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## Promoting Well-Being Among Intercollegiate Student-Athletes: A Gratitude Intervention Using Positive Psychology

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**PROMOTING WELL-BEING AMONG INTERCOLLEGIATE STUDENT-ATHLETES:  
A GRATITUDE INTERVENTION USING POSITIVE PSYCHOLOGY**

By

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B.S. in Ed., Ashland University, 2004

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A Dissertation Submitted in Partial Fulfillment of  
the Requirements for the Degree of Doctor of Education

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Division of Educational Administration

Adult and Higher Education Program

In the Graduate School

The University of South Dakota

May 2023

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The members of the Committee appointed to examine  
the Dissertation of Laura Kruger  
find it satisfactory and recommend that it be accepted.

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## ABSTRACT

Intercollegiate student-athletes face rising stress and pressures which challenge their well-being and mental health, and sometimes with alarming concerns. Over the years, supportive services and resources specifically available to student-athletes have not evolved at the same pace as student-athlete needs. Also, barriers and stigmas hinder student-athletes from readily accessing supportive mental health services. The high stress of student-athletes can contribute to the development of negative mental health symptoms and impairs positive well-being. Evidence supports how outreach initiatives help student-athletes. Positive psychology, including gratitude as a positive psychological state, has shown benefits to well-being. This experimental study design researched if the implementation of an educational gratitude workshop for student-athletes could increase their self-reported perceptions of well-being and reduce stress. To my knowledge, this is the first known experimental study design to research a gratitude workshop intervention among student-athletes. There was a total of 54 participants who were enrolled at a Division II institution in the Midwest as a student-athlete, regardless if their sport was in-season or out-of-season at the time of the workshop. Participants were randomly assigned to an experimental group or a control group to assess differences, and all participants completed a survey after the workshop. The post-workshop assessment survey evaluated self-reported measures of state gratitude, psychological distress, life satisfaction, athlete burnout, and perceived available support in sport. All measures were analyzed separately, and statistical significance was found in two scales: emotional support within the perceived available support in sport scale ( $p = 0.023$ ) and workshop meaningfulness ( $p = 0.0006$ ). While all participants in this study revealed moderate, overall state gratitude levels in life, the workshop significantly influenced the experimental group's perceived available support in sport, emotionally. The data suggest that student-athletes do not perceive enough emotional support is available for them in sport.

Dissertation Advisor



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Dr. Karen Card

## ACKNOWLEDGEMENTS

I would like to acknowledge the support and guidance of many influential people who helped me in this process. The completion of this project was successful despite many tests and trials, including but not limited to the expedited completion of my doctoral program where I decided to “take on the challenge” and hustle towards completion, the sudden change in my dissertation committee members, and personally moving 1,000 miles away at the beginning of my dissertation process which included workload changes. Many trials and adversities occurred during my process, but success came one step at a time. I never gave up.

First, thank you to my advisor, Dr. Karen Card, who was instrumental in my journey as we established timelines, expectations, and maintained constant communication during this process. It is remarkable how her years of experience and insight working with doctoral students never fails. I am so pleased that I can graduate as one of her final students upon her retirement after 30+ years. That is so special to me as I respect her so much. Now, I am one of the numerous doctoral students who can authentically say, “If it was not for Dr. Karen Card, I do not know if I would have made it.” Additionally, I thank Dr. Vassa Gricho, who helped me navigate many questions in developing a new experimental design study. I am thankful for Dr. Gricho’s detailed attention and guiding approach to data analysis. Truly, a heartfelt thank you to all my dissertation committee members for the time and effort in assisting me. I am aware of the time and commitment to serve on a dissertation committee, and I appreciate the helpfulness of each committee member.

Also, I am appreciative to the University of South Dakota administrators, my faculty colleagues, and community members for their partnership over many years, but especially this last year which proved unconventional than any other year. My gratitude to the University of

South Dakota overflows as a faculty member and as a student. The University of South Dakota furthered many new opportunities for me that I never expected. My time as a student cultivated many friendships with peers who helped me stay encouraged and persevere during stressful times. These peers are now meaningful professional colleagues.

It should be noted that I thank Dr. Nicole Gabana and her published work. It allowed me to cultivate my own path while standing on the shoulders of other scholars. I tried to connect with Dr. Gabana but to no avail. Nonetheless, I extend my appreciation. I am excited to join the ranks of other researchers and professionals who want to contribute to the world with credible knowledge.

Finally, I thank my family. Most specifically, I thank my spouse and children. They are my personal support team who extended their flexibility, patience, support, and understanding for all the hours I would spend on my computer and going to school. They were first-hand witnesses to my experience. My children were my motivation as I wanted to do my best in the program yet be intentional on completing my program timely to spend more time with them as they grew older. I wanted them to witness that it is never too late to reach new goals. My spouse is my greatest supporting “coach” who encouraged me every step of the way. Years ago, we joked that neither of us would pursue more graduate schooling and yet, our graduate school years overlapped, and we supported each other during each of our journeys. Not only do I have the greatest partner, but also the best research assistant anyone could ask for (while committing additional hours to ethical training). I am reminded again that we can do anything together- whether training for the Olympic Games or pursuing a degree in a doctoral program- and I thank you.

While it was up to me to get the work done, it truly would have been more difficult, time intensive, laboring, and stressful without the support of these special people. There are many other people over the years, even before I started my program, who impacted my success. Therefore, it is fitting based on the topic of this dissertation that I announce my gratefulness and appreciation to all of you!



## **DEDICATION**

I dedicate this research project to my kids. My hope is that you can understand and prioritize personal well-being, the importance of practicing gratitude, and the ability to take on new adventures while pursuing goals. All my love.

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## **Chapter 1**

### **Introduction**

The existing literature which combines the two fields of sport psychology and positive psychology is lacking among intercollegiate student-athletes (“intercollegiate student-athletes” will be referred to as “student-athletes” for the duration of this paper), as it relates to gratitude and wellness. This experimental design used educational workshops to help student-athletes promote personal well-being through positive emotions. As a recommendation for future research, it would be interesting to understand how educational workshops can help student-athletes in sport performance. Additionally, since student-athletes are sometimes role models for other college students, they could positively influence other student non-athletes on campus to utilize wellness resources.

Intercollegiate student-athletes face mounting stress and pressures which compromise their well-being. Lately, student-athletes’ mental health and well-being were in the spotlight due to various factors, but most recently, the publicized student-athlete suicides. This includes, but is not limited to, the National Collegiate Athletic Association (NCAA) athlete recent deaths of Stanford soccer player Katie Meyer, University of Wisconsin track and field athlete; Sarah Shulze, Northern Michigan University track and field athlete; Jayden Hill, Binghamton University lacrosse athlete; Robert Martin, and James Madison University softball athlete; and, Lauren Bernett, whom all died by suicide within a two-month span (Siefert, 2022). Nearly 30% of female student-athletes and 25% of male student-athletes had anxiety (The American College of Sports Medicine, 2021). However, only 10% of all intercollegiate student-athletes with known mental health conditions sought care from mental health professionals (The American College of Sports Medicine, 2021).

While college years are a developmental time to learn and grow, “[75%] of lifetime mental health problems will onset by age 24” (Colarossi, 2021, p. 2). Interestingly, Lipson et al. (2022) conducted a national study of mental health from 2013–2021 among college students at 373 schools. In 2021, over 60% of surveyed college students met the criteria for one or more mental health problems, nearly a 50% increase from 2013, with the most significant increase among American Indians (Lipson et al., 2022). This study was the first long-term, multicampus study to find out how race and ethnicity related to the treatment and the prevalence of mental health issues among college students (Colarossi, 2021). Nonetheless, compared to 2013, while more students sought help and accessed mental health services on college campuses, the prevalence of mental health issues was outpacing the resources and support to meet those needs (Colarossi, 2021).

Evidence supported that high stress, especially chronic stress, contributed to the development of depression and anxiety symptoms (Gloria & Steinhardt, 2016). In a recent nationwide survey of nearly 1,700 college students, nine out of 10 college students perceived there was a mental health crisis on their campus (Neal, 2022). This survey found that 73% of college students said they were feeling the same or even more stressed and anxious compared to a year ago. The stress was most evident in female (77%) and non-binary students (70%) who expressed they experienced the same or more stress/anxiety than a year ago versus 66% of male students surveyed (Neal, 2022).

Like non-athletes, student-athletes experienced a high prevalence of depression, but student-athletes further experienced a stigma of mental health which resulted in an underreporting of health concerns along with underutilizing of support and resources (De Souza, 2021; Colarossi, 2021). Student-athletes experienced more significant stigmas and pressures than



non-athletes (Kaier et al., 2015). While stigma was the primary obstacle for individuals seeking treatment for a mental illness (U.S. Department of Health and Human Services, 1999), mental health stigma may underscore the (lack of) using treatment services and less than desirable attitudes towards seeking help (Watson, 2006). Stigma could be public, perceived public, or personal. Whereas public stigma was a belief about others' perceptions, personal stigma was one's own beliefs (Corrigan, Watson, & Barr, 2006). Perceived public stigma might prevent an individual from seeking help for mental health for fear of peers' negative judgments (Kaier et al., 2015), which was consistent with empirical data. In a college student study, student-athletes reported more significant perceived public stigma than personal stigma (Kaier et al., 2015). They experienced significantly higher levels of personal stigma compared to their non-athlete peers (Kaier et al., 2015).

Common mental disorder symptoms were primarily consistent among the general population, including college and elite athletes, which demanded attention (Woods et al., 2022). Student-athletes encounter various barriers which hinder their access and utilization of mental health resources, strategies, and supports. Considering the mounting demands of student-athletes, the resources specifically available to them evolved much more slowly than their needs. While typically, universities do not enlist intercollegiate athletics as their critical missions, athletics is a significant component of the culture and economics of higher education. Plus, four-year colleges had some of the best resources available to support student needs (Colarossi, 2021).

College sports are ever evolving. About 1,100 college member institutions across all three divisions participated in the NCAA, with nearly 500,000 student-athletes playing in NCAA games nationwide (National Collegiate Athletic Association, n.d.). The number of student-athletes competing in college sports more than doubled since the 1982 academic year, when the

NCAA first started tracking student-athlete competition data (National Collegiate Athletic Association, 2019). College athletic finances also grew to benefit institutions, whether directly or indirectly (Goff, 2000; Kelderman, 2022). Direct financial gains could benefit institutions, whether success or just athlete participation, or indirect benefits such as increased university exposure and, therefore, increased financial contributions (Goff, 2000; Kelderman, 2022). Meanwhile, as student-athletes navigate their academics, a growing worldview and maturity, societal pressures, and personal stressors, universities must prioritize the mental health and well-being of student-athletes, like the prioritization of physical strength and stamina.

The mental health of student-athletes increasingly became a national topic of interest for higher education administrators (Ryan et al., 2018) and institutions. After reviewing literature and other studies, this national conversation on mental health was primarily due to the high prevalence of mental health concerns amongst the high-profile population of college student-athletes (de Souza et al., 2021; Kaier et al., 2015; Ryan et al., 2018; The American College of Sports Medicine, 2021) and all college students in general (Colarossi, 2021). In the fall of 2021, 53% of incoming first-year students reported increased mental and emotional exhaustion (Carrasco, 2021). College students reported having trouble accessing mental health counseling and support systems (Carrasco, 2021). Intercollegiate student-athletes experienced more significant mental health and wellness issues than non-student-athletes (Brown et al., 2021).

After carefully reviewing the research, Beauchemin (2014) concluded that student-athletes were subject to unique pressures that non-student-athletes did not encounter. The research by Beauchemin (2014) aligned with additional research that found that perceived stress, unique to student-athletes experiences, led to diminished life satisfaction (Malinauskas, 2010). It was especially true for student-athletes who suffered a significant injury (Malinauskas, 2010).

The qualitative and quantitative assessment of student-athlete's mental wellness along with the barriers that hindered access to mental health support services, supported that an outreach model would be helpful for student-athletes (Beauchemin, 2014), especially if it included sport psychology principles related to mental health and well-being. The need for an overall increase in outreach initiatives would positively impact student-athletes' perception of the availability and accessibility of mental health resources (Beauchemin, 2014).

Over the years, positive psychology was perceived as a slogan, but research supported the credibility of positive psychology to psychological and physical health (Park et al., 2014). Positive psychology is the scientific study of a healthy and flourishing life focused on positive psychological states (e.g., happiness, gratitude, joy), positive psychological traits (e.g., talents, interests, value, strengths of character), positive relationships (e.g., friendships, marriage), and positive institutions (e.g., business, school, community) (Park et al., 2014). As an aspect of positive psychology, gratitude demonstrated benefits to well-being (Gabana, 2017; Meyers et al., 2013). For example, the results of a study of nearly 300 adults, which mainly included college students, explored the relationship between gratitude and mental health (Wong et al., 2018). These participants sought mental health counseling at a university. This experimental design study found that participants who wrote gratitude letters reported significantly better mental health four weeks and 12 weeks after their writing exercise ended as compared to the participants who wrote about negative experiences or only received counseling during the study (Wong et al., 2018). Therefore, gratitude writing was advantageous for individuals with positive mental health and those who struggled with mental health concerns.

While gratitude refers to “the appreciation of what is valuable and meaningful to oneself, it is a general state of thankfulness or appreciation” (Sansone & Sansone, 2010, p. 1), the concept

bodes strength in an application setting. As it relates to clinical psychology, exploring gratitude yielded strength in understanding well-being and potentially improving well-being through simple gratitude exercises (Wood et al., 2010). The evidence for positive psychology and gratitude was evident in the literature, such as the positive association between emotional intelligence, gratitude, and subjective well-being (Geng, 2018). Despite the strong research on gratitude which continues to unfold for student-athletes, there was support that positive psychology, such as gratitude, enhanced well-being and performance while also minimizing stress, burnout, depression, and anxiety (Meyers et al. 2013).

De Francisco et al. (2020) researched sports burnout and found that student-athletes better perceived wellness if their basic psychological needs were met. Minimizing burnout and increasing student-athletes' overall well-being was essential to advancing their academic and sports-related performances (De Fransisco et al., 2020). Burnout in sports could be especially difficult for perfectionists, which can be very common when dealing with the high standards required of student-athletes (Ozcan, 2021). However, gratitude could help counter burnout as Gabana et al. (2019) found in a post-assessment survey that an intervention significantly increased well-being (such as state gratitude, sport satisfaction, social support) as well as significant decrease found in ill-being (psychological distress, athlete burnout).

One of the most critical topics in sports needs to be the balance between achieving goals and reaching high standards while simultaneously being able to cope with failure to achieve psychological well-being (Ozcan, 2021). A student-athlete with less burnout had increased mental well-being and overall psychological health (De Fransisco et al., 2020). In summary, an increase in outreach initiatives could positively impact student-athletes (Beauchemin, 2014) and how they respond to stress.

## **Statement of the Problem**

Students and student-athletes encountered numerous stressors and pressures within athletics, academics, and their personal life, and the corresponding, appropriate resources to assist them in coping were lacking (Colarossi, 2021). Intercollegiate student-athletes experience stress from various sources, personal and sport-related, yet also experience stress based on the appraisals and meaning of these stressors. These perceptions concern the well-being of student-athletes. Without addressing these factors, student-athletes are potentially at risk for burnout and deteriorating mental health, which could severely influence their well-being. These stressors and pressure warrant a need to prioritize the well-being of intercollegiate student-athletes through supportive resources, including preventative, educational workshops to aid student-athletes' stress management skills, well-being, and confidence to employ coping skills, which are potentially lacking. Evidence supported the benefits of practicing gratitude and utilizing positive psychology strategies to enhance well-being (Meyers et al., 2013). While gratitude research supports the advantages to well-being and performance, little research is known about how a gratitude intervention, as a preventative, educational workshop, could help student-athletes (Gabana, 2017). This study was the first known experimental study to implement a gratitude intervention with student-athletes.

## **Purpose of Study**

This study identified if a preventative, educational gratitude intervention could reduce self-reported stress levels and enhance intercollegiate student-athletes' well-being at a Midwest NCAA Division II institution. It utilized positive psychology and the broaden and build theory. The broaden and build theory (Fredrickson, 2001) supports how an individual's capacity to experience positive emotions could be utilized as a fundamental human strength to thrive.

Evidence demonstrated the benefits and advantages of strategies to increase positive emotions, adaptive coping strategies, and resiliency (Fredrickson, 2001; Gloria & Steinhardt, 2016).

### **Research Question**

This study used an experimental design, using quantitative methods, to understand the unique situation of Division II collegiate student-athletes and their perspectives of well-being and stress after implementing a preventative, educational workshop. The following research question guided this study:

1. To what extent does a preventative, educational gratitude workshop reduce self-reported levels of stress and enhance well-being for student-athletes?

### **Significance of the Study**

Universities hold the responsibility to support intercollegiate student-athletes' well-being beyond their sports performances. They must prioritize the mental health and well-being of student-athletes, like the prioritization of physical strength and stamina. Without this prioritization, student-athletes will potentially experience more burnout, depression, unhappiness, or willingness to perform and thrive to the best of their abilities. Additionally, higher education institutions are organizations designed to set up students for future success, which includes supporting their well-being and wellness. In this paper, *wellness* refers to "an active process through which people become aware of, and make choices toward, a more successful existence" (National Wellness Institute, 2020, p. 1). Focusing on wellness enables individuals to navigate life's challenges and feel a sense of fulfillment when addressing all six dimensions of wellness: (a) emotional; (b) occupational; (c) physical; (d) social; (e) intellectual; and (f) spiritual (National Wellness Institute, 2020).

There is no consensus around a single definition of *well-being*. Therefore, *well-being* in this paper refers to “the presence of positive emotions and moods (e.g., contentment, happiness), the absence of negative emotions (e.g., depression, anxiety), satisfaction with life, fulfillment and positive functioning” (Centers for Disease Control and Prevention, 2018, p. 6). Universities provide a perfect setting to cultivate a foundation of vital mental health and wellness resources that student-athletes can use during their college experiences. Cultivating a foundation of mental health during college could yield benefits later as student-athletes could better self-regulate independently in the future after college graduation.

This study holds significance in identifying if educational gratitude interventions could be fruitful to student-athletes in reducing stress and enhancing well-being. Currently, to my knowledge, there are no known experimental studies demonstrating the implementation of a gratitude intervention with student-athletes. Since student-athletes are sometimes role models for other college students, they could positively influence other student non-athletes on campus to utilize wellness resources. Additionally, the advocacy, policies, and resources provided by athletic departments could prompt other departments on campus to prioritize mental health and wellness for other students.

### **Definition of Terms**

**Gratitude:** This refers to “the appreciation of what is valuable and meaningful to oneself; it is a general state of thankfulness and/or appreciation” (Sansone & Sansone, 2010, p. 1).

**Intercollegiate Student-Athlete:** See “Student-Athlete” below.

**Mental Health:** This refers to our emotional, psychological, and social well-being (MentalHealth.gov, 2022).

Subjective well-being: This refers to “how people *experience* and *evaluate* their lives and specific domains and activities in their lives” National Institutes of Health. (2013, p. 1).

Student-Athlete: This refers to full-time academic students who are also declared as NCAA athletes in any college sport.

Well-being: This refers to “the presence of positive emotions and moods (e.g., contentment, happiness), the absence of negative emotions (e.g., depression, anxiety), satisfaction with life, fulfillment and positive functioning” (Centers for Disease Control and Prevention, 2018, p. 6).

Wellness: This refers to “an active process through which people become aware of, and make choices toward, a more successful existence” (National Wellness Institute, 2020, p. 1).

### **Limitations and Delimitations**

While this study advanced the continued gratitude research among student-athletes as an emerging new field, this study used self-reports of student-athletes at only one point in time using quantitative survey measures. The findings build upon a previous study (Gabana, 2017) with modifications, most specifically by adding a control and treatment group. Gabana’s (2017) study implemented a gratitude study of 51 participants, but was only among two specific, in-season Division 1 teams (swimming and wrestling). One of Gabana’s (2017) recommendations suggested to expand research participants, therefore this study used a larger population sample and a more diverse representation of traditional sports teams (such as football, track and field, soccer, etc.). Participants in this larger study were in-season and out of season at a Division II institution.

Future considerations include conducting a more extensive, similar study. Additionally, this study researched the findings of Division II intercollegiate student-athletes who might be different from student-athletes participating in different athletic divisions. Lastly, the population



of participants enrolled at an institution in the Midwest might have cultural influences within a rural environment that may be unique in comparison to other geographic locations.

## **Chapter 2**

### **Review of Related Literature**

This literature review relates to intercollegiate student-athletes, the perceptions of stress, and overall well-being as it relates to student-athletes. This chapter outlines societal influences, states the statistics of well-being and the general population, well-being and student-athletes, gratitude, and the influences of athletic coaches and administrators on student-athlete well-being. Additionally, this chapter outlines research related to supporting student-athlete well-being due to the relevant implications, literature using the broaden and build theory (Fredrickson, 2001), and summarizing some practical educational, preventative workshops for student-athlete wellness and well-being relating to gratitude.

Sport performance and training can often involve critique and guidance for improvement in performance, which is a needed facet of sport training. Aspects of positive psychology, such as gratitude and hope, offer additional perspectives to consider “What is going right?” There is value to recognizing the positive aspects to learning or performance, along with noticing and feeling appreciative for positive things in life. A recent literature review of 15 studies found that the rising support for positive psychology interventions yielded it as a favorable resource for enhancing well-being and performance (Meyers et al., 2013). One of the many benefits of positive psychology interventions included the likelihood of reducing stress and burnout, and to a lesser extent depression and anxiety (Meyers et al., 2013).

Student-athletes’ well-being is suffering despite the pressure to perform in their sports, and there is a lack of support/resources on campuses to respond to these needs effectively (de Souza, 2021; Colarossi, 2021). Perceptions, whether athletes themselves or decision-makers such as coaches and athletics directors, influence student-athletes’ wellness understanding,

interpretation, and/or severity. Positive well-being has the potential to be helpful for student-athletes, personally and athletically, yet there are barriers and implications to consider. Since there are many frameworks examining mental health and well-being needs of athletes, this chapter highlights and focuses on the research of the broaden and build theory (Fredrickson, 2001). Focusing on the broaden and build theory (Fredrickson, 2001) supports an individual's capacity to experience positive emotions. There are strategies, benefits, and advantages to increasing positive emotions, adaptive coping strategies and resiliency (Fredrickson, 2001; Gloria & Steinhardt, 2016). Educational prevention workshops and programs can potentially help reduce mental health risk development and/or the severity of its impact.

### **Current Societal Influences**

The American Psychological Association's 2020 national survey of 3,409 adults revealed that the coronavirus (COVID-19) global pandemic greatly impacted Americans and that the external factors Americans listed in previous years as significant sources of stress remained present and problematic (American Psychological Association, 2020). "Nearly 8 in 10 adults (78%) say the coronavirus pandemic is a significant source of stress in their life. Furthermore, 2 in 3 adults (67%) say they have experienced increased stress throughout the pandemic" (American Psychological Association, 2020, p. 11).

The severity of well-being and mental health in the general population was alarming, as detailed in the 2020 National Survey on Drug Use and Health (Substance Abuse and Mental Health Services Administration, 2021). This study revealed that "among adults aged 18 or older in 2020, 21.0 percent (or 52.9 million people) had any mental illness (AMI) and 5.6 percent (or 14.2 million people) had a serious mental illness (SMI) in the past year," and "the percentage of adults in 2020 with AMI or SMI in the past year was highest among young adults aged 18 to 25"

(Substance Abuse and Mental Health Services Administration, 2021, p. 7). Considering young adults aged 18 to 25 are considered “traditional-aged students” in a college setting, this demonstrates the need to support students’ mental health and well-being. The Substance Abuse and Mental Health Services Administration (2021) also revealed that among U.S. young adults (aged 18–25), 1 in 3 experienced a mental illness.

A cross-sectional study on a representative sample of 13,632 participants studied the association between individual mental well-being (interpreted as ‘feeling good’ and ‘functioning well’) and social, economic, lifestyle and health factors (e.g., physical and mental disorders, disability) (Soldevila-Domenech et al., 2020). The study revealed that health factors (e.g., physical and mental disorders, disability) significantly contributed to individual mental well-being (e.g., ‘feeling good’ and ‘functioning well’) (Soldevila-Domenech et al., 2020). Additionally, there was an even higher individual impact on participants with the inclusion of social support (Soldevila-Domenech et al., 2020). Bolstering positive well-being was essential for physical and mental health and quality of life to avoid preventative disease. However, over time, an individual was at increased risk of disease with the accruing impact of repeated stressors and prolonged stress throughout a person’s life (Hébert et al., 2014). Despite alarming stress levels, wavering well-being, and mental health in the general population, high-risk populations might be more vulnerable to social and environmental factors that lead to chronic stress (Hébert et al., 2014).

While all individuals were and continue to be impacted by the COVID-19 global pandemic, young adults (aged 18–23) who fall into the category of “traditionally-aged” students at college did not fare as well as other populations. Many older Americans embraced the mantra of “this, too, shall pass,” but these young adults were at a pivotal chapter in their lives as they

navigated adulthood. In a national survey, young adults (ages 18–23) reported significantly higher stress than all other generations (American Psychological Association, 2020).

While everyone had mental health, not everyone had mental illness (Winerman, 2021). The COVID-19 global pandemic prompted more attention and dialogue to discuss personal stressors and mental health. Everyone experienced stress, yet athletes experienced specific stressors in their athletic realm (Winerman, 2021). Stress levels could vary widely even in identical situations for different reasons, but individuals “who perceive they are subjected to high demands but have little control are at increased risk for cardiovascular disease” (The American Institute of Stress, n.d., p. 3).

Athletes experienced many stressors and pressures, which could impact their performance, well-being, stress, and sports burnout. Prioritizing an athlete’s well-being could reduce stress, improve overall wellness, and avoid sport-related burnout (Lopes Dos Santos, et al., 2020). At the same time, the focus of stress was not solely on the external stressors themselves but also on the interpretations or appraisals of those stressors which provided meaning (Lazarus, 1991). Individuals dictated and interpreted different stress stimuli as perceived threats. Different stressors prompted different brain processes (Godoy, et al., 2018) as intercollegiate athletes perceived collegiate sports as both a buffer and an experience of stress (Kimball & Freysinger, 2003).

Evidence supported the notion that well-being was impressionable instead of fixed, which could influence an individual’s choice of coping mechanism and how they would respond to a stressful situation (Russell, 2021). When individuals believed their well-being was modifiable, they were more apt to learn and engage in various coping mechanisms (Russell, 2021). Individuals’ perceptions of well-being and happiness influenced whether the individual would

shoulder a stressful situation. Beliefs in the incremental theory, in which intelligence and its implications could change through effort and hard work, positively influenced their happiness and well-being (Russell, 2021).

An optimal amount of stress was necessary for positive functioning and overall well-being, and the role of psychological capital (emotional management) and the influence of destructive emotions affected well-being (Rahimnia et al., 2013). Subjective well-being, an individual's emotional and cognitive assessment, referred to what many people would term happiness, peace, fulfillment, and satisfaction in life (Diener et al., 2003). Nevertheless, Rahimnia et al. (2013) found that decreasing destructive and constructive emotions improved overall well-being, and having high psychological capital increased constructive emotions (Rahimnia, et al., 2013). While personality factors were influential to an individual's subjective well-being, such as extroversion, neuroticism, and self-esteem, life circumstances influenced long-term levels (Diener et al., 2003).

### **Importance of Prioritizing Personal Well-Being**

Personal well-being influences an individual's health, performance at work, relationships with others, feelings of purpose, motivation, potential burnout, etc. Prioritizing personal well-being has multidimensional influences for benefit. Higher education institutions were known as "knowledge factories" (Thelin, 2017) with the resources and obligations to prioritize the well-being of individuals within the campus community. Historically, universities hired full-time physicians, athletic trainers, strength and conditioning coaches, and registered dietitians to aid student-athletes' performances. However, supportive resources for student-athletes (sport psychology, mental performance coaches, etc.) lagged in athletic health-services teams (Dingfelder, 2005).

Focusing on wellness enabled individuals to navigate life's challenges and feel a sense of fulfillment when addressing all six dimensions of wellness: (a) emotional; (b) occupational; (c) physical; (d) social; (e) intellectual; and (f) spiritual (National Wellness Institute, 2020). A meta-analysis outlined the benefits of prioritizing personal well-being among 150 experimental, ambulatory, and longitudinal studies that evaluated the impact of well-being on objective health outcomes. The meta-analysis' results revealed that well-being positively impacted health outcomes, including short-term and long-term health outcomes and disease or symptom control (Howell et al., 2007). Prioritizing personal well-being could also buffer stress's impact (Howell et al., 2007). Additionally, prioritizing personal well-being improved health with a more robust immune system response and pain tolerance, which supported the role of potential biological pathways in improving immune functioning (Howell et al., 2007). At the physiological level, well-being also impacted health, income, and social behavior, where positive emotions improved immune, cardiovascular, and endocrine functioning (De Neve, 2013).

### **Well-Being and Student-Athletes**

The myth was that student-athletes had a glamorized college experience with minimal challenges and easy classes. While that might have been true at some point, and perhaps that is true today for some student-athletes, many student-athlete experienced college as a grind (Cutler & Dwyer, 2020). There were new difficulties and pressures in society, such as pressures from coaches, fans, and peers, let alone pressure imposed on student-athletes themselves (Cutler & Dwyer, 2020). The literature identified the influence of stress perceptions and overall well-being among intercollegiate student-athletes. There were many factors of stress, including external stressors (Lazarus, 1991), such as significant life changes, the death of a loved one, work or

school, relationship difficulties, financial worries, etc. (Lopes Dos Santos et al., 2020; United Healthcare, 2017).

Collegiate student-athletes often trained and competed at levels similar to professional athletes (Reardon et al., 2019). An International Olympic Committee Consensus Work Group critically evaluated the mental health of athletes from a global perspective (Reardon et al., 2019). The “elite” population examined included professional, Olympic, or collegiate level athletes as they all competed on an elite level. “Prospective studies reported that among collegiate athletes, the prevalence of mental health disorders ranges from 10% to 25% for depression and eating disorders” (Reardon et al., 2019, p. 11). Therefore, navigating well-being could be complex in highly stressful settings, affirming that athletics could be a highly stressful environment (Mehrsafar et al., 2020).

The perception of stress was individual to each person. The interpretations or appraisals of the stressors provided meaning to individuals (Lazarus, 1991). For example, a sports competition might be stressful and fear-inducing to one student-athlete, while another student-athlete might find the anticipation thrilling. Similarly, the appraisal of collegiate sports had a perception as both a buffer and an experience of stress (Kimball & Freysinger, 2003). A cross-sectional analysis of 157 collegiate student-athletes surveys during the COVID-19 pandemic found that higher levels of perceived stress increased the likelihood of having clinically significant depression and anxiety, regardless of whether the perceived stress was sport-related or not (Caruso, 2021).

The interpretations of stressors provide meaning for individuals, especially student-athletes. Additionally, there were differences in stressors among student-athletes depending on the type of sport (individual or team), where individual sports athletes reported higher mental



health concerns than student-athletes in team sports (Simons & Bird, 2022). However, despite stressors, Simons and Bird (2022) found that the coach-athlete relationship and social support were positively correlated with well-being, which supports the benefits of coaches cultivating positive relationships with athletes and fostering a supportive environment, to enhance student-athlete's well-being. Stress interpretations, perception of stressors, and the influence of grit, which is the perseverance and passion for long-term goals, can influence student-athlete well-being. When student-athletes experienced higher perceived stress, low grit, and low social support, the combination was significantly associated with clinically meaningful anxiety and depression (Caruso, 2021).

Utilizing various coping strategies was beneficial for student-athletes' well-being (Murphy, 2001). For example, Amrani (2019) researched 522 total participants that included student-athletes and non-athletes to examine the relationships between grit, stress, coping, and adverse health behaviors. While active coping was the most common form of coping, there was an inverse relationship between perceived stress and active coping (Amrani, 2019). Meaning, as stress levels increased for participants, the use of active coping decreased (Amrani, 2019). While coping strategies were not only important for well-being, the timing of using coping strategies could be useful in sport performance (Murphy, 2001). Some coping strategies were more advantageous leading up to a competition, while others found coping strategies more advantageous after a competition (Murphy, 2001).

Gender and race were influential in shaping the experiences of stress among student-athletes (Criticos et al., 2020; Kimball & Freysinger, 2003). For example, Criticos et al. (2020) found gender differences in grit and goal pursuit between male and female track and field thrower athletes, which could be helpful for coaches in applying strategies to develop their

athletes. Helping athletes deal with anxiety should be a priority since stress, drama, and fear were external factors that specifically impacted female athletes (Criticos et al., 2020). Additionally, racial-ethnic underserved student-athletes' had a high need for mental health needs yet low usage rate of related services (Ballesteros & Tran, 2020). Tran (2021) found that while stigma might be a factor towards student-athletes' unmet mental health needs, data suggested variations based on racial/ethnic status and type of stigma.

A survey of 494 student-athletes (*males* n = 131; *females* n = 362; *other* n = 1) from NCAA Division I, II, and III institutions (Leone, 2020), found significant associations between student-athletes' levels of dispositional gratitude and sport well-being. In this study, I defined *dispositional gratitude* as noticing and appreciating positive aspects of life, and *sport well-being* as subjective well-being relating to the sport. This data suggested that athletes with a greater likelihood "to recognize and appreciate different aspects of their life or sports experiences [were] more likely to report greater sport-related affective and functional well-being, and vice versa" (Leone, 2020, p. 40). Evidence supported the role and influence of positive psychology, such as gratitude, on student-athletes with positive associations among well-being indicators in the athlete population (Leone, 2020).

### **Coaches and Athletic Administrators**

Universities must respond to the growing need to prioritize student-athlete stress and well-being and become more knowledgeable. Sports coaches did not have sufficient specific training in responding to mental health/performance concerns; therefore, they were not likely to identify potential psychological issues in athletes, interpret perceived roles and responsibilities, or implement psychological interventions successfully (Radcliffe et al., 2018). This is problematic when student-athletes find relational benefit with members in the athletic

community and head coaches, yet these professionals are ill-informed and not properly trained to respond to potential issues. For example, Jenkins (2005) examined the relationship between female college athletes' relationships and perceived stress, coping responses, and athlete satisfaction. The survey results found that total athlete satisfaction was significantly associated with the importance of relational (relationship) health with members in the athletic community and head coaches (Jenkins, 2005). Additionally, there was a significant, inverted relationship between perceived stress and relational health among female student-athletes (Jenkins, 2005).

Nevertheless, most sports coaches did not have specific training in response to mental health/performance concerns (Radcliffe et al., 2018). When strength and conditioning coaches tried to implement psychological techniques in their environment, barriers became evident, such as a lack of education on psychological strategies, lacking methods of implementing such techniques, a lack of time, insufficient control, athletes' negative perceptions, etc. (Radcliffe et al., 2018). These barriers suggested the need to educate strength and conditioning coaches and organizational gatekeepers (administration) and collaborate with qualified psychologists (Radcliffe et al., 2018). Additionally, Wilson et al. (2009) found that that most athletic directors (66.7%) were confused about appropriate training for sports psychology consultants and unaware of any certification for them.

Student-athletes were also more likely to seek help from non-team support staff than coaches and team-related support staff (Cutler & Dwyer, 2020). However, Duffy et al. (2021) found that employing coaches' collaboration might bolster athletes' mental health by developing coaches' knowledge, competence, and beliefs. Duffy et al. (2021) found significant indirect effects on athletes when coaches were enabled to engage in helping behaviors as an expected part of their roles and responsibilities in role breadth and role efficacy.

There was a stigma of mental health among ‘athletes’ where athletic leaders hesitated to acknowledge the importance and influence of mental health within athletics, which might contradict the perception that athletes were tough (Carr & Davidson, n.d.). The hesitation of athletic leaders to acknowledge the importance and influence of mental health might become more significant once mental health issues were identified due to a delay in time. These decision-making leaders might need to consider if enough resources are available to respond and provide services to student-athletes. Acknowledging the importance and influence of mental health within athletics is essential, and it demonstrates the need to communicate with coaches and administrators about responding to student-athletes’ needs.

Athletic departments could find support and partnership in providing resources to student-athletes by accessing the expertise of university faculty and student support centers. Athletic departments should not bear this need alone without support. NCAA legislation required every college campus to designate an individual to serve as a faculty athletic representative as part of the institutional governance of intercollegiate athletics (Faculty Athletics Representatives Association, n.d.). The faculty athletic representative served many roles but mainly as the liaison between athletics and academics, demonstrating the collective, shared governance in decision-making and communication. It was impractical to place complete responsibility for athletics among faculty (Lawrence and Ott, 2013) yet partnerships with faculty were important to athletic governance; therefore, a continued partnership and collaboration approach is key to supporting student-athletes. Further collaborations were needed between athletic departments and campus counseling centers to offer interventions to enhance mental health opportunities among student-athletes (Bird, 2018).

## **Student-Athlete Well-Being Implications**

Barriers and implications can influence well-being. College athletes experienced many stressors contributing to compromised well-being (Beauchemin, 2014). In addition to these barriers, athletes were navigating a new life, a high-stress environment at college that influenced their health behaviors (eating, sleeping, movement, substance use, sexuality, etc.) (de Souza et al., 2021). Academics and athletics could be challenging to balance for student-athletes (Lopes Dos Santos et al., 2020). For example, 31% of female student-athletes and 25% of male student-athletes at Division II institutions reported being unable to overcome mounting difficulties in the prior month (National Collegiate Athletic Association, 2020). De Souza et al. (2021) found that both males' and females' aggressive behaviors, alcohol use, and fatigue were significantly associated with psychological distress and stress symptoms. Thus, a wide variety of stressors athletes encounter and navigate influence their well-being.

Edwards et al. (2022) conducted a large national study of 508,672 varsity athletes and non-athletes from the 2011–2019 U.S. National College Health Assessment (NCHA). The national study compared the self-reported mental health symptoms, diagnoses, treatment, and impediments to academic performance in college student-athletes vs. non-athlete students (Edwards et al., 2022). Athletes reported significantly lower rates of most mental health symptoms, diagnoses, and treatment, and more athletes self-reported anxiety- and depression-related symptoms without corresponding diagnosis/treatment (Edwards et al., 2022). While student-athletes had overall better mental health than non-athletes, symptomatic athletes obtained diagnosis/treatment less frequently than non-athletes (Edwards et al., 2022). The negative impacts on mental health and well-being need to be addressed on college campuses. Student-

athletes, who serve as role models to others, could help demonstrate the effectiveness of supportive resources to non-athletes.

College athletes encounter various barriers that can hinder their access to supportive mental health resources (Beauchemin, 2014). Bird (2018) found the most frequently reported factors and predictors that prevented student-athletes from seeking help and treatment, which include student-athletes' perceived benefits, perceived susceptibility, and perceived attitudes factors. Additional factors included the influence that college athletes believe that the issues they were experiencing were not that serious or that college athletes desire to seek help from a source other than a mental health professional (Bird, 2018). In today's modern society, student-athletes navigate new difficulties and pressures even as they perceive attitudes from others, such as pressures and attitudes from coaches, fans, and peers, let alone pressure imposed on themselves (Cutler & Dwyer, 2020). A variety of factors might influence the implications of athletes' well-being. College athletes' health behaviors might contribute to their mental functioning regarding eating, sleeping, substance use, and aggressive behaviors (de Souza et al., 2021). Additional support was needed considering how college athletes experienced barriers to seeking and accessing mental health support, along with the stigma of navigating the adverse effects of mental health (Beauchemin, 2014; Bird, 2018; Cutler & Dwyer, 2020; De Souza et al., 2021).

### **Gratitude and Student-Athlete Well-Being**

As it is related to clinical psychology, exploring gratitude yielded strength in understanding well-being and potentially improving well-being through simple gratitude exercises (Wood et al., 2010). While the evidence for positive psychology and gratitude was evident in the literature, such as the positive association between emotional intelligence,

gratitude, and subjective well-being (Geng, 2018), this research with respect to student-athletes is still emerging.

Despite the strong research on gratitude, there was support that positive psychology, such as gratitude, was advantageous (Meyers et al. 2013). Positive psychology enhanced well-being and performance while also minimizing stress, burnout, depression, and anxiety (Meyers et al. 2013). Gratitude and student-athlete research continued to emerge in the literature, where evidence supported gratitude's benefits in practical settings (Gabana et al., 2022). The longstanding focus of athletics, in general, aligned with sports performance rather than well-being. However, well-being might be the cornerstone of sports performance (Chen et al., 2016). Chen and Wu (2014) found that student-athletes had higher affective trust in their coaches (e.g., confidence generated from care and concern) and higher levels of gratitude that increased their self-esteem over time. Additionally, a survey of nearly 400 NCAA student athletes found that grateful student-athletes might experience less burnout, and student-athletes might experience more gratitude when having a strong coach–athlete relationship (Ruser et al., 2021). Even in a simple, one-session gratitude workshop, Gabana et al. (2019) found that student-athletes scored higher on well-being measures and lower on ill-being measures (e.g., psychological distress, athlete burnout) as compared to their baseline scores.

Interestingly, gratitude and subjective well-being were positively associated with emotional intelligence (Geng, 2018). Peter Salovey and John Mayer were the first individuals to publish about emotional intelligence (Bechtoldt, 2008). Emotional intelligence is the ability to identify and manage one's own emotions, as well as the emotions of others (Bechtoldt, 2008). Later, emotional intelligence gained public attention through the work of Daniel Goleman, a trained psychologist at Harvard and science writer for the *New York Times* (Practical Emotional

Intelligence, n.d.). Goleman later wrote the book *Emotional Intelligence*, which gained widespread attention (Daniel Goleman, 2021). Personal achievement and career success was strongly influenced by emotional intelligence as the single most important influential variable (Strickland et al., 2022).

Evidence supported how coping strategies, especially strategies to be resilient, were advantageous to reducing the development of depressive and anxious symptoms (Gloria & Steinhardt, 2016; Meyers et al., 2013) and adverse health behaviors (Amrani, 2019). A study of 200 participants found the positive relationship between positive emotions, coping, resilience and mental health through the role of adaptive coping skills, which were cognitive and behavioral strategies to help emotional distress (Gloria & Steinhardt, 2016). In other words, these are skills and strategies that did not make the problem worse, such as gratitude exercises that include taking a walk outside, being mindful in the moment, or using humor. By prioritizing well-being through positive psychology strategies, such as gratitude (Gabana et al., 2019; Geng, 2018, Ruser et al., 2021; Wood et al., 2010), student-athletes could reduce their stress, improve their overall wellness, and avoid sport-related burnout (Chen et al., 2016; Lopes Dos Santos, et al., 2020).

### **Positive Psychology and the Broaden and Build Theory**

The original broaden and build theory (Fredrickson, 2001) widely used, continues to support how an individual's capacity to experience positive emotions could be utilized as a fundamental human strength to thrive. Research supported the benefits and advantages of strategies to increase positive emotions, adaptive coping strategies and resiliency (Fredrickson, 2001; Gloria & Steinhardt, 2016). The purpose of positive psychology is to understand and cultivate factors which allow people to flourish. Examples of positive psychology in everyday



life would include volunteering or giving back to your community, writing a thank you note, or spending time in nature and appreciating its wonder and beauty. Thus, positive emotions were worth fostering as they served as markers of optimal well-being (Fredrickson, 2001). This theory outlined that, although phenomenologically distinct, certain distinct positive emotions (e.g., joy, interest, contentment, love) could have influence on well-being (Fredrickson, 2001). Positive emotions “all share the ability to broaden people’s momentary thought-action repertoires and build their enduring personal resources, ranging from physical and intellectual resources to social and psychological resources” (Fredrickson, 2001, p. 219).

The broaden and build theory expanded mindsets from positive emotions rather than narrowing mindsets from negative emotions (Fredrickson, 2004). By broadening or expanding mindsets, an individual’s momentary thought-action repertoire could also expand—whether through discovery, exploration, or play—as new creative experiences and ideas built an individual’s personal resources (Fredrickson, 2004). Personal resources could include physical resources, intellectual resources, social resources, and psychological resources. For student-athletes, personal resources would include smiles and social bonds among teammates, being creative with new stretches, or finding positive meaning amidst adversity.

Cultivating resources supported the likelihood of successful coping and survival in the future as those resources were stored as a function in reserve (Fredrickson, 2004). Coping is important in the management of stress. Selye (1978) proposed the term *stress* to explain the responses of the general adaptation syndrome (initial reaction, then adaptation, etc.) and coined the term “stressor.” In a similar theory, Lazarus and Folkman developed the transactional model of stress and coping in 1984 and described *coping* as the “cognitive and behavioral efforts” a person uses to manage stress (Lazarus & Folkman, 1984), as either emotion-focused or problem-

focused coping. *Emotion*-focused coping is when individuals alter their feelings about a stressful situation. *Problem*-focused coping is when the individual takes action to change the situation (e.g., problem-solving, planning) (Nguyen-Rodriguez et al., 2015). Effective coping strategies and social support were buffers against mental illness (Fogaca, 2021).

Successful coping is important to respond to and manage stress. Experts agreed that coping was a process rather than an event and people might prefer certain coping strategies better than others (Cleveland Clinic, 2020). Differences in preferred coping strategies were usually due to personality; therefore, flexibility in coping was important to fit the most appropriate strategy to the stressor or demand at the moment (Cleveland Clinic, 2020). Cultivating resources supported the likelihood of successful coping (Fredrickson, 2004). Therefore, cultivating resources, per the broaden and build theory, supported the expansion of positive emotions rather than negative emotions (Fredrickson, 2004).

### **Preventative Educational Workshops for Student-Athlete Well-Being**

Research supported the use of preventative, educational workshops to help prevent ailing well-being from developing or the severity of implications (Carr et al., 2021; Gabana et al., 2019; Gloria & Steinhardt, 2016). The evidence from a meta-analysis of positive psychology intervention (PPIs) studies confirmed the effectiveness of positive psychology on well-being (Carr et al., 2021). The meta-analysis included 347 studies with over 72,000 participants from clinical and non-clinical child and adult populations in 41 countries around the world (Carr et al., 2021). The evaluation of these positive psychology interventions included educational sessions with an average length of ten sessions over six weeks, delivered in multiple formats and contexts. Ultimately, the meta-analysis of these positive psychology interventions showed small to medium effects on well-being, strengths, quality of life, depression, anxiety, and stress

immediately after post-tests and benefits were maintained at three months' follow-up (Carr et al., 2021).

Teaching student-athletes' various skills, strategies, or techniques has the potential to bolster well-being. In one example, a one-time, 90-minute "attitude of gratitude" workshop was facilitated to 51 NCAA Division I student-athlete participants (Gabana et al., 2019). Survey data was gathered from participants before the workshop, immediately afterward, and four weeks post-workshop about each participant's levels of state gratitude, psychological distress, life satisfaction, sport satisfaction, athlete burnout, and perceived available support in sport. In this study, *well-being* included state gratitude, sport satisfaction, and social support, whereas *ill-being* included psychological distress and athlete burnout (Gabana et al., 2019). Data gathered following the 4-week post-workshop survey found that student-athletes scored higher on measures of well-being and lower on measures of ill-being as compared to their baseline scores (Gabana et al., 2019).

One-time gratitude interventions and multi-session programs both demonstrated benefits for personal and social well-being (Gabana et al., 2022). For example, the quantitative results of a mixed methodology study of female collegiate basketball athletes found a progressive decrease in stress and an increase in athletic coping skills throughout the ten-session mindfulness intervention over ten weeks (Vidic et al., 2017). On the other hand, Chu & Petrie (2021) conducted a brief intervention over *three weeks*, to a NCAA Division I women's volleyball team, where each step of the intervention was delivered to participants in 15-minute sessions from Mondays through Thursdays, followed by corresponding 15-minute review sessions on Fridays. Despite the brief length of this intervention, the quantitative data found that, as a team, there were increases 4Cs (concentration, control, confidence, and consistency) of the program, with

significant increases in three targeted dimensions: (a) coping with adversity; (b) concentration; and (c) peaking under pressure (Chu & Petrie, 2021). Through qualitative data, athletes reported the program was effective in improving their psychological skills and overall performance (Chu & Petrie, 2021).

As it relates to student-athletes, Chiou (2020) found (athletic) mental energy was a positive strength in buffering the stress-burnout relationship among student-athletes. Murphy (2001) found that coping strategies and preparatory routines were advantageous for student-athletes' stress and sports performance to combat athlete stress. Incorporating a multidimensional outreach approach for college athletes to encompass mental health education and sport psychology concepts on awareness and attitudes could effectively reduce mental health stigmas (Beauchemin, 2014). Additionally, it could increase awareness of supportive mental health resources and increase self-care and sports-performance skills (Beauchemin, 2014). Fogaca (2021) found that improving (athletic) coping skills and anxiety among college student-athletes through an intervention that taught coping skills to student-athletes increased their social support within their teams. Additionally, Kimball & Freysinger (2003) found that race and gender were important in shaping collegiate athletes' experiences of stress.

Addressing mental health through the implementation of a mental health workshop program for student-athletes was found effective which increased the athletes' intentions to self-manage their mental health (Breslin et al., 2021). Although stress is unavoidable and its influence on mental health, such as depression and anxiety, is unquestionable, Gloria and Steinhardt (2016) found that implementing programs designed to increase positive emotions, adaptive coping strategies and resilience were advantageous in minimizing the likelihood of developing anxiety or depressive symptoms.

Since the interpretations of stressors provided meaning for individuals, especially student-athletes, Petterson and Olson (2017) found how mindfulness-based interventions positively reduced negative thoughts and levels of perceived stress. Not only were there benefits to improving overall well-being by increasing mindfulness and managing negative emotions and perceived stress, but the number of occurrences of student-athlete injuries decreased following the mindfulness-based intervention (Petterson & Olson, 2017). Again, while stress is unavoidable, implementing programs to bolster an individual's coping strategies to respond can aid in their "toolbox" of personal resources. The original broaden-and-build theory (Fredrickson, 2001) supports how an individual's capacity to experience positive emotions can be utilized as a fundamental human strength to thrive. Research supported the benefits and advantages of strategies to increase positive emotions, adaptive coping strategies and resiliency (Fredrickson, 2001; Gloria & Steinhardt, 2016).

Offering programs and interventions *thoughtfully* ensures these approaches are practical, which could otherwise be a barrier. Clarifying the program's purpose and goals was essential; identifying *who* would direct the program was also critical (Cutler & Dwyer, 2020; Dohme, 2020). Dohme (2020) found that an established rapport between the researcher (or program facilitator) and the athlete (participants) enhanced the meaningfulness and content of the program. Programs that allowed for a dynamic experience and contextualization of the personal meaning of stress and leisure (sport) could then emerge as needed (Kimball & Freysinger, 2003). Student-athletes preferred to seek needed help from non-team support staff than coaches and team-related support staff (Cutler & Dwyer, 2020). Thus, the consequences of quickly implementing a program or intervention without prioritizing who would direct the program and

collaborating with key, supportive and influential individuals might influence the program's effectiveness and overall student-athlete mental health.

Psychological and educational interventions, such as Psychological Skills Training (PST) and Mindfulness-Based Interventions (MBI), could help participants enhance their well-being in various ways. Hut et al. (2021) found PST and MBI interventions as influential positive factors related to athletes' sports experiences. Athletic participants enjoyed both interventions and contributed to enhanced well-being, including anxiety reduction, attention, and emotion regulation (Hut et al., 2021). Similarly, Ruiz-Íñiguez et al. (2022) found mindfulness-based interventions' applicability to mental health professionals to improve their personal and professional well-being. This demonstrates the usefulness and effectiveness of psychological and educational interventions to reduce stress and enhance well-being.

Workshops and programming can be face-to-face or utilize online components (e.g., discussions and learning in a physical classroom setting, or using online modalities for learning). The use of technology yields opportunities and challenges. Technology could be a vehicle for delivering information and education. Technology and online modalities could facilitate learning that is convenient and accessible regardless of geographic location or personal schedules. Makowska-Tłomak et al. (2022) delivered a blended online intervention to employees to address their digital transformation stress and general stress at work. The purpose of the intervention was to enhance employees' resources, such as self-efficacy, after the COVID-19 pandemic through a series of interactive online workshops (Makowska-Tłomak et al., 2022). The research found that even a blended online intervention supported employees' digital transformation stress (elevated work demands due to rapidly changing communication technologies and limited employee

resources) before it impacted their work performance and well-being (Makowska-Tłomak et al., 2022).

### **Literature and Theory**

Successfully coping with stress was the cornerstone for good mental health and physical health, and successful coping strategies enabled effective emotional responses to stressful situations (Shah & Thingujam, 2008). Practicing gratitude cultivated a heightened sense of self awareness, and the skill of self-awareness was linked to the ability to manage stress and overall wellness (Zwack & Schweitzer, 2013). Individuals with high levels of emotional intelligence possessed more effective coping strategies that warranted more resiliency and better stress management (Mikolajczak et al., 2009). Heightening emotional intelligence skills through gratitude allowed for further reflection of feelings, motives, and perceptions. This study evaluated how any changes in state gratitude, psychological distress, life satisfaction, sport satisfaction, athlete burnout, and perceived available support in sport influenced their self-reported perceptions of well-being and stress after a gratitude intervention. Each survey assessment directly aligned with these research topics.

## **Chapter 3**

### **Methodology**

#### **Research Study Inspiration**

Among all the research conducted to explore the influences of positive psychology, sport psychology, gratitude, stress, and well-being among student-athletes, there was one notable study. The study by Gabana (2017) was the first known study that researched the role of a gratitude intervention among student-athletes. Gabana's (2017) study provided clear recommendations for future research, such as this study. Therefore, this intervention was akin to the study conducted by Gabana (2017), which focused on promoting gratitude among Division I student-athletes, but the study herein has some modifications. One of the modifications from Gabana's (2017) study involved using an experimental group and a control group rather than just one group in research. Multiple attempts were made to connect with the researcher (Gabana). An email was sent to Gabana at her employment, but there was no response in return. A phone call to the athletics department at a recent institutional organization of employment resulted in finding out Gabana was no longer a current employee for the athletics department and additional questions should be directed to Human Resources. Human Resources at that institution indicated that Gabana was out of the country in a remote area with limited access to communication. Similar to Gabana (2017), the study herein delivered one, ninety (90) minute educational session about gratitude. While Gabana (2017) conducted the study with 51 Division 1 student-athlete participants, representing swimming and wrestling, this study herein examined student-athletes from a Division II institution and included more participants for a larger scope of variables and with more sports represented. Including more participants in the study was one of Gabana's (2017) recommendations. Gabana (2017) also utilized a combination of modified survey



instruments. Gabana (2017) did gain approval to use one of the adapted survey instruments from the original author(s). Therefore, an email was sent to Dr. Robert Emmons, one of the lead, original authors and researchers of the Satisfaction with Sport Scale, to connect but there was no response in return. All survey instruments were adapted from Gabana (2017).

## **Background**

To my knowledge, this was the first known experimental study that examined the impact of a preventative, educational gratitude intervention among student-athletes. This study tested the implementation of a preventative, educational gratitude workshop. Preventative wellness workshops aim to support collegiate student-athletes by enhancing and maintaining positive well-being. Beauchemin (2014) found that an intervention with an integrative outreach model that incorporated mental health education, sport psychology concepts, and mental skill techniques in student-athletes increased awareness of mental health supports, reduced stigma, and developed the performance enhancement and self-care skills of athletes. This study aimed to identify if educational gratitude programming opportunities could support student-athletes' well-being.

**Table 1**

*Comparison between Gabana (2017) study and the study herein*

Gabana (2017)	This study
<ul style="list-style-type: none"><li>• 51 total participants</li><li>• Division 1 student-athletes</li><li>• 2 sports</li><li>• Both sports were in-season</li><li>• Only one experimental group</li><li>• 2 separate gratitude workshops (one for each sport)</li><li>• Participants took home a document with 56 Living Gratitude strategies and a list of “Gratitude Busters and Boosters”</li><li>• After the workshop, participants received an email one month later with a follow-up survey to assess their practice</li></ul>	<ul style="list-style-type: none"><li>• 54 total participants</li><li>• Division II student-athletes</li><li>• 8 sports</li><li>• All sports were either in-season or out-of-season</li><li>• Experimental group and control group</li><li>• 1 gratitude workshop for experimental group (control group session occurred simultaneously)</li><li>• Participants did not take home any additional information</li><li>• No follow up</li></ul>

**Data Collection**

Before any data was collected, approval was requested and granted for human subjects’ research from the university involved in the study (“the host university”). The host university’s athletic director gave approval, verbally and in written form. Additionally, the research gained approval from the IRB at the University of South Dakota.

Participants were recruited primarily via email outreach for almost two weeks. One of the athletic department’s administrators gave approval to email all eligible student-athletes of the study, inviting them to participate. In the email, these potential participants received information that introduced the purpose of the survey and outlined the logistics and expectations (Appendix A).

To notify students of the study, I stopped by a few sport practices to verbally discuss the study with student-athletes and to answer questions. An email was also sent to all head coaches of eligible participants informing them of the study, inviting their athletes to participate. An initial email was sent to participants, with another follow up email one week later (Appendix B). The reminder email was sent to eligible student-athletes one week before the workshop to ensure completion and provide the greatest opportunity for all eligible student-athletes to participate.

The collection of data for this study involved the use of one survey instrument, a post-assessment survey (paper format, at the end of the workshop). Only participants who completed the non-signature consent form could participate in the workshop (Appendix C). All participants completed the consent form, as a paper form, upon arrival to the workshop.

After recruiting participants for a couple of weeks, the workshop intervention occurred in January of 2023. At the time of the workshop, participants arrived, completed a consent form, and were randomly assigned to report to Room 1 or Room 2. Room 1 was the experimental group room and Room 2 was the control group room. While I conducted the gratitude intervention in Room 1, a trained, scripted research assistant facilitated a “mock intervention” in Room 2. The “mock intervention” consisted of participants watching a 90-minute neutral-perspective documentary. All participants, both in the experimental group and the control group, completed the paper post-assessment survey at the end of the workshop, with pens/pencils provided. Data was collected from all participants who completed the survey, whether they were assigned to the experimental group or control group.

### **Description of Research Approach**

In January 2023, a 90-minute gratitude workshop was facilitated for student-athlete participants in the experimental group while a concurrent “mock intervention” was facilitated for

control group participants. The workshops took place face-to-face, on-campus in a large ballroom with large round tables and chairs due to the number of participants. While Gabana (2017) conducted two separate gratitude workshops, one for swimmers and one for wrestlers, it only totaled 51 participants and no unique seating arrangements were structured. Considering the modification to include more participants in the study with more diverse sports, a large ballroom with large round tables and chairs was most suitable for workshop facilitation of 400 total participants. Free food was offered to all participants.

The experimental group participated in a gratitude workshop that mainly consisted of didactic teaching and discussion. Meaning, as students sat at the large tables with other student-athlete participants, I lectured about the aspects of gratitude (e.g., what is gratitude, examples of gratitude, etc.) then students discussed related personal examples in their groups. The didactic teaching and discussion of the workshop comprised the remaining 90 minutes. At the end of the workshop, participants completed a paper post-assessment survey to evaluate the entire workshop.

The control group participated in a “mock intervention” that only consisted of watching a 90-minute neutral perspective documentary. This “mock intervention” occurred at the same time as the experimental group’s gratitude intervention. It was facilitated by a trained research assistant who had a script to follow. A 90-minute neutral perspective documentary was shown to all participants in the room for the entire duration of the workshop. The location of the control group room was distanced from the location of the experimental group room to avoid hearing the other group’s tasks. At the end of the workshop, participants completed a paper post-assessment survey to evaluate the entire workshop.

## **Research Question**

This study used an experimental study design using quantitative methods to understand the unique situation of Division II collegiate student-athletes and their perspectives of well-being and stress after implementing a preventative, educational gratitude workshop. For this study, well-being referred to “the presence of positive emotions and moods (e.g., contentment, happiness), the absence of negative emotions (e.g., depression, anxiety), satisfaction with life, fulfillment and positive functioning” (Centers for Disease Control and Prevention, 2018, p. 6). Therefore, this study focused on improving personal skills and one’s emotional response through a gratitude intervention to reduce stress and improve well-being.

The following research question guided this study:

1. To what extent do preventative, educational workshops reduce self-reported levels of stress and enhance well-being for intercollegiate student-athletes?

Appendix E lists a detailed list of survey questions.

## **Ethical considerations**

Ethical considerations were made to ensure the confidentiality of student-athlete data. Human Subject Protocol training through the CITI program was completed to ensure ethical decisions were made and student information was protected. The proper forms were completed in advance and the proper permissions were received from the IRB institutions to conduct research with human subjects.

Commitment to confidentiality, expectations of the participants, and potential benefits of this study were emailed to student-athlete participants (Appendix A). The email explained the purpose of the study and the format of the study. This email aimed to recruit eligible participants and encourage them to participate. One week later, a reminder e-mail (Appendix B) was sent to

all potential survey participants which outlined the purpose and format of the study and invited them to participate. Upon arrival at the workshop, participants completed a non-signature consent form (Appendix C). Participants also had the opportunity to participate in an optional drawing of a \$25 VISA gift card (two gift cards drawn at the end of the workshop) (Appendix D).

### **Setting**

Participants were enrolled at a NCAA Division II, a small-midsize private school (around 7,500 students) in the Midwest. Despite the university's total undergraduate and graduate student enrollment, this study focused only on full-time undergraduate student-athletes. In 2022, the university had a total enrollment of 2,900 full-time undergraduate students, 710 total student-athletes, and 570 eligible student-athlete participants. The university had a residential campus in a rural community of a population of 25,000–30,000.

### **Participants**

A total of 54 student-athlete participants from various sports teams at a private NCAA Division II university took part in the study herein. Approximately 570 student-athletes were eligible to participate in the study. The student-athlete participants were mixed amongst in-season and off-season sports during the completion of this intervention, which included fall, winter, and spring sport teams. Eligible student-athlete participants were on the roster of these specific sport teams: track and field, football, basketball, softball, wrestling, volleyball, baseball, golf, soccer, lacrosse, tennis, and swimming and diving. The majority of participants ranged from 18 to 22 years of age and included self-identified sexes. Participants self-identified their sexes and races, and all participants were randomly assigned to either the experimental or control group.

## **Measures**

All participants completed a paper post-assessment survey after their workshops. The survey included measures of state gratitude, psychological distress, life and sport satisfaction, athlete burnout, and perceived available support in sport. Similar to Gabana (2017), each research topic was measured independently.

### ***The Gratitude Adjective Checklist (GAC)***

This self-report measure assessed how accurately the adjectives “grateful,” “thankful,” and “appreciative” described oneself over the past few days (McCullough et al., 2002). It utilized a Likert scale from 1 (not at all) to 5 (extremely). This was adapted from Gabana (2017). As a measure of internal consistency, the Cronbach’s alpha value for the entire sample was .86. With a score close to 1, this scale met proficiency in reliability. This score is in comparison to Gabana’s (2017) Cronbach’s alpha value of .92.

### ***Brief Symptom Inventory-18 (BSI-18)***

This self-report measure assessed participants’ level of distress over the past 7 days. It included three subscales which measured depressive, anxiety, and somatization symptoms (Derogatis, 2001). This was adapted from Gabana (2017). The BSI scale did not require reverse scoring; it used the sum. To measure internal consistency, the Cronbach’s alpha value for the entire sample with missing data was .88 and the Cronbach’s alpha value for the entire sample with adjusted data was .88, too. Overall, with a score close to 1, this scale met proficiency in reliability. This score is in comparison to Gabana’s (2017) Cronbach’s alpha value of .88.

### ***The Satisfaction with Life Scale (SWLS)***

This self-report measure (Diener et al., 1985; Appendix E) assessed participants’ global life satisfaction. This was adapted from Gabana (2017). The SWLS scale did not require reverse

scoring; it used the sum. To measure internal consistency, the Cronbach's alpha value for the entire sample within this scale was .66. As mentioned previously, the SWLS scale had five statements and the fifth statement had strong language in phrasing which may have had a confusing or conflicting interpretation and likely influenced its high variance (3.977987; no missing data). The statement was phrased as, "If I could live my life over, I would change almost nothing." While the other four statements of the SWLS scale had variances ranging between 1.2-1.5. The fifth statement of the SWLS scale was the only statement/question in the entire survey that had such a high variance. This score compares to Gabana's (2017) Cronbach's alpha value of .87.

### ***The Satisfaction with Sport Scale (SWSS)***

An edited version of the SWLS (Diener et al., 1985) was used to assess sport satisfaction (Appendix E), which aligned with Gabana's (2017) measures. The study herein focused on assessing the global satisfaction of the participant's collegiate sport experience; thus, it seemed appropriate to use an edited version of the SWLS, which measured global life satisfaction. Whereas the term "life" was used in the original version of the SWLS, it was replaced with "collegiate sport experience" with the hopes of making the scale specific to the participant's current athletic domain. The study herein refers to the adapted sport-specific version of the SWLS as the Satisfaction with Sport Scale (SWSS), similar to Gabana (2017).

### ***Athlete Burnout Questionnaire (ABQ)***

This self-report measure assessed participants' levels of burnout. It was divided into three dimensions that connected to burnout in athletes: (a) emotional and physical exhaustion; (b) reduced sense of accomplishment; and (c) sport devaluation (Raedeke & Smith, 2001). This was adapted from Gabana (2017). To measure internal consistency, the Cronbach's alpha value for



the entire sample with missing data was .86 and the Cronbach's alpha value for the entire sample with adjusted data was .86, too. Overall, with a score close to 1, this scale met proficiency in reliability. This score is in comparison to Gabana's (2017) Cronbach's alpha value of .88.

This scale did require reverse scoring in the analysis. After reverse-scoring items 1 and 14, scores for each subscale can be calculated by summing the five corresponding items together. The subscale dimensions correspond with the following items: (1) emotional and physical exhaustion (items 2, 4, 8, 10, 12), (2) reduced sense of accomplishment (items 1, 5, 7, 13, 14), and (3) sport devaluation (items 3, 6, 9, 11, 15).

### ***Perceived Available Support in Sport Questionnaire (PASS-Q)***

This self-report measure assessed participants perceived social support specific to athletics (Freeman et al., 2011). It had four subscales, representing various dimensions of social support which athletes perceived as available to them within the sport context. This was adapted from Gabana (2017). The PASS-Q consists of 16 total items, four items for each subscale: (1) emotional support (items 1, 8, 11, 14), (2) esteem support (items 2, 4, 9, 12), (3) informational support (items 5, 7, 13, 15), and (4) tangible support (3, 6, 10, 16). To measure internal consistency, the Cronbach's alpha value for the entire sample with missing data was .95 and the Cronbach's alpha value for the entire sample with adjusted data was .94. Overall, with a score close to 1, this scale met proficiency in reliability. This score is in comparison to Gabana's (2017) Cronbach's alpha value of .96.

### ***Meaningfulness***

Gabana's (2017) Cronbach's alpha values are not available. The research suggests this is because Gabana's (2017) study was a longitudinal study where this question was combined with

additional quantitative and qualitative questions related to the participant's intentions to practice gratitude in the four weeks after the workshop.

## **Procedures**

Prior to the workshop, all participants received an email that outlined the workshop logistics. Participants were instructed to attend the workshop at the designated date and time. Upon arrival to the workshop, participants completed a non-signature consent form, in paper form. Participants were randomly assigned to the experimental group or control group upon arrival. Consent forms were coded with a number 1 or 2 to designate which group each participant was assigned. Experimental group participants attended a workshop in a separate room (Room 1) from the control group participants. The control group participants attended a workshop in a separate space (Room 2), just down the hall in the same building, from the experimental group. The experimental group participated in the gratitude intervention while, at the same time, the control group watched a 90-minute documentary about trains (which had nothing to do with gratitude nor had any influences on participant survey responses). I trained a research assistant to facilitate the control group "mock intervention" with clear directions. Both the experimental group and the control group completed a paper post-assessment survey at the conclusion of the workshop. Post-assessment surveys were coded with a number 1 or 2 to designate if the participant was in the experimental group or the control group.

To ensure consistency and prevent inaccuracies, the experimental group gratitude workshop was facilitated by me. The experimental group workshop consisted of three components: (a) didactic; (b) gratitude writing activity; and (c) discussion/debrief. At the beginning of the workshop, participants were asked to introduce themselves to the other participants sitting at their tables. Participants introduced themselves by stating their names and

years in school (e.g., freshman). After participant introductions concluded, I introduced myself to all participants in the experimental setting at once, which included an elaboration of her connection to the university.

***The three components of the workshop:***

First, the didactic component of the workshop began with an introduction of the general concept of gratitude (e.g., What is gratitude? Provide context), rhetorical questions about gratitude as a character trait to prompt inquiry and curiosity (e.g., How does gratitude work?), a brief review of gratitude research (e.g., physical and psychological benefits, link to positive psychology, relatedness to student-athletes, etc.), and lastly, I shared a personal illustration of how gratitude was used in my own life (a personal testimony).

Secondly, participants were asked to complete a gratitude writing activity for the length of 20–30 minutes. I instructed participants to make a list of as many things for which they felt grateful in their lives (Appendix G). Examples included people, events, material goods, experiences, and/or personal characteristics. Once participants made their lists, I instructed the participants to write a brief statement about why they felt grateful for each of the items on their lists. The purpose of the exercise was to prompt reflection and meaning of those items in their lives.

Lastly, I prompted the participants to engage in a discussion/debriefing. Within their groups at their tables, participants took turns discussing their responses, their gratitude lists, and the rationales behind their appreciation. Once each participant shared their responses, all participants came back together in the large group and several volunteer participants shared their reflections to the whole group. I debriefed the exercise by soliciting participants' thoughts and

feelings about the activity. Additionally, potential benefits for practicing gratitude on a regular basis were shared.

I concluded the experimental group workshop with verbally sharing strategies participants could use to continue expressing gratitude daily. Workshop participants were instructed to complete a paper post-assessment survey that included measures of state gratitude, psychological distress, life and sport satisfaction, athlete burnout, and perceived available support in sport immediately following the workshop. I clarified the voluntary nature of continued gratitude practice and thanked all participants for their participation in the workshop. While Gabana (2017) administered a follow up survey four weeks after the workshops, for this study I did not administer a follow up survey due to time constraints. Participants did not take home any additional information for practicing gratitude.

### **Instruments**

This section describes the surveys that gathered data. The workshop's paper post-assessment survey included quantitative measures to glean information from the participants. The post-assessment surveys mirrored Gabana's (2017) survey instruments. The survey ended with asking the participant to provide demographic information, including questions relating to their age, identified sex, associated sport, year in college, if they received any athletic scholarship money, etc. Each survey question aligned with a specific research topic of the study. Levels of state gratitude, psychological distress, life and sport satisfaction, athlete burnout, and perceived available support in sport were measured.

**Table 2**

*How Each Research Topic Aligned with an Assessment*

<b>Research topic</b>	<b>Assessment (See Appendix E)</b>
State gratitude	Gratitude Adjective Check List (GAC)
Psychological distress	Brief Symptom Inventory (BSI-18)
Life satisfaction	Satisfaction with Life Scale (SWLS)
Sport satisfaction	Satisfaction with Sport Scale (SWSS)
Athlete burnout	Athlete Burnout Questionnaire (ABQ)
Perceived social support	Perceived Available Support in Sport Questionnaire (PASS-Q)

The post-assessment survey asked questions about their state gratitude, psychological distress, life and sport satisfaction, athlete burnout, and perceived available support in sport along with demographic questions at the end.

**Data Analysis**

Assessment data from the survey was analyzed using *t*-tests. A *t*-test was used to compare the means of both groups, the experimental group and the control group, across each survey instrument. The *t*-test was used to determine if there were significant differences between the control group and the experience group who participated in the gratitude workshop intervention. An independent sample *t*-test was performed since participants in the experimental group and the control group were exposed to different conditions. Two-tailed *t*-tests were performed for each of the six variable scales (state gratitude, psychological distress, life satisfaction, sport satisfaction, athlete burnout, and perceived available support in sport) were measured independently.

The assumptions for all scales were analyzed separately. Cronbach's alpha values were identified for each scale separately. Each scale's Cronbach's alpha values ranged between 0.66-0.95, before adjusting data from missing responses. Specific Cronbach's alpha values are detailed below with each scale's analysis. I found the variance for each question and scale. The variable scales analyzed were state gratitude, psychological distress, life satisfaction, athlete burnout, and perceived available support in sport. I also analyzed the question about the workshop's meaningfulness as a separate scale.

Sport satisfaction was not analyzed in the survey. It was omitted from the survey in a printing error, noticed after the workshop was complete. But the error may have been helpful because of strong wording on the fifth statement. The life satisfaction scale and sport satisfaction scale stated similar statements with mirroring language, except one scale focused on the participant's satisfaction with life and the other scale focused on the participant's satisfaction with sport. The life satisfaction scale had five statements and the fifth statement had strong language in phrasing which may have had a confusing or conflicting interpretation and likely influenced its high variance (3.977987; no missing data). In comparison, the other four statements of the life satisfaction survey had variances ranging between 1.2-1.5. The fifth statement of the life satisfaction survey was the only statement/question in the entire survey that had such a high variance. Since the life satisfaction scale and sport satisfaction scale phrased similar statements with mirroring language, the sport satisfaction scale in the survey may have gleaned similar results with a high variance on the fifth statement.

### **Explanation of Researcher's Role**

I conducted the educational workshops face to face. I had no employment association with the university. The only connection was that the university was my alma mater, it was

geographically local, and my spouse was a head coach for one of the sport programs at the university at the time. My spouse nor I required individuals to participate, nor influenced their responses.

## Chapter 4

This chapter presents the results of this experimental study to identify if a preventative, educational gratitude intervention could reduce self-reported stress levels and enhance intercollegiate student-athletes' well-being at a Midwest NCAA Division II. The chapter included an analysis of the population demographics, specific descriptive statistics, a discussion of the results, and potential future research possibilities to extend this study.

### **Participants' Demographic**

As participants arrived at the lobby of the workshop location, they received a non-signature consent form and marked an "X" as an agreement to participate. Each consent form was labeled either 1 or 2 to direct them to the corresponding group- control ( $n = 26$ ) or experimental group ( $n = 28$ ) for a randomized sample. Most participants were underclassmen freshmen students ( $n = 32$ ) as opposed to upperclassmen, between 18-20 years of age ( $n = 49$ ), represented a variety of sports (8 sports represented), and there were more females ( $n = 35$ ) than males ( $n = 19$ ). Comprehensive details about the participant demographics are in Appendix J.

### **Findings**

The following research question guided this study: To what extent do preventative, educational workshops reduce self-reported levels of stress and enhance well-being for intercollegiate student-athletes? The findings are reported by subscales.

#### ***The Gratitude Adjective Checklist scale***

Gratitude was specifically measured using the GAC scale, which measured participants' state gratitude levels immediately following the intervention. As a self-report measure, it assessed how accurately the adjectives "grateful," "thankful," and "appreciative" describe oneself over the past few days, rated on a Likert scale from 1 (not at all) to 5 (extremely).



Gabana (2017) stated that a higher total GAC score indicated greater state gratitude. The results showed that participants in both groups had moderate state gratitude levels in the experimental group ( $M = 10.82, SD = 2.05$ ) and the control group ( $M = 11.30, SD = 2.54$ ). There were no statistically significant differences between the two groups' GAC scores ( $t(52) = 2.00, p = .441$ ). Rather, both groups demonstrated a moderate to high score of gratefulness since all mean scores were in the top third of total results.

**Table 3**

*Gratitude scale statistics*

	<i>M</i>	<i>SD</i>	<i>T</i>	<i>p</i>
Experimental	10.82	2.05	2.00	.441
Control	11.30	2.54		

*Psychological Distress scale*

Psychological distress was measured using the BSI-18 scale, which measured participants' level of distress over the past seven days. The BSI-18 includes three subscales that measure depressive, anxiety, and somatization symptoms. The 18-item, Likert-type scale assesses participants' level of agreeability ranging from 0 (not at all) to 4 (very much) with phrases such as "feelings of worthlessness" (depressive), "suddenly scared for no reason" (anxiety), and "nausea or upset stomach" (somatization). Results were calculated by summing the total score of the 18 items, thus representing general distress (Gabana, 2017). Question 17 was removed from the survey before printing, by administrator request, as it asked about 'ending one's life'. Additionally, the BSI scale had two missing responses- one participant from the control group and one participant from the experimental group; both skipped answering question 13. Missing data was adjusted based on averages.

The results showed that participants in both groups had “a little bit” or “moderate” levels of psychological distress in the experimental group ( $M = 16.67, SD = 10.60$ ) and the control group ( $M = 15.30, SD = 10.87$ ). There were no statistically significant differences between the two groups GAC scores ( $t(52) = 2.00, p = .641$ ). Rather, both groups demonstrated an overall lower distress score, since all mean scores were in the bottom third of total results. Specifically, data analysis with adjusted data of the BSI scale revealed that the average individual scores among all three subscales ranged from 1.24-2.37 on a master scale ranging from 0 (not at all) to 4 (very much) on a Likert scale. Meaning, the overall sample population all reported between “a little bit” of distress (score of 1 on a Likert scale) or “moderate” distress (score of 2 on a Likert scale).

**Table 4**

*Brief Symptom Inventory scale (BSI-18) statistics*

	M	SD	<i>t</i>	<i>p</i>
Experimental	16.67	10.60	2.00	.641
Control	15.30	10.87		

*Satisfaction with Life scale*

Life satisfaction was measured using the SWLS scale, which measured participants’ global life satisfaction. A *very high* total score (range from 30-35) represents one is highly satisfied with their life (Diener, 2006); a *high* total score (range from 25-29), represents that one likes their life and feels like things are mostly good; an *average* total score (range from 20-24) represents one would like to see improvement in their life; a *slightly low* total score (ranging from 15-19) represents one is slightly below average in life satisfaction; A *low* total score

(ranging from 10-14) represents an overall dissatisfaction with life; and lastly, a *very low* total score (ranging from 5-9) represents that one is extremely unhappy with their life” (Diener, 2006).

The results showed that participants in the experimental group had a *high* global life satisfaction appraisal ( $M = 25.10, SD = 4.67$ ) and the control group had an *average* global life satisfaction appraisal ( $M = 24.23, SD = 4.36$ ). There were no statistically significant differences between the two groups’ SWLS scores ( $t(52) = 2.00, p = .48$ ).

**Table 5**

*Satisfaction with Life scale statistics*

	M	SD	t	p
Experimental	25.10	4.67	2.00	.48
Control	24.23	4.36		

*Athlete Burnout scale*

Athlete burnout was measured using the ABQ scale, which measured individual levels of burnout among student-athlete participants. The ABQ scale consists of 15 total items, with five items representing each of the three subscale dimensions that correspond to burnout in athletes: (1) emotional and physical exhaustion, (2) reduced sense of accomplishment, and (3) sport devaluation (Raedeke & Smith, 2001). Items are rated on a 5-point Likert scale which ranges from 1 (almost never) to 5 (almost always). Low scores on each of the three subscales indicate higher levels of burnout in athletes for each of the respective dimensions (Gabana, 2017). The ABQ scale had four missing responses. In the experimental group, one participant skipped answering question 4. In the control group, one participant skipped answering question 4 and one participant skipped answering questions 13 and 14. Missing scores were adjusted with question averages from the respective group.

The results showed similarities between experimental group participants ( $M = 43.1$ ,  $SD = 13.19$ ) and control group participants ( $M = 41.3$ ,  $SD = 10$ ). There were no statistically significant differences between the two groups' scores ( $t(52) = 2.00$ ,  $p = .58$ ). Rather, both groups demonstrated an overall moderate score of burnout since all mean scores were in the middle third of total results. However, within that middle third of total results, the entire population is more at risk for sport devaluation than reduced sense of accomplishment than emotional and physical exhaustion since lower scores on each of the three subscales indicate higher levels of burnout in athletes.

**Table 6**

*Athlete Burnout scale statistics*

	M	SD	<i>t</i>	<i>p</i>
Experimental	43.1	13.19	2.00	.58
Control	41.3	10		

*Perceived Available Support in Sport scale*

Perceptions of available support in sport were measured using the PASS-Q scale, which measured perceived social support specific to the athletic domain. The PASS-Q consists of 16 total items, four items for each subscale: (1) emotional support, (2) esteem support, (3) informational support, and (4) tangible support. Questions are rated on a 5-point Likert scale from 0 (“not at all available”) to 4 (“extremely available”). Subscale scores are calculated by taking the average of the four items in each dimension. A higher average indicates greater perceived social support for the respective subscale (Gabana, 2017). The PASS-Q scale had five missing responses. In the experimental group, one participant skipped answering question 2 and another participant skipped answering question 9. In the control group, one participant skipped

answering question 4, another participant skipped answering question 5 and lastly, another participant skipped answering question 6.

The results showed differences between the experimental group participants ( $M = 11.28$ ,  $SD = 3.16$ ) and control group participants ( $M = 9.82$ ,  $SD = 2.77$ ). However, there were not statistically significant differences overall between the two groups perceived available support in sport scores with a medium effect size ( $t(52) = 2.00$ ,  $p = .078$ , Cohen's  $d = 0.48$ ). But the results among the Emotional Support subscale between the experimental group participants ( $M = 2.98$ ,  $SD = 0.93$ ) and control group participants ( $M = 2.41$ ,  $SD = 0.84$ ) did reveal statistically significant differences ( $t(52) = 2.00$ ,  $p = .023$ , Cohen's  $d = 0.63$ ). Overall mean scores were in the bottom quarter of total results. Additionally, the results showed that participants in both groups rated all subscale supports as “moderately available” within the 5-point Likert scale from 0 (“not at all available”) to 4 (“extremely available”), yet all experimental group ratings were higher than all control group ratings for every scale and subscale. Individual subscales were analyzed specifically instead of a comprehensive overview of the PASS-Q to garner insight about the specific support perceptions. Future recommendations can focus and highlight the individual subscales in need.

**Table 7*****Perceived Available Support in Sport scale statistics, by subscale***

	M	SD	<i>t</i>	<i>p</i>
Emotional Support				
Experimental	2.98	0.93	2.00	0.023*
Control	2.41	0.84		
Esteem Support				
Experimental	2.60	0.92	2.00	0.085
Control	2.19	0.81		
Informational Support				
Experimental	2.86	0.93	2.00	0.379
Control	2.66	0.71		
Tangible Support				
Experimental	2.83	0.71	2.00	0.171
Control	2.55	0.73		

Note \* significant.

***Workshop Meaningfulness scale***

This single question scale asked the question, “How meaningful was this session for you?” Responses were scored on a 4-point Likert scale from 1 (not at all meaningful) to 4 (very meaningful). The Meaningfulness scale had seven missing responses. In the control group, two participants skipped answering this question and in the experimental group, five participants skipped answering this question. Missing data was adjusted based on averages.

The results showed differences between experimental group participants ( $M = 3.07$ ,  $SD = 0.71$ ) and control group participants ( $M = 2.34$ ,  $SD = 0.74$ ). There were statistically significant differences between the two groups’ workshop meaningfulness scores with a large effect size ( $t(52) = 2.00$ ,  $p = .0006$ , Cohen’s  $d = 0.999$ ). Specifically, the data analysis of the Meaningfulness

results revealed that the gratitude intervention was meaningful for the experimental group, based on self-reporting. Data showed that 71% of experimental group participants said the workshop was “meaningful” or “very meaningful” compared to 42% of responses in the control group.

**Table 8**

*Workshop Meaningfulness scale statistics*

	M	SD	<i>t</i>	<i>p</i>
Experimental	3.07	0.71	2.00	.0006*
Control	2.34	0.74		

Note \* significant.

**Table 9**

*Workshop Meaningfulness scale statistics, by question*

	Control group ( <i>N</i> = 26)		Experimental group ( <i>N</i> = 28)	
	<i>n</i>	Percent	<i>n</i>	Percent
1 (“Not at all meaningful”)	3	11.5%	0	0%
2 (“Slightly meaningful”)	7	26.9%	6	21.4%
3 (“Meaningful”)	10	38.4%	12	48.8%
4 (“Very meaningful”)	1	3.8%	8	28.5%
Missing	5	19.2%	2	7.1%

**Discussion**

This current study demonstrates the impact of a preventative, educational gratitude intervention among intercollegiate student-athletes well-being, and aligns with prior published research. The two tailed *t*-tests revealed two statistical significance observations- (a) among emotional support (in the PASS-Q scale; the role of perceived available support in sport) with *p*

= 0.023, and (b) among workshop meaningfulness with a  $p = 0.0006$ . Data analyses revealed it was meaningful to student-athletes to participate in a gratitude workshop and the workshop influenced student-athletes' perceived available emotional support in sport. Among U.S. intercollegiate student-athletes, gratitude and perceived social support have significant positive correlations amongst each other (Chen, 2013; Chen & Kee, 2008; Gabana et al., 2019).

While gratitude can enhance one's ability to notice available resources, thereby, increasing the likelihood that one will use those resources, the PASS-Q scale (which revealed perceived available support in sport) showed a statistical significance in emotional support within the experimental group. This study reveals the importance of student-athlete *perceptions* of available emotional support in sport (i.e., workshops). Meaning, colleges/universities may not need to focus on *quantity* of available support but rather the *meaningfulness* and perceptions of emotional support. This study further demonstrates that offering preventative, educational workshops can be meaningful and influence the perception of available support in sport settings.

While not statistically significant, data analyses revealed that all participants demonstrated a moderate score of gratefulness. Based on prior research which found that individuals with a higher tendency to feel grateful also reported being happier and less stressed (Emmons & McCullough, 2003; Kashdan et al., 2006), I suggest that these participants are already generally happy and less stressed in life. Yet, participants' scores on the measures of well-being (i.e., the PASS-Q measuring perceived available support in sport) revealed significance and reflects my predictions that gratitude interventions may have the potential to support positive well-being and mental health outcomes for student-athletes.

Additionally, while not statistically significant, data analyses revealed that all participants demonstrated an overall moderate score of burnout since all mean scores were in the middle third



of total results. Within that middle third of total results, since lower scores on each of the three subscales indicate higher levels of burnout in athletes, the entire population is at most risk for sport devaluation, then reduced sense of accomplishment, then emotional and physical exhaustion (in order, respectively). Meaning, the student-athlete study participants revealed more risk for mental and emotional well-being than physical well-being. Since gratitude has been linked with higher life satisfaction and lower levels of burnout (Chen, 2013; Chen & Kee, 2008), the published literature supports how the participants in this current study report moderate gratefulness and moderate burnout.

The overall data analysis upholds Fredrickson's (2004) Broaden-and Build Theory where fostering positive emotions such as gratitude can broaden one's thought-action repertoires. Specifically, acknowledging and concentrating on the benefits derived from others (i.e., practicing gratitude) can boost social support feelings, highlight available resources, and cultivate ideas for overcoming adversity. Positive emotions, such as gratitude, can encourage the building of skills in problem-solving by utilizing available support resources (Fredrickson, 2004).

### **Findings versus Gabana (2017) study**

This current study is like the study conducted by Gabana (2017), which focused on promoting gratitude as a preventative, educational workshop to NCAA student-athletes. There were many similarities, but there were differences too. The study by Gabana (2017) was the first known study that researched the role of a gratitude intervention among student-athletes and this study was the first known study that researched the role of a gratitude intervention among student-athletes in an experimental design.

### ***Similarities***

This current study measured state gratitude, psychological distress, life satisfaction, athlete burnout, and perceived available support in sport, which mirrored Gabana's (2017) study. Similar to Gabana (2017) who had a total sample population of 51 participants, this study had a total of 54 participants. All participants, in both groups, participated in one, ninety (90) minute session as part of the research study. Both this study and Gabana's (2017) study found that based on the athletes' scores on the PASS-Q, which measured perceived available support in sport, gratitude interventions have the potential to produce positive mental health outcomes for student-athletes. This study specifically found the potential associated with emotional support. But interestingly, Gabana (2017) found that participant's scores decreased significantly during the 4-week post-intervention (back to baseline).

Additionally, both the findings of this study and Gabana's (2017) study did not reveal a significant change in life satisfaction which indicates that the gratitude workshop did not enhance athletes' general satisfaction with life. The findings from these two studies contradict the results from prior studies which revealed that gratitude positive psychology interventions significantly increased life satisfaction (Emmons & McCullough, 2003; Froh et al., 2008). The reason this may have occurred is because this study mirrored Gabana's (2017) study where gratitude was focused within the sport context, thus athletes may not have considered applying gratitude beyond their sport setting (i.e., other aspects of life).

### ***Differences***

Gabana (2017) found significant differences in participants' levels of state gratitude, psychological distress, sport satisfaction, athlete burnout, and perceived available support in sport. This study only had significant differences in perceived available support in sport, specifically emotional support, and workshop meaningfulness. While this current study measured

five variable scales, Gabana (2017) also measured six variable scales which included sport satisfaction (and found no statistical significance).

There were procedural differences between Gabana's (2017) study and this current study. Gabana's (2017) study was a longitudinal study of five weeks duration with one research group who attended one workshop and completed three surveys. This current study was an experimental design with an experimental and control group who attended one workshop but completed only one survey. Gabana's (2017) study focused on the role of gratitude over time (assessing independent gratitude practice four weeks after the workshop), yet this current study focused on the role of gratitude through an experimental design after only one workshop.

Participants in Gabana's (2017) study were NCAA Division I student-athletes from two sport rosters (wrestling and swimming), and both sports were in-season. The participants in this study were NCAA Division II student-athletes from eight sport rosters, and all athletes were a mixture of in-season and out-of-season. Additionally, while this study also used two groups of participants, it was implemented as an experimental design with an experimental and control group. Lastly, participants in Gabana's (2017) study completed three total surveys- (1) a survey before the workshop, (2) a survey immediately after the workshop (and took home a document with 56 Living Gratitude strategies and a list of "Gratitude Busters and Boosters"), and (3) a survey one month later via email to assess their continued gratitude practice. Due to time constraints, this study only conducted one survey, immediately after the workshop and participants did not take home any information or documents afterwards.

### **Comparing How This Current Study Met Gabana's (2017) Future Recommendations**

One of the main recommendations from Gabana (2017) was to use "a control group in future studies" (Gabana, 2017, p. 83) and include more participants in future studies. I actively

recruited participants one week before the workshop through verbal invitations to athletes at sport practices, and several emails to student-athletes and coaches. While I hoped to recruit more participants for the study, recruiting student-athletes to participate in a research study is difficult in nature. Therefore, it is not uncommon for sport psychology intervention research studies to use smaller sample sizes without a control group” (Bernier et al., 2014; Koehn et al., 2014; Lautenbach et al., 2015).

### ***Limitations***

The Meaningfulness scale had seven missing responses. In the control group, two participants skipped answering this question and in the experimental group, five participants skipped answering this question. I adjusted missing data with averages. I suspect that some control group participants purposely skipped this question because they knew they were participating in a research study and didn’t want to admit that the session was not meaningful. At the end of the workshops, all participants- even the control group participants, were smiling and pleased to participate and contribute to research despite one control group participant falling asleep and many were not interested in the neutral-interest video. Participants in this particular setting do not have access to athletic-specific wellness workshops nor sport-related research studies. Therefore, I suspect some control group participants hesitated in honestly answering that their session was not meaningful.

Another limitation was that data was only collected once after a one-time, 90-minute intervention. While Gabana (2017) gathered data at three time points- before the intervention, immediately afterwards, and 4 weeks afterwards, it was not a true experimental design. The limitation of this study is that it only relied on the data immediately after the intervention but could compare the data between a control and experimental group. Perhaps in additional

considerations, additional time points of data collection could be added to the control and experimental group design. Additional time points plus the true experimental design would glean greater insight to the influence of gratitude interventions among student-athletes. But it should be mentioned that only 54 participants voluntarily arrived to participate in a one-time, 90-minute, true experimental design study. It may be more challenging to encourage participants to voluntarily participate in a longer duration experimental design study, with minimal participant dropouts.

### **Potential Future Research**

One opportunity to expand future research studies is to study a larger population of student-athlete participants. While I recruited and invited over 400 student-athletes to participate in the research study, the goal was to have more 54 participants. However, Gabana (2017) only had 51 participants which conduct multiple team-specific interventions. While this study only collected data once after a one-time, 90-minute intervention and Gabana (2017) gathered data at three time points, Gabana (2017) found when comparing multiple time points of data that there was an increase in perceived social support immediately following the gratitude workshop. Thus, an ongoing gratitude group or workshop series could potentially identify if athletes would produce and experience longer lasting effects over time. Also, Gabana (2017) found that athletes' psychological distress and athlete burnout continued to decrease significantly over time which may garner interest to identify the continued influence of gratitude practice over time, especially when the NCAA is currently employing more initiatives to support athlete mental health and well-being.

Also, a future research opportunity could include a gratitude-focused team session to potentially improve one's view of teammates and/or coaches, hence, to support student-athlete's

emotional support. This study supports how gratitude positive psychology interventions enhance social connection among athletic populations. Future research could include implementing whole team-specific gratitude interventions and comparing the data amongst other teams. Perhaps some sport-specific athletes would further benefit from gratitude interventions than others. Additionally, possibly there are differences amongst team sport athletes versus individual sport athletes.

Lastly, another opportunity to expand future research studies would be to invite non-student-athletes to participate in the study and compare the differences. Since student-athletes are sometimes role models for other college students, they could positively influence other student non-athletes on campus to utilize wellness resources. Identifying the similarities and opportunities for influence would be interesting.

## Chapter 5

This chapter provides a research report to be shared with institutional leaders at the case institution. This report outlines a framework of the study, key findings, recommendations for future action, and implications. The structure and format of the report is projected to engage leaders and stakeholders.

### Introduction

Intercollegiate student-athletes face rising stress and pressures that challenge their well-being and mental health, sometimes with alarming concerns. Over the years, supportive services and resources specifically available to student-athletes have not evolved at the same pace as student-athlete needs. Also, barriers and stigmas hinder student-athletes from readily accessing supportive mental health services. The high stress of student-athletes, whether personal or sport-related, can contribute to developing negative mental health symptoms and impairs positive well-being. Evidence supports how outreach initiatives help student-athletes, especially if the initiatives include sport psychology principles related to mental health and well-being.



Additionally, research on positive psychology has demonstrated its influences on psychological and physical health. Gratitude, as a positive psychological state, has shown benefits to well-being. This experimental study design researched if the implementation of an educational gratitude workshop for student-athletes could increase their self-reported perceptions of well-being and reduce stress. To my knowledge, this is the first known experimental study design to research a gratitude workshop intervention among student-athletes.

## Who Is the Researcher?

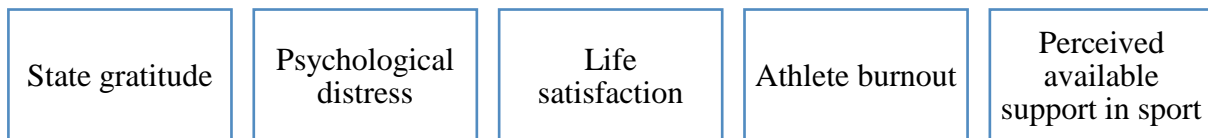
I work as a full-time faculty member at a different institution. This study was conducted in fulfillment for my doctorate in Educational Leadership: Adult and Higher Education. I had no existing employment association with the university at the time of this study. The only connection was that the case institution was my alma mater, it was geographically local, and my spouse was a head coach for one of the sport programs at the university at the time. We did not require individuals to participate, nor influence their responses.

## Background and Methods

This research intervention was akin to the study conducted by Gabana (2017), which focused on promoting gratitude among student-athletes. Still, the study herein had some modifications while upholding Gabana’s (2017) clear recommendations for future research. For example, two of the modifications from Gabana’s (2017) study involved using an experimental group and a control group rather than just one group in research. Also participants were student-athletes from a Division II institution instead of a Division I institution. In January 2023, a 90-minute gratitude workshop was facilitated for student-athlete participants in the experimental group while a concurrent “mock intervention” was facilitated for control group participants. The workshops took place face-to-face, on-campus in a large ballroom with large round tables and chairs. Free food was offered to all participants.

### *Experimental and Control Group*

The experimental group participated in a gratitude workshop that mainly consisted of didactic teaching and discussion. Meaning, as students sat at the large tables with other student-athlete participants, I lectured about the aspects of gratitude (e.g., what is gratitude, examples of gratitude, etc.) then students discussed related personal examples in their groups. The didactic teaching and discussion of the workshop comprised the remaining 90 minutes. At the end of the workshop, participants completed a paper post-assessment survey to evaluate the entire workshop. The post-assessment survey evaluated self-reported measures of state gratitude, psychological distress, life satisfaction, athlete burnout, and perceived available support in sport.



The control group participated in a “mock intervention” that only consisted of watching a 90-minute neutral perspective documentary. This “mock intervention” occurred at the same time



as the experimental group's gratitude intervention. It was facilitated by a trained research assistant who had a script to follow. A 90-minute neutral perspective documentary was shown to all participants in the room for the entire duration of the workshop. At the end of the workshop, participants completed a paper post-assessment survey to evaluate the entire workshop. Participants completed the same post-assessment survey as the experimental group.

### ***Participants and Data Sources***

Participants were enrolled at a NCAA Division II, a small-midsize private school in the Midwest. This study focused only on full-time undergraduate student-athletes. An analysis of the demographic population found that most participants were underclassmen freshmen students ( $n = 32$ ), as opposed to upperclassmen, between 18-20 years of age ( $n = 49$ ), represented a variety of sports (8 sports represented), and both groups had a fairly equal sex representation between total males ( $n = 19$ ) and females ( $n = 35$ ). Most of the demographic information between participants in the experimental group and the control group was fairly mirrored.

### **Key Findings**

All scales were analyzed separately, and statistical significance was found in two scales: perceived support in sport and workshop meaningfulness.

#### ***Perceived Available Support in Sport***

Statistical significance was found in emotional support within the perceived available support in sport scale ( $p = 0.023$ ) and workshop meaningfulness ( $p = 0.0006$ ). While all participants in this study revealed moderate, overall state gratitude levels in life, the workshop significantly influenced the experimental group's perceived available support in sport, emotionally. The data suggest that student-athletes do not perceive enough emotional support is available for them in sport.

Student-athletes do not perceive there is enough available support for them in sport, specifically emotional support.

#### ***Perceived Available Support in Sport: Emotional Support and Esteem Support***

Specifically, within the PASS-Q scale (of perceived available support in sport), there was statistically significant data in emotional support ( $p = 0.023$ ) from experimental group participants. This means the gratitude workshop significantly supported the positive relationship between gratitude and perceived available resources (specifically, emotional support) among student-athletes.

## ***Workshop Meaningfulness***

Statistical significance was found in the role of workshop meaningfulness ( $p = 0.0006$ ). The data suggest that student-athletes found this workshop valuable.

71% of experimental group participants said the workshop was “meaningful” or “very meaningful” compared to 42% of responses in the control group.

### **Recommendation**

Since participants’ scores on the measures of well-being revealed significance (i.e., emotional support on the PASS-Q, which measured perceived available support in sport), it is recommended to provide educational interventions for student-athletes to support positive well-being and mental health outcomes, specifically for student-athletes. Gratitude workshops, or Positive Psychology Interventions in general, should be considered when helping athletes build the skills necessary to cope with their sport's mental and physical demands. This study reveals the importance of student-athlete *perceptions* of available emotional support (i.e., workshops). Meaning, colleges/universities may not need to focus on the *quantity* of available support but rather the *meaningfulness* and perceptions of support and resources.

## ***Gratitude Education Workshops with a Team-Focused Approach***

Specifically, I recommend providing gratitude education workshops with a *team-focused approach for each team*. The data revealed significance in emotional support (i.e., amongst teammates and coaches). Therefore, educational gratitude workshops can cultivate team support, cohesion, and gratitude would be advantageous.

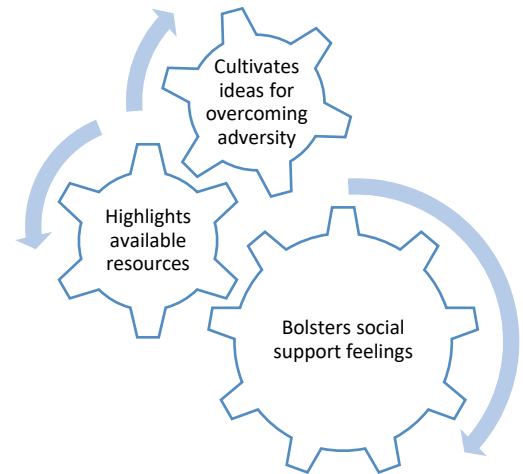


Facilitating multiple gratitude-focused team sessions- for each sport team is well supported in the literature. Within a team context, sharing gratitude may cultivate stronger relationships among teammates and between athletes and coaches, and evidence (Chen & Wu, 2014) support when an athlete trusts their coach, there are positive effects of gratitude on athlete self-esteem. Hosting team-specific sessions could potentially improve one’s view of teammates

and/or coaches (Gabana, 2017). Fostering opportunities to improve emotional support amongst teammates through team cohesion can be meaningful from a personal *and* performance perspective.

These recommendations of upholding positive experiences or people are grounded in Fredrickson's (2004) Broaden-and Build Theory of positive emotions, where fostering positive emotions such as gratitude can broaden one's thought-action repertoires. Specifically, acknowledging and concentrating on the benefits derived from others (i.e., practicing gratitude) can boost social support feelings, highlight available resources, and cultivate ideas for overcoming adversity. Positive emotions, such as gratitude, can encourage building problem-solving skills by utilizing available support resources (Fredrickson, 2004).

Benefits of Positive Emotions,  
such as Gratitude



**Implications**

Student-athletes navigate and juggle many responsibilities and expectations in sport and in life. Yet over the years, supportive services and resources specifically available to student-athletes have not evolved at the same pace as student-

A moderate percentage of the case institution's undergraduate population is considered a student-athlete. Supporting this population would be advantageous from a recruitment and retention perspective over time.

athlete needs. A moderate percentage of the case institution's undergraduate population is considered a student-athlete. While this study demonstrates that the diverse sample population of student-athletes exhibit moderate, overall state gratitude levels in life, statistically significant data reveals that the student-athletes do not perceive there is enough available support for them in sport. Supporting this specific undergraduate population would be advantageous from a recruitment and retention perspective over time, especially as prospective student-athletes witness the supportive available resources current

student-athletes receive. Providing enough available support for student-athletes in sport can enhance sport satisfaction, which can positively contribute to the overall student-athlete experience. It can foster greater well-being, satisfaction, and self-esteem within one's interpersonal sport environment (Gabana, 2017).

The case institution would also find implementing gratitude workshops, or Positive Psychology Interventions in general, is valuable since the entire sample population leans towards risk for sport devaluation, then reduced sense of accomplishment, then emotional and physical exhaustion (in order, respectively). Addressing the role and impact of meaningful support that is positively perceived among student-athletes may increase sport satisfaction and decrease

burnout. Evidence supports how outreach initiatives help student-athletes, especially if the initiatives included sport psychology principles related to mental health and well-being.

## Directions for Future Research

One opportunity to expand future research studies is to study a larger population of student-athlete participants. Studying a larger population would identify the further significance of gratitude interventions. Future research could include implementing whole team-specific gratitude interventions and comparing the data amongst other teams. Some sport-specific athletes would further benefit from gratitude interventions than others. Additionally, possibly there are differences amongst team sport athletes versus individual sport athletes.



Another opportunity to expand future research studies would be to invite student-athletes and non-athletes to participate in the study and compare the differences. Since student-athletes are sometimes role models for other college students, they could positively influence other student non-athletes on campus to utilize wellness resources. Identifying the similarities and opportunities for influence would be interesting.

## Conclusion

Student athletes are a key population within university life and sometimes model behaviors for non-athletes. They also juggle and navigate many stressors as an athlete and non-athlete, yet the support and resources have not evolved at the same pace with student-athlete needs. This experimental design study revealed the importance of an educational gratitude intervention for student athletes and how student-athletes perceive insufficient support for them in sport.

The statistically significant findings are consistent with the literature that support how perceived social support among student-athletes was a mediator among gratitude, increased sport satisfaction, and decreased burnout (Chen, 2013; Gabana et al., 2017). Gratitude and perceived social support among U.S. intercollege student-athletes have significant positive correlations amongst each other (Chen, 2013; Chen & Kee, 2008; Gabana et al., 2017). When athletes show higher levels of gratitude, they had a higher self-over time when they had higher affect trust in their coaches (Chen & Wu, 2014).

Recommendations provide potential solutions by facilitating sessions to cultivate stronger relationships among teammates and between athletes and coaches. Outreach initiatives, through the practice of gratitude, can improve athletes' emotional support through team cohesion, which can be valuable from a personal and performance perspective. Gratitude workshops, or Positive Psychology Interventions in general, should be considered when helping athletes build the skills

necessary to cope with their sport's mental and physical demands. Small changes can greatly impact student-athlete perceptions, well-being, and psychological and physical health.

## Appendix A

### Recruitment Email to Participants

My name is Laura Kruger, M.Ed., CHES. In addition to being an Ashland University alumna, I am currently a faculty member in the Division of Kinesiology and Sport Management at the University of South Dakota.

I am completing my doctoral degree and I am asking you to participate in my research study. The purpose of my study is to examine the influence of a gratitude workshop on intercollegiate student-athlete's well-being and stress. Upon arrival, participants will either be assigned to a control group where they will watch a movie or in an experimental group with a wellness intervention. Participation is voluntary and it will take approximately 90 total minutes of your time.

**Participants will participate in a face-to-face workshop at Ashland University's Troop Center on Monday, January 30, 2023, from 7:00pm-8:30pm, and complete a survey independently at the end of the workshop.**

**There will be free food at the event and all participants are eligible to participate in an optional drawing for a \$25 VISA gift card (two gift cards will be drawn) at the end of the workshop.**

There will be no effect on your grades, class standing, sport, or sport scholarship, if you choose to participate, not to participate or to withdraw. The anticipated risks of this study are minimal, which include reflecting on your overall assessment of your mental health from joyful moments to sad moments. The anticipated benefits include potentially learning more about gratitude and its benefits for student-athletes, related research, strategies, and practices, and the results from the study may show whether wellness workshops are helpful in general to student-athletes. There is no compensation offered if you successfully complete this study.

**To participate, you must be an Ashland University undergraduate student at the time of the workshop, be listed on the athletic roster of one of the sport teams below and be at least 18 years of age.**

Eligible sport teams:

Track and Field (M/W), Football, Basketball (M/W), Softball, Wrestling, Volleyball, Baseball, Golf, Soccer (M/W), Lacrosse, Tennis, and Swimming and Diving (M/W).

**To participate, arrive to Ashland University's Troop Center lobby on Monday, January 30, 2023, by 7:00pm.**

If you have any questions about the study, please contact me.

Laura Kruger, M.Ed., CHES  
Researcher  
University of South Dakota  
[Laura.Kruger@usd.edu](mailto:Laura.Kruger@usd.edu)

Dr. Karen Card  
Advisor  
University of South Dakota  
[Karen.Card@usd.edu](mailto:Karen.Card@usd.edu)  
(605) 658-6621

## Appendix B

### Reminder Recruitment Email to Participants

This reminder email is to invite you to participate in my research study.

My name is Laura Kruger, M.Ed., CHES. In addition to being an Ashland University alum, I am currently a faculty member in the Division of Kinesiology and Sport Management at the University of South Dakota.

I am completing my doctoral degree and I am asking you to participate in my research study. The purpose of my study is to examine the influence of a gratitude workshop on intercollegiate student-athlete's well-being and stress. Upon arrival, participants will either be assigned to a control group where they will watch a movie or in an experimental group with a wellness intervention. Participation is voluntary and it will take approximately 90 total minutes of your time.

**Participants will participate in a face-to-face workshop at Ashland University's Troop Center on Monday, January 30, 2023, from 7:00pm-8:30pm, and complete a survey independently at the end of the workshop.**

**There will be free food at the event and all participants are eligible to participate in an optional drawing for a \$25 VISA gift card (two gift cards will be drawn) at the end of the workshop.**

There will be no effect on your grades, class standing, sport, or sport scholarship, if you choose to participate, not to participate or to withdraw. The anticipated risks of this study are minimal, which include reflecting on your overall assessment of your mental health from joyful moments to sad moments. The anticipated benefits include potentially learning more about gratitude and its benefits for student-athletes, related research, strategies, and practices, and the results from the study may show whether wellness workshops are helpful in general to student-athletes. There is no compensation offered if you successfully complete this study.

**To participate, you must be an Ashland University undergraduate student at the time of the workshop, be listed on the athletic roster of one of the sport teams below and be at least 18 years of age.**

Eligible sport teams:

Track and Field (M/W), Football, Basketball (M/W), Softball, Wrestling, Volleyball, Baseball, Golf, Soccer (M/W), Lacrosse, Tennis, and Swimming and Diving (M/W).

**To participate, arrive to Ashland University's Troop Center lobby on Monday, January 30, 2023, by 7:00pm.**

If you have any questions about the study, please contact me.



Laura Kruger, M.Ed., CHES  
Researcher  
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Dr. Karen Card  
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[Karen.Card@usd.edu](mailto:Karen.Card@usd.edu)  
(605) 658-6621

## Appendix C

### Consent Form

#### CONSENT FORM TO PARTICIPATE IN A RESEARCH STUDY

Thank you for arriving to participate in my research study. My name is Laura Kruger, M.Ed., CHES. In addition to being an Ashland University alum, I am currently a faculty member in the Division of Kinesiology and Sport Management at the University of South Dakota.

I am completing my doctoral degree and I am asking you to participate in my research study. The purpose of my study is to examine the influence of a gratitude workshop on intercollegiate student-athletes' well-being and stress. If you agree to be in my study, you will participate in a face-to-face session at Ashland University's Troop Center tonight from 7:00pm-8:30pm, and complete a survey independently at the end of the workshop. The survey is an overall assessment of your mental health (no written responses).

You will either be assigned to a control group where you will watch a movie or an experimental group with a wellness intervention where I will talk with you about gratitude and lead you through writing and discussion activities. Participation is voluntary. Up to 400 people will be in this study.

If you are assigned to the control group but want to go through the gratitude workshop later, I will be offering it at Ashland University's Troop Center on Monday, February 6, 2023, from 7:00pm-8:30pm. The workshop on February 6 is not part of my research project.

**To participate in the study tonight, you must be an Ashland University undergraduate student at the time of the workshop, be listed on the athletic roster of one of the sport teams below and be at least 18 years of age.**

#### **Eligible sport teams:**

**Track and Field (M/W), Football, Basketball (M/W), Softball, Wrestling, Volleyball, Baseball, Golf, Soccer (M/W), Lacrosse, Tennis, and Swimming and Diving (M/W).**

There is no penalty for not participating or for withdrawing from the study. There will be no effect on your grades, class standing, sport, or sport scholarship, if you choose not to participate or to withdraw. If you want to withdraw, you can just stop participating and leave the workshop. Any information you submitted prior to your withdrawal will be removed from the study.

All your responses will be kept confidential within reasonable limits. Only those directly involved with this project will have access to the data. I will take all reasonable steps to protect your identity. Responses are anonymous.

You may skip any question that you would prefer not to answer. The anticipated risks of this study are minimal, which include reflecting on your overall assessment of your mental health from joyful moments to sad moments. Sample questions include, ‘Do you describe yourself as appreciative? Or grateful?’, and “Does someone care for you as a sportsperson?” The anticipated benefits are learning more about gratitude and its benefits for student-athletes, related research, strategies, and practices. Additionally, the results from the study may show whether wellness workshops are helpful in general to student-athletes. All participants will receive referral and resource information at the end of the workshop.

There is no compensation offered for being in the study, but all participants are eligible to participate in an optional drawing for a \$25 VISA gift card. There will also be free food provided tonight to participants.

Thank you for taking the time to assist me with this research.

**By marking an “X” in the box below, I affirm that I am at least 18 years of age, a current, eligible Ashland University student-athlete, and I voluntarily consent to participate in this workshop and survey.**

If you have any questions about the study, please contact me.

Laura Kruger, M.Ed., CHES  
Researcher  
University of South Dakota  
[Laura.Kruger@usd.edu](mailto:Laura.Kruger@usd.edu)

Dr. Karen Card  
Advisor  
University of South Dakota  
[Karen.Card@usd.edu](mailto:Karen.Card@usd.edu)  
(605) 658-6621

*This project has been reviewed and approved by the University of South Dakota Institutional Review Board and by the Ashland University Human Subjects Review Board. Questions concerning your rights as a participant in this research may be addressed to the director of the Office of Human Subjects Protection, University of South Dakota, Vermillion, SD 57069. Phone: (605) 658-3767. Email: [irb@usd.edu](mailto:irb@usd.edu).*

## Appendix D

### Participate in Optional Drawing

As a participant of this study, I would like to participate in an optional drawing for a \$25 VISA gift card (two gift cards will be drawn at the end of the workshop).

**If interested in participating in the drawing, list your name and email address below.**

Name: \_\_\_\_\_

University email address: \_\_\_\_\_

Thank you for taking the time to assist me with this research.

Laura Kruger, M.Ed., CHES  
Researcher  
University of South Dakota  
[Laura.Kruger@usd.edu](mailto:Laura.Kruger@usd.edu)

## Appendix E

### Control Group Invitation: Optional Workshop

Thank you for participating in my research study. You helped contribute to research for intercollegiate student-athletes.

**Since you participated in the control group workshop, you are invited to attend an optional workshop next week where I will host the gratitude workshop.** Participation is voluntary and it will take approximately 90 total minutes of your time.

**This optional gratitude workshop will be face-to-face at Ashland University's Troop Center on Monday, February 6, 2023, from 7:00pm-8:30pm.**

There will be no effect on your grades, class standing, or sport if you choose to participate, not to participate or to withdraw. The anticipated risks of this study are none. The anticipated benefits are learning more about gratitude and its benefits for student-athletes, related research, strategies, and practices. There is no compensation offered if you participate. Only participants in this control group are invited to attend this optional workshop next week.

**To participate, arrive to Ashland University's Troop Center lobby on Monday, February 6, 2023, by 7:00pm.**

If you have any questions, please contact me.

Laura Kruger, M.Ed., CHES  
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## Appendix F

### Survey Questionnaire

#### Gratitude Adjective Checklist (GAC)

How accurately do the following adjectives describe you over the past few days?

1) GRATEFUL

1 (not at all) ----- 2 ----- 3 ----- 4 ----- 5 (extremely)

2) THANKFUL

1 (not at all) ----- 2 ----- 3 ----- 4 ----- 5 (extremely)

3) APPRECIATIVE

1 (not at all) ----- 2 ----- 3 ----- 4 ----- 5 (extremely)

Reference: McCullough, M. E., Emmons, R. A., & Tsang, J.-A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82(1), 112–127. <https://doi.org/10.1037/0022-3514.82.1.112>.

Brief Symptom Inventory-18 (BSI-18)

Directions: Below is a list of problems people sometimes have. Read each one carefully and indicate the choice that best describes how much that problem has distressed or bothered you during the past 7 days including today.

Using the five-point scale below, respond to the statements below on a scale of 0-4:

(0 = Not at all, 1 = A little bit, 2 = Moderately, 3 = Quite a bit, 4 = Very much).

Question	0	1	2	3	4
How much were you distressed by: (rate 0 to 4)					
1. Faintness or dizziness					
2. Feeling no interest in things					
3. Nervousness or shakiness inside					
4. Pains in heart or chest					
5. Feeling lonely					
6. Feeling tense or keyed up					
7. Nausea or upset stomach					
8. Feeling blue					
9. Suddenly scared for no reason					
10. Trouble getting your breath					
11. Feelings of worthlessness					
12. Spells of terror or panic					
13. Numbness or tingling in parts of your body					
14. Feeling hopeless about the future					
15. Feeling so restless you couldn't sit still					
16. Feeling weak in parts of your body					
17. Thoughts of ending your life					
18. Feeling fearful					

Reference: Derogatis, L. R. (2001). Brief Symptom Inventory 18: Administration, scoring and procedures manual. Minneapolis, MN: NCS Pearson. Adapted from Gabana (2017).

### Satisfaction with Life Scale (SWLS)

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

1 = Strongly Disagree

2 = Disagree

3 = Slightly Disagree

4 = Neither Agree or Disagree

5 = Slightly Agree

6 = Agree

7 = Strongly Agree

\_\_\_\_\_ 1. In most ways my life is close to ideal.

\_\_\_\_\_ 2. The conditions of my life are excellent.

\_\_\_\_\_ 3. I am satisfied with life.

\_\_\_\_\_ 4. So far I have gotten the important things I want in life.

\_\_\_\_\_ 5. If I could live my life over, I would change almost nothing.

Reference: Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71-75. Adapted from Gabana (2017).



Athlete Burnout Questionnaire (ABQ)

Directions: Using the scale below as a guide, please indicate how much you agree with each statement.

Question	Almost never	Rarely	Sometimes	Frequently	Almost always
1. I am accomplishing many worthwhile things in my sport.					
2. I feel so tired from my training that I have trouble finding energy to do other things.					
3. The effort I spend in my sport would be better spent doing other things.					
4. I feel overly tired from my sport participation.					
5. I am not achieving much in my sport.					
6. I don't care as much about my sport performance as I used to.					
7. I am not performing up to my ability in my sport.					
8. I feel "wiped out" from my sport.					
9. I am not into my sport like I used to be.					
10. I feel physically worn out from my sport.					
11. I feel less concerned about being successful in my sport than I used to.					
12. I am exhausted by the mental and physical demands of my sport.					
13. It seems that no matter what I do, I don't perform as well as I should.					
14. I feel successful at my sport.					
15. I have negative feelings toward my sport.					

Reference: Raedeke, T. D., & Smith, A. L. (2001). Development and preliminary validation of an athlete burnout measure. *Journal of Sport & Exercise Psychology*, 23, 281-306. Adapted from Gabana (2017).

Perceived Available Support in Sport Questionnaire (PASS-Q)

Below is a list of items referring to the types of help and support you may have available to you as a sports person. Please indicate to what extent you have these types of support available to you.

0 = not at all    1 = slightly    2 = moderately    3 = considerably    4 = extremely

<b>Question: “If needed, to what extent would someone . . .”</b>	Not at all	Slightly	Moderately	Considerably	Extremely
1. provide you with comfort and security					
2. reinforce the positives					
3. help with travel to training and matches					
4. enhance your self-esteem					
5. give you constructive criticism					
6. help with tasks to leave you free to concentrate					
7. give you tactical advice					
8. always be there for you					
9. instill you with the confidence to deal with pressure					
10. do things for you at competitions/matches					
11. care for you					
12. boost your sense of competence					
13. give you advice about performing in competitive situations					
14. show concern for you					
15. give you advice when you’re performing poorly					
16. help you organize and plan your competitions/matches					

Scoring Instructions

Emotional support = (item 1 + item 8 + item 11 + item 14)/4

Esteem support = (item 2 + item 4 + item 9 + item 12)/4

Informational support = (item 5 + item 7 + item 13 + item 15)/4

Tangible support = (item 3 + item 6 + item 10 + item 16)/4

Reference: Freeman, P., Coffee, P., & Rees, T. (2011). The PASS-Q: The Perceived Available Support in Sport Questionnaire. *Journal of Sport & Exercise Psychology*, 33, 54-74. Adapted from Gabana (2017).

How meaningful was this gratitude session to you?

1 – Not at all meaningful

2 – Slightly meaningful

3 – Meaningful

4 – Very meaningful

Adapted from Gabana (2017).

### Demographic Information

What sex do you identify as?

- Male
- Female
- Other
- Prefer not to say

What is your age?

- 18-20 years old
- 21-23 years old
- 24+ years old
- Prefer not to say

Please specify your race/ethnicity.

- Caucasian
- African American
- Latino or Hispanic
- Asian
- Native American
- Native Hawaiian or Pacific Islander
- Two or More
- Other/Unknown
- Prefer not to say

Please specify your sport.

- Track and Field
- Football
- Basketball
- Softball
- Wrestling
- Volleyball
- Baseball

- Golf
- Soccer
- Tennis
- Lacrosse
- Swimming and Diving
- Two or more
- Prefer not to say

At the time of this survey, please identify if you receive any athletic scholarship money:

- Yes, I receive some athletic scholarship money
- No, I do not receive any athletic scholarship money

At the time of this survey, please specify your season:

- In-season competition
- Not in-season

Please specify the college of your major.

- College of Arts and Sciences
- College of Business and Economics
- College of Health Sciences
- College of Education

Please specify your year in college.

- Freshman
- Sophomore
- Junior
- Senior
- Other

## Appendix G

### Gratitude Writing Exercise

Make a list of things you are grateful for in your life. Using the lines below, state why each of these things are meaningful to you. These can be people, events, or any number of things.

#### **I AM GRATEFUL FOR...**

#### **BECAUSE...**

Ex. My brother/sister

He/she is always supportive when I need someone to talk to.

Ex. My schedule this semester

I have Fridays off which means I can take a nap.

Ex. My teammate Sam

He/she challenges me to work hard at practice.

Ex. The weather today

It was warm so I could spend time hanging out with friends outside.

#### **I AM GRATEFUL FOR... BECAUSE...**

## Appendix H

### Facilitator's Outline Script: Experimental Group

**Facilitator's Personal Gratitude Workshop Outline for Experimental Group**, adapted from Gabana (2017)

#### **RESEARCH ON GRATITUDE**

- Better sleep
- Interpersonal connectedness
- Life satisfaction
- Better psychotherapy outcomes
- Enthusiasm
- Alertness/energy
- Altruism
- Positive affect
- Goal attainment
- Determination
- Optimism
- Reduced burnout
- Emotional closure
- Decreased depression

#### **HOW DOES GRATITUDE WORK?**

I want to share a parable with you about an old Cherokee and his grandson... The old man told his grandson about a battle that goes on inside people. He said "My son, the battle is between two wolves inside us all. One is evil... it is jealousy, self-pity, guilt, resentment, inferiority, lies, false pride, and arrogance. The other is good... it is joy, truth, humility, strength, integrity, and faith." The young boy thought about it for a minute and then asked his grandfather, "Which wolf wins?" The old man simply replied, "The one you feed."

- Fosters a "growth mindset by increasing resiliency
- Increased awareness of interpersonal connections, resources available to us
- Our problem-solving abilities are increased because we can think more broadly
- Broaden-and-Build Theory – positive vs. negative emotions (negative tend to narrow our view)
- Creating cognitive habits; similar to building physical habits (like training)—the more you practice, the more your brain becomes accustomed to thinking this way
- General gratitude has been shown to increase sport satisfaction and reduce burnout in athletes—this isn't limited to sport gratitude but rather means that merely having a grateful perspective in life can contribute to more positive outcomes in sport

#### **QUESTIONS/COMMENTS?**

Activity In the next 20-30 minutes, you will be engaging in a personal gratitude reflection activity. Please make a list of all the things and/or people you feel grateful for in your life. These

could be people, events, material goods, experiences, or personal characteristics, to name a few. After making your list, please write a brief statement about why you feel grateful for each item on the list or what meaning it has in your life.

## **Discussion/Application**

### **Small Groups**

Share your list with your partner. Discuss why these things are meaningful for you. Try to expand on the significance they have for you in your present experience, in sport and beyond.

Discuss similarities/differences between your lists. Anything you would add?

### **Large Group**

1. How did it feel to see all the things you are grateful for written down on paper?
2. How was it to share your gratitude lists with other people? What was difficult/easy/unexpected about doing this?
3. What are similarities you noticed in discussing your gratitude lists with one another? What are some similarities and differences?
4. How do you think consciously spending time cultivating and expressing gratitude may benefit you in life? What about sport?
5. When/where do you think gratitude expression might be most helpful for you?
6. How would you apply anything you learned today to the current season?
7. Do you think gratitude could potentially contribute to performance? Why or why not?

## **QUESTIONS/COMMENTS?**

**RESEARCHER VERBALLY REVIEWS GRATITUDE STRATEGIES**, adapted from Gabana (2017)

### **Write a Gratitude Letter.**

Write a letter of gratitude to someone explaining:

- 1) Why you are grateful to them;
- 2) What impact this has had on your life; and
- 3) How your life/experience would be different without them.

If you have the opportunity, reading the letter to them in person can increase the significance of this experience. Giving or sending to them in writing works too.

### **Grateful reflection. (This can be practiced mentally or in writing.)**

- What went well this week?
- What are some good things in my life that I've taken for granted?
- What are some good things in my sport that I've taken for granted?
- What do I like most about my classes this semester?
- What was my favorite meal this week and why?
- What do I like most about the city and/or country I live in?

- What opportunities have I had to use my strengths/talents?
- What opportunities have I had to serve others?
- What do I appreciate about my teammates?
- In what ways have I grown as a person?
- In what ways have I grown as a teammate?
- What are some challenges I've overcome in my life?
- What gives me hope for the future?
- What gives me meaning in life?
- How do I find meaning in my sport?
- What coaches have contributed positively to my sport experience and how have they done so?
- Who has been a source of emotional support in my life?
- Who has been a source of encouragement to me?
- Who inspires me and why?
- With whom did I have a pleasant interaction in practice this week?
- With whom did I have an enjoyable conversation this week?
- What will I miss about my collegiate sport experience?
- Who makes me laugh?

### **Write down Three Good Things.**

Make a list of three good things that happen every day for one week. Consider continuing this practice for a month or adjusting the frequency (Ex. 2-3 times per week for a month). This 121 could be related or unrelated to your sport experience. Examples might include: the weather, a good meal, spending time with friends/family, a positive event, overcoming a challenge, getting sleep, goal achievement.

### **Start a gratitude journal.**

Examples of journal prompts include:

- When have you felt grateful or thankful, deeply appreciative of someone or something?
- What gifts do you treasure most?
- When has someone gone out of their way to do something good for you?
- When have you simply basked in how lucky you are?
- When do you feel the urge to repay kindness?
- What inspires you to get creative about giving back?

### **Download a Gratitude App.**

Consider using an app on your phone such as The Gratitude Habit, Gratitude Journal 365, 7s meditation, Thankful, Happify, or Happier. This can allow you to practice a grateful mindset regularly.



## Facilitator's Outline Script: Control Group

### **Research Assistant Script for Control Group**

“Thank you for coming and for participating in this research study. You are contributing to the knowledge of how to further support student-athlete wellness and stress. Before we start, I must remind you to silence your phone and put it away to avoid distractions. Also, if you need to use the restroom, please do so now. All restrooms are down the hall.

“Laura Kruger is the lead researcher for this research study as she completes her doctoral degree this semester. The purpose of this study is to examine the influence of a gratitude workshop on intercollegiate student-athletes' well-being and stress.

“As outlined in the invitations and the consent form you read and signed in the lobby, this study is an experimental design, which means there is a control group and experimental group by random design. This is the control group and I am Laura's trained research assistant for this group. While you may recognize me in other capacities around campus, my only role tonight is to help Laura and her research study. Laura is directing another group in the study.

“The first thing we're going to do is watch a movie. Afterwards, I will direct you as to what we will do next. But just so you know, at the end of the workshop tonight, you'll complete a brief survey, and you can opt into a drawing for giveaway gift cards. The drawing for gift cards will occur at the end, and you must be present to win.”

[START MOVIE.]

“The movie (portion) is now complete.

“I am going to hand out an individual survey to each of you, along with a pencil. During this survey, please reflect on your overall mental health from joyful moments to sad moments. Do not write your name on the survey and do not write any other comments or words on the survey. Notice, the survey is front and back on each sheet. Please be as honest as possible on these anonymous surveys. If you want to relocate yourself to another area of the room to complete the survey, that is fine. Whatever is most comfortable for you.

“After you complete your survey, you can submit it in this box at the front table. Then you can choose to enter into the drawing while everyone finishes their survey. Once everyone is done with their survey, I'll randomly draw the winners of the gift cards.

[STUDENTS START TO COMPLETE THE SURVEYS.]

[STUDENTS FINISH SURVEYS.]

“This concludes the research study. Again, the results from the study may show whether wellness workshops are helpful, in general, to student-athletes.

“Before I draw the winners of the give cards, I must remind you what was stated on the Consent Form. As control group participants- which is you- if *you* want to go through the gratitude workshop later, Laura will be offering it next Monday, February 6, 2023, from 7:00pm-8:30pm. The workshop next Monday, February 6 is not officially part of her research project but an opportunity for you to learn more. I have a flyer for you to take home.”

[Randomly draw the winners of the gift cards.]

“Thank you for coming and participating. As you leave, please take a flyer with you as *only you*- control group participants- are invited to attend the optional gratitude workshop later, hosted by Laura.

“Thank you!”

## Appendix I

### Related Research

<b>Key studies</b>	<b>Results summary</b>
De Souza, 2021; Colarossi, 2021	Student-athletes experience a high prevalence of depression but also experience a stigma of mental health which results in an underreporting of health concerns along with underutilization of support and resources.
Kaier et al., 2015	Student-athletes even experience greater stigmas and pressures than non-athletes. In a study of 407 college student participants (athlete n=304, nonathlete n=103), student-athletes reported greater perceived public stigma than personal stigma and experienced significantly higher levels of stigma compared to their nonathlete peers.
Criticos et al., 2020	There gender differences in grit and goal pursuit among student-athletes. Helping athletes deal with anxiety should be a priority since stress, drama, and fear were external factors that specifically impacted female athletes.
Cutler & Dwyer, 2020	Today's student-athletes navigate new difficulties and pressures, such as pressures and attitudes from coaches, fans, and peers, let alone pressure imposed on themselves.
Caruso, 2021	A cross-sectional analysis of 157 collegiate student-athletes were surveyed during the COVID-19 pandemic and researchers found that higher levels of perceived stress increased the likelihood of having clinically meaningful depression and anxiety, regardless of the

<b>Key studies</b>	<b>Results summary</b>
	perceived stress was sport-related or not. When student-athletes experienced higher perceived stress, low grit, and low social support, the combination was significantly associated with clinically meaningful anxiety and clinically meaningful depression.
Simons & Bird, 2022	There are differences in stressors among student-athletes depending on the type of sport (individual or team), where individual sport athletes report higher mental health concerns compared to student-athletes in team sports. Also, the coach-athlete relationship and social support were both positively correlated with well-being.
Edwards et al., 2022	Conducted a large national study of 508,672 varsity athletes and non-athletes from the 2011–2019 U.S. National College Health Assessment. While athletes reported significantly lower rates of most mental health symptoms, diagnoses, and treatment, more athletes self-reported anxiety- and depression-related symptoms without corresponding diagnosis/treatment.
Bird, 2018	The most frequently reported factors and predictors that prevent student-athletes from seeking help and treatment, which include student-athletes’ perceived benefits, perceived susceptibility, and perceived attitudes factors. Additional factors include the influence that student-athletes believe that the issues they are experiencing are not that serious or that college athletes desire to seek help from a source other than a mental health professional.

<b>Key studies</b>	<b>Results summary</b>
Kimball & Freysinger, 2003	<p>Student-athletes interpret the appraisal of collegiate sport to be both a buffer and experience of stress.</p> <p>Race and gender are important in shaping the experiences of stress among student-athletes.</p>
Lopes Dos Santos et al., 2020; United Healthcare, 2017	<p>Student-athletes navigate external stressors, such as major life changes, the death of a loved one, work or school, relationship difficulties, financial worries, etc.</p>
Petterson & Olson, 2017	<p>Student-athletes who participated in mindfulness-based interventions had positive effects for reducing negative thoughts and levels of perceived stress. Not only were there benefits to improving overall well-being by increasing mindfulness, managing negative emotions and perceived stress, but the number of occurrences of student-athlete injuries decreased following the mindfulness-based intervention.</p>
Gabana et al., 2019; Gabana, 2017	<p>After a one-time, 90-minute “Attitude of Gratitude” workshop was facilitated to 51 NCAA Division I student-athlete participants, data gathered following the 4-week post-workshop survey found that student-athletes scored higher on measures of well-being and lowered on measures of ill-being than their baseline scores.</p>
Ruser et al., 2021	<p>A survey of nearly 400 NCAA student athletes found that grateful student-athletes may experience less burnout, and student-athletes may experience more gratitude when they have a strong coach–athlete relationship.</p>



## Appendix J

### Data

**Table J1**

*Demographics*

	Control ( <i>n</i> = 26)	Experimental ( <i>n</i> = 28)
<b>Age</b>		
18-20 years old	22	27
21-23 years old	4	1
24+ years old	0	0
Prefer not to say	0	0
<b>Sex (self-identified)</b>		
Males	9	10
Females	17	18
Other	0	0
Prefer not to say	0	0
<b>Race/ethnicity</b>		
Caucasian	17	22
African American	2	4
Latino or Hispanic	4	0
Asian	1	0
Native American	1	0
Native Hawaiian or Pacific Islander	0	0
Two or More	1	1
Other/Unknown	0	1
Prefer not to say	0	0
<b>Sport</b>		
Track and Field	7	9
Football	3	2
Basketball	0	0
Softball	3	8
Wrestling	2	1
Volleyball	0	0

	Control ( <i>n</i> = 26)	Experimental ( <i>n</i> = 28)
Baseball	0	0
Golf	0	0
Soccer	5	4
Lacrosse	2	0
Tennis	2	0
Swimming and Diving	1	2
Two or more	1	2
Prefer not to say	0	0
<hr/>		
Receives athletic scholarship money		
Receives some money	23	17
Does not receive any money	3	10
Blank response	0	1
<hr/>		
In-season or out-of-season		
In-season	18	22
Out-of-season	8	6
<hr/>		
The college of their major		
College of Arts and Sciences	6	8
College of Business and Economics	6	6
College of Health Sciences	11	6
College of Education	3	8
<hr/>		
The year in college		
Freshmen	15	17
Sophomore	7	2
Junior	4	6
Senior	0	0
Other	0	0



**Table J2***Gratitude Scale Statistics*

	<i>M</i>	<i>SD</i>	<i>T</i>	<i>p</i>
Experimental	10.82	2.05	2.00	.441
Control	11.30	2.54		

Scores out of a total of 15.

**Table J3***Psychological Distress Scale, with Adjusted Data*

	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Experimental	16.67	10.60	2.00	.641
Control	15.30	10.87		

Scores out of a total of 68.

**Table J4***Life Satisfaction Scale*

	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Experimental	25.10	4.67	2.00	.48
Control	24.23	4.36		

Scores out of a total of 35.

**Table J5***Athlete Burnout Scale, with Adjusted Data*

	M	SD	<i>t</i>	<i>p</i>
Experimental	43.1	13.19	2.00	.58
Control	41.3	10		

Scores out of a total of 75.

**Table J6***Athlete Burnout Scale, by Subscale*

	M	SD	<i>t</i>	<i>p</i>
Emotional and Physical Exhaustion				
Experimental	16.5	4.92	2.00	0.272
Control	15.0	4.73		
Reduced Sense of Accomplishment				
Experimental	14.1	4.90	2.00	0.550
Control	14.8	3.46		
Sport Devaluation				
Experimental	12.5	5.72	2.00	0.474
Control	11.5	4.32		

Subscale scores out of a total of 25.

**Table J7***Perceived Available Support in Sport Scale, with Adjusted Data*

	M	SD	<i>t</i>	<i>p</i>
Experimental	11.28	3.16	2.00	.078
Control	9.82	2.77		

Scores out of a total of 64.

**Table J8***Perceived Available Support in Sport Scale, by Subscale*

	M	SD	<i>t</i>	<i>p</i>
<b>Emotional Support</b>				
Experimental	2.98	0.93	2.00	0.023*
Control	2.41	0.84		
<b>Esteem Support</b>				
Experimental	2.60	0.92	2.00	0.085
Control	2.19	0.81		
<b>Informational Support</b>				
Experimental	2.86	0.93	2.00	0.379
Control	2.66	0.71		
<b>Tangible Support</b>				
Experimental	2.83	0.71	2.00	0.171
Control	2.55	0.73		

Note \* significant.

Scores out of a total of 16.

**Table J9***Workshop Meaningfulness Scale, with Adjusted Data*

	M	SD	<i>t</i>	<i>p</i>
Experimental	3.07	0.71	2.00	.0006*
Control	2.34	0.74		

Note \* significant

Scores out of a total of 4.

**Table J10***Workshop Meaningfulness Scale Results*

Question	Control group ( <i>N</i> = 26)		Experimental group ( <i>N</i> = 28)	
	<i>n</i>	Percent	<i>n</i>	Percent
1 (“Not at all meaningful”)	3	11.5%	0	0%
2 (“Slightly meaningful”)	7	26.9%	6	21.4%
3 (“Meaningful”)	10	38.4%	12	48.8%
4 (“Very meaningful”)	1	3.8%	8	28.5%
Blank	5	19.2%	2	7.1%

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