-retest reliability, with Cronbach's alpha reported at 0.87. Additionally, the predictive validity of the CD-RISC has been supported by findings among 687 patients with post-traumatic stress disorder (PTSD) and depression. The total CD-RISC score at a pre-treatment baseline was an independent predictor of remission, after controlling for the effect of other predictors such as PTSD severity (Davidson et al., 2006, 2012). Construct validity was established from studies showing that the CD-RISC may serve as a valid marker of resilience as efforts are made to understand the putative neurobiology of resilience (Davidson, 2019). Subsequently, Campbell-Sills and Stein (2007) conducted an additional psychometric analysis of the CD-RISC 25 with a large sample of undergraduate students. Through both exploratory and confirmatory factor analytic procedures and incorporation of error theory, they determined and 10-item version of the CD-RISC provided both a good internal consistency (of .85) and convergent and divergent validity through predicting its ability to moderate the relationship between childhood maltreatment and psychiatric symptoms. Their results were also validated on a second sample of students.

Moreover, Campbell-Sills and Stein (2007) found the 10-item version correlated .92 with the 25-item version. Given these results, the CD-RISC-10 (see Appendix C) was used in the study as it most efficiently represents a reliable and valid measure of resilience validated with a college student population.

Mental Health Continuum Short Form

General well-being was measured using the Mental Health Continuum Short Form (MHC-SF) developed by Keyes (2002). The MHC-SF (see Appendix D) is a self-report questionnaire with 14 items, focusing on various aspects of well-being. Each item is rated on a 6-point Likert scale ranging from *never* to *every day* (Lamers et al., 2011). The MHC-SF reflects general well-being across three subscales as confirmed through confirmatory factor analysis (CFA): (a) Emotional Well-being with three items, (b) Psychological Well-being with six items, and (c) Social Well-being with five items (Lamers et al., 2011). The MHC-SF was validated with data from Lamers et al. (2011) concerning health, personality, social integration and leisure, and politics and values. Analyses revealed the instrument has high internal and moderate test-retest reliability (Lamers et al., 2011). The MHC short and long forms have shown high reliability, greater than .80, for each of the three subscales (Keyes, 2002). The internal reliability of the overall MHC-SF Scale was 0.74. The three subscales correlated well with corresponding aspects of well-being and functioning, demonstrating convergent validity (Lamers et al., 2011). The total score on the MHC-SF correlated 0.52 with a measure of positive affect, between 0.35 and 0.40 with measures of generalized self-efficacy and satisfaction with life, and between 0.30 and 0.35 with measures of coping strategies, sense of coherence, and community collective self-efficacy (Keyes et al., 2008). A CFA supported the hypothesis of two separate yet related factors for mental health and mental illness, demonstrating discriminant validity. Although related to mental

illness, positive mental health is a distinct indicator of mental well-being that is reliably assessed with the MHC-SF (Lamers et al., 2011). The MHC-SF consisting of 14 items was employed in the study.

Self-Efficacy for Learning Form – Abridged

Self-efficacy is a complex construct and measuring it with a single scale may not capture its full range. However, with the focus of the study on academic performance, the Self Efficacy for Learning Form (SELF), developed and validated by Zimmerman and Kitsantas (2005) for high school students and then later for college students (Zimmerman & Kitsantas, 2007), has the ability to effectively assess students' self-efficacy beliefs regarding their use of specific self-regulatory processes in various areas of academic functioning. For each item, respondents use a scale ranging from 0 to 100 points in 10-unit increments. The following points on the scale are provided with descriptors: 0 (*definitely cannot do it*), 30 (*probably cannot do it*), 50 (*maybe can do it*), 70 (*probably can do it*), and 100 (*definitely can do it*). The initial version of the SELF included 57 items; in conducting factor analysis procedures, they reduced the scale to 19 items focused on efficacy related to studying, test preparation, and notetaking (Zimmerman & Kitsantas, 2007).

The abridged version of the SELF, the SELF-A (see Appendix E), was used in the study. The factor analysis revealed a unitary factor structure with all items loading at .70 or above, and examination of the internal consistency of the items resulted in a reliability coefficient of .97. The predictive validity of SELF-A scores was determined by correlating outcome measures of perceived responsibility, homework quantity, homework quality, grades, standardized assessment test scores (SAT), and instructor ratings of students' self-regulated skills. The SELF-A was superior to the SELF in its prediction of all validity measures except the SAT, which was

comparable for the two forms (Zimmerman & Kitsantas, 2007). The students' scores on the SELF-A had a high level of validity in predicting the students' grade point average (r = .68), their judgments of responsibility for their academic outcomes (r = .71), and the quality (r = .75) and quantity (r = .74) of their homework (Zimmerman & Kitsantas, 2007). Self-efficacious students were hypothesized to be more likely to accept responsibility for their learning outcomes and regulating their learning even if those outcomes were unfavorable.

Operational Definitions of Variables

There are multiple predictor and criterion variables included in the study. Measures of SI served as predictors of the criterion variables of ER and SE, GWB, and GPA, and measures of ER and SE served as predictors of the criterion variables of GWB and GPA.

Spiritual Intelligence - Conscious State Expansion (SICSE)

Participants' SICSE was operationalized through the subscale of the SISRI-24 (King & DeCicco, 2009). The scale included 5 items. Participants rated their agreement with each item on a 5-point Likert scale, ranging from 0 (Not at all true of me) to 4 (Completely true of me). An interval measure was obtained by summing across all items, resulting in a range of 0 to 20. A higher score indicates greater ability to experience altered states of consciousness and capacity to integrate these states into their daily life for personal growth and spiritual development.

Spiritual Intelligence - Critical Existential Thinking (SICET)

Participants' SICET was operationalized through the subscale of the SISRI-24 (King & DeCicco, 2009). The scale included 7 items. Participants rated their agreement with each item on a 5-point Likert scale, ranging from 0 (Not at all true of me) to 4 (Completely true of me). An interval measure was obtained by summing across all items, resulting in a range of 0 to 28. A

higher score indicates greater ability to think critically and reflectively about existential and spiritual questions.

Spiritual Intelligence – Transcendental Awareness (SITA)

Participants' SITA was operationalized through the subscale of the SISRI-24 (King & DeCicco, 2009). The scale included 7 items. Participants rated their agreement with each item on a 5-point Likert scale, ranging from 0 (Not at all true of me) to 4 (Completely true of me). An interval measure was obtained by summing across all items, resulting in a range of 0 to 28. A higher score indicates greater sense of unity with the universe, connection to something greater than themselves, and ability to transcend ego-centered perspectives.

Spiritual Intelligence - Personal Meaning Production (SIPMP),

Participants' SIPMP was operationalized through the subscale of the SISRI-24 (King & DeCicco, 2009). The scale included 5 items. Participants rated their agreement with each item on a 5-point Likert scale, ranging from 0 (Not at all true of me) to 4 (Completely true of me). An interval measure was obtained by summing across all items, resulting in a range of 0 to 20. A higher score indicates greater capacity to derive significance from spiritual experiences and beliefs and apply them to their life's journey.

Emotional Resilience

Emotional resilience was measured using the 10-item Connor-Davidson Resilience Scale (CD-RISC) developed by Campbell-Sills and Stein (2007). Respondents evaluated each item on a five-point Likert scale ranging from 0 (not true at all) to 4 (true nearly all of the time). The ratings were summed across all items for an interval measure with a range between 0 and 40. Higher scores indicate higher resilience.

Self-Efficacy

Self-efficacy was measured using the abridged version of the Self Efficacy for Learning Form (SELF-A) developed and validated by Zimmerman and Kitsantas (2007). The scale included 18 items. For each item, respondents used a scale ranging from 0 to 100 points in 10-unit increments with some points on the scale labelled: 0 (*definitely cannot do it*), 30 (*probably cannot do it*), 50 (*maybe can do it*), 70 (*probably can do it*), and 100 (*definitely can do it*). An interval measure was obtained by averaging across all 19 items for a score ranging between 0 and 100. A higher score indicates higher self-efficacy.

General Well-Being – Emotional (GWBE)

General well-being - emotional (GWBE) was measured using a subscale of the MHC-SF (Keyes, 2002). The subscale consisted of 3 items with respondents using a 6-point Likert scale ranging from 0 (never) to 5 (everyday) to report the frequency with which they experience each item. An interval measure was obtained by summing across all items for a range between 0 and 15. Higher scores indicate a greater level of positive well-being.

General Well-Being – Social (GWBS)

General well-being – social (GWBS) was measured using a subscale of the MHC-SF (Keyes, 2002). The subscale consisted of 5 items with respondents using a 6-point Likert scale ranging from 0 (never) to 5 (everyday) to report the frequency with which they experience each item. An interval measure was obtained by summing across all items for a range between 0 and 25. Higher scores indicate a greater level of positive well-being.

General Well-Being – Psychological (GWBP)

General well-being – psychological (GWBP) was measured using a subscale of the MHC-SF (Keyes, 2002). The subscale consisted of 6 items with respondents using a 6-point

Likert scale ranging from 0 (never) to 5 (everyday) to report the frequency with which they experience each item. An interval measure was obtained by summing across all items for a range between 0 and 30. Higher scores indicate a greater level of positive well-being.

Academic Achievement: GPA

Academic achievement was measured using self-reported grade point average (GPA). Respondents were asked to report their current GPA to two decimal places, providing an interval measure of academic achievement ranging from 0.00 to 4.00. A higher GPA represents greater academic achievement.

Study Procedures

Prior to any data collection, IRB approval was obtained from National University. Data collection was conducted using an online survey administered through the Centiment platform (Field, 2018). Participants who met the sample criteria were recruited using the Centiment Data Collection Service. Recruitment materials included a brief description of the study's purpose and benefits, eligibility criteria, my contact information for any questions, and a link to the survey. Participants who clicked on the survey link were directed to the informed consent. Participants were informed their participation was voluntary and they could withdraw from the study without penalty. They were assured of the anonymity of their responses. Participants provided electronic consent by clicking a button indicating their agreement to participate in the study. Once participants provided informed consent, they were sent to the online survey, which consisted of the following sections: (a) Demographic Information, (b) SISRI-24, (c) CD-RISC 10, (d) MHC-SF, (e) SELF-A, and (f) GPA.

Participants were asked to provide demographic information, including age, gender, year in school, and college major. The online survey was designed to be user-friendly and accessible

on various devices, including computers, tablets, and smartphones. Participants had the option to save their progress and return to the survey later if needed. Data collection occurred over a specified period, with reminders sent to participants who had started but not completed the survey. The survey remained open for six weeks, when the target sample size was obtained. Participants' responses were anonymous. Data collected through the online survey were securely stored on the Centiment platform, which provided data encryption and protection. Only authorized researchers had access to the collected data. Once data collection was complete, the dataset was exported from Centiment for statistical analysis and the study was closed with the IRB. All data downloaded were saved on a password protected computer and file.

Data Analysis

Data analysis for this study included both descriptive and inferential statistical techniques to address the research questions and test the hypotheses (Field, 2018). Once the data were downloaded from Centiment, they were uploaded to SPSS for data analysis. First, the data were examined for missing data. Any respondent with more than 10% of the data missing was deleted from the analysis. Next, all variables of interest were created by following the operational definitions for each variable. Then, subscale reliabilities were computed and reported for each variable to establish the reliability of the instruments employed.

The first research question was answered through computing and reporting descriptive statistics. Descriptive analysis provided an overview of the levels and distributions of the variables among undergraduate college students (Loeb et al., 2017). Descriptive statistics included means, standard deviations, and ranges computed for all variables of interest. The second research question was answered through correlational analysis. Correlation analysis helped determine whether significant relationships existed between the variables (Castellan,

2010). Pearson correlation coefficients were calculated to examine the relationships between the variables of interest. The third and fourth research questions were answered using multivariate regression analyses to assess the direct effects of SI, ER, and SE variables on undergraduate college students' GWB and GPA. The final question was answered through path analysis to determine the indirect effects of SI within the model and allowed for examining the unique contributions of SI to student outcomes being measured.

There were several data assumptions that had to be met in order to employ correlational and multivariate regression analyses. The assumptions that the variables were measured at the interval or ratio level was accomplished through the operational definitions of each variable. Assumptions that were not met by the design of the study were evaluated prior to running the analysis to ensure the validity of the findings. The data assumptions that needed to be met for correlation were no significant outliers, normality of the variables, and linearity between variables. Boxplots were created for all variables using SPSS, with extreme outliers being examined for accuracy and to determine if they should be retained or dropped from the analysis. Normality of variables was evaluated using histograms and P-P plots; however, for sample sizes larger than 50, normality can be assumed. To evaluate linearity, a scatterplot matrix of the variables was created and visually examined to ensure no curvilinear relationships were indicated.

The additional assumptions that had to be met for multivariate regression analysis included independence of observations, homoscedasticity, no multicollinearity, and normality of residuals. The Durbin-Watson statistic was computed to ensure independence of the observations. For homoscedasticity, residual plots of the studentized residuals against the unstandardized predicted values were created to determine that the variance of the residuals was

similar across all levels of SI. To determine there was no multicollinearity, correlations among the predictor variables were examined to ensure none were above .90. Finally, normal Q-Q plots of the studentized residuals were created to make sure that the residuals were normally distributed. If assumptions were not met, appropriate solutions were employed and reported prior to running the analyses. Once all assumptions were evaluated and met, the analysis required to answer each question was conducted.

Assumptions

Assumptions in research include those details a researcher accepts as true in order to conduct the study. One assumption made was that participants would provide accurate and honest responses to the survey questions. A second assumption was that the selected instruments were reliable and valid measures of the constructs they operationalized. Another assumption was that the recruitment methods would result in a diverse and representative sample of undergraduate college students. A final assumption was that the online survey administration through Centiment would proceed without technical issues or interruptions.

Limitations

Limitations of a study are those that contribute to potential weaknesses that are out of the control of a researcher. Self-report bias was one of the limitations of this study. This study relied on self-report measures susceptible to social desirability and response biases. Participants may have provided responses that they believed were socially acceptable or reflected their desired self-image (King & DeCicco, 2009). The anonymity of the survey may have assisted with limiting self-report bias. The study's design also limited the ability to establish causality or infer temporal relationships between variables (Mertler, 2020).Convenience sampling could have introduced selection bias, as participants who chose to participate may differ from those who did

not. The results may not be fully generalizable to all undergraduate college students. The response rate for online surveys can vary, and there was a risk of non-response bias if certain groups of students were more likely to participate than others (Wynne et al., 2019). The focus of the study was on undergraduate college students in the United States, limiting its generalizability to other populations or international contexts (Boslaugh, 2007). Finally, potential confounding variables may exist (Gay et al., 2009); there may be unmeasured variables that influence the relationships between the study variables.

Delimitations

Delimitations are those boundaries set by a researcher. The study was delimited to undergraduate college students between 18 and 25 years of age in the United States. Data collection was delimited to self-report surveys. Finally, while other variables may contribute to variance in the dependent variables of interest, this study was delimited to the collection of data on the variables of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement.

Ethical Assurances

The research protocol was submitted for review and approval by the National University Institutional Review Board (IRB), ensuring compliance with ethical standards before data collection. I adhered to ethical principles and guidelines for research involving human participants. Participants were provided informed consent before participating in the study. They were provided with detailed information about the study's purpose, procedures, risks, benefits, and their rights as participants. Participants' responses were kept anonymous. Demographic data were separated from survey data and aggregated for reporting.

Participation in the study was entirely voluntary, and participants could withdraw at any time without penalty. The study did not involve vulnerable populations, such as minors or individuals with cognitive impairments. Data collected through the online survey were securely stored on the Centiment platform, which provides data encryption and protection. Once downloaded, all data were securely stored following IRB requirements.

The role of the researcher in a quantitative study includes selection and administration of data collection instruments, solicitation of participants, and statistical analysis and reporting of all findings. Great care was taken in determining the instruments to use to ensure reliability and validity of the data being collected. Solicitation of participants included all procedures noted and IRB approval was obtained and ethical procedures were followed. Evaluation of data assumptions are reported and research findings are presented transparently and accurately. No conflicts of interest are present.

Summary

The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020). The purpose of this quantitative, descriptive, and correlational study was to describe the levels of SI among undergraduate college students and examine their associations with and contributions to variance in measures of ER, SE, GWB, and academic achievement, measured as grade point average (GPA). A descriptive and correlational design was most appropriate to answer the research questions posed.

Data were collected through an online survey. There were multiple variables of interest being measured. The SISRI-24 measured SI. The CD-RISC 10 measured ER. Self-efficacy was

measured using the SELF-A. General well-being was measured using the MHC-SF. Academic achievement was measured using self-reported GPA. The targeted population included undergraduate university students between 18 and 25 years of age enrolled full-time in a four-year public or private nonprofit or for-profit university within the United States. The research questions and hypotheses were evaluated through descriptive analysis, correlation analysis, multivariate regression analysis, and path analysis.

The assumptions, limitations, and delimitations of the study were delineated, and ethical considerations were addressed to ensure the rights and well-being of participants. By investigating the relationships between these key variables, the aim of the study was to contribute to understanding factors that may influence college students' academic success and well-being. The findings may have implications for educational institutions and programs aimed at promoting the holistic development of students. The following chapter presents the findings of the study.

Chapter 4: Findings

The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and well-being (Kornas-Biela & Zysberg, 2020). Duffy et al. (2019) reported that mental health symptoms among undergraduate students have increased by almost 100% in the past ten years, and mental health issues among college students indicate decreased academic success. In 2018, the World Health Organization reported a significant need for mental health services, representing a major challenge to institutions of higher education (IHEs; Auerbach et al., 2018). College students may lack substantial spiritual intelligence (SI) and emotional resilience (ER) to overcome challenges affecting their general well-being (GWB), self-efficacy (SE), and academic performance (Holmberg & Vetere, 2021; King & DeCicco, 2009). While strengthening students' SI and ER may reduce academic procrastination (Chatterjee et al., 2022; Drigas & Mitsea, 2020; Guo et al., 2019), more studies are needed to demonstrate the impact SI may have on ER and SE and how these may serve to predict academic performance and GWB (Malandraki, 2022).

The purpose of this quantitative, descriptive, and correlational study was to describe the levels of SI among undergraduate college students and examine their associations with and contributions to variance in measures of ER, SE, GWB, and academic achievement, measured as grade point average (GPA). The target population included undergraduate students between 18 and 25 years of age enrolled full-time in a four-year public or private nonprofit or for-profit university within the United States. Convenience sampling was conducted through Centiment Data Collection Service. Descriptive data on reported levels of SI and ER among undergraduate college students can help establish a baseline within this population and provide a foundation to

evaluate their role in maintaining mental health when meeting the challenges faced during the college years. Moreover, collected measures of reported SE, GWB, and GPA allowed for examining relationships among these constructs to determine to what extent SI has a direct or indirect impact on ER, SE, GWB, and GPA. Examination of how these variables contribute to positive student outcomes can provide confidence in recommending practices for IHEs to implement programs and practices to promote SI and ER. The following research questions and associated hypotheses guided the study.

RQ1

What are the reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students?

RQ2

What significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students?

$H2_0$

No significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students.

$H2_a$

One or more significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students.

RQ3

What direct effects do undergraduate college students' spiritual intelligence have on variance of their emotional resilience, self-efficacy, general well-being, and academic achievement?

$H3_0$

Spiritual intelligence has no significant direct effects on variance in undergraduate college students' emotional resilience, self-efficacy, general well-being, and academic achievement.

$H3_a$

Spiritual intelligence has one or more significant direct effects on variance in undergraduate college students' emotional resilience, self-efficacy, general well-being, and academic achievement.

RQ4

What direct effects do undergraduate college students' emotional resilience and self-efficacy have on variance of their general well-being and academic achievement?

$H4_0$

Measures of emotional resilience or self-efficacy have no significant direct effects on variance in undergraduate college students' general well-being and academic achievement.

$H4_a$

Measures of emotional resilience or self-efficacy have one or more significant direct effects on variance in undergraduate college students' general well-being and academic achievement.

RQ5

What indirect effects, if any, do undergraduate college students' spiritual intelligence have on their general well-being and academic achievement within the final path analysis model?

$H5_0$

None of undergraduate college students' spiritual intelligence subscales have a significant indirect effect on their general well-being and academic achievement within the final path analysis model.

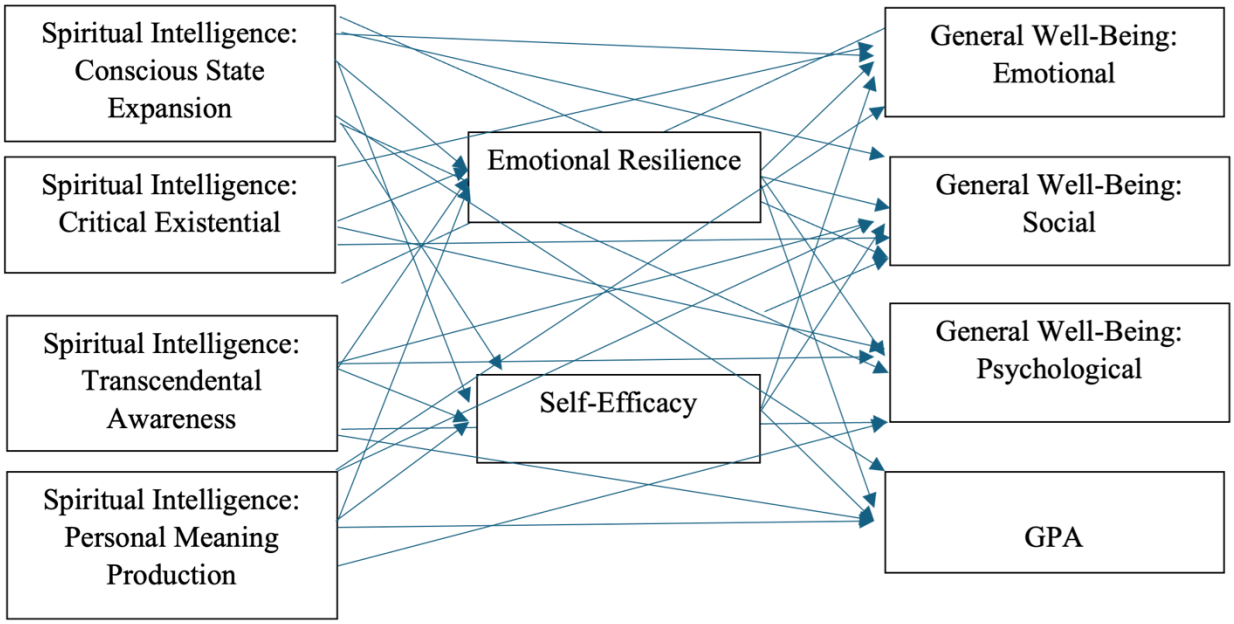
$H5_a$

One or more undergraduate college students' spiritual intelligence subscales have a significant indirect effect on their general well-being and academic achievement within the final path analysis model.

Figure 1 represents the hypothesized direct and indirect paths being investigated within the study. Path models reflect theories about causation with researchers defining how variables relate to each other and what processes influence outcomes (Lleras, 2005). According to Wright (1934), evaluation of path models when data are collected at a single point of time and no manipulation of the variables occurs, bi-directional influence should be restricted. In a hypothesized model evaluated using ordinary least squares regression, bi-directional influences cannot be evaluated. Within path analysis, hypothesized paths flow in a single direction only with no bi-directional paths and feedback loops hypothesized (Lleras, 2005).

Figure 1

Hypothesized Path Model



This chapter includes discussion of the validity and reliability of the data, to include reporting subscale reliabilities and evaluation of data assumptions for the planned analyses. The results are presented next. The results include description of the sample and the findings organized by each research question. The chapter concludes with an evaluation of the findings and a summary.

Validity and Reliability of the Data

An online survey was conducted to collect data on all variables. Spiritual Intelligence was measured using the Spiritual Intelligence Self-Report Inventory (SISRI-24) (King & DeCicco, 2009). The Connor–Davidson resilience scale (CD-RISC was used to measure ER. The abridged version of the Self Efficacy for Learning Form (SELF-A), developed and validated by Zimmerman and Kitsantas (2007), was used to measure self-efficacy (SE). General well-being (GWB) was measured using the Mental Health Continuum Short Form (MHC-SF) (Keyes, 2002). Academic achievement was measured using self-reported grade point average (GPA). All

instruments selected to measure the variables of interest were ones that had established evidence of reliability and validity from prior validation studies as well as applied research. The data were downloaded from Centiment and uploaded to SPSS for data analysis. The dataset was examined for missing data. There were no missing data points and no respondents were deleted from the analysis. Next, participant scores were calculated for all variables of interest using the operational definitions for each variable provided in Chapter 3.

In examining reliability, Cronbach's coefficient alpha was computed for each subscale to determine the reliability of each subscale variable. The resulting subscale reliabilities are provided in Table 1. Cronbach's alpha ranges from 0 to 1; the closer to 1.0, the greater the internal consistency of the subscale items. All subscales had acceptable reliability, ranging from good to excellent. A range of reliability between 0.7 and 0.8 is considered acceptable; between 0.8 and 0.9 is good; and above 0.9 is excellent (Sheposh, 2024).

The SE scale had the highest Cronbach alpha coefficient ($\alpha = .964$). The ER scale had an alpha coefficient of .80, demonstrating the subscale had acceptable internal consistency. The alpha coefficients for the SI subscales are as follows: (a) SI-Conscious State Expansion (SICSE) with .87 (b) SI- Critical Existential Thinking (SICET) with .86, (c) SI-Transcendental Awareness (SITA) with .84, and (d) SI-Personal Meaning Production (SIPMP) with .81. Based on the initial reliability analysis for the SITA scale, item 6 was dropped due to its negative correlation with the total, even after being reverse scored. Prior to deleting item 6, the Cronbach’s alpha was .746 for the seven items. The three subscales for GWB also had good reliability: (a) GWB-Emotional (GWBE) had a coefficient of .86, (b) GWB–Social (GWBS) had a Cronbach’s coefficient of .85, and (c) GWB–Psychological (GWBP) had a coefficient of .86.

Table 1

Subscale Reliabilities

Subscale	Number of Items	Cronbach's Alpha
SICSE	5	.871
SICET	7	.863
SITA	6	.838
SIPMP	5	.805
ER	10	.793
SE	18	.964
GWBE	3	.855
GWBS	5	.846
GWBP	6	.862

Note. SICSE = Spiritual Intelligence Conscious State Expansion, SICET = Spiritual Intelligence Critical Existential Thinking, SIPMP = Spiritual Intelligence Personal Meaning Production, SITA = Spiritual Intelligence Transcendental Awareness, ER = Emotional Resilience, SE = Self-Efficacy, GWBE = General Well-Being Emotional, GWBS = General Well-Being Social, GWBP = General Well-Being Psychological.

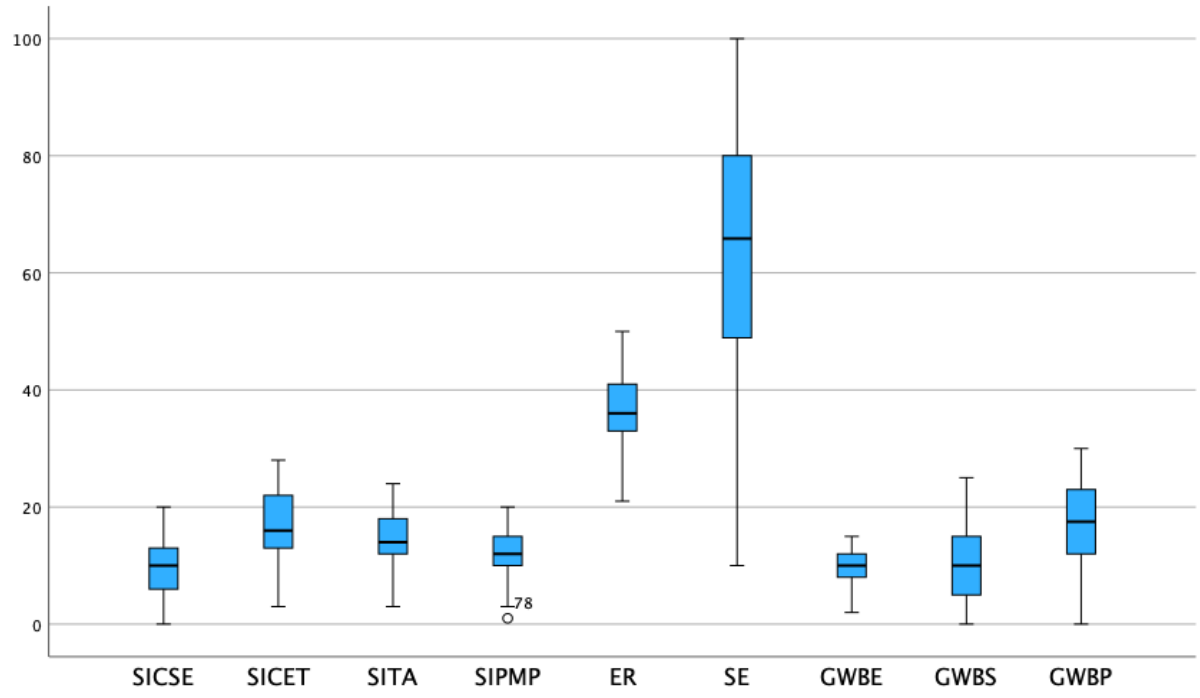
Planned data analysis included both descriptive and inferential statistical techniques to address the research questions and test the hypotheses (Field, 2018). The planned analyses included correlational analysis and multivariate regression analyses. There are several data assumptions that must be met in order to employ correlational and multivariate regression analyses. Some of these assumptions are met through the design of the study and choice of instruments. The assumptions that the variables are measured at the interval or ratio level was accomplished through the operational definitions of each variable. Assumptions that were not met by the design of the study were evaluated prior to running the analysis to ensure the validity of the findings.

The data assumptions that needed to be met for correlation included (a) no significant outliers, (b) normality of the variables, and (c) linearity between variables. To evaluate the dataset for significant outliers, boxplots were created for all variables using SPSS (see Figure 2). Upon examination, Participant 78 was identified as an outlier for the SI-PMP scale. This outlier

was examined for accuracy. Using guidance from Aguinis et al. (2013), the outlier was retained given the scores were accurate and represented a member of the target population.

Figure 2

Boxplots for All Subscale Variables



Note. SICSE = Spiritual Intelligence Conscious State Expansion, SICET = Spiritual Intelligence Critical Existential Thinking, SITA = Spiritual Intelligence Transcendental Awareness, SIPMP = Spiritual Intelligence Personal Meaning Production, ER = Emotional Resilience, SE = Self-Efficacy, GWBE = General Well-Being Emotional, GWBS = General Well-Being Social, GWBP = General Well-Being Psychological.

Though for sample sizes larger than 50, normality can be assumed (Ghasemi & Zahediasl, 2012), normality of variables was also evaluated using P-P plots. The P-P plots for all variables were visually examined. Normality was assumed with points hugging the regression line for each variable. Kolmogorov-Smirnov tests were conducted in order to determine whether the distributions were significantly different from a normal distribution. All the variables had distributions that did not significantly differ from normality: SICSE ($D = 0.10$, $p = .105$), SICET

(D = 0.10, p = .142), SITA (D = 0.07, p = .542), SIPMP (D = 0.08, p = .285), ER (D = 0.07, p = .570), SE (D = 0.09, p = .248), GWBE (D = 0.10, p = .107), GWBS (D = 0.07, p = .429), and GWBP (D = 0.07, p = .444). The results are presented in Table 2. The assumption of normality was met.

Table 2

Kolmogorov-Smirnov Test Results

Variable	*D*	*p*
SICSE	0.10	.105
SICET	0.10	.142
SITA	0.07	.542
SIPMP	0.08	.285
ER	0.07	.570
SE	0.09	.248
GWBE	0.10	.107
GWBS	0.07	.429
GWBP	0.07	.444

Note. SI = Spiritual Intelligence, SICSE= SI Conscious State Expansion, SICET = SI Critical Existential Thinking, SITA = SI Transcendental Awareness, SIPMP = SI Personal Meaning Production, ER=Emotional Resilience, SE=Self-Efficacy, GWB = General Well-Being, GWBE = GWB Emotional, GWBS = GWB Social, GWBP = GWB Psychological.

Next, a scatterplot matrix of the variables was created to evaluate linearity and ensure no curvilinear relationships were indicated; results were visually examined. All scatterplots indicated the combination of each set of variables were linear in nature and no curvilinearity issues were indicated. The additional assumptions that must be met for regression analysis are (a) independence of observations, (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals and will be reported for each analysis within the appropriate results for each RQ.

Results

After obtaining Institutional Review Board (IRB) approval from National University, the survey was distributed via email using the college student database of the Centiment Data Collection Service. The invitation declared the context and length of the study, and my contact information if potential participants had any questions. The invitation also indicated that participation was voluntary and confidential. The survey was open for two weeks. One hundred and thirty-nine respondents completed the survey in its entirety. This met the minimum required sample size of 114 respondents computed using G-Power. The study was closed with the IRB.

Participant Demographics

A total of 138 members of the target population completed the survey. All participants confirmed they were enrolled full-time in a four-year public or private nonprofit or for-profit university within the United States. Of the 138 participants, 49% (n=69) were female, 48.7% (n=66) were male, and 2.8% (n=4) were non-binary. The majority of the participants represented the traditional college ages between 18 and 22 years of age, with 29% (n=41) 18-year-olds, 21% (n=30) 19-year-olds, 18.7% (n=26) 20-year-olds, 16.5% (n=23) 21-year-olds, and 10.7% (n=15) 22-year-olds; there were also 2.1% (n=3) who were 23-year-olds and 0.72% (n= 1) who was 25-years-old. Thirty-eight percent (n=53) of participants were freshman, while 25% (n=35) were sophomores, 20% (n=28) were juniors, and 16.5% (n=23) were seniors. The participants were enrolled across 11 diverse majors. The most frequently reported majors were Health Science, Technological Science, Arts, General Science, and Social Science. Other majors reported included General Studies, Business, Math, English, History, and Undeclared.

RQ1

The first research question posed was: What are the reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students? Descriptive statistics were calculated and are provided in Table 3. The descriptive statistics provide insight into the reported levels of SI, ER, SE, GWB, and GPA among undergraduate college students in the sample.

Table 3

Descriptive Statistics for all Variables

Variable	N	Min	Max	Mean	SD	Median
SICSE	138	0	20	9.53	4.92	10.00
SICET	138	3	28	16.99	6.13	16.00
SITA	138	3	24	14.36	4.69	14.00
SIPMP	138	1	20	12.01	3.87	12.00
ER	138	21	50	36.49	5.91	36.00
SE	138	10	100	61.92	22.30	65.83
GWBE	138	2	15	9.80	3.15	10.00
GWBS	138	0	25	10.49	6.25	10.00
GWBP	138	0	30	17.44	6.95	17.50
GPA	138	2.00	4.80	3.46	.60	3.30

Note. SI = Spiritual Intelligence, SICSE= SI Conscious State Expansion, SICET = SI Critical Existential Thinking, SITA = SI Transcendental Awareness, SIPMP = SI Personal Meaning Production, ER=Emotional Resilience, SE=Self-Efficacy, GWB = General Well-Being, GWBE = GWB Emotional, GWBS = GWB Social, GWBP = GWB Psychological, GPA= Academic achievement

Of the SI subscales, SICET (M=16.99, SD=6.13) had the highest average, though considered moderate given the possible range from 0 to 28, and greatest variation, with the mean score above the median. For SICET, a higher score indicates greater ability to think critically and reflectively about existential and spiritual questions. SICSE (M=9.53, SD=4.92) was the lowest SI subscale score and on the low moderate side and slightly below the median score of 10. For SICSE, a higher score indicates greater ability to experience altered states of consciousness and

capacity to integrate these states into their daily life for personal growth and spiritual development. SIPMP (M=12.01, SD=3.87) scores represented moderate SIPMP and moderate variability. For SIPMP, a higher score indicates greater capacity to derive significance from spiritual experiences and beliefs and apply them to their life's journey. SITA (M=14.36, SD=4.69) was also moderate and above the median of 14. For SITA, a higher score indicates greater sense of unity with the universe, connection to something greater than themselves, and ability to transcend ego-centered perspectives. Across participants, the average ER (M=36.49, SD=5.91) was slightly above the median score of 36 and represents moderate resilience for this sample. Similar to ER, participants' reported SE (M=61.92, SD=22.30) was slightly below the median score of 65.83, indicating moderate self-efficacy among students.

For the GWB scales, the reported GWBP (M=17.44, SD=6.95) was moderate given the highest possible score is 30 and the mean was just slightly below the median with somewhat high variability, GWBS (M=10.49, SD=6.25) was moderately low, given the highest possible score is 25, with somewhat high variability, and GWBE (M=9.80, SD=3.15) was high moderate, with 15 as the highest possible score, and had lower variability than the other two GWB subscales. Academic achievement, reported as GPA (M=3.46, SD=.60), was moderately high with low variability. Overall, undergraduate students reported moderate levels of ER, SE, and GPA while SI and GWB subscales had greater variation in reported averages with some means below the median.

RQ2

The second research question posed was: What significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students? A correlational analysis using

Pearson's r was conducted for all variables. Cohen's standard was used to evaluate the strength of the relationships, where coefficients between .10 and .29 represent a small effect size, coefficients between .30 and .49 represent a moderate effect size, and coefficients above .50 indicate a large effect size (Cohen, 1988). Results are reported in Table 4. The null hypothesis was rejected.

Table 4

Pearson Correlations Among Variables

Variable	1	2	3	4	5	6	7	8	9
1. SICSE	-								
2. SICET	.40**	-							
3. SITA	.63**	.62**	-						
4. SIPMP	.60**	.43**	.65**	-					
5. ER	.41**	.29**	.36**	.57**	-				
6. SE	.15	.00	.20*	.28**	.43**	-			
7. GWBE	.11	-.09	.04	.25**	.21**	.28**	-		
8. GWBS	.25**	-.01	.16	.38**	.44**	.39**	.69**	-	
9. GWBP	.37**	.10	.33**	.56**	.47**	.39**	.68**	.68**	-
10. GPA	-.08	-.16	-.07	-.05	.01	.38**	.18*	.19*	.15

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)
Note. SI = Spiritual Intelligence, SICSE= SI Conscious State Expansion, SICET = SI Critical Existential Thinking, SITA = SI Transcendental Awareness, SIPMP = SI Personal Meaning Production, ER=Emotional Resilience, SE=Self-Efficacy, GWB = General Well-Being, GWBE = GWB Emotional, GWBS = GWB Social, GWBP = GWB Psychological, GPA= Academic achievement

All SI subscales were significantly moderately positively correlated with one another. None of the correlations among the SI subscales reached .70 or higher, which is indicative of the absence of multicollinearity among these subscales. All SI subscales were significantly correlated with ER, with its strongest correlation with SIPMP (r = .57) and then SICSE (r = .41), SITA (r = .36), and SICET (r = .29). Emotional resilience was also significantly positively

correlated with SE (r = .43) and all GWB subscales [GWBE (r = .21), GWBS (r = .44), GWBP (r = .47)]. Self efficacy was significantly correlated with SIPMP (r = .28) and SITA (r = .20) and all GWB subscales [GWBE (r = .28), GWBS (r = .39), GWBP (r = .39)]. The GWB subscales were all significantly correlated with one another. As with the SI subscales, none reached .70 or higher, which is indicative of the absence of multicollinearity among these subscales. Only three variables were significantly correlated with GPA; they were SE (r = .38), GWBE (r = .18) and GWBS (r = .19).

RQ3

The third research question posed was: What direct effects do undergraduate college students' spiritual intelligence have on variance in their emotional resilience, self-efficacy, general well-being, and academic achievement? To answer this question, a multivariate regression analysis was conducted to determine to what extent the SI subscales served as significant predictors, if at all, of the dependent variables of students' reported ER, SE, GWB, and GPA. Results are reported in Table 5.

Results for Emotional Resilience. Assumptions evaluated include those for (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic (DW = 2.200, p =.880). Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise

diagnostics, the assumption of no outliers was met with no studentized residuals greater than ±3 standard deviations. The residuals were centered around zero, and the standardized and studentized residuals were within acceptable ranges, indicating there were no significant outliers or influential data points affecting the model. Finally, normality of residuals was confirmed through visual examination of the histogram with superimposed normal curve and a P-P plot of the studentized residuals.

The regression model for ER and the four SI predictors was significant, $F(4, 133) = 17.04$, $p < .001$, $R^2 = .339$, indicating that approximately 34% of the variance in ER is explainable by the SI subscales. Coefficient analysis revealed that the only statistically significant predictor of ER was SIPMP ($\beta = .53$, $t = 5.44$, $p < .001$), indicating that higher personal meaning production is associated with greater emotional resilience.

Results for Self-Efficacy. Assumptions evaluated include those for are (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic ($DW = 2.15$, $p = .805$). Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise diagnostics, the assumption of no outliers was met with no studentized residuals greater than ±3 standard deviations. The residuals were centered around zero, and the standardized and studentized residuals were within acceptable ranges, indicating there were no significant outliers or influential data points affecting the model.

Table 5

Regression Results for Direct Effects of SI Variables as Predictors

Dependent Variable Predictors	*β*	*t*	*p*	*F*	*df1,df2*	*R2*
ER			<.001	17.044	4,133	.339
SICSE	.14	1.46	.147			
SICET	.07	.82	.416			
SITA	-.12	-1.06	.290			
SIPMP	.53	5.44	<.001			
SE			.004	3.997	4,133	.107
SICSE	-.04	-.40	.691			
SICET	-.21	-2.00	.047			
SITA	.17	1.27	.208			
SIPMP	.29	2.56	.012			
GWBE			.002	4.423	4,133	.117
SICSE	.01	.11	.916			
SICET	-.21	-2.06	.041			
SITA	-.09	-.68	.497			
SIPMP	.40	3.50	<.001			
GWBS			<.001	7.790	4,133	.190
SICSE	.10	.94	.350			
SICET	-.20	-2.03	.044			
SITA	-.07	-.52	.602			
SIPMP	.45	4.20	<.001			
GWBP			<.001	17.930	4,133	.350
SICSE	.08	.87	.388			
SICET	-.22	-2.41	.017			
SITA	.04	.36	.716			
SIPMP	.58	5.99	<.001			
GPA			.374	1.070	4,133	.031
SICSE	-.08	-.65	.516			
SICET	-.20	-1.80	.074			
SITA	.08	.61	.545			
SIPMP	.03	.26	.798			

Note. SI = Spiritual Intelligence, SICSE= SI Conscious State Expansion, SICET = SI Critical Existential Thinking, SITA = SI Transcendental Awareness, SIPMP = SI Personal Meaning Production, ER = Emotional Resilience, SE=Self-Efficacy, GWB = General Well-Being, GWBE = GWB Emotional, GWBS = GWB Social, GWBP = GWB Psychological, GPA= Grade Point Average

Finally, normality of residuals was confirmed through visual examination of the histogram with superimposed normal curve and a P-P plot of the studentized residuals.

The regression model for SE and the four SI predictors was significant, $F(4, 133) = 3.997$, $p = .004$, $R^2 = .107$, indicating that approximately 11% of the variance in SE is explainable by the SI subscales. Given the modest R Square, there are other factors contributing to SE that are not captured by the SI subscales in this model. Coefficient analysis revealed two SI subscales were statistically significant predictors of SE: SICET ($\beta = -.21$, $t = -2.00$, $p = .047$) and SIPMP ($\beta = .29$, $t = 2.56$, $p = .012$). Note the negative beta weight for SICET, indicating that the higher SICET is associated with lower SE.

Results for General Well-Being - Emotional. Assumptions evaluated include those for are (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic ($DW = 1.761$, $p = .078$). Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise diagnostics, the assumption of no outliers was met with no studentized residuals greater than ±3 standard deviations. The residuals were centered around zero, and the standardized and studentized residuals were within acceptable ranges, indicating there were no significant outliers or influential data points. Finally, normality of residuals was confirmed through visual

examination of the histogram with superimposed normal curve and a P-P plot of the studentized residuals.

The GWBE regression model with the four SI predictors was significant, $F(4, 133) = 4.423$, $p = .002$, $R^2 = .117$, indicating that approximately 12% of the variance in GWBE is explainable by the SI subscales. Given the modest R Square, there are other factors contributing to GWBE that are not captured by the SI subscales in this model. Coefficient analysis revealed two SI subscales were statistically significant predictors of GWBE: SICET ($\beta = -.210$, $t = -2.06$, $p = .041$) and SIPMP ($\beta = .40$, $t = 3.50$, $p < .001$). Note the negative beta weight for SICET, indicating that the higher SICET is associated with lower GWBE.

Results for General Well-Being - Social. Assumptions evaluated include those for are (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic (DW = 1.906, *p* = .286). Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise diagnostics, the assumption of no outliers was met with no studentized residuals greater than ±3 standard deviations. The residuals were centered around zero, and the standardized and studentized residuals were within acceptable ranges, indicating there were no significant outliers or influential data points. Finally, normality of residuals was confirmed through visual

examination of the histogram with superimposed normal curve and a P-P plot of the studentized residuals.

The GWBS regression model with the four SI predictors was significant, $F(4, 133) = 7.790$, $p = <.001$, $R^2 = .190$, indicating that approximately 19% of the variance in GWBS is explainable by the SI subscales. Given the modest R Square, there are other factors contributing to GWBS that are not captured by the SI subscales in this model. Coefficient analysis revealed two SI subscales were statistically significant predictors of GWBS: SICET ($\beta = -.207$, $t = -2.031$, $p = .044$) and SIPMP ($\beta = .45$, $t = 4.20$, $p = <.001$). Note the negative beta weight for SICET, indicating that the higher CET is associated with lower GWBE.

Results for General Well-Being – Psychological. Assumptions evaluated include those for are (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic *(*DW = 2.075, *p* = .668). Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise diagnostics, the assumption of no outliers was met with no studentized residuals greater than ±3 standard deviations. The residuals were centered around zero, and the standardized and studentized residuals were within acceptable ranges, indicating there were no significant outliers or influential data points. Finally, normality of residuals was

confirmed through visual examination of the histogram with superimposed normal curve and a P-P plot of the studentized residuals.

The GWBP regression model with the four SI predictors was significant, $F(4, 133) = 17.930$, $p < .001$, $R^2 = .350$, indicating that approximately 35% of the variance in GWBE is explainable by the SI subscales. Coefficient analysis revealed two SI subscales were statistically significant predictors of GWBE: SICET ($\beta = -.22$, $t = -2.41$, $p = .017$) and SIPMP ($\beta = .58$, $t = 5.99$, $p < .001$). Note the negative beta weight for SICET, indicating that the higher SICET is associated with lower GWBP.

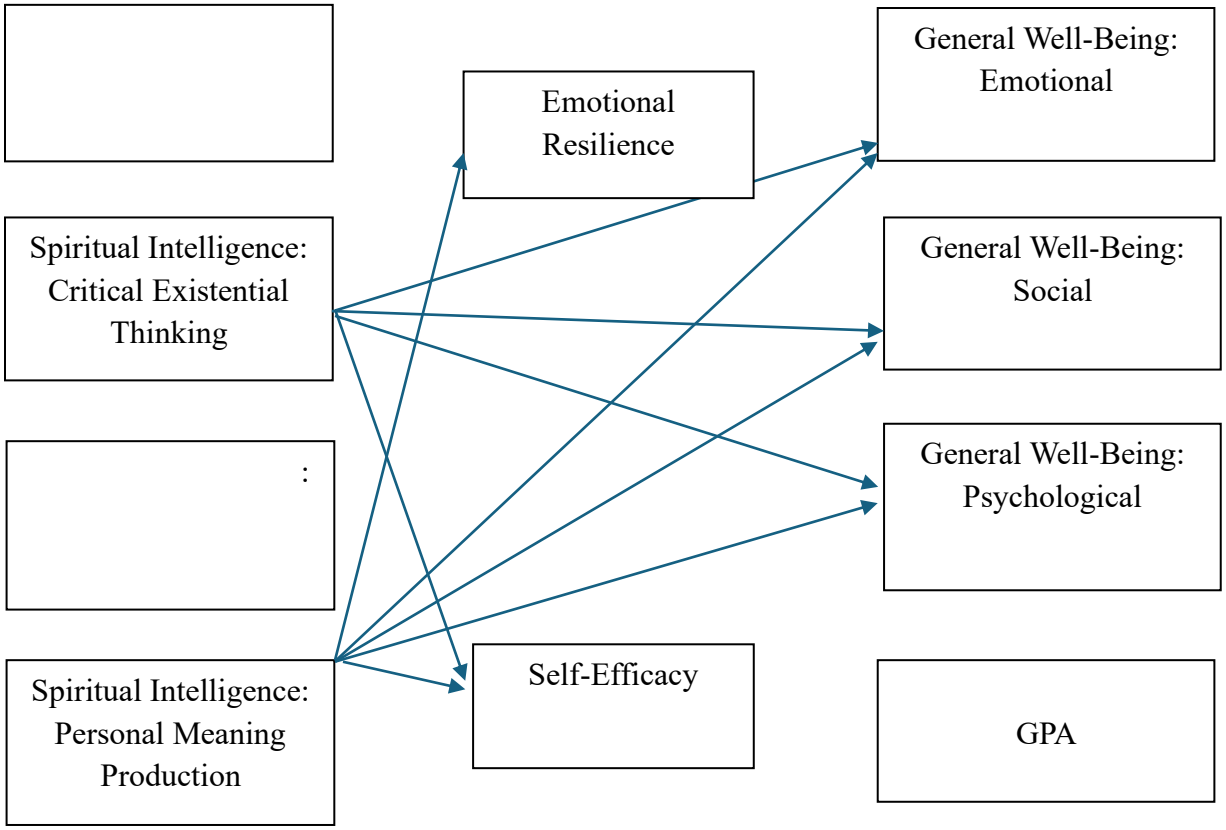
Results for Academic Achievement - GPA. Assumptions evaluated include those for are (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic *(DW* = 2.35, *p* = .980). Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise diagnostics, the assumption of no outliers was met with no studentized residuals greater than ±3 standard deviations. The residuals were centered around zero, and the standardized and studentized residuals were within acceptable ranges, indicating that there were no significant outliers or influential data points affecting the model. Finally, normality of residuals was confirmed through visual examination of the histogram with superimposed normal curve and a P-P Plot of the studentized residuals. The GPA regression model with the four SI predictors was

not significant, $F(4, 133) = 1.07$, $p = .374$, $R^2 = .031$. There were no significant SI predictors of GPA.

Figure 3 illustrates all significant paths of the direct effects of SI variables on ER, SE, GWB, and GPA.

Figure 3

Path Model with Significant Direct Paths from SI Subscales to SE, ER, GWB, and GPA



RQ4

The fourth research question posed was: What direct effects do undergraduate college students' emotional resilience and self-efficacy have on variance in their general well-being and academic achievement? To answer this question, a multivariate regression analysis was conducted to determine to what extent the ER and SE subscales served as significant predictors,

if at all, of the dependent variables of students' reported GWBE, GWBS, GWBP, and GPA. Results are shown in Table 6.

Table 6

Regression results for General Well-Being & GPA with predictors

Dependent Variable Predictors	***β***	***t***	***p***	***F***	***df1, df2***	***R2***
GWB-Emotional			.002	6.72	2, 135	.091
ER	.059	1.22	.224			
SE	.033	2.59	.011			
GWB-Social			<.001	21.81	2, 135	.244
ER	.351	4.00	<.001			
SE	.070	3.01	.003			
GWB-Psychological			<.001	24.538	2, 135	.267
ER	.441	4.58	<.001			
SE	.071	2.79	.006			
GPA			<.001	14.631	2, 135	.178
ER	-.020	-2.24	.027			
SE	.013	5.41	<.001			

Note. ER = Emotional Resilience, SE=Self-Efficacy, GWB = General Well-Being, GWBE = GWB Emotional, GWBS = GWB Social, GWBP = GWB Psychological, GPA= Grade Point Average

Results for General Well-Being - Emotional. Assumptions evaluated include those for (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.906. Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise diagnostics, the assumption of no outliers

was met with no studentized residuals greater than ±3 standard deviations. The residuals were centered around zero, and the standardized and studentized residuals were within acceptable ranges, indicating there were no significant outliers or influential data points. Finally, normality of residuals was confirmed through visual examination of the histogram with superimposed normal curve and a P-P plot of the studentized residuals.

The GWBE regression model with ER and SE as predictors was significant, $F(2,135) = 6.72$, $p = .002$, $R^2 = .09$, indicating that approximately 9.06% of the variance in GWBE is explainable by ER and SE. Given the low R Square, there are other factors contributing to GWBE that are not captured in this model. Coefficient analysis revealed only SE was a significant predictor. SE significantly predicted GWBE, $B = 0.03$, $t(135) = 2.59$, $p = .011$. This indicates that on average, a one-unit increase of SE will increase the value of GWBE by 0.03 units.

Results for General Well-Being - Social. Assumptions evaluated include those for (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.96. Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise diagnostics, the assumption of no outliers was met with no studentized residuals greater than ±3 standard deviations. The residuals were centered around zero, and the standardized and studentized residuals were within acceptable

ranges, indicating there were no significant outliers or influential data points. Finally, normality of residuals was confirmed through visual examination of the histogram with superimposed normal curve and a P-P plot of the studentized residuals.

The GWBS regression model with ER and SE as predictors was significant, $F(2,135) = 21.81$, $p < .001$, $R^2 = .24$, indicating that approximately 24.42% of the variance in GWBS is explainable by ER and SE. Given the modest R Square, there are other factors contributing to GWBS that are not captured in this model. Coefficient analysis revealed both subscales were statistically significant predictors of GWBS. ER significantly predicted GWBS, $B = 0.35$, $t(135) = 4.00$, $p < .001$. This indicates that on average, a one-unit increase of ER will increase the value of GWBS by 0.35 units. SE significantly predicted GWBS, $B = 0.07$, $t(135) = 3.01$, $p = .003$. This indicates that on average, a one-unit increase of SE will increase the value of GWBS by 0.07 units.

Results for General Well-Being – Psychological. Assumptions evaluated include those for (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.80. Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise diagnostics, the assumption of no outliers was met with no studentized residuals greater than ±3 standard deviations. The residuals were centered around zero, and the standardized and

studentized residuals were within acceptable ranges, indicating there were no significant outliers or influential data points. Finally, normality of residuals was confirmed through visual examination of the histogram with superimposed normal curve and a P-P plot of the studentized residuals.

The GWBP regression model with ER and SE as predictors was significant, $F(2,135) = 24.54$, $p < .001$, $R^2 = .27$, indicating that approximately 27% of the variance in GWBP is explainable by ER and SE. Given the modest R Square, there are other factors contributing to GWBS that are not captured in this model. Coefficient analysis revealed both subscales were statistically significant predictors of GWBE. ER significantly predicted GWBP, $B = 0.44$, $t(135) = 4.58$, $p < .001$. This indicates that on average, a one-unit increase of ER will increase the value of GWBP by 0.44 units. SE significantly predicted GWBP, $B = 0.07$, $t(135) = 2.80$, $p = .006$. This indicates that on average, a one-unit increase of SE will increase the value of GWBP by 0.07 units.

Results for Academic Achievement - GPA. Assumptions evaluated include those for (a) independence of observations (residuals), (b) homoscedasticity, (c) no multicollinearity, and (d) normality of residuals. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.384. Homoscedasticity was met, as assessed through visual examination of the plot of studentized residuals against the unstandardized predicted values and with the residuals evenly spread. Visual examination of the partial regression plots between each independent variable and the dependent variable indicated the linearity assumption was met with all plots indicating linearity and no curvilinear relationships. The assumption of no multicollinearity was met, as all Tolerance values were greater than 0.1. Using casewise diagnostics, the assumption of no outliers was met with no studentized residuals greater than ±3 standard deviations. The residuals are

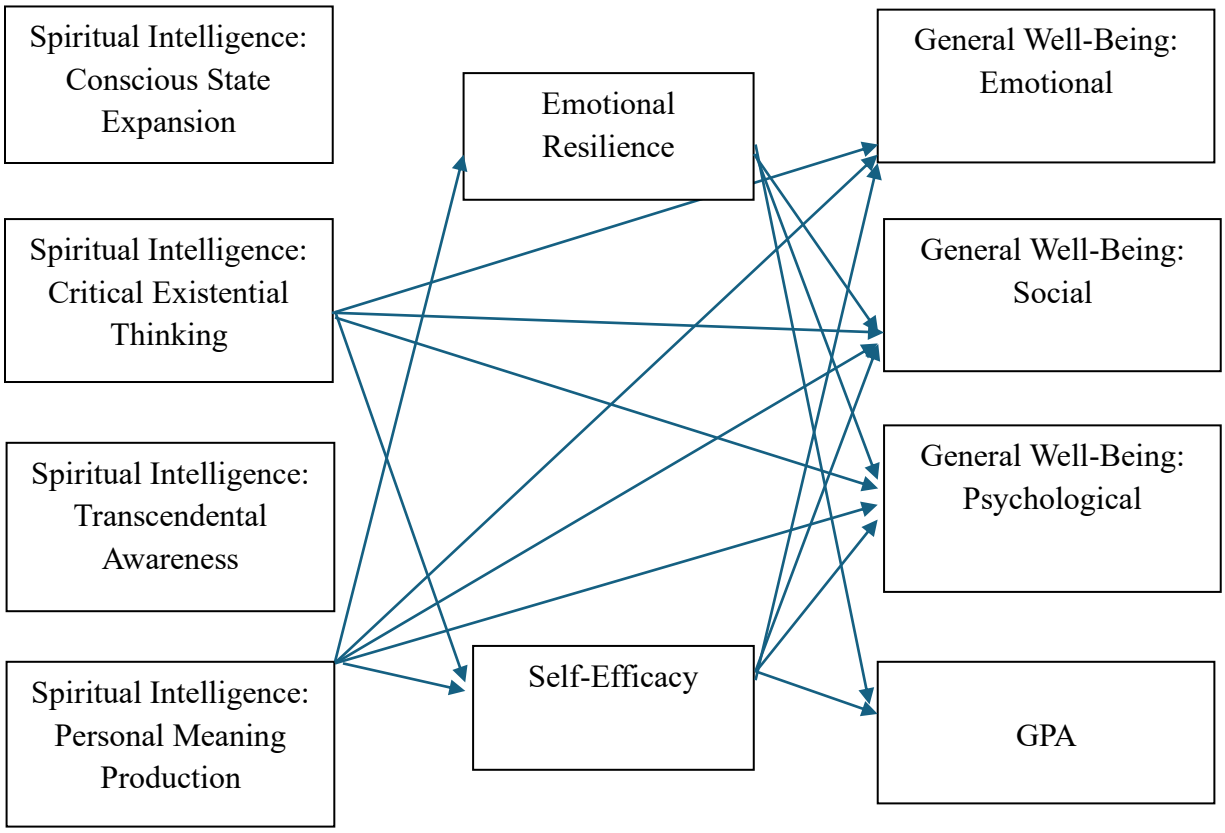
centered around zero, and the standardized and studentized residuals are within acceptable ranges, indicating that there are no significant outliers or influential data points affecting the model. Finally, normality of residuals was confirmed through visual examination of the histogram with superimposed normal curve and a P-P Plot of the studentized residuals.

The GPA regression model with the ER and SE as predictors was significant, $F(2,135) = 14.63$, $p < .001$, $R^2 = .18$, indicating that approximately 17.81% of the variance in GPA is explainable by ER and SE. Coefficient analysis revealed both subscales were statistically significant predictors of GPA. ER significantly predicted GPA, $B = -0.02$, $t(135) = -2.24$, $p = .027$. Note the negative beta weight for ER suggests that the higher ER is associated with lower GPA. This indicates that on average, a one-unit increase of ER will decrease the value of GPA by 0.02 units. SE significantly predicted GPA, $B = 0.01$, $t(135) = 5.41$, $p < .001$. This indicates that on average, a one-unit increase of SE will increase the value of GPA by 0.01 units.

Figure 4 illustrates all additional significant paths of the direct effects of ER and SE variables on GWB variables and GPA

Figure 4

Path Model with Significant Direct Paths from ER and SE to GWB and GPA Added



RQ5

The fifth research question posed was: What indirect effects, if any, do undergraduate college students' spiritual intelligence have on their general well-being and academic achievement within the final path analysis model? To answer this question, path analysis was conducted on the Figure 4 path model, including the significant direct effects identified thus far in the data analysis. The path analysis provided for identification of any significant indirect paths along with an overall evaluation of the path model. A path analysis model determines whether the model of regressions accurately describe the data. Maximum likelihood estimation was performed to determine the standard errors for the parameter estimates.

Additional assumptions for path analysis were evaluated. To assess the assumption of multivariate normality, the squared Mahalanobis distances were calculated for the data and plotted against the quantiles of a Chi-square distribution (DeCarlo, 1997; Field, 2018). The scatterplot was visually examined and the points formed a relatively straight line, indicating normality can be assumed. Any multivariate outliers were identified by calculating Mahalanobis distances and comparing them with the quantiles of a χ^2 distribution (Newton & Rudestam, 2012). An outlier was defined as any Mahalanobis distance that exceeded 26.12, the .999 quantile of a χ^2 distribution with 8 degrees of freedom (Kline, 2015). There were no outliers detected. To assess multicollinearity, the squared multiple correlations were inspected and the determinant of the correlation matrix was calculated. No variables had an $R^2 > .90$, the assumption of no multicollinearity was met (Kline, 2015).

A common rule of thumb for determining sufficient sample size is 300 observations (Comrey & Lee, 2013; Tabachnick & Fidell, 2013). Bentler and Chou (1987) suggested that an acceptable ratio is 5:1. The participant to item ratio for this analysis was approximately 5 to 1; the sample size was 138 and the number of variables included was 24. Though the given sample size is acceptable based on Bentler and Chou, the results may be unreliable with a larger sample and a higher participant to item ratio desirable. The results of the path analysis model are presented in Table 7 and Table 8. The final path diagram is presented in Figure 5.

Table 7

Loadings and Significance for Parameters in Path Analysis Model

Parameter Estimate	Unstandardized	Standardized	*p*
Regressions			
SICET → GWBE	-0.11(0.04)	-0.21	.005
SICET → GWBS	-0.20(0.07)	-0.19	.007
SICET → GWBP	-0.19(0.08)	-0.16	.013
SICET → SE	-0.54(0.29)	-0.14	.068
SIPMP → GWBE	.24(0.07)	0.28	< .001
SIPMP → GWBS	0.43(0.15)	0.26	.004
SIPMP → GWBP	0.88(0.15)	0.47	< .001
SIPMP → SE	1.99(0.47)	0.34	< .001
SIPMP → ER	0.87(0.11)	0.57	< .001
ER → GWBP	0.19(0.09)	0.15	.043
ER → GWBS	0.27(0.09)	0.25	.003
ER → GPA	-0.02(0.008)	-0.19	.014
SE → GWBE	0.03(0.01)	0.20	< .014
SE → GWBS	0.06(0.02)	0.21	< .005
SE → GWBP	0.06(0.02)	0.18	.008
SE → GPA	0.01(0.002)	0.47	< .001
Indirect Effects			
SICET by SE on GWBE	-0.02(0.01)	-0.03	.143
SICET by SE on GWBS	-0.03(0.02)	-0.03	.127
SICET by SE on GWBP	-0.03(0.02)	-0.03	.133
SIPMP by SE on GWBP	0.11(0.05)	0.06	.024
SIPMP by ER on GWBP	0.17(0.08)	0.09	.049
SIPMP by SE on GWBS	0.12(0.05)	0.07	.020
SIPMP by ER on GWBS	0.23(0.08)	0.14	.006
SIPMP by SE on GWBE	0.06(0.03)	0.07	.033
Total Effects			
SICET on GWBE	-0.13(0.04)	-0.24	.002
SICET on GWBS	-0.23(0.07)	-0.22	.002
SICET on GWBP	-0.22(0.08)	-0.18	.004
SIPMP on GWBP	1.16(0.12)	0.62	<.001
SIPMP on GWBS	0.78(0.12)	0.47	<.001
SIPMP on GWBE	0.29(0.07)	0.35	<.001

Direct Effects. The final path model included a number of significant regressions. The regressions were examined based on an alpha value of .05. SICET significantly predicted GWBE, B = -0.11, z = -2.78, p = .005, indicating a one-unit increase in SICET will decrease the expected value of GWBE by 0.11 units. SE significantly predicted GWBS, B = 0.06, z = 2.79, p = .005, indicating a one-unit increase in SE will increase the expected value of GWBS by 0.06 units. SICET significantly predicted GWBS, B = -0.20, z = -2.69, p = .007, indicating a one-unit increase in SICET will decrease the expected value of GWBS by 0.20 units. SICET did not significantly predict SE, B = -0.54, z = -1.82, p = .068, suggesting there is no relationship between SICET and SE.

SIPMP significantly predicted GWBP, B = 0.88, z = 5.90, p < .001, indicating a one-unit increase in SIPMP will increase the expected value of GWBP by 0.88 units. SIPMP significantly predicted GWBS, B = 0.43, z = 2.92, p = .004, indicating a one-unit increase in SIPMP will increase the expected value of GWBS by 0.43 units. SIPMP significantly predicted GWBE, B = 0.24, z = 3.48, p < .001, indicating a one-unit increase in SIPMP will increase the expected value of GWBE by 0.24 units. SIPMP significantly predicted SE, B = 1.99, z = 4.26, p < .001, indicating a one-unit increase in SIPMP will increase the expected value of SE by 1.99 units. SIPMP significantly predicted ER, B = 0.87, z = 8.15, p < .001, indicating a one-unit increase in SIPMP will increase the expected value of ER by 0.87 units.

ER significantly predicted GWBP, B = 0.19, z = 2.03, p = .043, indicating a one-unit increase in ER will increase the expected value of GWBP by 0.19 units. ER significantly predicted GWBS, B = 0.27, z = 2.93, p = .003, indicating a one-unit increase in ER will increase the expected value of GWBS by 0.27 units.ER significantly predicted GPA, B = -0.02, z = -

2.46, p = .014, indicating a one-unit increase in ER will decrease the expected value of GPA by 0.02 units.

SE significantly predicted GWBE, B = 0.03, z = 2.46, p = .014, indicating a one-unit increase in SE will increase the expected value of GWBE by 0.03 units. SE significantly predicted GWBS, B = 0.06, z = 2.79, p = .005, indicating a one-unit increase in SE will increase the expected value of GWBS by 0.06 units. SE significantly predicted GWBP, B = 0.06, z = 2.66, p = .008, indicating a one-unit increase in SE will increase the expected value of GWBP by 0.06 units. SE significantly predicted GPA, B = 0.01, z = 6.08, p < .001, indicating a one-unit increase in SE will increase the expected value of GPA by 0.01 units.

Indirect Effects. A test of mediation (i.e., indirect effect) was conducted to determine whether SE mediated the relationship between SICET and GWBE. The direct effect between SICET and GWBE was significant, suggesting that full mediation by SE did not occur, although some partial mediation may still be present. Partial mediation was examined using the indirect and total effects of SE on the relationship between SICET and GWBE (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010). The indirect effect of SE on the relationship of GWBE regressed on SICET was *not* significant, B = -0.02, z = -1.46, p = .143. The total effect of SICET on GWBE was significant, B = -0.13, z = -3.13, p = .002, indicating a one-unit increase in SICET will decrease the expected value of GWBE by -0.13 units. Since the indirect effect was not significant, partial mediation was not supported by SE (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010).

A second test of mediation was conducted to determine whether SE mediated the relationship between SICET and GWBS. The direct effect between SICET and GWBS was significant, suggesting that full mediation by SE did not occur, although some partial mediation

may still be present. Partial mediation was examined using the indirect and total effects of SE on the relationship between SICET and GWBS (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010). The indirect effect of SE on the relationship of GWBS regressed on SICET was *not* significant, B = -0.03, z = -1.53, p = .127. The total effect of SICET on GWBS was significant, B = -0.23, z = -3.07, p = .002, indicating a one-unit increase in SICET will decrease the expected value of GWBS by -0.23 units. Since the indirect effect was not significant, partial mediation was not supported by SE (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010).

A third test of mediation was conducted to determine whether SE mediated the relationship between SICET and GWBP. The direct effect between SICET and GWBP was significant, suggesting that full mediation by SE did not occur, although some partial mediation may still be present. Partial mediation was examined using the indirect and total effects of SE on the relationship between SICET and GWBP (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010). The indirect effect of SE on the relationship of GWBP regressed on SICET was *not* significant, B = -0.03, z = -1.50, p = .133. The total effect of SICET on GWBP was significant, B = -0.22, z = -2.85, p = .004, indicating a one-unit increase in SICET will decrease the expected value of GWBP by -0.22 units. Since the indirect effect was not significant, partial mediation was not supported by SE (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010).

A fourth test of mediation was conducted to determine whether SE mediated the relationship between SIPMP and GWBP. The direct effect between SIPMP and GWBP was significant, suggesting that full mediation by SE did not occur, although some partial mediation may still be present. Partial mediation was examined using the indirect and total effects of SE on

the relationship between SIPMP and GWBP (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010). The indirect effect of SE on the relationship of GWBP regressed on SIPMP was significant, $B = 0.11$, $z = 2.26$, $p = .024$, indicating a one-unit increase in SIPMP, based on its effect on SE, will increase the expected value of GWBP by 0.11 units. The total effect of SIPMP on GWBP was significant, $B = 1.16$, $z = 9.49$, $p < .001$, indicating a one-unit increase in SIPMP will increase the expected value of GWBP by 1.16 units. Since the indirect and total effects were significant, partial mediation was supported by SE (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010). The null hypothesis was rejected.

A fifth test of mediation was conducted to determine whether ER mediated the relationship between SIPMP and GWBP. The direct effect between SIPMP and GWBP was significant, suggesting that full mediation by ER did not occur, although some partial mediation may still be present. Partial mediation was examined using the indirect and total effects of ER on the relationship between SIPMP and GWBP (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010). The indirect effect of ER on the relationship of GWBP regressed on SIPMP was significant, $B = 0.17$, $z = 1.97$, $p = .049$, indicating a one-unit increase in SIPMP, based on its effect on ER, will increase the expected value of GWBP by 0.17 units. The total effect of SIPMP on GWBP was significant, $B = 1.16$, $z = 9.49$, $p < .001$, indicating a one-unit increase in SIPMP will increase the expected value of GWBP by 1.16 units. Since the indirect and total effects were significant, partial mediation was supported by ER (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010).

A sixth test of mediation was conducted to determine whether SE mediated the relationship between SIPMP and GWBS. The direct effect between SIPMP and GWBS was significant, suggesting that full mediation by SE did not occur, although some partial mediation

may still be present. Partial mediation was examined using the indirect and total effects of SE on the relationship between SIPMP and GWBS (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010). The indirect effect of SE on the relationship of GWBS regressed on SIPMP was significant, $B = 0.12$, $z = 2.33$, $p = .020$, indicating a one-unit increase in SIPMP, based on its effect on SE, will increase the expected value of GWBS by 0.12 units. The total effect of SIPMP on GWBS was significant, $B = 0.78$, $z = 6.38$, $p < .001$, indicating a one-unit increase in SIPMP will increase the expected value of GWBS by 0.78 units. Since the indirect and total effects were significant, partial mediation was supported by SE (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010).

A seventh test of mediation was conducted to determine whether ER mediated the relationship between SIPMP and GWBS. The direct effect between SIPMP and GWBS was significant, suggesting that full mediation by ER did not occur, although some partial mediation may still be present. Partial mediation was examined using the indirect and total effects of ER on the relationship between SIPMP and GWBS (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010). The indirect effect of ER on the relationship of GWBS regressed on SIPMP was significant, $B = 0.23$, $z = 2.75$, $p = .006$, indicating a one-unit increase in SIPMP, based on its effect on ER, will increase the expected value of GWBS by 0.23 units. The total effect of SIPMP on GWBS was significant, $B = 0.78$, $z = 6.38$, $p < .001$, indicating a one-unit increase in SIPMP will increase the expected value of GWBS by 0.78 units. Since the indirect and total effects were significant, partial mediation was supported by ER (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010)

An eighth test of mediation was conducted to determine whether SE mediated the relationship between SIPMP and GWBE. The direct effect between SIPMP and GWBE was

significant, suggesting that full mediation by SE did not occur, although some partial mediation may still be present. Partial mediation was examined using the indirect and total effects of SE on the relationship between SIPMP and GWBE (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010). The indirect effect of SE on the relationship of GWBE regressed on SIPMP was significant, $B = 0.06$, $z = 2.13$, $p = .033$, indicating a one-unit increase in SIPMP, based on its effect on SE, will increase the expected value of GWBE by 0.06 units. The total effect of SIPMP on GWBE was significant, $B = 0.29$, $z = 4.50$, $p < .001$, indicating a one-unit increase in SIPMP will increase the expected value of GWBE by 0.29 units. Since the indirect and total effects were significant, partial mediation was supported by SE (Gunzler et al., 2016; Preacher & Hayes, 2008; Zhao et al., 2010).

Squared Multiple Correlations. The regressions in the model were assessed by examining the R^2 value of each endogenous variable (see Table 8). The R^2 value identifies how much the endogenous variable is explained by the regressions in the model. An R^2 value $\leq .20$ suggests the endogenous variable is not adequately explained by the regression(s) in the model and all regressions for that endogenous variable should be considered for removal from the model (Hooper et al., 2008). SE was the only endogenous variable that had an R^2 value $\leq .20$. All other endogenous variables met the criteria of an R^2 value $> .20$ and their regression paths are maintained in the model.

Table 8

Estimated Error Variances and R2 Values for Each Endogenous Variable in the Path Model

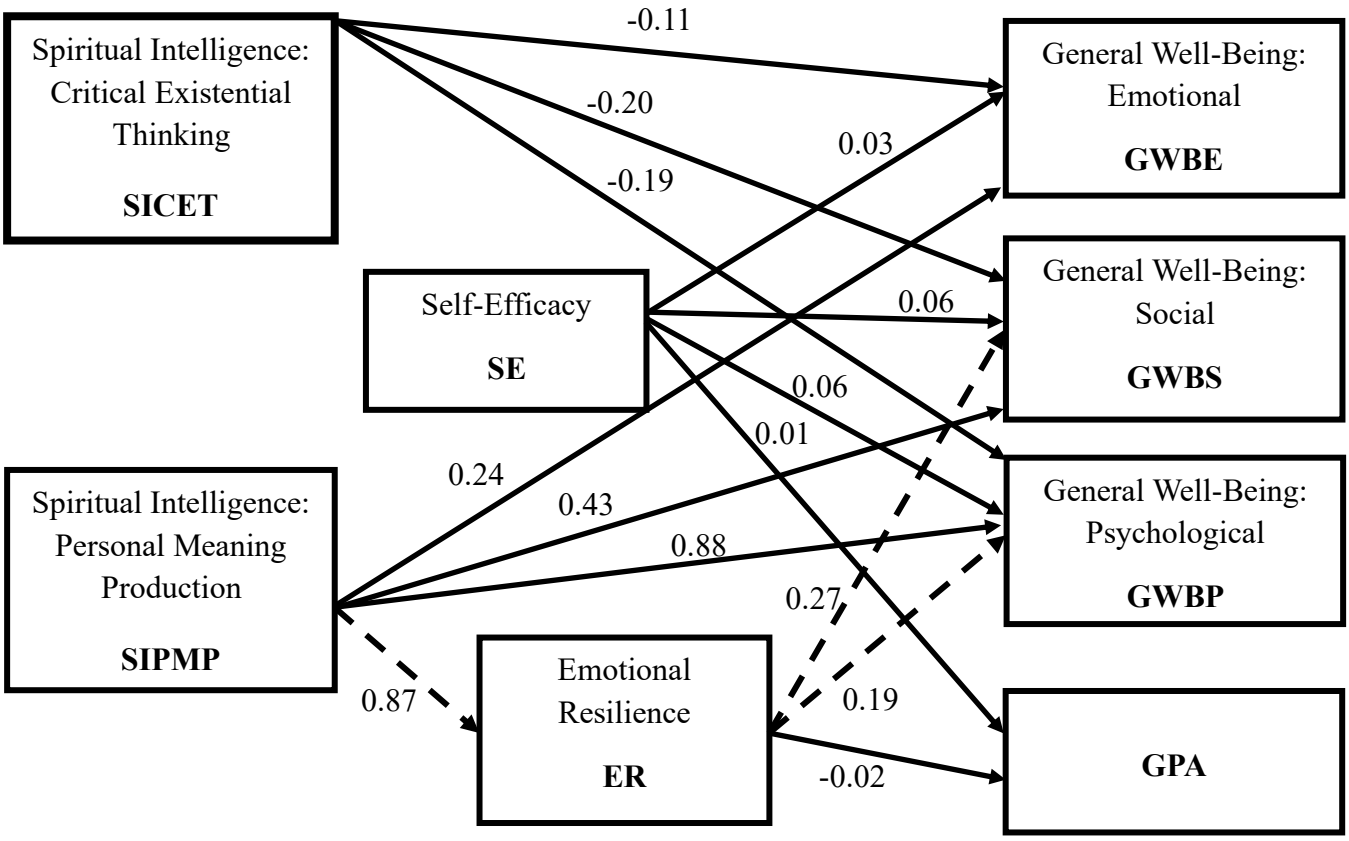
Endogenous Variable	Standard Error	R^2
SE	445.91	.13
ER	23.42	.32
GWBE	8.37	.21
GWBS	27.25	.34
GWBP	28.39	.46
GPA	0.30	.22

Figure 5 includes the final path model with significant direct and indirect paths indicated. The direct path to SE from SIPMP was removed, as recommended, due to the low R^2 value. Significant direct paths are indicated by arrows with solid lines, The significant indirect paths are indicated by arrows with dashed lines. Overall, SICET has a direct negative relationship with each GWB variable, with an increase in SICET resulting in a decrease in each GWB measure. Conversely, SIPMP has a direct positive relationship with each GWB variable, with an increase in SIPMP resulting in an increase in each GWB measure. In addition to SIPMP having direct relationships with the GWB variables, it also has an indirect positive relationship, through ER, to GWBS and GWBP. Notably, neither SICET nor SIPMP play a role in predicting GPA. Both SE and ER have direct effects on GPA; however, SE has a positive relationship while ER has a negative relationship.

Goodness of Fit. A Chi-square goodness of fit test was used to determine if the path analysis model fit the data adequately. The Chi-square test is sensitive to sample size, which causes the test to almost always reject the null hypothesis and indicate a poor model fit when the sample size is large (Hooper et al., 2008). The results of the Chi-square goodness of fit test were significant, $\chi^2(12) = 206.02$, $p < .001$, indicating that the model did not adequately fit the data.

Figure 5

Final Path Model



Evaluation of Findings

The purpose of this quantitative, descriptive, and correlational study was to describe the levels of SI among undergraduate college students and examine their associations with and contributions to variance in measures of ER, SE, GWB, and academic achievement, measured as grade point average (GPA). A total of 138 undergraduate students between 18 and 25 years of age enrolled full-time in a four-year public or private nonprofit or for-profit university within the United States completed a survey that included valid and reliable measures for all variables of interest. This section includes evaluation of the findings organized by each research question. The findings are evaluated with regard to their alignment with theory and prior research.

RQ1

The first research question was: What are the reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students? The study aimed to assess the reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students. The descriptive statistics revealed that, on average, students scored between low moderate and high moderate on both spiritual intelligence (SI) and emotional resilience (ER), indicating a modest capacity among undergraduates for adaptive coping and meaning making in challenging academic environments. These findings are consistent with prior research, such as Amram and Dryer (2008) and King and DeCicco (2009), who documented moderate to high SI scores in college populations, Connor and Davidson (2003) as well as Suldo and Shaffer (2008), who found undergraduate students typically demonstrate moderate to robust levels of ER. Empirical studies have also highlighted the presence of moderate to high levels of ER among undergraduate populations.

Self-efficacy scores tended to be above the midpoint of 50, reflecting confidence in academic abilities and personal agency, which is consistent with prior research suggesting that college students often possess strong beliefs in their capability to achieve academic goals (Bandura, 1997; Zimmerman, 2000). General well-being (GWB) measures were moderately low with averages for GWBS and GWBP falling well below the middle of the possible range for each variable; this sample may struggle with maintaining a stable sense of psychological health when faced with myriad stressors associated with university life. Academic achievement, operationalized as GPA, was in the moderate to high range.

When compared to prior research on college students, these results are in alignment with established findings and theories. A substantial body of research has documented moderate to robust levels of self-efficacy among university populations. Bandura's (1997) foundational work established self-efficacy as a critical determinant of academic performance and personal agency in diverse educational settings. Zimmerman (2000) demonstrated that college students typically report high levels of academic self-efficacy, which are predictive of strong motivation, persistence, and achievement

The convergence of present averages with prior benchmarks underscores the credibility of these constructs as measures of student adjustment. It is worth noting that the mean scores generally reflect moderately positive levels, however, given the variability within the sample—likely amplified by diverse backgrounds and experiences—and with most means hovering close to the midpoint, not all students are reporting positive levels of these psychosocial resources. In sum, the descriptive findings for RQ1 demonstrate that undergraduate students report moderate levels of SI, ER, SE, GWB, and GPA, with averages somewhat consistent with extant research on college student populations. These results offer further validation for the theoretical frameworks guiding this study. Descriptive data on reported levels of these variables among undergraduate college students help establish a baseline within this population and provide a foundation to evaluate their role in maintaining mental health when meeting the challenges faced during the college years.

RQ2

The second research question posed was: What significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students? Analysis of the data revealed

that higher levels of SI were consistently associated with higher ER, but only SITA and SIPMP were significantly associated with SE. Students who reported greater capacity for meaning-making, self-reflection, and spiritual awareness also demonstrated a heightened ability to adapt and cope with stressors inherent to university life. Although spiritual intelligence is a relatively recent construct within higher education research, several studies have documented its positive presence and effects among university students. Amram and Dryer (2008) validated measures of spiritual intelligence in adult and college populations, revealing moderate to high SI levels that correlated with enhanced coping, meaning making, and satisfaction. King and DeCicco (2009) developed and tested the Spiritual Intelligence Self-Report Inventory (SISRI), finding spiritual intelligence to be significantly related to well-being and adaptation in university samples; This is in some conflict with the current findings as the GWB subscales and SI subscales were not uniformly significantly correlated with one another. Only a few SI subscales generated significant correlations with the GWB subscales. Specifically, SIPMP was consistently and significantly positively correlated with all GWB subscales while SICET was not significantly correlated with any GWB subscales.

Statistical findings substantiated the already well-established significant positive correlation between self-efficacy and academic achievement (Bandura, 1997; Chemers et al., 2001; Robbins et al., 2004; Zimmerman, 2000); however, GPA was not significantly correlated with ER nor any of the SI subscales. Students with elevated self-efficacy beliefs—confidence in their ability to organize, execute, and succeed in academic tasks—tended to report higher GPAs. This relationship echoes established psychological theory (Bandura, 1997), reinforcing the pivotal role of personal agency and motivation in driving educational outcomes. Academic achievement was positively and significantly linked to SE, GWBE, and GWBS, and no other

variables. The fact that ER was not significantly related to GPA is in some conflict with prior research from Hartley (2011), Amram and Dryer (2008), and Emmons (2000a).

Students who scored higher on ER and SE scales consistently reported higher general well-being. These findings validate the theoretical proposition that psychosocial strengths reinforce each other in supporting student success (Bandura, 1997; Chemers et al., 2001; Robbins et al., 2004; Zimmerman, 2000). Overall, the statistical relationships found highlight the interconnected nature of psychological and academic constructs in undergraduate populations, as suggested by major theoretical frameworks including Bandura's social cognitive theory (Bandura, 1997), Zimmerman's model of self-regulated learning (Zimmerman, 2000), and Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1979). Such relationships have been consistently established in prior research, with studies by Chemers et al. (2001), Robbins et al. (2004), Suldo and Shaffer (2008), and King and DeCicco (2009).

RQ3

The third research question was: What direct effects do undergraduate college students' spiritual intelligence have on variance in their emotional resilience, self-efficacy, general well-being, and academic achievement? The regression analysis conducted revealed evidence regarding the direct effects of spiritual intelligence (SI) on several psychosocial outcomes among undergraduate college students. Specifically, SICET was a significant predictor for SE and all GWB variables and SIPMP was a significant predictor for ER, SE, and all GWB variables. Importantly, SICET had a negative impact with higher SICET predicting lower levels of SE and GWB. In this case, SI was observed to have negative effects on students' belief in their abilities and general wellbeing. In contrast, SIPMP had a positive impact with higher SIPMP predicting higher levels of ER, SE, and GWB and students expressing greater confidence in their abilities

and better psychological well-being. Neither SICSE nor SITA played a role in predicting any variables, and none of the SI subscales emerged as significant predictors of GPA.

The observed differential effects of SICET and SIPMP on ER, SE, and GWB present a nuanced alignment with SI theory. SI is generally conceptualized as a multidimensional construct that fosters psychological strength, adaptive coping, and meaning making (Emmons, 2000b; King & DeCicco, 2009). The positive predictive role of SIPMP on ER, SE, and GWB aligns with SI theory and prior findings, as meaning making and presence of meaning are theorized to empower students with a sense of purpose, greater adaptability, and overall well-being (Amram & Dryer, 2008; Vaughan, 2002). Emmons (2000a) theorized SI as a source of psychological strength, and Vaughan (2002) argued for SI's role in resilience and holistic development.

However, the negative predictive effect of SICET on SE and GWB stands in contrast to the foundational assertions of SI theory, which typically posits that higher levels of spiritual intelligence should bolster, not diminish, psychosocial resources. This divergence suggests that some facets of SI—such as critical existential thinking—may, under certain circumstances or within specific student populations, be associated with increased questioning or existential doubt, thereby negatively impacting SE and GWB. While SIPMP's positive influence is well supported by prior theory and research, the negative association between SICET and adaptive outcomes reflects a more complex and perhaps understudied relationship within the SI framework, pointing to the importance of examining the distinct roles that SI subcomponents play in student adjustment. King and DeCicco (2009) and Emmons (2000a) theorized more pronounced roles for SI in facilitating adaptive coping and meaning making. However, the lack of SI subscales being significant predictors for GPA is consistent with some previous studies, which suggest that SI's

effects on academic achievement are mostly indirect, mediated through ER and SE (Amram & Dryer, 2008; Hartley, 2011).

RQ4

The fourth research question was: What direct effects do undergraduate college students' emotional resilience and self-efficacy have on variance in their general well-being and academic achievement? Statistical analyses revealed that SE is a strong direct predictor of GWB and GPA in undergraduate students. These results are in close alignment with foundational psychological theories. Bandura's (1997) social cognitive theory identified self-efficacy as a core determinant of motivation and achievement. The study's findings, that self-efficacy predicts both GWB and academic achievement, directly support Bandura's assertions.

ER was a strong predictor of GWBS and GWBP but, interestingly, not GWBE. This may rest on the specific facets each construct captures. While ER reflects an individual's capacity to adapt and recover from emotional challenges, GWBE may measure aspects of emotional well-being that are more stable or influenced by factors beyond immediate resilience, such as persistent mood, chronic stressors, social support, or underlying psychological traits. Thus, although ER is generally associated with positive psychological outcomes (Connor & Davidson, 2003; Suldo & Shaffer, 2008), its influence might be more pronounced for dynamic, adaptive aspects of well-being rather than enduring emotional states captured by GWBE (Amram & Dryer, 2008; King & DeCicco, 2009). This distinction could explain the absence of a predictive relationship in the statistical analysis. This interpretation aligns with previous research, which has demonstrated that emotional resilience is strongly linked to adaptive coping and psychological adjustment (Connor & Davidson, 2003; Vaughan, 2002), but may not always predict stable or trait-like measures of well-being (King & DeCicco, 2009; Suldo & Shaffer,

2008). Additionally, the measures of ER and GWBE used in the study may tap into related but distinct dimensions of emotional functioning, further weakening their direct association. Students equipped to cope with emotional challenges and who possess strong beliefs in their academic abilities are much more likely to thrive psychologically (Bandura, 1997; Chemers et al., 2001; Robbins et al., 2004; Zimmerman, 2000).

Numerous studies have established strong relationships between SE and academic performance, as well as between ER and psychological health (Bandura, 1997; Zimmerman, 2000). The current study echoes this literature, showing that higher SE and ER are predictive of improved GWB. Unexpectedly, ER had a negative predictive relationship with GPA, with higher ER predicting a decrease in GPA. This is in conflict with theory. Hartley (2011) identified resilience as a significant predictor of academic persistence among students facing adversity, with resilient individuals demonstrating greater success and reduced dropout rates. Connor and Davidson (2003) introduced the Connor-Davidson Resilience Scale (CD-RISC), widely used to assess resilience in university samples, and consistently found moderate to robust resilience scores associated with better mental health and academic outcomes

RQ5

The fifth research question was: What indirect effects, if any, do undergraduate college students' spiritual intelligence have on their general well-being and academic achievement within the final path analysis model? Though the final path model was not a good fit with the data and future research and more data are needed to establish its validity, the resulting model in Figure 5, with significant direct and indirect effects presented, provides a visual for closer examination of how well the findings of the indirect effects relate to theory and prior research. Overall, SICET has a direct negative relationship with each GWB variable, with an increase in SICET resulting

in a decrease in each GWB measure. Conversely, SIPMP has a direct positive relationship with each GWB variable, with an increase in SIPMP resulting in an increase in each GWB measure. Specific to RQ5, SIPMP is the only variable with significant indirect effects, through ER, to GWBS and GWBP.

Spiritual intelligence is widely conceptualized in psychological literature as a multidimensional construct that fosters psychological strength, adaptive coping, and meaning-making (Emmons, 2000b; King & DeCicco, 2009). Among its facets, SIPMP stands out as the element that enables individuals to derive meaning from experiences and challenges and to integrate those meanings into their sense of purpose and identity (Amram & Dryer, 2008; Vaughan, 2002). According to Emmons (2000b), SI provides a framework for individuals to find psychological strength through meaning-making, which in turn can empower resilience in the face of adversity. Vaughan (2002) further argued that SI is integral to resilience and holistic development, as it enables individuals to transcend immediate stressors and maintain a sense of coherence and purpose.

The study's finding of SIPMP as the only SI variable with significant indirect effects (via ER) on social and psychological well-being aligns closely with the theoretical underpinnings of SI. SIPMP's capacity to foster personal meaning production is theorized to enhance emotional resilience—students who can derive meaning from their experiences are better equipped to adapt to emotional challenges, cope with stress, and maintain psychological balance. By impacting ER, SIPMP indirectly strengthens general well-being in its social and psychological facets. Social well-being (GWBS) is improved as students become more resilient in navigating interpersonal stress, while psychological well-being (GWBP) is supported through adaptive coping and a sustained sense of purpose. This sequential mechanism—where meaning-making fuels resilience,

which in turn boosts well-being—reflects the core assertions of SI theory and is well supported by prior research (Amram & Dryer, 2008; King & DeCicco, 2009). The fact that SIPMP, and not other SI subscales, showed significant indirect effects through ER highlights SI theory's emphasis on the meaning-making dimension as the engine of psychological adaptation and flourishing. It suggests that personal meaning production is not only a predictor of well-being but also an essential mediator that enables individuals to transform spiritual intelligence into concrete psychosocial outcomes. This finding reinforces the idea that SI's protective effects on student well-being are often realized through its influence on emotional resilience—meaning-making equips students to remain flexible, confident, and socially connected even amid adversity.

Summary

The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020). The purpose of this quantitative, descriptive, and correlational study was to describe the levels of SI among undergraduate college students and examine their associations with and contributions to variance in measures of ER, SE, GWB, and academic achievement, measured as grade point average (GPA). A total of 138 members of the target population completed the survey. All participants confirmed they were enrolled full-time in a four-year public or private nonprofit or for-profit university within the United States. Descriptive statistics of all variables of interest provide a summary baseline of college students' levels of these variables and were mostly consistent with prior research on this population. Correlational analysis revealed many expected significant

correlations and also some unexpected nonsignificant correlations; that is, not all SI variables were significantly related to ER, SE, and GWB.

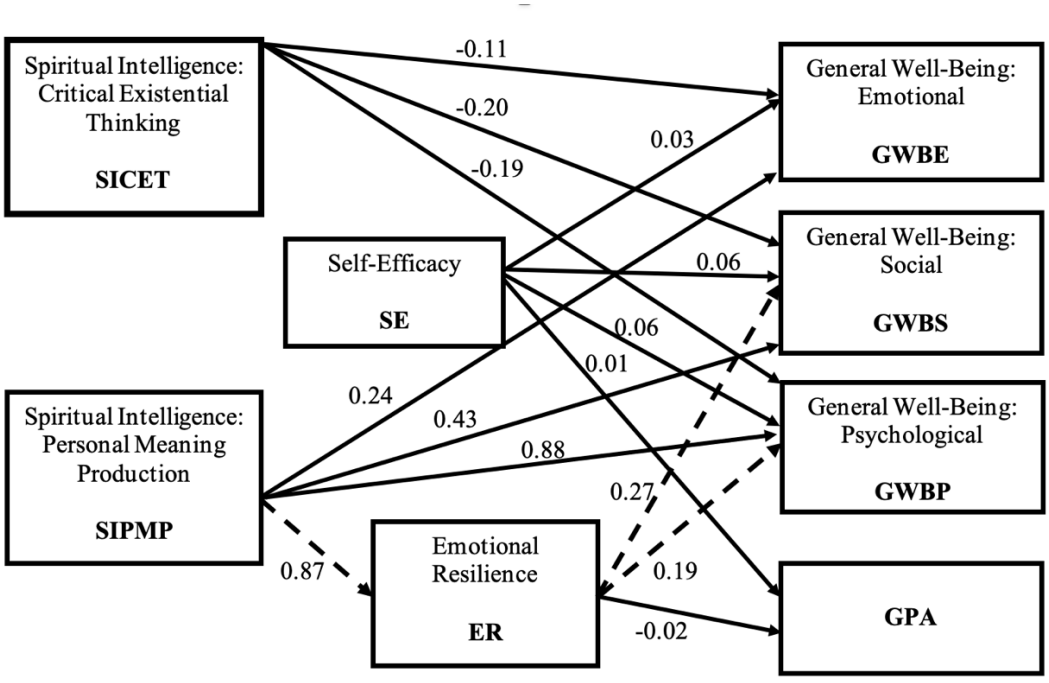
The correlational and regression analyses and the final path model presented provide for further discussion regarding SI theory and how and which variables within SI play a role in SE, ER, GWB, and GPA. Specifically, SI does not play a significant role in predicting SE or GPA. Moreover, only SICET and SIPMP play significant roles in predicting ER and GWB, with SICET having a direct negative effect on GWB variables and SIPMP having both direct positive effects on GWB and indirect positive effects on GWB through ER. Finally, the finding of a negative impact of ER on GPA is in some conflict with prior research and needs further exploration and consideration. The following chapter includes discussion of implications of these findings and recommendations for future research and practice.

Chapter 5: Implications, Recommendations, and Conclusions

The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020). The purpose of this quantitative, descriptive, and correlational study was to describe the levels of spiritual intelligence (SI) among undergraduate college students and examine their associations with and contributions to variance in measures of emotional resilience (ER), self-efficacy (SE), general well-being (GWB), and academic achievement, measured as grade point average (GPA). The convenience sample included 138 undergraduate students between 18 and 25 years of age enrolled full-time in a four-year public or private nonprofit or for-profit university within the United States. All participants completed an online survey to collect data on all variables. The final path model, displayed in Figure 5, represents all significant direct and indirect effects.

Figure 5

Final Path Model



The present study, while contributing valuable insights into the associations among SI, ER, SE, GWB, and GPA in undergraduate students, was subject to several notable limitations. Foremost, the sample size of 138 participants, though sufficient for preliminary path modeling, restricted the statistical power and the robustness of the findings. A larger sample would have allowed for more nuanced subgroup analyses, greater model stability, and increased confidence in the reliability of the path coefficients. The limited sample size may may have hindered the detection of smaller effect sizes or more complex relationships among variables, thereby constraining the depth of interpretation. In addition, the use of convenience sampling introduced the risk of selection bias. Participants were drawn from a readily accessible population, which might not adequately represent the broader undergraduate student body. This approach could have disproportionately included individuals with certain characteristics, such as higher motivation or availability, thus potentially skewing the observed associations and limiting the diversity of perspectives captured in the study. Consequently, the generalizability of the findings is limited.

This chapter begins by addressing the implications of the results, organized by the research question, and provides a critical analysis of the study's contributions, limitations, and the broader significance of the findings. It also contextualizes the results of the study in relation to the conceptual framework and current literature, synthesizing the direct and indirect effects of SI, ER, and SE on GWB on GPA among undergraduate college students. The sections that follow include applying the findings to generate recommendations for practice and future research, respectively. The conclusion section closes the chapter.

Implications

There were various factors that might have influenced the results of this study. First, the interpretation of the results was necessarily specific to the measures used to operationalize the variables of the study. Various instruments exist to measure the variables of interest, and it was impossible to know if the use of different instruments would have resulted in different findings. Second, the path model was hypothesized a priori, which influenced the disposition of the endogenous and exogenous variables. Within path analysis, hypothesized paths flow in a single direction only with no bi-directional paths and feedback loops hypothesized (Lleras, 2005). Based on the results of the final path model, for example, it could be that SE should have been placed as an exogenous variable rather than an endogenous variable. Third, the survey was distributed to the target population in October, which is generally relatively early in a college semester. This timing could have influenced the outcomes of the study with regard to students' self-report of the variables earlier rather than later in the semester.

Another factor was the exclusive reliance on self-reported data. While self-report instruments are efficient and widely used for assessing subjective constructs such as well-being and self-efficacy, they are inherently vulnerable to response biases. Factors such as social desirability, lack of introspective accuracy, or intentional misrepresentation could have compromised the validity of the data, raising questions about the accuracy and honesty of participants' responses. The cross-sectional design of the study, with data collected at a single point in time, further limited the interpretation of findings. This methodological choice precluded the examination of causal relationships or changes over time, offering only a snapshot of associations rather than insight into developmental processes.

Finally, the quantitative approach employed, while facilitating statistical analysis and model testing, inherently reduced complex psychological and social phenomena to numerical representations. This risk of oversimplification meant that important contextual or experiential nuances might have been overlooked. Quantitative instruments might not have fully captured the depth or multifaceted nature of constructs such as spiritual intelligence or emotional resilience, potentially constraining the richness of interpretation.

These factors should be carefully considered when interpreting the results of this study. Addressing these issues in future research, such as by employing larger and more diverse samples, longitudinal designs, and mixed methods approaches, would enhance the validity, applicability, and depth of understanding in this area of educational inquiry. The following sections present a critical examination of the findings by research question, highlighting the extent to which the results address the problem and purpose, identifying key implications and contributions to the existing literature, and providing potential explanation for unexpected results.

RQ1

The first research question was, what are the reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students? The reported levels of SI, ER, SE, GWB, and academic achievement (GPA) among undergraduate college students carried several important implications for both educational practice and student support. In addressing the problem and the purpose, the RQ1 descriptive data on reported levels of SI and other variables of interest among undergraduate college students helped establish a baseline within this population. Additionally, they provided a foundation to evaluate their role in maintaining mental health when meeting the

challenges faced during the college years and the effectiveness of any potential interventions. These findings also addressed Malandraki's (2022) call for more studies to demonstrate the role SI, SE, and ER can play in academic performance and wellbeing and extend current research specific to SI within college student populations, where limited research exists (Nishimi & Dunn, 2021) regarding the average levels of undergraduate students' SI and if and how it might have significantly contributed to measures of SE, GWB, and GPA.

The reported moderate levels of SI and ER imply that most students possessed adaptive coping skills and the ability to find meaning in academic challenges; however, these capacities were not universally strong across the population. For example, there was at least one participant who scored the maximum possible points on SIPMP of 20, while there was also at least one participant who scored a 1. These findings contribute further to foundational studies such as Emmons (2000b) and Vaughan (2002), who highlighted SI meaning making as a catalyst for student resilience and holistic development, and also supported the implication that SI and ER are present in student populations but vary in strength.

The moderately high SE scores, on average, indicate that many students felt confident in their academic abilities, which has been strongly linked to persistence, motivation, and achievement. For example, Rakhshanderou et al. (2021) noted that high SE leads to more significant effort, better performance, better mood, lower anxiety and depression, and potentially higher job satisfaction in the future. While SE scores tended to be above the midpoint of 50, implying students possessed confidence in academic abilities and personal agency, their GWB measures were moderately low with averages for GWB Social (GWBS) and GWB Psychological (GWBP) falling below the middle of the possible range for each variable. Many undergraduates might be struggling with psychological health, possibly due to academic pressures and life

transitions, though, as is a limitation in quantitative methods, there was no context provided for these lower scores. A key implication of these findings was that while students might positively have reported their beliefs in being equipped to succeed academically, based on the results of this study, their overall well-being might be at risk, underscoring the importance of holistic approaches that address mental health alongside academic development.

RQ2

The second research question posed was, what significant relationships exist between reported levels of spiritual intelligence, emotional resilience, self-efficacy, general well-being, and academic achievement among undergraduate college students? In addressing the problem and the purpose, the correlational analysis results provided an evaluation of how the variables of interest were related to one another prior to the path analysis and the hypothesized predictor and criterion designations. There is a paucity of studies on how spiritual intelligence relates to the professional performance of individuals in higher education, despite the widespread interest. Given the absence of current research that includes all of these variables collected on a sample, the findings from this study add to current research on SI, expanding knowledge of related variables. Constructs of SI and ER are often examined in isolation from one another; however, they have been related to similar positive outcomes associated with academic achievement and well-being, such as self-efficacy (Bandura, 1997; Chemers et al., 2001; Robbins et al., 2004; Zimmerman, 2000). Thus, the current findings addressed calls for more information needed about the congruence of various resilience measures and whether there are significant correlations across similar fundamental constructs (Nishimi & Dunn, 2021; Ryff et al., 2019).

In alignment with prior research and theory, all SI subscales were significantly and positively correlated with ER (Bayrami et al., 2014; Ebrahimi et al., 2016; Giannone & Kaplin,

2020; Khosravi & Nikmanesh, 2014; O'Sullivan & Lindsay, 2023). Correlational analysis revealed higher levels of each SI subscale were consistently associated with higher ER. Thus, one clear implication is students who reported greater capacity for meaning-making, self-reflection, and spiritual awareness also demonstrated a heightened ability to adapt and cope with stressors inherent to university life. In alignment with these findings, Kim and Seidlitz (2002) indicated that spirituality is significantly related to reduced stress and blood pressure and improved long-term coping strategies.

The same pattern of correlations was not revealed between SI subscales and SE; only SITA and SIPMP were significantly associated with SE. SIPMP represents an individual's ability to generate personal meaning and purpose in life (Nayyar et al., 2019), and SITA assesses their sense of unity with the universe, connection to something greater than themselves, and their ability to transcend ego-centered perspectives (King & DeCicco, 2009). Both of these SI subscales might seem somewhat more grounded in connecting the individual to a purposeful life, which might provide an explanation for these correlations being significant with SE. In contrast, SICET, which focuses on one's ability to reflect on existential and spiritual questions, and SICSE, which focuses on the ability to experience altered states of consciousness, were somewhat more abstract and possibly required concerted contemplation and development; this sample might not have perceived their capacity for these as related to academic SE.

Prior research has supported the link between SI and SE. Atroszko et al. (2021) noted high spirituality may increase students' self-efficacy, which is essential in creating incentive, effort, and academic progress, and Rakhshanderou et al. (2021) highlighted the role of spirituality and spiritual health regarding psychological issues such as self-efficacy. Oman et al. (2009) discovered a positive relationship between spiritual training and development in people

and their cognitive abilities, behaviors, and skills. Heydarzadegan and Kochakzaei (2015) demonstrated that self-efficacy is closely related to spiritual health in as much as self-efficacy beliefs and spirituality are compelling incentives for enhancing life quality. These researchers might have used varying conceptualizations of SI; thus, additional research is needed to more fully understand the relationship between SI and SE.

Only a few SI subscales generated significant correlations with the GWB subscales; specifically, SIPMP was consistently and significantly positively correlated with all GWB subscales, and SICSE was significantly related to GWBS and GWBP. Interestingly, within the context of GWB, the measure of SICSE as the ability to experience altered states of consciousness and mindfulness appeared to more specifically benefit GWB than it did SE. Notably, SE was significantly correlated with GPA, but GPA was not significantly correlated with any of the SI subscales nor ER. Previous studies also identified links between SI and psychological well-being (Atroszko et al., 2021; Bayrami et al., 2014; Bücker et al., 2018; Chan & Siu, 2016). Midi et al. (2019) showed that the more proficient students were at applying spiritual values when dealing with problems and adapting to new environments (i.e., using SI), the higher their academic achievements and psychological well-being. O'Sullivan and Lindsay (2023) suggested that when SI increases, general well-being also increases. Zamirinejad et al. (2016) and Zhang et al. (2022) found that spiritual intelligence positively influences well-being and anxiety reduction, reinforcing the need for interventions that nurture both academic and psychosocial strengths in undergraduate populations.

One key implication of these findings is that the variable manner in which SI subscales correlated with ER, SE, GWB, and GPA variables requires careful consideration of the different aspects of SI and how they are distinguished from one another, particularly if SI interventions are

being applied to enhance specific variables. Beyond aligning with prior research, the findings of this study particularly extended current research to a specific examination of individual SI subscales. A more global or one-dimensional conceptualization and operationalization of SI may not reveal these same patterns of correlation nor distinguish how specific aspects of SI contribute differently to SE, ER, and GWB.

RQ3

The third research question was, what direct effects do undergraduate college students' spiritual intelligence have on variance of their emotional resilience, self-efficacy, general well-being, and academic achievement? RQ3 addressed spiritual intelligence as an integral yet often underexplored component of student adjustment. Quantitative analyses revealed that SI had statistically significant, but varying, direct effects on key outcome variables among undergraduate college students. The findings underscore a key implication of SI's role as an important but not solitary driver of student adjustment, with its strongest contributions emerging through the effects of SIPMP and SICET on ER and GWB variables. The finding addressed the problem and purpose by explicating the potential of SI variables to contribute directly to variance in ER, SE, GWB, and GPA while also adding to the limited literature regarding SI's predictive capabilities within academic environments (Emmons, 2000a, 2000b; Vaughan, 2002; Zohar & Marshall, 2000).

Similar to the correlational analysis, only specific SI subscales were revealed as contributing significantly to the variance of ER, SE, and GWB variables. The only statistically significant predictor of ER was SIPMP ($\beta = .53$, $t = 5.44$, $p < .001$), implying that higher personal meaning production contributes to greater emotional resilience. For SE, SI demonstrated a smaller but still significant direct effect, $F(4, 133) = 3.997$, $p = .004$, $R^2 = .107$.

SIPMP was a significant predictor along with SICET; however, SICET had a negative beta weight ($\beta = -.21$, $t = -2.00$, $p = .047$), suggesting that higher SICET is associated with lower SE.

Though the negative weight of SICET in predicting SE was somewhat surprising, it was not without some support in prior research. Giannone and Kaplin (2020) found an association between the capacity to critically examine existential issues (i.e, SICET) with increased depression and anxiety, inferring that existential thinking might be more closely related to mental health. Drawing on Giannone and Kaplin's (2020) finding, the finding of this study, in relation to SICET, might be explained by suggesting that higher SICET may increase depression, which might then be associated with a descrease in SE. In contrast, SIPMP, the ability to draw meaning and purpose from experience, has an association with improvements in all mental health outcomes, and, thus, has a positive beta weight as a predictor of SE. The direct relationship between SI and each GWB variable was significant and maintained the same significant predictors of SIPMP and SICET, and with SICET maintaining the negative beta weight in each resulting regression equation. These findings further extend the same possible implication for the negative weight of SICET. Notably, SI played no significant role in predicting GPA.

The implication of the results included that SI subscales directly influenced ER, SE, and GWB variables to varying extents. Drawing from the theoretical work of Zohar and Marshall (2000), the findings demonstrated that SI augmented ER, SE, and GWB through meaning making. Empirical evidence from Zamirinejad et al. (2016) and Zhang et al. (2022) corroborated the positive impact of SI on well-being. This integration of the results with existing literature suggests that educational programs should incorporate interventions to foster these capacities, particularly SIPMP, while remaining attentive to individual differences and potentially varying cultural contexts.

RQ4

The fourth research question was, what direct effects do undergraduate college students' emotional resilience and self-efficacy have on variance of their general well-being and academic achievement? The focus of RQ4 was on identifying the predictive ability of SE and ER, as mediating variables within the path model, for measures of GWB and GPA. As with RQ3, the findings addressed the problem and purpose by explicating the roles of SE and ER in contributing directly to variance in GWB and GPA. The observed moderate levels of SI and ER among students, along with the significant influence of SE on both GPA and GWB, aligned closely with prior empirical work, such as that by Zohar and Marshall (2000), Zamirinejad et al. (2016), and Zhang et al. (2022). Additionally, this study reinforced the established role of SE as a predictor of academic achievement and psychological well-being, supporting the findings of Zimmerman and Kitsantas (2007) and Zuffianò et al. (2013). Self-efficacy, as a strong direct predictor of GWB variables and GPA in undergraduate students, closely aligned with foundational psychological theories, such as Bandura's (1997) social cognitive theory, which identified SE as a core determinant of motivation and achievement. One implication of these findings is that students who are equipped to cope with emotional challenges and who possessed strong beliefs in their academic abilities were much more likely to thrive psychologically (Bandura, 1997; Chemers et al., 2001; Robbins et al., 2004; Zimmerman, 2000).

Unexpectedly, ER had a negative predictive relationship with GPA, with higher ER predicting a decrease in GPA. This was in conflict with theory and prior research; Hartley (2011) identified resilience as a significant predictor of academic persistence among students facing adversity, with resilient individuals demonstrating greater success and reduced dropout rates. Connor and Davidson (2003) consistently found moderate to robust resilience scores associated

with better mental health and academic outcomes in university students. A possible explanation for this negative relationship could be the possibility of a curvilinear relationship wherein the students' need for more output of moderate ER could be positively related to academic achievement, but if students required a high output of ER, possibly indicating a greater number of challenges encountered, then academic achievement might suffer. Further research is needed within large samples of students who have large and varying differences in ER to determine any potential of this as a possible explanation.

RQ5

The fifth research question was, what indirect effects, if any, do undergraduate college students' spiritual intelligence have on their general well-being and academic achievement within the final path analysis model? Within the final path analysis model, undergraduate college students' SI demonstrated significant indirect effects on both GWB and GPA, primarily mediated by ER and SE. Specifically, SIPMP indirectly influenced GWBS and GWBP through ER. These results indicated that the positive impact specifically of SIPMP on students' social and psychological well-being through its enhancement of resilience and is in addition to the direct effects of SIPMP on the GWB variables. The observed indirect pathway from SIPMP through ER to well-being aligned with Emmons (2000b) and Vaughan (2002), who emphasized the catalytic role of meaning-making for resilience and holistic development. This finding further highlighted the implication of the importance of fostering meaning-making and adaptive coping strategies among undergraduate college students.

The findings of RQ5 demonstrated that students with higher levels of SIPMP were better equipped to cope with academic and life challenges through improved ER, ultimately leading to better adjustment and GWB in college. This sequential mechanism—where meaning-making

fuels resilience, which in turn boosts well-being—reflected the core assertions of SI theory and has been well supported by prior research (Amram & Dryer, 2008; King & DeCicco, 2009). The fact that SIPMP, and no other SI subscales, demonstrated significant indirect effects through ER highlighted SI theory's emphasis on the meaning-making dimension as the engine of psychological adaptation and flourishing.

Moreover, the findings from this study extended prior models by providing empirical evidence for the nuanced, indirect pathways through which SI influences student outcomes, emphasizing the mediating role of ER. This nuanced examination offered a more detailed understanding of how these psychosocial strengths interact, suggesting that while the core findings of this study were similar to those in previous research, the findings of this study added depth by clarifying the mechanisms linking SI, ER, and student GWB (Emmons, 2000a; Vaughan, 2002; Zamirinejad et al., 2016; Zhang et al., 2022; Zimmerman & Kitsantas, 2007; Zohar & Marshall, 2000; Zuffianò et al., 2013). These conclusions were reflected in previous research where Zohar and Marshall (2000) conceptualized SI as a capacity for deeper existential reflection and adaptive coping. Empirical evidence from Zamirinejad et al. (2016) and Zhang et al. (2022) also supported the positive impact of SI on well-being as found in this study. The indirect effects identified in the study advance SI theory by empirically illustrating how this facet operates in real student populations, supporting educational interventions that prioritize personal meaning production and adaptive coping strategies, attributes that are well-documented predictors of persistence and satisfaction among college students.

A key implication from this study includes that distinct SI subscales, namely SIPMP, ER, and SE were interrelated and played critical roles in shaping undergraduate students' GWB. However, there are several important caveats to the implications one could draw from the various

findings. First, the final path model was not a good fit with the data and future research and more data are needed to establish its validity. Second, the regressions in the model were assessed by examining the R^2 value, with an R^2 value ≤ .20 indicating the variable was not adequately explained by the regression(s) in the model and all regressions for that endogenous variable should be considered for removal from the model (Hooper et al., 2008). In evaluating SE, it was the only variable that had an R^2 value ≤ .20. All other endogenous variables met the criteria of an R^2 value > .20, and their regression paths are maintained in the model. Thus, the significant indirect paths identified within the path analysis were removed from the model.

The key findings of this study provided robust support for the interconnected roles of SI, ER, and SE in shaping undergraduate students' GWB and GPA. The findings consistently demonstrated that SI, particularly through its personal meaning production dimension, enhanced ER, which in turn significantly predicted GWB. The strong association between SE and academic achievement found in this study aligned with Zimmerman and Kitsantas (2007) and Zuffianò et al. (2013), who identified SE and coping strategies as significant predictors of academic persistence and satisfaction. The clear and direct effects of SE on GWB and GPA underscored the value of institutional programs and interventions that nurture this psychosocial strength.

However, the moderate effect sizes caution against overgeneralization and advocate for context-sensitive implementation and ongoing evaluation. Overall, these findings reinforced the importance of adopting comprehensive educational and mental health strategies that recognize and cultivate the multifaceted nature of student adjustment, ultimately preparing undergraduates to thrive both academically and personally in diverse university environments. Cross-cultural evidence provided by Żemojtel-Piotrowska et al. (2018) further supported the generalizability of

these findings, underscoring the robustness of mental health measures and the importance of holistic education.

Recommendations for Practice

The findings of this study demonstrated that while many students possessed moderate levels of SI and ER, there was considerable variability, underscoring the need for tailored interventions and support programs. Research literature has supported the integration of mindfulness, reflective practices, and mastery experiences into curricula to nurture these psychosocial strengths and foster holistic student development, as evidenced by foundational works such as Zohar and Marshall (2000), Zamirinejad et al. (2016), and Zhang et al. (2022) and recommendations from Żemojtel-Piotrowska et al. (2018). These sources highlighted the positive impact of meaning-making, adaptive coping, and mindfulness on student well-being and academic achievement, and advocate for educational interventions that cultivate self-efficacy and resilience through reflective and experiential learning strategies. Thus, there are actionable recommendations for practice for educators and policymakers, though it is important to recognize the limitations in their generalizability.

A first recommendation is that interventions that target self-efficacy and spiritual intelligence—such as curriculum design incorporating mastery experiences, feedback, modeling, mindfulness, and reflective exercises—should be implemented as they can create supportive learning environments that enhance both academic and psychological outcomes. There was variability in the levels of SI and ER; most students possessed adaptive coping skills and the ability to find meaning in academic challenges, but they lacked consistent strength across the population. This variability highlights the need for universities to provide resources and interventions that nurture these psychosocial attributes, potentially improving students' ability to

manage stress and maintain motivation. Institutions should consider these findings when designing support programs, emphasizing the development of spiritual intelligence, resilience, and well-being as integral to fostering a thriving student population.

At the policy level, the findings indicate that advocating for the integration of holistic frameworks in educational and mental health initiatives throughout campus student services, with careful attention to empirical validation and responsiveness to diverse student needs. A multifaceted approach might better prepare undergraduates to face the diverse challenges of university life and beyond. Interventions that cultivate SIPMP and ER and SE attributes such as reflective practices, constructive feedback, and self-regulated learning opportunities, consistent with Bandura's (1997) social cognitive theory and supported by Zimmerman and Kitsantas (2007) and Zuffianò et al. (2013), hold promise but should be adapted to fit institutional and cultural differences.

Third, the study's findings that SIPMP exerted both direct and indirect effects, through ER, support potential value in integrating mindfulness and reflective exercises into curricula that encourage students to establish personal meaning. However, the observed effect sizes were moderate and should be interpreted as evidence for further exploration rather than as definitive justification for broad curricular changes. While such a recommendation aligns with Zohar and Marshall's (2000) framework and was supported by studies such as Zamirinejad et al. (2016) and Zhang et al. (2022), its effectiveness might vary depending on student background and institutional context. Thus, recommendations to foster meaning-making should be implemented thoughtfully and evaluated for local impact.

Fourth, the observed variability, across the sample, in SI and ER highlighted that not all students possessed the same level of adaptive coping or meaning-making capacity. As a result,

interventions should be tailored to address diverse student needs and experiences. Institutions are encouraged to design support programs that promote holistic development and ensure accessibility and cultural sensitivity, as recommended by Żemojtel-Piotrowska et al. (2018), but should do so with an awareness of the limitations of the study's scope. Offering a range of resources, such as group workshops or individualized coaching, might be beneficial, but their effectiveness should be evaluated within each institutional context.

From a theoretical perspective, while these findings reinforced and extended existing models by demonstrating the mediating role of ER in the relationship between SI and student outcomes, caution is warranted in generalizing these results beyond the current sample and research design. Thus, another recommendation is that higher education institutions prioritize the development of SE and ER in students through programs that foster adaptive coping skills, goal setting, and confidence-building, all shown in this study to have tangible effects on student flourishing. By integrating these recommendations into practice, with appropriate caution, educators should contribute to holistic strategies that support student well-being and academic success, while remaining mindful of the study's limitations and the need for continued empirical validation.

Recommendations for Future Research

The study was not without limitations and future research should be directed towards addressing stated limitations as well as replicating and extending the current research to further establish validity of this study's findings while also clarifying unexpected findings and those that conflicted with prior research. The results supported the conceptual framework of Zohar and Marshall's (2000) spiritual intelligence model, as well as related research by Zamirinejad et al. (2016) and Zhang et al. (2022), but future research using longitudinal and mixed-methods

designs is needed to clarify the long-term and context-dependent effects of targeted interventions.

Future researchers could extend this study by conducting longitudinal investigations to better understand the sustained impact of SI and ER on student adjustment. By tracking cohorts across multiple academic years, researchers might be able to identify how these constructs evolve and interact with changing stressors and educational contexts, thereby addressing the temporal limitations of cross-sectional designs. Additionally, expanding research to diverse institutional settings and cultural backgrounds might help clarify the generalizability of the findings and illuminate contextual factors that may moderate the effects observed in this study.

Future studies should continue to explore the specific mechanisms and pathways through which these psychosocial attributes interact, potentially using mixed methods approaches to capture both quantitative trends and qualitative insights into student experiences. Integrating qualitative interviews or focus groups with quantitative models is recommended to capture the nuanced mechanisms through which spiritual intelligence and resilience influence well-being and academic achievement. This would enable a richer understanding of students' lived experiences and the specific ways interventions might be tailored. Qualitative approaches might also further explicate the unexpected findings related to the negative relationship between ER and GPA in the current study as well as the negative relationships between SICET and SE and GWB variables.

Methodologically, incorporating mixed methods approaches such as qualitative interviews alongside quantitative measures could provide deeper insights into the lived experiences of students and uncover mechanisms not captured by standardized instruments. Researchers should also consider refining measurement tools to ensure cultural sensitivity and reliability across diverse populations and controlling for potential confounding variables such as

socioeconomic status or pre-existing mental health conditions. By systematically addressing these limitations, future studies could yield more robust, nuanced, and actionable insights into the interplay between spiritual intelligence, resilience, and student well-being.

Finally, future studies could involve the investigation of the effectiveness and scalability of targeted interventions, such as mindfulness programs or curriculum enhancements, to empirically validate best practices for fostering these psychosocial attributes. By addressing these areas, researchers could build on the study's foundation and contribute to more holistic, evidence-based strategies for promoting student success. Future researchers might implement longitudinal designs to examine how interventions targeting spiritual intelligence, emotional resilience, and self-efficacy develop over time and how they impact general well-being and academic achievement throughout the college experience.

Conclusions

The problem addressed in this study was that college students remain psychologically and emotionally vulnerable to external events and circumstances that impede their academic achievement, efficacy, and general well-being (Kornas-Biela & Zysberg, 2020). The purpose of this quantitative, descriptive, and correlational study was to describe the levels of spiritual intelligence (SI) among undergraduate college students and examine their association with and contribution to variance in measures of emotional resilience (ER), self-efficacy (SE), general well-being (GWB), and academic achievement, measured as grade point average (GPA). The research addressed how psychosocial factors affect student adjustment, revealing that SIPMP played a directly significant role in promoting well-being as well as indirectly by strengthening students' resilience. These results established a baseline of data regarding SI within a sample of undergraduate college students and revealed the potential for integrating spiritual intelligence

and related constructs into educational practices and policies, providing justification for holistic approaches to student development.

Ultimately, the study's findings highlighted the value of nurturing these attributes to foster resilient, motivated, and well-adjusted students prepared for the challenges of university life and beyond. Supporting students' spiritual intelligence, resilience, and self-efficacy is essential for their well-being and academic success. Educational programs and policies should include consideration of interventions to strengthen these psychosocial attributes to help students overcome challenges and achieve their goals. These results provide for practical recommendations and future research needed for educators, policymakers, and researchers to improve student development and well-being.

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Appendix A

SISRI-24

The following statements are designed to measure various behaviors, thought processes, and mental characteristics. Read each statement carefully and choose which one of the five possible responses best reflects you by circling the corresponding number. If you are not sure, or if a statement does not seem to apply to you, choose the answer that seems the best. Please answer honestly and make responses based on how you actually are rather than how you would like to be. The five possible responses are:
0 – Not at all true of me | 1 – Not very true of me | 2 – Somewhat true of me | 3 – Very true of me | 4 – Completely true of me. For each item, circle the one response that most accurately describes you.

1.	I have often questioned or pondered the nature of reality.	0	1	2	3	4
2.	I recognize aspects of myself that are deeper than my physical body.	0	1	2	3	4
3.	I have spent time contemplating the purpose or reason for my existence.	0	1	2	3	4
4.	I am able to enter higher states of consciousness or awareness.	0	1	2	3	4
5.	I am able to deeply contemplate what happens after death.	0	1	2	3	4
6.	It is *difficult* for me to sense anything other than the physical and material.	0	1	2	3	4
7.	My ability to find meaning and purpose in life helps me adapt to stressful situations.	0	1	2	3	4
8.	I can control when I enter higher states of consciousness or awareness.	0	1	2	3	4
9.	I have developed my own theories about such things as life, death, reality, and existence.	0	1	2	3	4
10.	I am aware of a deeper connection between myself and other people.	0	1	2	3	4
11.	I am able to define a purpose or reason for my life.	0	1	2	3	4
12.	I am able to move freely between levels of consciousness or awareness.	0	1	2	3	4
13.	I frequently contemplate the meaning of events in my life.	0	1	2	3	4
14.	I define myself by my deeper, non-physical self.	0	1	2	3	4
15.	When I experience a failure, I am still able to find meaning in it.	0	1	2	3	4
16.	I often see issues and choices more clearly while in higher states of consciousness/awareness.	0	1	2	3	4
17.	I have often contemplated the relationship between human beings and the rest of the universe.	0	1	2	3	4
18.	I am highly aware of the nonmaterial aspects of life.	0	1	2	3	4
19.	I am able to make decisions according to my purpose in life.	0	1	2	3	4
20.	I recognize qualities in people which are more meaningful than their body, personality, or emotions.	0	1	2	3	4
21.	I have deeply contemplated whether or not there is some greater power or force (e.g., god, goddess, divine being, higher energy, etc.).	0	1	2	3	4
22.	Recognizing the nonmaterial aspects of life helps me feel centered.	0	1	2	3	4
23.	I am able to find meaning and purpose in my everyday experiences.	0	1	2	3	4
24.	I have developed my own techniques for entering higher states of consciousness or awareness.	0	1	2	3	4

Appendix B

CD-RISC-10

Directions: Evaluate each statement on a five-point Likert scale ranging from 0 to 4: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4).

I am able to adapt to change.

I can deal with whatever comes.

I try to see humorous side of problems.

I cope with stress can strengthen me.

I tend to bounce back after illness or hardship.

I can achieve goals despite obstacles.

I can stay focused under pressure.

I am not easily discouraged by failure.

I think of myself as strong person

I can handle unpleasant feelings.

Appendix C

MHC-SF

Please answer the following questions about how you have been feeling during the past month. Place a check mark in the box that best represents how often you have experienced or felt the following:

During the past month, how often did you feel …	NEVER	ONCE OR TWICE	ABOUT ONCE A WEEK	ABOUT 2 OR 3 TIMES A WEEK	ALMOST EVERY DAY	EVERY DAY
1. happy						
2. interested in life						
3. satisfied with life						
4. that you had something important to contribute to society						
5. that you belonged to a community (like a social group, or your neighborhood)						
6. that our society is a good place, or is becoming a better place, for all people						
7. that people are basically good						
8. that the way our society works makes sense to you						
9. that you liked most parts of your personality						
10. good at managing the responsibilities of your daily life						
11. that you had warm and trusting relationships with others						
12. that you had experiences that challenged you to grow and become a better person						
13. confident to think or express your own ideas and opinions						
14. that your life has a sense of direction or meaning to it						

Appendix D

SELF-A

Questions
1. When you miss a class, can you find another student who can explain the lecture notes as clearly as your teacher did?
2. When your teacher's lecture is very complex, can you write an effective summary of your original notes before the next class?
3. When a lecture is especially boring, can you motivate yourself to keep good notes?
4. When you had trouble understanding your instructor's lecture, can you clarify the confusion before the next class meeting by comparing notes with a classmate?
5. When you have trouble studying your class notes because they are incomplete or confusing, can you revise and rewrite them clearly after every lecture?
6. When you are taking a course covering a huge amount of material, can you condense your notes down to just the essential facts?
7. When you are trying to understand a new topic, can you associate new concepts with old ones sufficiently well to remember them?
8. When another student asks you to study together for a course in which you are experiencing difficulty, can you be an effective study partner?
9. When problems with friends and peers' conflict with schoolwork, can you keep up with your assignments?
10. When you feel moody or restless during studying, can you focus your attention well enough to finish your assigned work?
11. When you find yourself getting increasingly behind in a new course, can you increase your study time sufficiently to catch up?
12. When you discover that your homework assignments for the semester are much longer than expected, can you change your other priorities to have enough time for studying?
13. When you have trouble recalling an abstract concept, can you think of a good example that will help you remember it on the test?
14. When you have to take a test in a school subject you dislike, can you find a way to motivate yourself to earn a good grade?
15. When you are feeling depressed about a forthcoming test, can you find a way to motivate yourself to do well?
16. When your last test results were poor, can you figure out potential questions before the next test that will improve your score greatly?
17. When you are struggling to remember technical details of a concept for a test, can you find a way to associate them together that will ensure recall?
18. When you think you did poorly on a test you just finished, can you go back to your notes and locate all the information you had forgotten?