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More than the mat: promoting the role of occupational therapy in providing mental health and wellness services for adolescent male wrestlers

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MORE THAN THE MAT:

PROMOTING THE ROLE OF OCCUPATIONAL THERAPY IN PROVIDING MENTAL HEALTH AND WELLNESS SERVICES FOR ADOLESCENT MALE WRESTLERS

by

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DEDICATION

I would like to dedicate this work to my brother, who helped inspire this important project, and to my brother and sister who believe in me to cultivate a difference.

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ABSTRACT

Approximately 78–87% of high school students are involved in an extracurricular activity, with nearly 57% of those students involved in a sport/sports team program (Caldarella et. al, 2019). High school male wrestling has been identified to be one of the leading sports in which student-athletes will experience mental health issues related to depression, anxiety, stress, disordered eating, rapid weight loss, eating disorders, aggression, and more (Sarkar & Fletcher, 2014). Occupational therapy practitioners (OTPs) are limited in school systems, where their role is related solely to students' academic attainment and achievement, yet education is only one of four occupations experienced within the secondary school setting. OTPs are trained in both physical and psychosocial rehabilitation. This presents potential for the profession to be integrated within school-based athletic programming to provide mental health and wellness services for adolescent male wrestlers. The purpose of this project is to determine if active presence and facilitation of mental health services by OTPs within athletics would

enhance a student athlete's sport performance and promote their holistic health and wellness for long-lasting health care management.

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GLOSSARY

Mental health disparities: Symptoms of mental health issues or conditions that are present with or without a formal diagnosis**.**

Psychoeducation groups: An evidence-based group therapy intervention to provide education regarding their health condition, symptoms, and methods for coping skills and health management (Marschall, 2022).

Occupational therapy practitioner (OTP): A registered and licensed occupational therapist or certified occupational therapy assistant.

Rapid weight cycling: Loss or gain of approximately five percent of someone's body weight within seven days or less over the course of several weeks (Khodaee et al., 2015).

Rapid weight loss (RWL): A loss of approximately five percent of someone's body weight within seven days or less (Khodaee et al., 2015).

CHAPTER ONE – Introduction

Students primarily go to school for education. However, the experience is composed of more than solely education. The school experience can be one of self-discovery, exploration of interests and hobbies, and engagement with peers and communities different and alike through extracurricular activities. Student athletics are one of several active communities within a secondary school experience. Nationally, approximately 57.4% of secondary school students have played on at least one school or community sports team within the last year (Riser-Kositsky & Peele, 2022). Among that percentage, men account for approximately 58.1% of total high school student-athletes (Zippia, 2022). In 2017, sports program offerings averaged over 60 programs across high schools nationwide. In the top ten rankings, the sport of wrestling ranked seventh to have the most male participants, with approximately 244, 804 adolescent males involved in this sport. It ranked eighth out of the ten most common male sports within high schools nationwide (National Federation of State High School Associations, 2017).

Although wrestling is popular and readily available among high school athletic programs, male wrestlers are the most common athletes to experience mental health issues related to depression, anxiety, stress, disordered eating, eating disorders, rapid weight loss, aggression, and deprived sleep (Sarkar & Fletcher, 2014). Wrestling is considered a contact sport, similar to boxing, football, and mixed martial arts. A similarity among these sports is their mentality related to perceived toughness, physical exertion, strict dietary requirements, and mental strength. This mentality often correlates with defining what it means to "be a man" from a social, cultural, and societal construct.

Two primary avenues viewed as victories are losing weight to participate in a particular weight class and pinning an opponent on the mat to win the match. However, when the desired weight is primarily achieved through rapid weight loss, rapid weight cycling, restriction of food intake for lengthened periods, and overexertion of exercise, it reinforces unhealthy practices that impact an adolescent male wrestler's physiological and psychological development.

In 2015, the American College of Sports Medicine reported that 45% of high school wrestlers felt angry while losing weight, with negative implications on school and athletic performance including, but not limited to: anxiety, depression, tension, intensity, rage, fatigue, and confusion (Khodaee et al., 2015). With the pressures, conflicts, and challenges that come naturally with the sport's demands, it is no surprise that negative psychological impacts may arise. The practices of high school male wrestling have not only psychological implications but also physical and physiological effects. The same study reported that rapid weight loss and weight cycling could potentially have harmful health effects on one's "hormonal changes, growth impairment, decreased bone formation, decreased basic metabolic rate, and negative protein balances" (Khodaee et al., 2015). Rapid weight loss is defined as losing approximately 5% of one's body weight within one week or less, where weight cycling is continuing this practice in a transitionary, fluctuating manner (Khodaee et al., 2015). Rapid weight cycling would encompass -5% weight loss and +5% weight gain within one week or less in several weeks. Rapid weight loss and weight cycling focus on physical and physiological changes, but other components that contribute to a person's functioning — specifically

psychological and psychosocial functioning — are often forgotten.

It is more likely for behaviors related to eating disorders to occur in community-based athletics than symptoms that may arise in clinical-based settings. A primary example is when behaviors related to disordered eating occur with the goal of increased muscularity (Murray et al., 2017). When analyzing eating disorders, practices involving anticipated achievement of greater muscularity have developed into a separate category known as Muscularity-Oriented Disordered Eating (MODE), which remains separate from those of traditional eating disorders. MODE is defined as a form of disordered eating with its primary goal, behaviors, and rationale centered toward gaining more significant musculature, muscle leanness, or both (Murray et al., 2017). MODE can be observed through an individual's fear that they are not muscular enough, leading to strict dietary and exercise practices to reach muscular-oriented goals, which can lead to overconsumption of proteins, supplements, or dangerous over-exercise mentalities. This display of behaviors influences one's perception of body image, can impair psychosocial functioning, and has been shown to produce higher rates of suicidal ideation (Murray et al., 2017). With the physical, physiological, and psychological impacts of the current practices of male high school wrestling, our student athletes' mental health and wellness cannot be ignored and dismissed.

The extent of mental health services offered within secondary school systems generally involves one school psychologist and one or two school guidance counselors who may have a psychology or education background. However, frequently guidance counselors are trained in academic counseling in preparation for higher education, test

preparation, or accommodations per a student's individualized educational plan. A challenge presented to administrators that prevents them from seeking efficient community or school mental health professionals is ensuring the education standards for all students per the Individuals with Disabilities Act and No Child Left Behind. According to these acts of legislation, mental health services are not deemed essential to students' academic progress (Weist et al., 2012). Another challenge presented is integrating, immersing, and balancing both school and community mental health professionals; however, both follow considerably different models of delivery of services, affecting confidentiality, reimbursement, resources, and funding (Weist et al., 2012). As a result, adequate mental health services for adolescents and student-athletes are unavailable and inaccessible.

Proposed Outcome to Address Practice Challenges

With this doctoral project, the author proposes that adequate mental health services become available in every high school system as part of the school's staff and be integrated into the programming and training for high school male wrestlers. The author proposes that if there were an expectation of both the school staff and the athletic staff to reflect and provide care to one's mental health as related to their role as a student-athlete would become more normalized, inclusive, and refreshing. The author does not expect to change wrestling practices as a sport but rather as a culture that promotes stereotyped masculinity based on musculature, weight, and perceived toughness, disregards psychological pressures, enforces gender stereotypes, unrealistic eating, and dangerous

weight cycling. Instead, the author proposes a strong foundation for a culture where nutrition and exercise are beneficial outlets of expression. It aspires to serve as a team-oriented model for positive participation and occupational engagement and provide self-reflection in understanding the needs of today's youth to balance mental health, physical health, and academic wellness as presented through the current times.

Impact of Presenting Problem

There is a prevalent issue in ranking which health (physical, mental, emotional, social, occupational) areas are essential to integrate within the high school education model. As a system, deciding which ones can be compromised is conflicting and to not be directly correlated with academic performance. The consequences this puts forth immensely impact how an individual may understand what health and wellness is and how to achieve it. If one cannot understand what is involved in their health, they cannot properly attend to it. As a result, student-athletes remain overwhelmed, anxious, imbalanced, and conflicted. Responding to health challenges may be due to reduced health education and an inability to give the body, mind, and spirit what needs to be balanced and cared for appropriately. The only consistent support present for a mental health professional would be academic-based counselors within guidance departments. Often, academic-based counselors are focused entirely on issues related to academic-based success, not factoring in the other areas of wellness that impact one's ability to succeed academically. If qualified, trained professionals are eliminated or secluded from the high school system as essential staff members, the conflicts, challenges, and decline

in the student-athlete's functioning and occupational wellness become more and more apparent. Families are constrained by the daily logistical challenges of their child's activities. Teachers are consumed with how their students present their academic work with the expectation that sports should not hinder one's ability to perform well in school. Student-athletes are almost guaranteed to be unsuccessful because of their responsibilities related to their roles as a student and athlete. With this presenting problem, it goes beyond one school or one sport. However, the entire high school supports system and the incredibly stressful expectations placed on adolescents to be successful in life to achieve future pursuits. Meanwhile, student-athletes often need to be provided with outlets or additional support to balance their commitments.

When considering high school athletes' functioning, health, and wellness, athletic trainers are typically the primary professional directed to when there is concern or occurrence of an injury. Athletic trainers (ATs) are healthcare professionals trained in the prevention, examination, and diagnosis of acute or chronic injuries and medical conditions and deliver rehabilitative services or treatments related to such injuries or conditions (National Athletic Trainers' Association, 2020). As part of their multi-skill set, ATs are versatile because their knowledge base provides them with confidence and competence in common injury-related topics. Some examples of common injury-related topics include discussing the impact of injury, dealing with stress and rehabilitation, and concerns or self-doubt about not being able to perform the same after injury or surgery. ATs also commonly address non-injury-related matters such as stress, family and relationship problems, and burnout. Post-injury, there is often a strong emphasis on the

use of medications for pain management as well as potential mental health challenges that can occur with injury, depending on the severity and level of impact the injury has on the person. According to a national survey completed by ATs, topics not discussed with clients included, but are not limited to: addiction or dependency to painkillers and medications, depression and frustration due to weight gain after injury, difficulty dealing with pain emotionally, difficulty letting go emotionally, and anxiety concerning pain levels, feelings of isolation, loneliness, aggression, and anger after injury, past or current steroid use, sexual orientation, or illegal recreational use of drugs and alcohol (Clement et al., 2019). ATs within this study reported that these psychosocial-related issues were not included within their area of competency nor within their professional responsibilities to discuss with their clients (Clement et al., 2019).

As presented in the Occupational Therapy Practice Framework 4th edition (OTPF-4), wrestling can be categorized as a leisure occupation in which an adolescent explores and participates (American Occupational Therapy Association, 2020). However, the demands of this occupation impact other Activities of Daily Living such as health management, rest and sleep, education, work, and social participation due to time constrictions and role responsibilities (Boop et al., 2020). In being client-centered, each person's body structures, functions, values, and beliefs become integral in promoting optimal participation and occupational engagement. These client factors are essential to actively participate in wrestling due to its hands-on approach and mental stamina to strategize moves, positions, timing, and action within a wrestling match. Health management is the most significant area of occupation addressed. Occupational therapy

practitioners (OTPs) are the ideal healthcare professionals to manage the physical, mental, emotional, and social impacts on nutrition, exercise, health and wellness promotion and maintenance, and how they fluctuate (Boop et al., 2020). In a wrestling match, a wrestler physically has to determine when and how to process their opponent's moves to direct action while simultaneously problem-solving where their body is in space, how to remove themselves from the situation, and how to coordinate the plan of action in their mind and execute it forward. These factors involve multiple motor, processing, and social interaction performance skills to interpret, process, and execute responses accordingly. Going day in and day out with interchanging roles of student, athlete, family member, teammate, peer, and repeat, the habits and rituals involved to meet the demands of each role become almost robotic without any autonomy into each role's responsibilities. In that regard, the context and environment correspond with that role to support what each specific role requests and how they can be supported. Per the OTPF-4, adolescent male wrestling connects to all six contexts and environments through sole participation.

In considering both professional healthcare disciplines, OTPs and ATs have a unique opportunity to collaborate in providing quality, comprehensive, and holistic healthcare services to effectively address and manage high school athletes' physical and psychosocial needs. ATs uphold clinical expertise in the physical exertion and mechanics related to sport-specific injuries and conditions. An opportunity for ATs to collaborate with an OTPs' expertise in activity analysis and influence of context and environment has the potential to positively enhance the client's occupations of the student, athlete, and

student-athlete. The author proposes that providing a team-oriented approach and depth that resonate powerfully with the sports culture can also increase health promotion, wellness, and management concerning the eight dimensions of wellness.

Education for OTPs includes equal value, training, and professional competency in delivering services related to physical and psychosocial rehabilitation for various populations individually or in groups. When evaluating a sports-oriented occupational therapy intervention using surfing in an experiential, skill-based program for veterans experiencing post-traumatic stress disorder (PTSD), participants reported decreased severity of PTSD symptoms and depression management. This study reported that providing opportunities for participants in this occupation-based program allowed participants to gain skills related to acclimation to the sport and the continuous experience of learning in a group-based setting (Rogers et al., 2014). Occupational therapy (OT) conceptual practice models have a foundation to assess occupational performance and well-being in programs. Participants of a group occupation-based program experienced enhanced executive functioning (i.e., judgment, reasoning, problem-solving) and healthy routines related to social skills, life skills, and instrumental activities of daily living (Ikiugu et al., 2017). OT conceptual practice models such as the Canadian Model of Occupational Performance-Engagement, Biopsychodynamic Model, Model of Human Occupation, Occupational Adaptation Model, Cognitive Behavioral Model, and the Ecological Systems Model provide the framework for executing occupation-based programs, such as wrestling. However, it is crucial to recognize that personal, cultural, and environmental factors can either act as barriers or benefits to

accessing information about and services for mental health and disorders (Gorczynski et al., 2020). In understanding health, it is important to understand health literacy. Health literacy is "the cognitive and social skills that determine the motivation and ability of individuals to gain access to, understand, and use information in ways which promote and maintain good health" (Gorczynski et al., 2020). Mental health literacy assesses how changes in awareness, education, knowledge, and attitudes can lead to improved help-seeking and proactive self-health behaviors (e.g., stress management and reducing substance misuse) (Gorczynski et al., 2020). The founding of the OT profession was upon providing mental health services to those who struggled with mental health disorders and physical conditions from battle trauma. Its historical roots trace back to World War I when this value was first recognized with consideration of a person's values to promote participation in daily, meaningful occupations. The history of OT, its evolutionary education, ever-growing clinical profession, and innovative scope of practice demonstrates OTPs' abilities to deliver mental health services to all populations.

Causes and Contributions to Presenting Problem

Key factors:

- Lack of healthcare professionals (i.e., occupational therapy practitioners, clinical mental health counselors, social workers, exercise physiologists, athletic trainers) that are trained, competent, and confident in mental health and wellness services within high school systems potentially due to funding, lack of awareness, or an unknown need for increased mental health services

and how to execute them within the school-based model.

- How this key factor contributes to the presenting problem:
  - There is a significant need for mental health care and wellness services to be integrated within student athletics. Although various health-related professionals are present within the school-based setting, the role in which they serve follows a traditional school-based model with directives solely toward academic achievement versus encompassing multiple areas that impact a student-athlete's secondary school experience. Because mental health and wellness services have not been traditionally included within student-athletic programs, professionals within school-based practice may experience hesitation or ambiguity toward their role and responsibility in providing these services to student-athletes and adolescent male wrestlers.

- Wrestling coaches and mental health professionals will work closely in professional development workshops and training pre-season, in-season, and post-season. The workshops and training will encompass education on identifying strategies for detecting mental health symptoms and referring to appropriate resources for further professional counsel. Training will also include techniques to support a student-athlete while maintaining professional

mentorship boundaries and reflecting upon internal stigmas, biases, and areas for improvement to serve best and support the population.

    - How this key factor contributes to presenting problem:
        - Awareness leads to action, and action leads to advocacy. Suppose decreased awareness of the need for mental health services within the school environment is absent. In that case, the rise of mental health issues negatively affecting academic performance and success will continue to rise without any immediate solution or plan to take a course. With limited funding, students' health and wellness have to be the utmost priority because, without it, academic performance and success become irrelevant and impossible to measure or provide.

- Stigma surrounding mental health services
    - How this key factor contributes to presenting problem:
        - The perceived notion of the "type" and "reason" student-athletes would seek mental health services directly hinders one's willingness to consider gaining the assistance they need to maximize their participation in their occupations. Some reasons that negatively impact the likelihood of a male student-athlete seeking mental health support include the myth of a required diagnosis to receive mental health care and the

perceptions of the male student-athletes' abilities or inabilities from family members, coaches, or teachers (Barnard, 2016).

- Increased gender stereotypes heavily enforced within male wrestling practices and current culture surrounding musculature, "macho" personality, mental toughness, reduced awareness or insight into emotional wellness and doing what you need to "perform" to standard.
    - How this key factor contributes to presenting problem:
        - Engaging in occupations, especially leisure and social participation, correlate with adolescents' desire for acceptance, belonging, and longing for who they are and what is important to them. Gender stereotypes negatively impact the growth and discovery process one has within them. External forces (i.e., family members, cultural background, societal structure, gender stereotypes) influencing self-identity and behavior expectations for adolescent males and wrestlers create a whirlwind of conflict. Some conflicts that can arise due to these external forces include emotional dysregulation, maladaptive coping strategies, and avoidant behaviors toward previous areas of pleasure and enjoyment (Gorczynski et al., 2020).

Core to Change Presenting Problem

- Identify barriers to provision of mental health services within the high school system.
    - Consult with sample of high school administrators to assess factors influencing budget decisions and approximations
    - Conduct a needs assessment for increase in mental health professionals available within high school system and staffing
    - Inquire with high school administrations to understand district stance on provision of mental health inclusion model for all students
- Assess areas in which mental health services would be best acclimated and delivered to adolescent male wrestlers.
    - Collect sample size of past and current wrestlers to assess gaps in health services and how wrestlers perceive presence of how if mental health services were available and integrated as a normal part of the strength, conditioning, and training program of the sport, how they believe it could have assisted in their occupational wellness and sports performance.
    - Consult with Circle of Advisors for insight on current challenges influencing active participation within wrestling sport practices for most reliable accounts and factors of consideration.
- Diminish negative practices within the traditional male wrestling culture.

    - Consult with current coaches for training routines, regimens, and coaching styles for best practice
    - Assess approaches taken to maximize score performance and its relation to individual demands regarding nutrition, weight cycling, disordered eating, musculature, and pressure to perform for the "scoreboard"
- Provide a proposal plan for how high school systems can integrate mental health services as part of sport specific athletic programming
    - Understand routine and rituals of traditional high school wrestling training program
    - Collaborate with athletic trainer, wrestling coaching staff, and administration to best determine integration of mental health professionals within high school system
    - Develop a standard of care specific to the demands of student athletes specific to their sport as well as to their individual needs

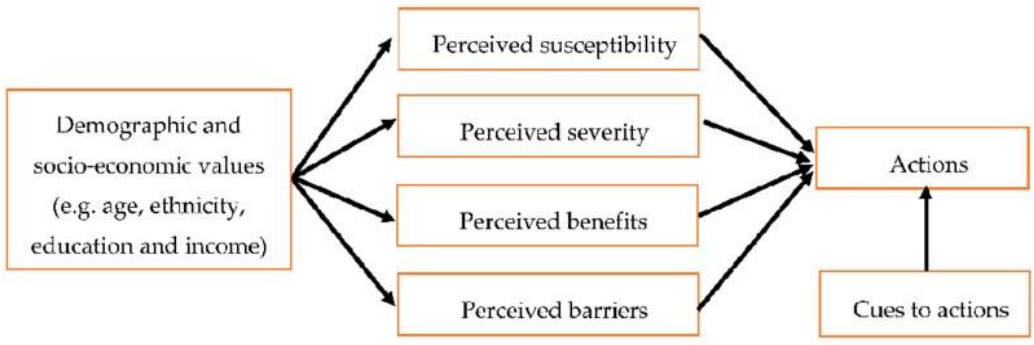
CHAPTER TWO – Project Theoretical and Evidence Base

Theoretical Frameworks

The Health Belief Model (HBM) is a social psychology theory designed to explain and predict health-related behaviors, particularly with the uptake or consideration of new healthcare services or practices. This theory is based on the belief that a primary determinant of a person's healthcare decisions is their health perceptions (Boskey, 2022). The HBM first considers a person's demographic variables (age, gender, socioeconomic class, education, and personality). From there, the HBM reviews a person's perceived susceptibility, severity, benefits, and barriers toward responding to a health condition. Health motivation is a primary factor influencing how a person responds to a health condition. The perceived susceptibility, severity, benefits, barriers, and health motivation collide to form a healthcare action. Cues to action are also moderators that influence a healthcare action. Some examples of cues to action include family opinions, media, and accessibility. A visual representation of the HBM can be found in Figure 2.1.

Figure 2.1

Health Belief Model

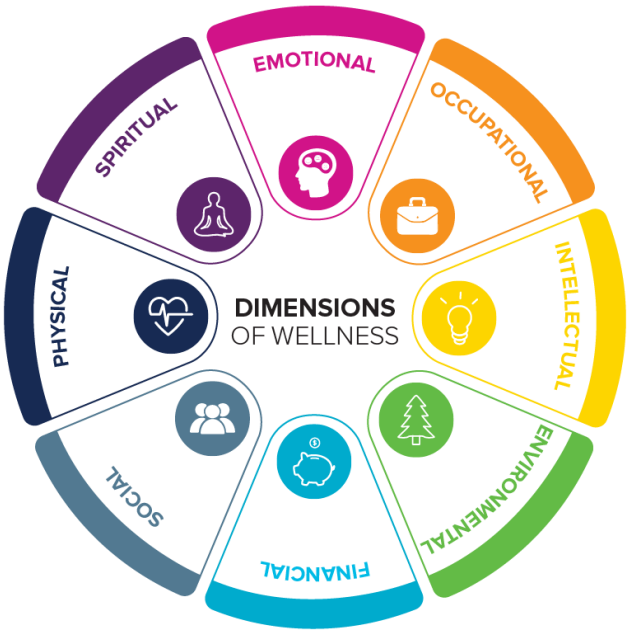


(Alhamad & Donyai, 2021)

The Eight Dimensions of Wellness will serve as a supplemental framework for applying the HBM. The Eight Dimensions of Wellness is a health framework in psychiatric and psychosocial rehabilitation that provides a holistic, multi-dimensional structure for examining the balance in the areas of wellness (Boston University, 2019). This framework examines physical, intellectual, social, spiritual, occupational, financial, environmental, and emotional wellness. Seven of eight dimensions directly apply to adolescent male wrestlers within their wrestling occupation, with financial wellness being the one outlier. The Eight Dimensions of Wellness demonstrate continuous evolution and active attention to one's health and well-being in its framework design. A visual representation of the Eight Dimensions of Wellness framework can be found in Figure 2.2.

Figure 2.2

Eight Dimensions of Wellness



(UCDavis, 2022)

This project will use the HBM and the Eight Dimensions of Wellness to identify solutions to address mental health disparities within the sport of wrestling for adolescent male student-athletes. The cause of this problem involves a high emphasis on masculinity, aggression, and unhealthy nutrition and exercise practices among adolescent male wrestling culture. Increased social pressures and role demands arise as a result; however, there is an absence of support to assist adolescent male wrestlers in navigating and processing these changes in their role development. Increased social pressures and changes in role demands impact adolescent male wrestlers to experience decreased social-emotional competency. This population experiences increased maladaptive behaviors, such as violence, aggression, restriction of food, and overexertion of exercise due to decreased social-emotional competency. An essential moderator influencing these two mediators involves a lack of awareness, advocacy, and mental and physical health management resources to assist in the severity of a wrestler's symptomology or health condition. There may be a lack of awareness, advocacy, and resources by the adolescent male wrestler themselves, the coaching staff, and secondary school system administrators. With consideration of the cause, two mediators, and moderator, the outcome of the problem ruminates to present increased mental health disparities and decreased occupational balance and wellness among adolescent male wrestlers. The explanatory model of this problem can be found in Appendix C.

In combining the HBM and Eight Dimensions of Wellness with the explanatory model of the problem, the demographic and socioeconomic variables indicate adolescent male wrestlers varying in ages 14–18 years old and personality factors such as

aggressive, outgoing, timid, blunt, or active. The health condition identified may include anxiety, depression, eating disorders, disordered eating, and mood disorders. Considering their demographic and socioeconomic variables, adolescent male wrestlers could determine their perceived susceptibility, severity, barriers, and benefits of responding to their health condition. Perceived susceptibility is the likelihood of attaining a health condition. In contrast, perceived severity is how the health condition interferes with a person's daily routine and functioning. The perceived benefits are positive indicators of responding to their health condition, and the perceived barriers are negative hindrances preventing them from responding to their health condition. Their health motivation drives all four, whether the adolescent male wrestler wants to address their health condition or symptoms of a potential health condition. These elements collide for the adolescent male wrestler to determine an action to respond to the symptoms or health condition. Their cues to action (the events or inferences that influence a health action) are direct moderators that can lead an adolescent male wrestler to initiate an action toward their health management. This chapter will review the current evidence and research literature related to the prevalence of this problem.

Clinical Question:

Do reduced supports in navigating changes in role development among student-athletes increase social pressures related to the adolescent male wrestler?

Summary of Evidence Base

Educational databases, such as CINAHL, APA PsycArticles, MEDLINE, PubMed, and SPORTDiscus, were used to search evidence-based literature related to the

problem. The clinical question was utilized to direct the following search terms: adolescents, male wrestling, male youth, teenagers, young adults, mental health, mental wellness, wellness care, mental health resources, stigma, and sports. Of this search, ten articles were located and selected with relevance to the clinical question as they follow the following criteria: English publication with full text linked, date range within the last eight years, peer-reviewed, content coverage related to male adolescents, sports and wrestling, mental health care, the prevalence of mental health disparities related to male wrestling sports' programming and training. Limits set included peer-reviewed, linked full text, and set data range (2015–2022).

Clinical Bottom Line

Five of the ten articles were selected to integrate into this synthesis as the evidence correlated with mental health, adolescent male wrestlers, sports, and wrestling practices. These studies collectively present mental health disparities, barriers in wellness care, and the impact of wrestling practices on adolescent male development. Mental health disparities can include but are not limited to rapid weight loss (RWL), rapid weight cycling, stress, depression, anxiety, impaired growth, disordered eating, and eating disorders (Murray et al., 2017). Barriers to wellness care can include but are not limited to public stigmas, internal bias, self-stigmas, lack of accessibility, lack of awareness, and limited public discussion of services and resources available. The impact of wrestling practices can include but is not limited to fluctuating weight classes, irregular eating patterns and schedules, overexertion of physical exercise, the aggression of coaching styles, and self-induced purging for weight loss efforts. Evidence within the

literature included a combination of high school sports from a general perspective and some specific to wrestling.

Adolescence requires adjustments to various responsibilities as roles expand to new and different levels of expectations, challenges, and support. Children with poor mental health are more likely to experience adverse outcomes in academic achievement and occupational performance (Cahill et al., 2020). In transitioning from primary school to secondary school, student role demands are heightened and challenged with independence, self-initiation, and accountability. When adolescents transition into high school, a common indication of student success is involvement in extracurricular activities to demonstrate enhanced school involvement and well-rounded development. Approximately 78–87% of high school students are involved in extracurricular activities, with approximately 57% involved in sports and sports team programs (Caldarella et al., 2019). Participation in physical activities that aim to enhance the mind-body connection can enhance positive mental health, behavior management, and emotional regulation strategies (Cahill et al., 2020). Psychological resilience refers to a person's ability to interpret and process stressful events and adverse information and form healthy responses to maintain participation and engagement in their daily occupations and activities. Psychological resilience is significant in determining, navigating, and responding to stressors related to everyday activities and the demands placed on the individual, environment, and ability to participate in their desired occupations (Sarkar & Fletcher, 2014). High school male wrestling is identified as one of the leading sports in which student-athletes experience mental health issues related to depression, anxiety, stress,

disordered eating, RWL, eating disorders, aggression, and more. Stressors related to athletes and their sports performance can be under three categories with the following considerations:

a. Competitive Performance: Preparation, injuries, pressure, under-performing, expectations, self-presentation and rivalry
b. The sport organization in which the athlete is involved in: leadership and personal issues, cultural and team issues, logistical and environmental issues, and performance and personal issues
c. Personal life events outside the sport's context/realm: work-life interface, family issues, or the death of a significant other (Sarkar & Fletcher, 2014)

Wrestling is the most common sport for rapid weight loss indicating health concerns physiologically, intellectually, emotionally, and physically (Murray et al., 2017). The prevalence of RWL in high school, collegiate, and international wrestling has risen from 40% to 90% within this sport's population groups, primarily starting during adolescence (Khodaee et al., 2015). Educational programs, rule changes related to weight class requirements to participate in sport(s), and attitude changes of athletes and coaches toward weight-related performance and RWL are integral to the cultural paradigm in promoting health and wellness within this sports' practices.

Five psychological factors account for the level, amount, and intensity of stress experienced that contribute to how a person builds psychological resilience. These five psychological factors include positive personality, motivation, confidence, focus, and perceived social support (Sarkar & Fletcher, 2014). School is an environment where

sports commonly occur, and additional supports are present (i.e., teachers, counselors, and paraprofessionals). Health and educational attainment correlate more with one another than compete against one another (Littlecott et al., 2018). Students who feel supported, demonstrate a connection to self and others, choose positive health behaviors and display a capacity for practical reasoning experience promoted health outcomes (Littlecott et al., 2018). Support staff with responsibility for well-being has the potential to play an important, yet understudied, role in orienting school systems toward health promotion and improvements.

Similarities and Differences:

Similarities among the evidence demonstrate a skewed understanding among adolescents of defining health, particularly when comparing medical versus psychological (Murray et al., 2017). Perception of one's health is subjective, with internal and external views of health only sometimes being congruent with one another. In an adolescent's partaking of RWL practices, a high motivator is to meet weight class classifications with potential for musculature gain, where RWL has been shown to cause little to no increase in muscle strength and can reduce it (Khodaee et al., 2015). RWL has little to no significant changes to performance when comparing before and after a competition, yet it has led to negative short-term impacts and long-term health consequences. Potential long-term consequences of frequent weight cycling include impaired growth, eating disorders, poor immune system, poor restorative systems (response to injury or illness), obesity, and increased cardiovascular risk (Khodaee et al., 2015).

Another similarity among the evidence suggests that external sources and influences determine an adolescent wrestler's awareness of role development and social pressures. In one case study written by Murray et al., post achievement of losing weight to participate in lower weight class for wrestling activities and verbal validation from external sources, the participant began to "intensify" dietary and exercise practices. Intensified behaviors included actively counting calories, increasing protein consumption, and weighing food intensely for meals. Other avoidant behaviors included bringing their foods to training practices versus sharing in team meals, refusing to go to restaurants due to not being able to prepare or weigh food himself, and refusing to sit versus stand to prevent possible loss of muscle tone in the lower extremities. However, external sources (coach, parents, and peers) saw these as "harmless and goal-oriented behaviors" versus deemed qualities of an eating disorder defined by his pediatrician in which he was referred to a specialized eating disorder program. Parent perceptions differ from objective to subjective perspectives based on observation of the adolescent within their home environment versus the experience of the adolescent (Caldarella et al., 2019). In a study comparing the settings in which sports occur (recreational and community versus school-based), adolescents who participated in recreational sports had significantly higher social competence and empathy than those who played high school sports. In contrast, a positive relationship was discovered between the number of high school sports played with increased self-regulation and responsibility (Caldarella et al., 2019). The setting and environment in which adolescent wrestlers integrate and practice their daily routines, occupations, and activities foster variance in coping strategies and self-care functioning.

A difference in the literature was integrating the environment and context in which the sport of wrestling occurred. Caldarella et al. compared the ability to form social emotional competency, fostering resilience, and healthy coping skills and strategies in comparison of the school setting and a recreational facility environment, in which each setting was found to promote an element that the other setting did not (2019). In Murray et al.'s article, the authors described the integration of a medical and psychiatric treatment model to address both physical and mental health impacts of wrestling on the adolescent male (2017). In Khodaee et al.'s article, the authors present how behaviors associated with and learned in these settings begin in adolescence, but continue throughout high school, collegiate, and even international levels in various settings (2015). In Littlecott et al., the setting was specific to the academic school-based setting involving extracurriculars. In this study, additional supports aligned with or separated from the student. Findings indicated that support staff were highly effective and could grow into positive sources but have limited studies on their versatility within their roles and possible expansions of those roles (2018). Sarkar and Flecther offer a unique approach to analyzing this content in their review of multi-layer stressors, including categories of organizational, leadership, cultural, and personal (2014). In this analysis, Sarkar and Fletcher discover various forms, barriers, and factors to be considered regarding fostering or reducing resilience within adolescent athletes.

Quality and Limitations of Current Research

The current research includes Level II, Level IV, and Level V evidence, including comparative studies, descriptive studies, and systematic reviews. The evidence includes a

quality comparison of an athlete to a non-athlete, athletics among multiple levels (high school, collegiate, professional, and international), and sports programs. Research themes within the evidence correspond with mental health, adolescent male wrestlers, sports, and wrestling practices with unique consideration to sport practice environments. The research attrition was positive as participants remained within the described studies to have research results and findings for practice implications and recommendations. The research fidelity varies as there is limited evidence of this problem directly related to the sport of wrestling due to limited research on mental health in adolescent male wrestling and student-athletics. However, current evidence demonstrates significant issues impacting the population of adolescent student-athletes. The current research's generalizability is sufficient in providing evidence in an informative manner but limited in approaches to resolve the issues. The validity of the research displays a current and relevant timeline within a five-ten-year margin. Further research is required to assess mental health within male student athletic programs.

Recommendations

Upon review of the literature and conducting this synthesis, recommendations to respond to this problem include the integration of additional supports for adolescent male wrestlers throughout their in-season training and off-season training through the inclusion of mental health and wellness care to promote independence within their daily occupations. The proposed additional support is occupational therapy practitioners (OTPs). OTPs are healthcare professionals that utilize therapeutic activities to address the

"physical, mental, developmental, and emotional ailments that impact a person's ability to perform day-to-day tasks" (Regis College, p.1). OTPs serve as related service professionals within school districts to attend to and promote student independence, participation, and academic achievement to successfully perform various assignments, tasks, and activities within their school and classroom environments. This proposal involves the expansion of the school-based OT to serve as an extracurricular advisor to promote mental health and wellness care and training to students involved in adolescent athletes, specifically male wrestling. The goal would be to promote a student's independence, functioning, and participation in all forms of the school experience, including extracurricular involvement. Through the active integration of an OT's clinical skill set, knowledge, education, and collaboration with the coaching staff, the promotion of positive mental health and wellness skills for adolescent male wrestlers will occur not only during their training season but throughout their off-season training periods as well.

CHAPTER THREE – Overview of Current Approaches and Methods

Introduction

Upon review of the research demonstrating mental health disparities among adolescent male athletics, health and education attainment are directly correlated. An increase in role demands is prevalent in which educational support staff, such as occupational therapy practitioners (OTPs), have potential to serve an essential role in providing student support. OTPs use distinct, comprehensive theories and conceptual practice models to promote independence and functioning to active participate in their daily occupations. This chapter will review the current research and literature of occupational therapy (OT)'s role in mental health and wellness services with adolescents and adolescent-athletes.

Clinical Question:

Would weekly skilled Occupational Therapy psychoeducation groups promote positive mental health and wellness for adolescent male wrestlers?

Summary of Evidence Base:

Evidence-based literature was searched using educational databases such as CINAHL, APA PsycArticles, JSTOR, PubMed, and Web of Science. The clinical question was utilized to direct the following search terms: mental health, mental illness, mental disorders, psychiatric illness, psycho-educational groups, adolescents, teenagers, young adults, teens, youth, Occupational therapy, groups, wellness, psychoeducation, and group dynamics. This search yielded approximately 84 results, and nine were selected with relevance to the clinical question as they followed the following criteria: English

publication with full text linked, date range within the last ten years, peer-reviewed, content coverage related to adolescents, male adolescents, sports or wrestling, mental health care, mental health programming, psycho-educational groups, and leisure occupations. Limits set included peer-reviewed, linked full text, and set data range (2003–2022).

Clinical Bottom Line:

Nine articles were included in this synthesis as their evidence presents further research into defining leisure and reviewing activity-based occupations' influence on adolescent mental health. This evidence includes the effectiveness of psychoeducation groups in reducing mental health stigmas and occupational therapy practitioners' participation in providing mental health services.

Mental illness affects approximately one in five people, with less than one in six receiving evidence-based treatment to address their mental health issues (Kohn et al., 2012). Men are more likely to experience increased pressure related to conforming to gender stereotypes when addressing health-related concerns (Kohn et al., 2012). Some male-specific gender stereotypes described an "expectation to be independent, self-reliant, strong, robust, and tough" (p. 442). This shared experience among men negatively impacts their attitudes toward health, and they are less likely to report concerns related to injury, disability, or illness (Kohn et al., 2012).

"Occupation-based interventions have promoted mental health, positive behavior, and social participation of children and youth with and at risk for mental health concerns" (Cahill et al., 2020, p.5). Within this systematic review, findings showed that the use of

productive occupations, such as sports and physical activities, enhance the mind-body connection that can elevate mental health, positive behavior, social participation, and emotional regulation skills for children and youth (Cahill et al., 2020). A randomized control trial found significant improvement in behavior management, self-concept, and emotional regulation for adolescents involved in a six-week sports-based intervention that integrated wellness techniques related to meditation and mindfulness (Cahill et al., 2020).

Occupational therapy (OT), as a profession and group of licensed clinical practitioners, upholds a fundamental belief within their profession that meaningful participation and active engagement in daily occupations, such as work, play, leisure, and self-care, promote positive mental health (Passmore, 2003). The occupation of leisure is a significant contributor to adolescent development, with three forms of leisure identified: achievement, social, and time-out (Passmore, 2003). Achievement leisure activities include a goal to be accomplished with various challenges and demands along the way. Social leisure activities are those where the primary focus of engagement is to form and immerse in social relationships with peers or others. Time-out leisure activities are typically passive and performed independently without the company of others (Passmore, 2003). Adolescent male wrestling would be included as an achievement leisure activity as its culture, practices, and training are directed toward achieving victory against a competitor. As an occupation, leisure has the potential to support health through the development of competencies related to social, behavioral, athletic, and intellectual dimensions (Passmore, 2003). A significant relationship has been found between achievement, social leisure activities, and mental health in adolescents, related to how

adolescents develop self-efficacy, self-identity, coping skills, and self-worth (Passmore, 2003).

OTPs are equipped, educated, and trained in activity and occupation-based interventions to enhance and promote mental health, social participation, and positive behavior for children, youth, and adolescents (Cahill et al., 2020). OTPs primarily focus on assisting individuals in attaining occupational performance in achieving mastery, abilities, and competency toward a task (Passmore, 2003). However, adolescents' self-efficacy beliefs in correspondence with their competence toward mastery of a task or activity play a prominent role in influencing their mental health (Passmore, 2003). The history of OT is rooted in mental health practices. Several therapeutic approaches in mental health care and psychoeducation groups directly correlate with outcome measurements, approaches, frameworks, and theories guiding occupational therapy interventions with children and adolescents in clinical practice (Bueno et al., 2021; Fuller, 2011). Individuals who accessed and received OT services in response to mental health care demonstrated significant improvements in "psychological distress" (Kohn et al., 2012, p. 440).

Similarities and Differences:

Among the literature, a similarity implicates a connection between meaningful engagement and active participation in leisure occupations impact an adolescent's development of competencies in skill development, mental health, emotional regulation, coping abilities, positive behavior management, and social participation (Cahill et al., 2020; Passmore, 2003). Another similarity among the literature demonstrates that

increased access to OT as a mental health care practitioner in clinical practice enhances improvements in condition management and promotes greater social participation, active engagement, and meaningful occupational performance (Cahill et al., 2020; Fuller, 2011; Kohn et al., 2012). A third similarity displays the effectiveness of integrating mental health programming for students, increased wellness culture, student attendance, and attainment, and promoting confidence in skill sets to support adolescent student-athletes experiencing mental health issues (Kidger et al., 2016). A difference in the literature is the outcome measures utilized within occupational therapy practice alone when practicing in a mental health setting. Four outcome measures that have foundations in psychiatric settings include the Assessment of Communication and Interaction Skills, the Occupational Therapy Task Observation Scale, Goal Attainment Scaling, and the Canadian Occupational Performance Measure (Fuller, 2011). These outcome measures are rooted in occupational therapy theoretical frameworks and are client-centered. All four outcome measures focus on task performance, goal setting and attainment, and occupational participation; however, they are scarcely used in mental health practice settings despite their roots and development beginning in psychiatric and mental health-based settings (Fuller, 2011). Another difference in the literature presents the question of the sustainability of mental health care and interventions among adolescents. Kidger et al. presents a possibility for sustainable, active participation in programming with adolescent student-athletes in secondary school settings to support mental health, wellness, and coping skill development (2016). In contrast, Birken et al.'s study of barriers and facilitators of mental health OT indicates that OT has adopted more generalized roles. As

a result, Birken et al. infer that a lack of evidence-based research to integrate into evidence-based practice and a lack of distinction of OT from other psychological disciplines hinders OT representation as a provider of skilled mental health care (2017).

Quality and Limitations of Current Research

The current research includes Level I, Level III, Level IV, and Level V research of systematic reviews, randomized control trials, pretest-posttest, cross-sectional and descriptive studies, and critical reviews of outcome measures and frameworks. The research attrition varies as some research presented relevant information, but is considered outdated as it surpasses a five-ten-year range. However, research that does surpass pre-2012 (Fuller, 2011; Passmore, 2003) indicates essential information related to the connection among leisure, mental health, and adolescent development, as well as the effectiveness of occupational performance within mental health practice settings. This research presents a potential for high generalizability as it demonstrates applications in promoting positive mental health and wellness for adolescents, although research is not specific to adolescent male wrestlers. There is lower generalizability in the use and effectiveness of psychoeducation groups with adolescent male wrestlers or student-athletes due to limited research conducted, requiring further evidence-based research in this area for clinical practice. There also needed to be more research regarding the role of OT in secondary school settings to assist and collaborate with extracurricular programming to promote mental health within sports.

Recommendations

Upon reviewing the literature and conducting this synthesis, recommendations to provide a solution include expanding the role of school-based OTPs in mental health care and wellness development within adolescent male wrestling sport development. Within the research in this synthesis, OTPs are equipped, educated, trained, competent, and capable of leading psychoeducation groups related to promoting positive mental health and wellness strategies. The Health Belief Model and the Eight Dimensions of Wellness provide strong theoretical frameworks to guide interventions with the adolescent male wrestling population. With these frameworks, the proposed solution is to simultaneously provide adolescent male wrestlers with the tools to care for their physical, mental, emotional, intellectual, and social health and wellness through active participation, education, and weekly psychoeducation groups during in-season training. Participation in the weekly psychoeducation groups will enhance group dynamics among the team. Psychoeducation groups will also provide the tools for attaining positive mental health care, coping strategies, emotional regulation, attention to physiology, balancing stress, role demands, and mental health challenges experienced by the individual. The OTPs will actively communicate with the coaching staff in a collaborative effort to promote positive mental health and wellness care for adolescent male wrestlers. This collaboration will enhance meaningful occupational engagement, positive leisure participation, and active attention and mindfulness to care for their minds and bodies in this particular occupation.

CHAPTER FOUR – Description of the Proposed Program

Basis of Proposed Program

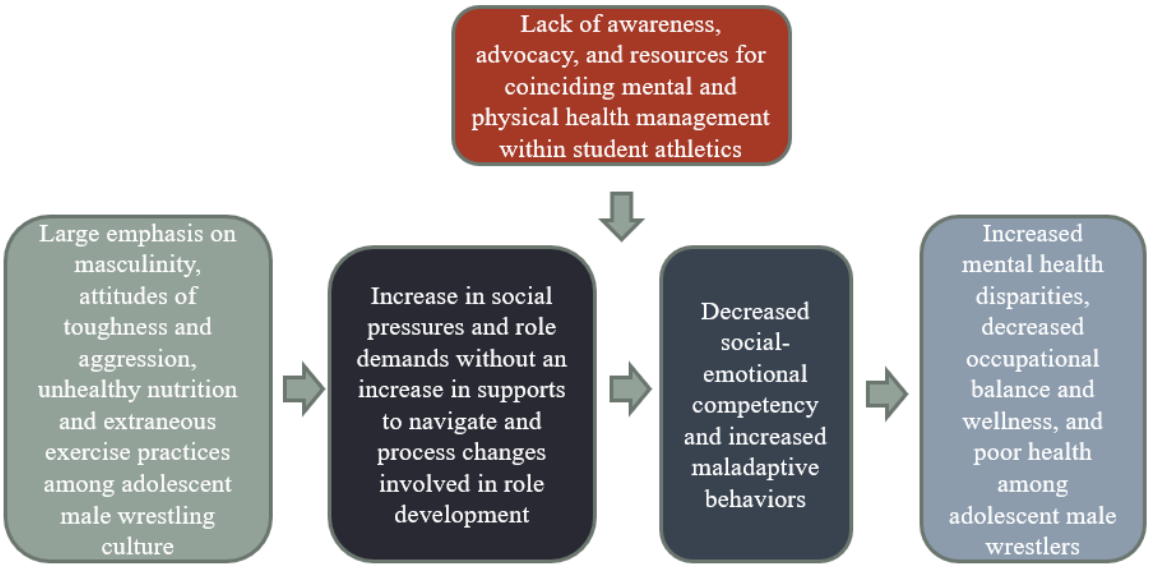
More than the Mat is a sixteen-week in-person program intervention. The intervention will include psychoeducation groups integrating wellness education and interactive activities related to healthy coping strategies, nutritional wellness, positive peer relationships, stress management, and physical activity. Incorporating these features within the design of the proposed program is aimed to assist the adolescent male wrestler in enhancing performance, not hindering it, through active attention and care to their physical and mental health status. Delivery of *More than the Mat* will take place once a week for direct program intervention and two times a week with standby service hours where the program facilitator is present for additional support, services, and observation of participant performance. The program will be provided within the sport context during the pre-season and in-season training period of sixteen weeks to assist in role adaptation, holistic wellness, stress, and health management. Persons directly involved in the program's delivery and facilitation would be the occupational therapy practitioner (OTP), wrestling coaches, and the athletic trainer(s). Program participants would include adolescent male wrestling student-athletes. Persons indirectly involved in the program's delivery would be guidance counselors, families, teachers, and administrators. The users of the author's program delivery model may include educational institutions at the secondary school level.

High school male wrestling is one of the leading sports in which student-athletes will experience mental health issues. Some common mental health issues experienced by

this population include depression, anxiety, stress, disordered eating, rapid weight cycling, rapid weight loss (RWL), eating disorders, aggression, and more (Sarkar & Fletcher, 2014). This display of behaviors influences one's perception of body image, can impair psychosocial functioning, and has been shown to produce higher rates of suicidal ideation (Murray et al., 2017). The Health Belief Model (HBM) is the framework for designing intervention activities for participants to identify benefits, barriers, health motivations, perceived susceptibility, and perceived severity of health conditions to cause a health action. The HBM dives into how people's health beliefs impact their ability to consider and select healthcare action. This model considers one's demographic and psychological factors, perceived susceptibility, perceived severity, perceived barriers, and perceived benefits toward a healthcare action. Three moderators influencing these variables include the individual's health motivation, self-efficacy, and cues to action (media, family opinions), which all align to result in a person's health action. A visual representation of the explanatory model of the problem can be found in Figure 4.1.

Figure 4.1

Explanatory Model of the Problem



Important Stakeholders of the Proposed Program

An important stakeholder at the micro level is the direct participants of the proposed program: adolescent male wrestlers within the secondary school setting. As direct participants of the proposed program, it is vital to have this stakeholder group see the value in its aims and objectives to promote investment and participation. The proposed program aims to connect with this stakeholder group at the micro level through the application of the HBM. Subjective health decision analysis will provide relatable and attainable content at this level. Education delivery through direct connections to daily occupations and roles and tools for application will provide a greater likelihood of application within current environments and contexts to assist in the carryover of content learned.

An important stakeholder at the meso level would be the wrestling program within the Athletics department, Athletic Trainers, coaching staff, and student support services as a department. These stakeholders within this level are essential as they are directly involved with the participants and can contribute to supporting at a more significant level through systematic influence to cultivate long-lasting change. The stakeholders within this level demonstrate an opportunity to be directly involved in providing resources to facilitate the proposed program's continued carryover in a multi-disciplinary approach.

An important stakeholder at the macro level would be the Boards of Education for the secondary school setting. Boards of Education determine policies, procedures, and programs approved, modified, or denied within their school district for primary and secondary school settings. The opportunity to directly connect with Boards of Education will demonstrate value, gain, and contribution to the districts' missions, goals, and initiatives. This approach can cultivate systematic change that promotes holistic, practical, and applicable mental health and wellness care integrated into more than solely academics, as academics are only a portion of the school-based experience. With a wide array of extracurricular offerings and opportunities to elevate the student experience, Boards of Education have the authority to enact policies and programs to expand the role of their school-based OTPs to support further and serve their student and student-athlete populations.

Program Practice Scenario

Michael was a stocky, shorter fourteen-year-old male starting his high school

career by participating in his first-year football team at the high school level. Due to his size and stature, he was positioned as a lineman, although this is a position he finds unpleasant, discouraging, and dismissive to training him as a male athlete. When learning his new position, Michael often felt undersized for a lineman but knew he was placed there due to being slower speed-wise and stockier in weight. As a result, he experienced negative comments from his peers and coaches, yelling, and aggression related to his performance as a football lineman, as well as not eating to the height they wanted to get bigger and less agile. One day toward the end of Michael's first football season at the high school level, Michael attended wrestling tryouts where one of his football assistant coaches was also on the wrestling coaching staff.

When Michael joined the wrestling team, his assistant coach approached him and asked why he wanted to join wrestling. Michael's verbal response was to get in better shape. However, internally he responded that he did not want to be scared anymore, not want to be insecure anymore, not feel isolated, not to feel high levels of anxiety anymore, and he wanted to be dangerous. Michael has no prior wrestling experience but has been involved in combat sports his whole life through mixed martial arts and football; Michael wanted to give wrestling a try. He had witnessed some of his older cousins participate in the sport when they were in school and wanted a sport that would challenge him and push him to get in better shape and, as a result, become a better athlete. Unsure of what is to come, Michael agrees to join his high school's wrestling team to feel more confident, be more assertive, find a place of belonging, and be more dangerous in himself to redefine himself. Michael identified danger as "how much uncertainty is in his environment and

safety is guaranteed." Michael stated that knowing how people operate, situations occur, and the environment gives a sense of security and understanding. When uncertain, it can be scary, but being uncertain in a possibly violent situation now that's dangerous, which Michael found empowering and inviting about starting his wrestling journey.

Michael stated he associates losing weight with being a better athlete, primarily due to perceptions of body composition. By creating a physiological change, he felt he could improve a mental one; through diligence and discipline not to be scared of situations to step forward or retreat if scared or intimidated. Michael disclosed being tough and running toward fires promoting being a better man, which in turn connects to being a better athlete in direct correlation with one another in Michael's beliefs and perceptions at the time of his involvement in high school wrestling. Although directly correlated, Michael disclosed experiencing how both improving being a better man translates into being a better athlete, and they also have the potential to starve each other in that if one is suffering, the other will decline as well.

In his first season, Michael won one match and lost seventeen. He described physical training as being physically and mentally brutal. Michael stated he did not appreciate rest then and still struggles years later. He felt he did not have energy for anything not wrestling-related and experienced hardships about getting worked up about anything except wrestling due to such depletion of energy. Michael first discovered a mind-body connection during his wrestling journey by experiencing intense emotions that felt overwhelming, confusing, and hard to distinguish. Externally his body would feel drained; internally was experiencing crippling anxiety prior to wrestling either in practice

or match. Even if having a positive performance, he would go into the next one wanting to push but could not. Michael emphasized that physical training was always challenging but that his last performance was a significant indicator that influenced/determined how the next performance would prevail. If performances were good, Michael described that he would be exhausted but satisfied that he improved. If performances were poor, he and some of the teammates he observed found it hard to participate in class, do his homework, sleep, eat, cope, and feel twice as draining.

In experiencing a heated temper, anxiety, self-anger, and difficulty regulating emotions with personal relationships daily, all of which were highly present during wrestling season, family members and teachers quickly became aware of these issues. Michael described being "consumed," in the intensity of being mentally taxed and strained that heightened greater at the start of the season around early November. In assessing factors, Michael often ideated the following strategies: Dieting more strictly, running longer, lifting harder, researching harder, observing more tournaments, not eating cake on a birthday, etc. Diet was the first thing to attack, eat salads with just lettuce and drip water in replacement of dressing with self-deprecation and negative self-talk comments. Michael described this pressure as coming from a place where an athlete's performance derives blame on themselves, and as the season continues, it gets worse and worse, where mentally, it becomes dark and scary. Michael engaged in disordered eating behaviors from trying to make sense of all different voices to make weight, get stronger, get in better shape, and be unsure where to go. In fear of being viewed as "weak, insecure, unsure, and confused," Michael would secretly endure internal pains through

external exertions. Some of these external exertions were punching doors, throwing objects, and hitting the floor when no one was home due to being mad at themself and not feeling like there was anyone to talk to (coaches, family members, friends). The leadership among his wrestling coaches was irrational, diminishing, extreme, strict, frequent yelling, would act in punishment toward their athletes, and instilled a belief that a wrestler needs to be extreme and intense to be successful. Unsure of what voice to listen to and not feeling/having any safe outlets to get support from to soften the loud negative voices at fourteen, Michael craved to find the voice that worked, not the healthy voice. Therefore, Michael continued self-deprivation: in food, sleep, standards, expectations, and time, cultivating an increase in pressure, stress, anger, aggression, and anxiety. Self-harm through an expression of violent outbursts (punching doors, throwing objects, hitting the floor) to attempt to make sense of internal anguish and turmoil. By exerting it outward, Michael experienced feeling a pain externally to match the pain experienced inside.

Due to self-confusion, lack of leadership, and absence of support—bandaging up from injuries was satisfying as it served as a visual reminder in his daily activities that he was doing something challenging and he was tough. He grew to partially enjoy the pain he was experiencing. It became something that translated into empowerment and almost addictive to validate internal and external experiences, rationalize this as "what the pain is for," and justify external stressors that create and continue cultivating an unhealthy person. Michael stated it was not about being a good wrestler when engaging and acting upon these unhealthy coping behaviors. It was about showing he could compete, should

be respected, and can be dangerous, which stemmed from insecurities related to self-identity, self-concept, self-image, and insecurities. According to Michael's report, the diet was constantly attacked first and aggressively from poor mental health, poor mental conversations, and lack of understanding that goes along with the nature of wrestling. Michael disclosed that other wrestlers he knew shared similar experiences that made him feel connected, knowing these unhealthy behaviors and attempts to cope were unrelated to performance or success but universal among many adolescent male wrestlers. Michael experienced this turmoil for the next two years and began to hear the "good voices" in his senior year once there was a change in coach leadership that focused on developing and supporting the person to then form the athlete.

When reflecting on the value of sports, coaches, and leadership as an adolescent male wrestler, Michael stated, "Sports teach what the class cannot reach" and "the best athletes should be the best people." Michael believes coaches and school-based leadership have the power to teach more than solely the sport or solely academics. His new coaches would connect each sports lesson with a life lesson, something relevant that the male wrestlers can take to continue developing as people, as men, and as athletes. It focused on teaching life before sports increased its players' holistic development. As a result, their program increased participant involvement, efficiency in the athletes' performance, and the satisfaction of each wrestler to build a long-term relationship and bond that goes deeper than sports. Their approach demonstrated that real value is based on life versus sports.

Aims of Objectives of Proposed Program

The overall goal in offering *More than the Mat* is to promote positive mental health and wellness for adolescent male wrestlers to increase balance among role demands (student, athlete, and peer). As the proposed program comes to fruition, it aims to:

- Increase awareness to all stakeholders (adolescent male wrestlers, administrators, coaches and athletics staff, and Board of Education) of the significance of mental health and wellness within adolescent male wrestling.
- Provide strategies and a toolbox provided from educational materials, coping strategies, and professional resources for support to the adolescent male wrestlers, coaches, and athletics staff to use as resource kit to increase self-confidence and competence to practice stress management, social-emotional competency, and healthy coping skills.
- Increase and enhance collaboration among OTP, wrestling coaching staff, and athletic trainers to form health and wellness plans that cultivate balanced and safe exercise regimens and nutrition outlines appropriate to support development versus athletic performance.

With these objectives, the role of school-based occupational therapy practitioners can encompass the scope of developmental, physical, and psychosocial rehabilitation. This structure aims to reduce the frequency, severity, and prevalence of mental health disparities within the adolescent male wrestling population to normalize students' mental

health and wellness application within both school and sports contexts to promote an enhanced positive school culture and inclusive community. A visual representation of the complete logic model of the proposed program to increase integration of mental health services and wellness training for adolescent male wrestlers within school-based sports programming can be found in Appendix A.

The logic model classifies adolescent male wrestlers within secondary school systems as the primary participants of this program. Considering the resources available to this program coming to fruition, athletic facilities, Board of Education support and approval, and integration of visual-educational handouts, including wellness strategies and stress management techniques, will be beneficial to this program's success. The nature of the problem provides literature and displays of the increased prevalence of mental health disparities in adolescent male wrestlers, including anxiety, depression, stress, rapid weight cycling, rapid weight loss, eating disorders, and disordered eating. The problem also includes increased pressure and role demands on student-athletes without additional support to navigate stress or role demands. As a result, mental health professionals are absent in sports programming to assist in stress management, coping strategies, and health practices. In assessing the nature of these problems, the role of theory in driving the program is crucial. The chosen theories and framework to design intervention are the Health Belief Model and the Eight Dimensions of Wellness. Interventions and activities for this program include weekly psychoeducation groups, team development for wellness and holistic health training, and wellness plan development for a continued plan of action for consistent change and practice within

daily life. Integrating knowledge quizzes and interactive activities will make holistic health education relatable, reliable, approachable, and attainable.

Program Participants and Resources

Intended program participants for this program include adolescent male wrestlers participating in school-based wrestling programs. The age range of participants could include 11–18 years old within the secondary school setting. *More than the Mat* is designed mainly for high school adolescent male wrestlers between 14–18 years old. Methods to identify and recruit these individuals include networking with local public-school systems with male wrestling programs within their athletic department(s). Inclusion criteria include an age demographic between 14–18 years of age, an experience level of at least one wrestling season, and an openness to discussing physical and mental health content. Additional inclusion criteria are being a male student enrolled in the attending high school in which the wrestling program occurs and participation in that school's wrestling program. Exclusion criteria to participate in this program includes age demographic of younger than 13 years of age and older than 19 years of age, female, less than one entire season of wrestling completed, student enrollment in a different location than wrestling program enrollment, not open to discussing content related to physical and mental health, and participates in wrestling program outside school-setting or school-athletics department.

The proposed program is intended to occur within the school setting concerning the sports context, meaning within the school building but after after-school hours when wrestling practices and matches occur. Psychoeducation groups are planned to occur in

person within a classroom-like environment one afternoon a week for approximately 60–75 minutes over 16 weeks (November–February as marked for the wrestling season) under the direct facilitation of a school-based occupational therapy practitioner. The classroom-like environment must include access to a computer monitor and overhead projector for interactive activities, videos, and visual demonstrations. Visual-educational handouts of the content covered will also be provided in hard copy and electronic versions to provide access to post-group resources for carryover skill development within the home, school, and community environments. Topics covered throughout the intervention program incorporate elements of the eight dimensions of wellness, sleep, building support networks, and acting in action to be active in one's health care. In addition to the weekly psychoeducation group, the OTP would be available to the participants within their sports training context (gym, training match, competition) two afternoons a week for standby services for the adolescent male wrestlers. Standby services could include observing a particular athlete per the coach's concern, observing group dynamics, or offering additional support individually to promote availability and accessibility to continued OT services as needed.

The plan for outreach to recruit participants and participate in school districts is to send a letter via mail to the building principal and the Board of Education Office of local high schools within the surrounding areas. The written letter would include an introduction of the facilitator (OTP), the reason for contact, a description of the program, IRB approval information, and contact information for the school district to respond to the facilitator regarding interest and participation in program implementation within their

district. Upon two weeks after arrival at the office(s), a follow-up email would be sent to inquire about their receipt of the letter and if they are interested in proceeding with the program within their school. Once approval is provided by the building principal or Board of Education for the participating school district, the same letters would be provided to the head coach of the participating school's wrestling program and athletic director for approval and agreement to participate and collaborate with the OTP in program implementation. Upon approval and agreement from the athletic director and head wrestling coach, the OTP would collaborate with the coach(es), athletic director, and athletic trainer to schedule a time the OTP could be on-site to meet the adolescent male wrestling team. In-person, the OTP would provide an introduction of themselves, their credentials, and a brief introduction of the program in its design, aims, objectives, and relevance. Post-presentation, the OT would provide informed consent forms to all adolescent male wrestlers and permission slips to parents/guardians to return to allow their child to participate in this program as part of their sports training. Wrestlers would be provided one week to return both permission slips and informed consent forms to their coach to submit to OTP for record keeping. Participants can retract participation in the program at any time without penalty. A visual representation of the intervention content can be found in Figure 4.2.

Figure 4.2

Intervention Content

Week	Topic
1	Defining the Student-Athlete and Male Wrestler
2	Introduction to the Eight Dimensions of Wellness
3	Physical Wellness
4	Intellectual Wellness
5	Social Wellness
6	Emotional Wellness
7	Occupational Wellness
8	Environmental Wellness
9	Spiritual Wellness
10	Internal and External Barriers and Benefits to Holistic Health Care
11	Inside Out: Motivations into Movement
12	Daily Influences and Building a Support Network
13	Rest, Resilience, and Recharge
14	Transitions from In-Season to Out-of-Season
15	Action in Being Active
16	Reflections and Takeaways

Program Outputs and Outcomes

Anticipated program outputs include approximately eight participants with at least 12/16 sessions completed/attended. Program outputs include involvement from the head wrestling coach, athletic director, and athletic trainer to demonstrate interdisciplinary collaboration. Educational materials will be produced and provided at each session to allow participants to take away an attainable form of information covered for increased likelihood of carryover. Projected program outcomes include a short-term timeline of one-month post- intervention, four-six months post-intervention, and ten-twelve months

post-intervention. At one-month post-intervention, participants will demonstrate increased knowledge of OT's role in psychosocial rehabilitation and sports. Within this timeline, participants will also be able to identify three-five strategies that can be utilized in daily practice to promote increased health and wellness following the eight dimensions of the wellness model. At four-six months post-intervention, projected program intermediate outcomes include participants will report reduced levels of stress, anxiety, depression, and aggression in daily occupations and increasing integration and continued programming for off-season times. At approximately 10–12 months post-intervention, participants will experience reduced severity and prevalence of mental health disparities, promote awareness and practice of holistic health and wellness for student-athletes, and promote occupational balance in role development for the adolescent student-athlete.

Anticipated Barriers and Challenges

Some possible barriers and challenges that may arise in implementing this proposed program include decreased intrinsic motivation for participants to be active in engagement and participation in session activities and group discussions. The facilitator would reduce the likelihood of this barrier or challenge by providing an open space in which participants identify and share their reason for consenting to participate in the program and connecting relevance through each session content presented. Another barrier or challenge could be a lack of administrative or Board of Education support or funding. The facilitator can address this by providing evidence-based literature on the relevance, projected outcomes, and contributions to overall student culture and school climate in cultivating the entire student experience, including extracurricular activities. A

third barrier or challenge that may arise includes both participant and administration's lack of understanding of OTP's role in providing mental health and wellness services in school-based sports programming. This lack of understanding could impact both the approval process and the level of participation. It is imperative for the facilitator to continuously profess the scope of practice, knowledge base, and clinical expertise that OTP embodies and can expand upon through the implementation of the proposed program to optimize student athletes' health and wellness.

Summary and Conclusions

More than the Mat is a sixteen-week in-person program intervention. The program intervention will include psychoeducation groups integrating education and interactive activities related to healthy coping strategies, nutritional wellness, positive peer relationships, stress management, and physical activity. Incorporating these features within the design of the proposed program aims to assist the adolescent male wrestler to enhance performance, not hinder it, through active attention and care to their physical and mental health. The HBM will be the underlying theory and framework to design intervention activities for participants to identify benefits, barriers, health motivations, perceived susceptibility, and perceived severity of health conditions to determine a health action. The Eight Dimensions of Wellness will be a second health framework throughout the program to assist participants in identifying various forms of health and wellness related to their current roles and development in a holistic scope. This program's primary aim and objectives are to expand the role of a school-based OTP to encompass skill sets, training, and education in mental health. The inclusion of this skill set can reduce the

frequency, severity, and prevalence of mental health disparities within the adolescent male wrestling population and normalize students' mental health and wellness application within both school and sports contexts.

CHAPTER FIVE – Program Evaluation Research Plan

Program Scenario and Stakeholders

Athletics in school and community-based settings are more likely to present behaviors related to eating disorders than symptoms that may arise in clinical-based settings, primarily when behaviors related to disordered eating occur with the goal of increased muscularity (Murray et al., 2017). This display of behaviors influences one's perception of body image, can impair psychosocial functioning, and has been shown to produce higher rates of suicidal ideation (Murray et al., 2017). High school male wrestling is one of the leading sports in which student-athletes experience mental health issues. Some common mental health issues experienced by this population include depression, anxiety, stress, disordered eating, rapid weight loss (RWL), eating disorders, aggression, and more (Sarkar & Fletcher, 2014).

More than the Mat is designed to be a sixteen-week in-person community, educational, and informative intervention. The intervention will include psychoeducation groups integrating education and interactive activities related to healthy coping strategies, nutritional wellness, positive peer relationships, stress management, and physical activity. The direct participants of this program are adolescent male wrestlers involved in a secondary school wrestling program within the athletics department. The wrestling coaching staff, athletic trainer, and athletic director would also be involved within the program's structure for facilitation and collaboration to promote assistance in carryover, observation of skill attainment and development, and for interdisciplinary care. Delivery of the proposed program will take place once a week for direct program intervention and

two times a week for standby services where the program facilitator is present for additional support, services, and observation of participant performance. *More than the Mat* will be provided within the sports context during the pre-season and in-season training period of sixteen weeks to assist in role adaptation, holistic wellness, stress, and health management. This program's research evaluation findings are for public school districts and community athletic facilities that host adolescent male wrestling programs. The findings will be beneficial to develop holistic health care and personal growth among their athletes and promote balanced wellness within each athlete's daily occupations.

Murray et al. conducted a research study to assess the health and wellness of a sixteen-year-old male named Johnny. Johnny was a high school wrestler who was encouraged by his coach to lose weight to qualify for a lower weight bracket. The first area addressed was the diet for nutritional changes; however, as these diet modifications became routine, Johnny became less concerned with losing weight and more consumed in the appearance of his muscularity. For the next nine months, this goal of increasing masculinity became a consumption that directed several aspects of his life. Some areas of his life impacted were his social participation through refusing to dine out with friends or family, physical health through restriction of diet, emotional wellness through experiencing increased irritability and mood instability, and psychiatric through the display of obsessive behaviors and responses toward any weight gain. Upon medical and psychological assessment, his vitals and physiological indicators were within normal limits under the supervision of a physician, and his psychological scores did not qualify for an eating disorder. However, significant disordered eating behaviors and

psychological symptomology were present. The recommended services included nutritional and medical follow-ups; however, the client declined psychological consultations (Murray et al., 2017). This case study assessment demonstrates the deception of how unhealthy nutrition, exercise, and healthcare practices can be deceptively perceived and misconstrued as a person's intrinsic motivation, discipline, and control toward achieving a personal goal. This case study also demonstrates how an individual may not meet all criteria for classification with a particular diagnosis or condition; however, they can experience long-term physiological and psychological effects due to unhealthy practices that continue untreated.

Vision

More than the Mat aspires to gain insight and information regarding adolescent male wrestlers' physical, personal, and psychological experiences during their participation, training, and involvement in this leisure occupation. Qualitative measures will include the Canadian Occupational Performance Measure (COPM), where the participant will self-report scores at the start and conclusion of the intervention in areas of self-care, leisure, and productivity (school), as well as comments shared in surveys distributed regarding various areas within their experience as a wrestler. Quantitative measures include knowledge quizzes to be completed after the post-group sessions to assess content attainment and understanding of education to carry over into daily practice. Through data collection from both measures, this program aims to accomplish further significance in the integration and connection of mind and body to promote holistic health and wellness care within sports medicine as it connects to engagement in

daily occupations. It aims to demonstrate increased autonomy, sense of self, and intrinsic motivations to manage discrepancies and imbalances within one's dimensions of wellness concerning their roles as a student, athlete, teammate, peer, and individual. It aspires to display how skilled occupational therapy interventions can promote mental health, participation, independence, and function to more than solely academic within a school-based setting.

The research findings from this program can contribute to connecting current clinical practice to the roots of the occupational therapy (OT) profession deriving from mental health to demonstrate the longitude of the profession's history to its modern application. The findings can close a gap by limiting the scope in which an occupational therapy practitioner (OTP) can provide services within the school-based setting to encompass the entire student experience versus limiting it to academic achievement only. The potential to expand the role of a school-based OTP demonstrates skill sets to promote independence within the classroom, approach physical barriers, and also, with this program, integrate mental health and wellness care for the optimal balance of stressors, roles, and demands of a student-athlete. A critical need that the research findings can present is not to ignore, inhibit, or isolate the significant mental health disparities that can have on student performance and participation. Particularly with student-athletes and adolescent male wrestlers, the pressures and demands are high in many dimensions; however, due to a need for more awareness of how the pressures and demands impact areas of daily functioning, participation, and independence within occupations and managing holistic health and wellness. Having this program delivered by an OTP to

expand the role of a school-based OTP can cultivate many positive changes through research findings and expand the integration of evidence-based practice into a new element of an established OT practice area.

Engagement of Stakeholders

Critical stakeholders include program participants of adolescent male wrestlers enrolled in a school-run wrestling program within the school's athletics department. As the facilitator, the OTP will implement this program would contact and connect with local secondary schools and their respective Boards of Education to gain permission to recruit participants within their school's program. The OTP will serve as the primary service provider in collaboration with the school's wrestling coaching staff, athletic director, and assigned athletic trainer to coordinate training session schedules. This group of stakeholders would collectively cooperate with one another's efforts for physical and mental health training to promote consistency in intervention aims for research collection and participants' contingency in education attainment for daily application. Approval for this program will need to be granted by the participating school district's Board of Education, administration, athletic department, and wrestling coaching staff. IRB approval to collect data throughout the intervention and program timelines will contribute to future publications for further development of evidence-based practice and clinical research.

Efforts for the engagement of stakeholders aim at demonstrating relevance to that stakeholder. For example, direct stakeholders are program participants of adolescent male wrestlers. The strategy to gain engagement of this stakeholder group would be to express

and demonstrate the connection among the students' occupations (education, leisure, self-care, and social participation). In demonstrating this connection, the concept of aspiring for holistic, balanced health and wellness and the barriers and benefits of the application of the educational tools and resources, this program aims to provide. All three elements are aligned to help student-athletes promote independence, functioning, performance, and participation within their leisure occupation of wrestling. Display and explanation of the Health Belief Model (HBM) would be provided to this group of stakeholders to demonstrate further the connection among intrinsic and extrinsic factors that influence a person's ability to make health care decisions. The HBM will directly provide concrete examples correlated with adolescent male wrestling. For example, perceived susceptibility to mental health disparities may be considered lower initially by adolescent male wrestlers due to perceived barriers being public stigmas, the self-image of masculinity, and limited support and accessibility to mental health care within the sports context.

The next group of stakeholders to engage would include Boards of Education, administration, athletic departments, and wrestling coaching staff. The strategy to engage this group of stakeholders is to provide literature-based research on the effectiveness of integrating mental health programming for students concerning academic achievement and enhanced inclusion culture to promote a positive school climate within their student population. Another strategy to engage this group of stakeholders is education and advocacy for the clinical skill set, academic background, and training of OTPs in mental health and psychical rehabilitation. This strategy displays the multi-dimensional therapist

to promote independence, functioning, performance, and participation in more than solely academics will create a holistic school experience to contribute to student athletics. The following strategy would include relevance to adolescent male wrestling and its frequency of mental health disparities within this sport. This strategy will serve as a model for additional athletic programs that can become a norm within their sports programming, scheduling, and training in developing their student-athletes.

Participants' parents could be considered stakeholders as they provide permission and consent for their adolescents to participate in the intervention program. Parents will receive an educational handout with a description of the program along with the aims and objectives of promoting holistic health and wellness, achieving optimal independence in navigating stress, and increasing understanding of coping strategies and skill sets to address mental health disparities and balance physical training for optimal self-care and participation in this leisure occupation. A simplified logical model for use with stakeholders can be found in Appendix B.

Preliminary Exploration and Confirmatory Process

This process aims to elevate the experience and sports programs holistically to promote student participation and performance in all elements and areas of the school-based experience. Stakeholders involved in the confirmatory process include the Board of Education, additional OTPs on the school-based team, the athletic director, athletic trainer(s), and head and assistant coaches of sports programs. Meetings with stakeholders could occur either in person or virtually. Virtual would allow more stakeholders to attend to reduce time conflicts. In contrast, in-person meetings could allow for more

extraordinary dialogues, logistics, processes, and integration to dictate full integration into school-based offerings per Board of Education approval.

Before offering intervention implementation, the initial research will collect data related to the benefits, barriers, and positive and negative impacts involved in the sport of adolescent male wrestling. This data will collect informed insight from current participants of a wrestling program to create a current and potentially longitudinal study of this population if approved to occur every year for comparison and outcome measurement. The data collection will also assess wrestlers' knowledge of the OTP and mental health awareness, personally and athletically. In addition to a literature review including recent research on adolescent mental health in sports, these will merge to provide value, insight, significance, and impact when introduced to stakeholders to move forward in the confirmatory process. Budgeting would serve as an additional stipend, similar to the model used when extracurricular moderators receive a stipend for their leadership and involvement in those activities. When negotiating with stakeholders for collaboration, the primary focus is understanding the depth and versatility of elements and moving parts that go into the school's operations. This primary focus could present another layer of potential barriers and levels of challenge. However, the challenge is the opportunity to benefit students holistically by integrating their health and wellness as priorities in all aspects of the student experience to ensure practicality, efficacy, and maximal engagement and participation in the participants' daily occupations. Program evaluation research questions by stakeholder group can be found in Appendix C.

Research Design

The design of this research includes both a formative process and a summative. The research design is formative as it aims to describe and explore factors that promote harmful health practices and hinder positive health practices due to the current wrestling sport culture and training expectations. Formative elements include the distribution of surveys to all participants, current adolescent male wrestlers enrolled in a secondary school-based program, with the opportunity for open-ended fill-in-the-blank options. Open-ended options were included to increase the inclusion of additional factors not initially included in survey questions but may be related to survey content. Survey questions include questions related to perceived positive and negative impacts of involvement in adolescent male wrestling, understanding of the role of OTP, understanding of the definition of mental health, and understanding of OTP's role in mental health. Formative data will be collected halfway through the intervention at approximately eight weeks to assess progress and evaluate the process that can reflect and guide the direction for the second half of the intervention timeline.

The research design will also include a summative process related to the program outcomes. The facilitator will distribute a knowledge quiz and confidential survey pre- and post-intervention to gauge the participant's understanding of their definition of mental health and their levels of confidence in the learned content. These methods will demonstrate competency in creating a wellness plan and identifying strategies to address and cope with stress, anxiety, aggression, and depression to promote independence in self-care. The summative elements will utilize quantitative data to answer if participation

in this program leads to reduced prevalence, frequency, and severity of mental health disparities among adolescent male wrestlers compared to their non-student athlete counterparts. The summative process aims to assess the confidence, competence, and ability for continued carryover and action in active physical and mental health care both in-season and off-season times of the year. The first summative evaluation will occur three months post-intervention, and the second will occur ten months post-intervention. The rationale for these timelines is to identify the above efforts post-training season and pre-season before the following season to assess carryover and preparation as the wrestling participants transition into a new season.

Methods Section

Methods of initiating this research begin with the submission and approval of such research by the Institutional Review Board (IRB). For this current research, a proposal is submitted for review and revisions to obtain approval to conduct research. Confidentiality is determined based on removing direct identifiers outside demographic information such as age, race, ethnicity, and years of wrestling experience. Parents and guardians will provide completed signature forms before student participation. The student will have the opportunity to provide verbal consent during the survey and intervention participation to choose to deny or stop participation at any time. Any recordings received from the survey or intervention activity data collection would be discarded in a secured bin accordingly. NVIVO would be the software used to collect qualitative data from survey input in open-ended sections and coach and trainer input to identify common themes found throughout the intervention process. SPSS or Excel will

analyze quantitative data to provide information regarding the significance of intervention in terms of effectiveness to promote program objectives. All information from both software systems will be downloaded to a separate flash drive and locked in a secure container with password protection to ensure confidentiality and proper record-keeping.

Qualitative Methods

- **Setting:** Sports context during pre-season and in-season training and matches, as well as classroom environment where psychoeducation groups take place.
- **Participants or subjects:** Current adolescent male wrestlers, wrestling coaching staff, and athletic trainers involved with oversight of the wrestling program. "More than the Mat" is designed mainly for high school adolescent male wrestlers between the ages of 14–18 years old, with ideally a minimum of 10 participants and a maximum of 15 participants. Inclusion criteria include an age demographic between 14–18 years of age, an experience level of at least one wrestling season, and an openness to discussing physical and mental health content. Additional inclusion criteria are being a male student enrolled in the attending high school in which the wrestling program occurs and participation in that school's wrestling program. Exclusion criteria to participate in this program includes age demographic of younger than 13 years of age and older than 19 years of age, female, less than one entire season of wrestling completed, student enrollment in a different location than wrestling program enrollment, not open to discussing content related to physical and mental health, and participates in wrestling

program outside school-setting and school-athletics department. Inclusion criteria for the wrestling coaching staff to have coached wrestling at the secondary school level for a minimum of two years. Exclusion criteria would include less than two years of wrestling coach experience within a secondary school setting or more than two years of coaching wrestling outside of the school context/environment.

- **Qualitative information gathering:** The primary investigator is the OTP facilitating the intervention and serves as the primary data collector. Qualitative approaches to be used include the administration of surveys with multiple choice options, rating questions, and the option for additional comments beneath each question for subjective feedback. Demographics in age range, participation in the current wrestling program, and within school-based sports contexts create consistency, transferability, and credibility in implementing intervention within multiple secondary school settings. Surveys would be distributed pre and post-intervention to assess growth, progress, and change in participants' understanding of mental health care, OTP's role in mental health services, and increased mind-body connection when participating in sports programming. Clinical observations from the OTP facilitator, the athletic trainer, and the wrestling coaching staff will be collected via verbal report and intake to transcribe for functional application of content retained throughout the intervention process.
- **Sample questions:** A sample of the complete survey is in Appendix D. A sample of interview questions for the wrestling coaching staff and athletic trainer report is in Appendix.

- **Timing**: Surveys and oral intakes with the coaching staff and athletic trainer will occur both pre- and post-intervention for comparison and contrast as part of research collection and data analysis.

Quantitative Methods

- **Setting**: Classroom environment where psychoeducation groups take place for participants to complete COPM assessments and surveys.
- **Participants or subjects**: *More than the Mat* is designed mainly for high school adolescent male wrestlers between the ages of 14–18 years old, with ideally a minimum of 10 participants and a maximum of 15 participants. Exclusion criteria to participate in this program includes age demographic of younger than 13 years of age and older than 19 years of age, female, less than one entire season of wrestling completed, student enrollment in a different location than wrestling program enrollment, not open to discussing content related to physical and mental health and participates in wrestling program outside school-setting or school-athletics department. Inclusion criteria include an age demographic between 14–18 years of age, an experience level of at least one wrestling season, and an openness to discussing physical and mental health content. Additional inclusion criteria are being a male student enrolled in the attending high school in which the wrestling program occurs and participation in that school's wrestling program.
- **Quantitative Data Collection:** The primary investigator is the OTP facilitating the intervention and serves as the primary collector of information. Quantitative

data will be collected and analyzed using SPSS to determine the significance of the intervention based on the p-value (<0.05 for significance to be found) acquired from the extraction of data collected. Group protocols will be established to create a standardization among multiple secondary school-based wrestling programs for other school-based OTs to execute when implementing the program within their district's population. The group protocols will establish internal validity within the context of a school-run wrestling program at the secondary high school level. In the future, external validity will be assessed by comparing school-based wrestling programs to community-based programs utilizing this program's protocols, activities, and resources for resources within the intervention timeline.

- **Independent variable(s):** Age range, school environment versus community context, the role of male student-athlete, and role demands associated with male student-wrestling athletes.
- **Dependent variable(s):** Knowledge of OTP's role in psychosocial rehabilitation and sports, use and application of three-five strategies to promote positive health and wellness in daily practice, levels of stress, anxiety, depression, and aggression experienced, severity and prevalence of mental health disparities, confidence in occupational balance in role development
- **Measurement**: Dependent variables will be measured through questionnaires provided in the COPM assessment, knowledge quizzes post each weekly group session, and survey results pre- and post-intervention.

- **Timing**: Surveys and COPM assessments will be distributed to participants to complete pre- and post-intervention for comparison and contrast as part of research collection and data analysis.

Data Analysis Section

Qualitative Data Management and Analysis

Qualitative data will be collected from information provided by the primary participants (adolescent male wrestlers enrolled in a school-based wrestling program) within the open-ended sections of the surveys pre- and post-intervention. Qualitative data collected will also include verbal input and observations provided by the wrestling coaching staff, athletic trainers involved in the facilitation of care of the wrestlers, and the OTP as the program facilitator from weekly group sessions and stand-by sessions throughout pre and in-season training. Once all qualitative data is collected, the analysis method will use NVivo to identify common themes, responses, and input from participating stakeholders.

Quantitative Data Management and Analysis

Surveys and COPM are to be completed manually in paper and pencil form by each adolescent male wrestler participant enrolled in the intervention. Quantitative data will include survey responses with rankings and multiple-choice answer options in identifying factors contributing to the promotion and hindrance of mental health and wellness within the adolescent male wrestling sport context and associating environments. Quantitative data will include responses collected from each wrestler's COPM at pre- and post-intervention to assess improvements and the significance of

intervention. A review of the received responses will assess changes in self-care, productivity (in this case, education for students), and leisure (wrestling activities and associated training practices to promote role and performance in the sport). Once collected, data will be converted and transcribed electronically using SPSS computer software to analyze common responses, similarities, differences, and significances of both the intervention and problem areas within this setting and context. A sample of the survey can be found in Appendix D.

Anticipated Strengths and Limitations

A strength of *More than the Mat* is the inclusion of mental health disparities among adolescent male wrestlers, without classification of diagnosis or disability needed to participate in the program. Another strength of this program evaluation research is connecting physical and mental health in sports programming within the school-based context to connect multiple roles, role demands, and connections among multiple occupations within a school setting. Another strength of the program evaluation research is to gain further insight into the mental health disparities within sports that directly connect to academic performance, social participation, emotional regulation, and physical wellness. Having both quantitative and qualitative measures incorporated into program evaluation research allows this program to create objective and subjective findings to elevate the credibility of the research.

Some anticipated limitations that may be experienced can arise from both internal and external factors. Internal factors limiting and affecting the program evaluation research results include bias and stigmas against mental health that influence participants'

ability to participate and practice strategies and education learned within group sessions. A second internal factor could be difficulty with self-reflecting and transparency in sharing mental health disparities, negative coping strategies, and maladaptive health behaviors that can hinder the effectiveness of the program's aims and objectives to create change for the participant. Another possible limitation from an external factor is inconsistency in attending weekly psychoeducation groups. Inconsistencies in attendance impact the amount and type of information provided to the participant due to isolation from group discussions, interactive activities, and the ability to exchange experiences with peers to connect to the content provided. Another possible limitation could be reduced collaboration between the coaching staff and the athletics department in facilitating the occupational therapy practitioner. If this occurs, it can cause confusion and incongruencies if not aligned with one another for positive reinforcement of skills introduced to acclimate and apply into daily practices during pre-season and in-season training times.

CHAPTER SIX – Dissemination Plan

Brief Description of Proposed Program

More than the Mat is a sixteen-week program dedicated to promoting mental health and wellness services for adolescent male wrestlers within a school-based wrestling program. The program design integrates weekly psychoeducation groups to discuss healthy coping strategies, self-care management, dimensions of health and wellness, and building positive relationships and support networks. The intervention content aims to increase social-emotional competency for adolescent male wrestlers and provide tools, techniques, and strategies to effectively develop a wellness action plan for continued carryover upon the program's conclusion. The program will involve the occupational therapy practitioner (OTP) as an integral part of the training season process. Standby services are available for wrestling athletes who would like to initiate further mental health and wellness services individually or if other members of the coaching staff (wrestling coaches, Athletic Trainers) observe a concern. The OTP will serve as another coaching staff member to provide standby services for two additional days with an option for on-site and off-site support (i.e., practices, matches, and tournaments).

Dissemination Goals

The dissemination plan cultivates opportunities to spread the critical messages of *More than the Mat*. A short-term goal is to implement and sustain community networking with public school wrestling programs, off-season private wrestling clubs, and athletic facilities to account for holistic health and wellness with daily routine and sports practice. By facilitating this program, the author will partner with public schools to collaborate to

expand the number of these programs running within high school athletics to promote health and wellness initiatives among student-athletes. A long-term goal of this dissemination is to share data received and outcome findings to present at national conferences for continuing education in the occupational therapy profession. Actively continuing education will target an area of integrated school-based occupational therapy services versus excluded. The author hopes to demonstrate how occupational therapists can further advance mental health and wellness within school systems, adolescent health, and athletics by presenting at national conferences.

Target audiences

The primary audience of this program is the participating adolescent male wrestlers. Participating adolescent male wrestlers are the primary audience, as adolescents are more likely to learn from peers who find the content, education, and resources relevant and significant for present application versus future reflection. The key message for the primary audience to retain is to understand the importance of awareness and advocacy of their mental health and holistic wellness care. With this key message, the author hopes for the primary audience to apply the knowledge and strategies they have learned as a foundation to continue building upon and to be active and motivated in making informative, mindful, and positive healthcare actions. A third key message for the primary audience to embody is a level of inclusion and community, in that adolescents and adolescent athletes are all at risk for mental health disparities regardless of classification. Integrating access to a trained mental health care professional for persons of all abilities can promote positive effects for community networking, team dynamics,

self-coping skills, self-esteem, support, inclusion, and a growth mindset.

The secondary audience of this program is Administrations and the Board of Education. The key message for this audience to gain is to understand, value, and utilize the skill set of an occupational therapist for both academic and social/leisure activities that are integral to the secondary school student experience. Another key message for this audience is making health and wellness care an active initiative for direct student involvement versus passive efforts through posting mental health-related posters and hotline numbers. Although the passive approaches serve as positive reminders of resources in a universal capacity, they do not directly engage the primary audience. Therefore, these methods have a limited likelihood of reaching students experiencing mental health disparities to act toward receiving services and resolving barriers impacting their health and wellness care. A third key message for this audience is to raise greater action toward inclusion, presumed competency, and a growth mindset. Inclusion often refers to the collaboration between persons with disabilities and those without disabilities. Although this stands true, the author believes this program can demonstrate the inclusion of mental health and wellness care as well as physical training and exertion for student-athletes of all abilities. Often, a student requires a classification to receive student support services, a team of specialized professionals that provide services to support and enhance the student's learning experience. However, the integration and implementation of this program demonstrate that students of all skills and abilities can have access to mental health and wellness services to enhance their role as a student and student-athlete to promote independence and maximize functioning in all areas of occupation.

Key messages

The key messages of this dissemination plan aim to demonstrate the great value of this program's assets to the health and wellness of its served population. Utilizing an occupational therapy practitioner in a distinct capacity within the secondary school setting allows for more significant expansion in the services to provide and enhance the student experience through integration into athletics. In considering the primary audience of the adolescent male wrestlers and the secondary audience of the Board of Education and administrators, the following key messages are translated:

1) Adolescents who receive direct education on the multiple dimensions of wellness are more likely to attend and respond to maintaining wellness than those who do not. In using foundational frameworks for this program, such as the Health Belief Model, each participant provides the choice to reflect and review their susceptibilities, severities, barriers, benefits, and motivations to be active in their health care as they navigate decisions regarding that care. Being introduced to the dimensions of wellness to bring about awareness of what each dimension contains and the approach to delivering care provides a baseline and foundation for adolescent athletes. This education will bring about action towards such dimensions for more outstanding health outcomes, occupational performance, and academic achievement as it promotes well-balanced lifestyle changes and positive healthcare management.
2) Change at the systemic macro level, such as a district-wide initiative and action plan, reinforces positive efforts to create parallel change at the meso level

(secondary school systems) and micro (individual adolescent wrestlers). Students who feel supported, demonstrate a connection to self and others, choose positive health behaviors and display a capacity for practical reasoning experience promoted health outcomes (Littlecott et al., 2018). Educational achievement increases when implemented policy changes reflect the positive health, wellness, and support student-athletes require. This impact results from a greater balance of adverse events, stress management, sleep, and coping strategies that promote social-emotional wellness versus placing additional negative pressures.

3) The role of a school-based OTP is dedicated to promoting qualifying students' academic achievement and educational attainment. The skill set of an OTP encompasses both academic-based achievements and a mental health focus to participate in multiple elements within the secondary school setting to promote holistic health and wellness of the adolescent male wrestler. However, expanding this role into mental health as related to social and leisure occupations, such as athletics, allows for more prominent in-house networking, enhanced utilization of professional skill sets, and growth of holistic health and wellness programming. These benefits enhance positive school culture, interdisciplinary collaboration, and connection among multiple departments for greater cohesion among students and staff to efficient support and resources without a specific classification required to qualify.

Sources/messengers

An organization that can spread the author's key messages to the primary audience is VinnyVarsity, LLC. The foundation of this organization believes firmly in developing exemplary leadership in youth athletics. VinnyVarsity believes in proactive education through developing programs related to inspiring leadership, empowering values and beliefs, cultivating teamwork, and developing a robust work ethic among the coaching staff and youth athletes. This organization provides in-depth training and education concerning best mental health and physical health practices, sports education training, and leadership development. As a past adolescent male wrestler himself, the Chief Executive Officer of VinnyVarsity is committed to ensuring youth athletes feel inspired, empowered, and supported to actively participate in their sport with the highest regard for their physical and mental health care. The Chief Executive Officer believes leaders of sports programs need to feel supported, confident, and competent in delivering a holistic growth experience to teach life lessons and enhance an athlete's development as both a person and an athlete. With his experience as a past adolescent male wrestler, the Chief Executive Officer serves as an optimal spokesperson to deliver the author's key messages to the primary audience.

A foundation beneficial for the secondary audience to hear from would-be Hilinski's Hope Foundation. This foundation is named after Tyler Hilinski, a high school and college football player who committed suicide at the end of his senior football season. Tyler did not show signs or symptoms of mental health challenges or disparities, yet he struggled deeply. His family established this foundation to provide resources to

student-athletes in coping with and responding to mental health issues. This foundation educates and trains coaching and support staff to efficiently support student-athletes struggling with mental health and provides advocacy and funding for programs that promote ending stigmas around mental health care and practices for student-athletes. It derives a personal connection to community outreach for universal advocacy, education, and action to reduce the prevalence, severity, and isolation of mental health disparities experienced among student-athletes. Having this organization speak to the secondary audience will provide a systemic structure for addressing student-athletes, staff, and school culture to reach micro, meso, and macro levels of change.

Dissemination Plan Budget

The dissemination plan budget considers outreach to the secondary audience, the cost of spokespersons and organizations, and long-term goals. Dissemination costs are included in the program's comprehensive financial plan as a contribution to the implementation of *More than the Mat*. The dissemination plan budget can be found in Appendix E.

Conclusion

The dissemination plan focuses on how this program's primary and secondary audiences will benefit from its implementation and participation. The key messages promote education and application of the dimensions of wellness, instill policy changes for enhanced holistic health and wellness practices within all areas of the secondary school experience, and utilization of skill sets as an OTP. The OTP instills resources,

tools, and skill sets for well-rounded, mindful, and comprehensive attention to holistic health care and wellness practice. This program serves another demographic within the athletic population as more awareness and advocacy for mental health care in athletics grows.

CHAPTER SEVEN – Funding Plan

The funding plan for *More than the Mat* will include various equipment, supplies, personnel salary costs, and travel reimbursement for personnel services needed outside of school property. The program intervention will be sixteen weeks, with the primary investigator's position lasting eighteen weeks. The eighteen weeks will include one week of preparation with participant data collection and logistic arrangements, sixteen weeks of intervention, and one week for transition out and second data collection. This timeline will align with the wrestling pre-season, in-season, and beginning of the postseason. A registered and licensed occupational therapy practitioner (OTP) is the primary investigator for this program since this profession implements an occupation-based framework to guide intervention activities and group dynamics with specific consideration and competency of both the physiological and psychological impacts. When collecting data for evaluation purposes at the start and completion of the program, data analysts will be needed to assess further data received to direct intervention activities, education materials, outcomes, and the significance of intervention. The equipment and supplies listed in the financial plan will support intervention activities used within large groups for weekly psychoeducation groups. Participants and facilitators can also use the equipment and supplies for individual and small-group use during stand-by service hours. The intervention will include a variety of visual-educational presentations, hands-on activities, group discussions, and reflections to integrate multiple learning styles for content retention and integration within daily practice. The funding plan provides details for years one and two with relevance to the funding element, the

cost associated with that funding element, and the purpose of the element in program contribution. The funding plan can be found in Appendix F.

When evaluating the financial plan, *More than the Mat* will cost approximately $12,597.64 for an estimated 18 weeks. The 18-week duration of the program is divided into three segments. The first segment begins with pre-season observations, intervention activity planning, and initial data collection from participants. The program's second segment includes in-season training with active weekly psychoeducation in large groups with options for two additional stand-by days for individual or small group services and coach consultations. The third segment concludes with post-training transitions to maintain active attention and carry over positive mental health and wellness strategies for daily practice. In efforts to fund this program, several grants among federal, state, and foundational levels were researched for consideration in the application. With occupational therapy as a health care discipline and the role occurring within a school-based setting, grants were explored for health care research, occupational therapy research, mental health expansion, adolescents, school-based services, sports services, and education-based organizations. An overview of potential grants whose mission is related to mental health, adolescent health, education, and evidence-based practice within occupational therapy can be found in Appendix G.

Conclusion

More than the Mat expands the role of the traditional school-based OTP to display the extensive skill set of occupational therapy in providing mental health and wellness services to adolescent male wrestlers and within school-run student-athletic

programs. The funding plan for *More than the Mat* will cover expenses related to the program's personnel staff salaries, equipment, materials, supplies, travel reimbursement, and dissemination plan. The total cost to implement *More than the Mat* is approximately $12,597.64. Potential funding sources include school budgeting under the athletics department and various grant opportunities. Qualifying grants for this program's funding are sponsored by various associations and foundations related to improving student well-being within education systems, health care research, mental health programming and research for clinical practice, and promoting the occupational therapy profession in program innovation. Opportunities for expanding clinical research and evidence-based practice become available through these funding sources for complete immersion within adolescent mental health, sports education, occupational therapy, and health and leadership.

CHAPTER EIGHT – Conclusion

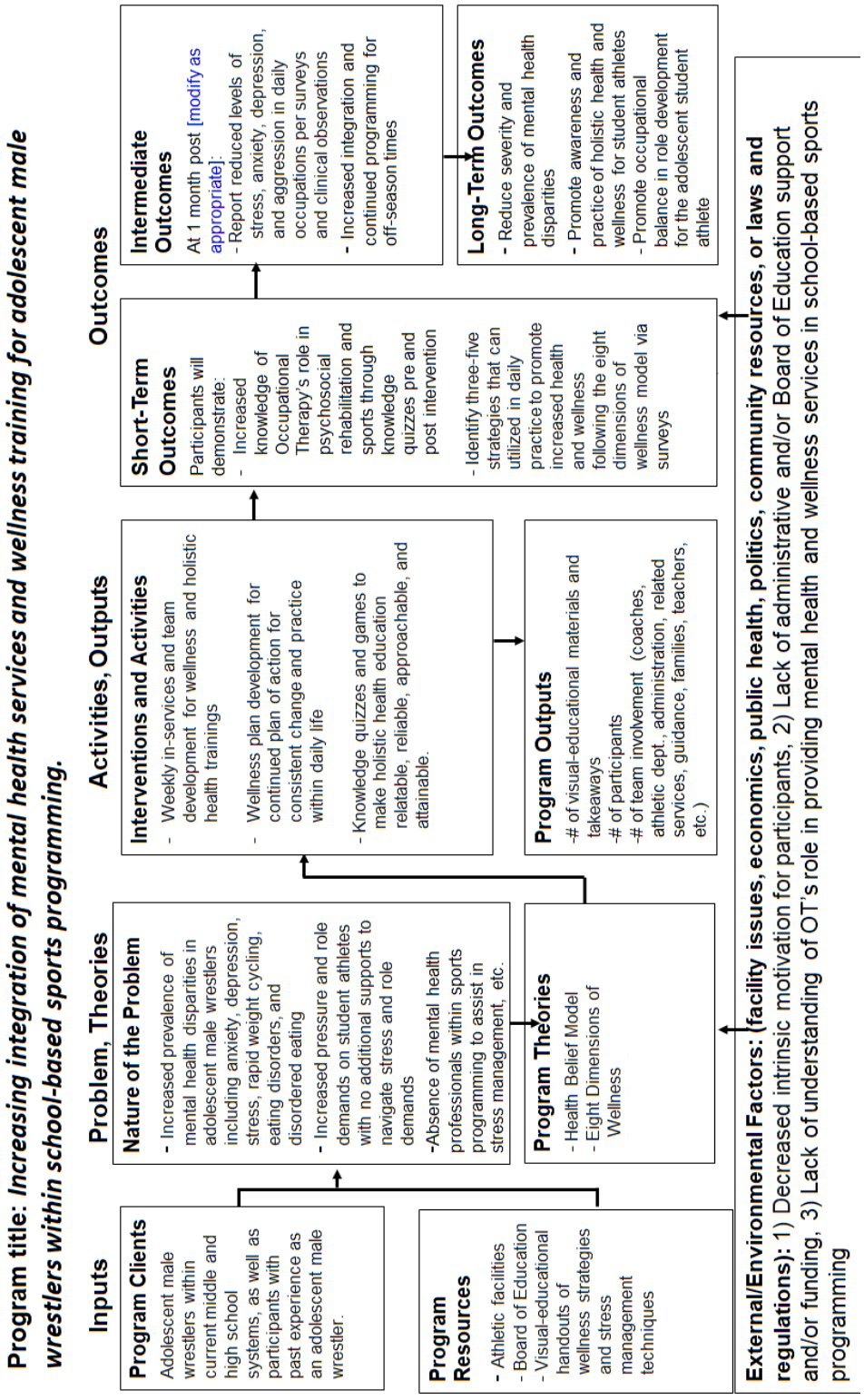
In review of the research, it is imperative for mental health and wellness services to be available, accessible, and active within adolescent male wrestling programs. Occupational therapy practitioners (OTPs) demonstrate the physiological and psychological clinical skill set to provide mental health and wellness services to this population by expanding their role within secondary school settings to include academics and athletics. Upon review of the literature, it is prevalent that increased mental healthcare correlates with greater academic achievement, sleep improvements, and positive social-emotional competencies in coping skills, occupational engagement, and relationships. *More than the Mat* is centered on wrestling as a leisure occupation with expansion into physical, psychological, and emotional health and wellness care as related to the student-athlete within the secondary school setting while creating opportunity for growth of the classic school-based occupational therapy practitioner.

Expected outcomes of this program are for adolescent male wrestlers to gain greater insight and awareness into their perceived barriers and benefits, and develop and practice active attention and action in caring for their physical and mental health with equal regard. Additional expected outcomes are for adolescent male wrestlers and student-athletes to increase their knowledge and practice of the eight dimensions of wellness, attain positive coping skills for handling stress, develop greater social-emotional competency for healthy relationships, and increase mindfulness toward self-treatment. The expected outcomes are aimed to enhance their roles as an adolescent male student-athlete, create greater balance between stress and health care management,

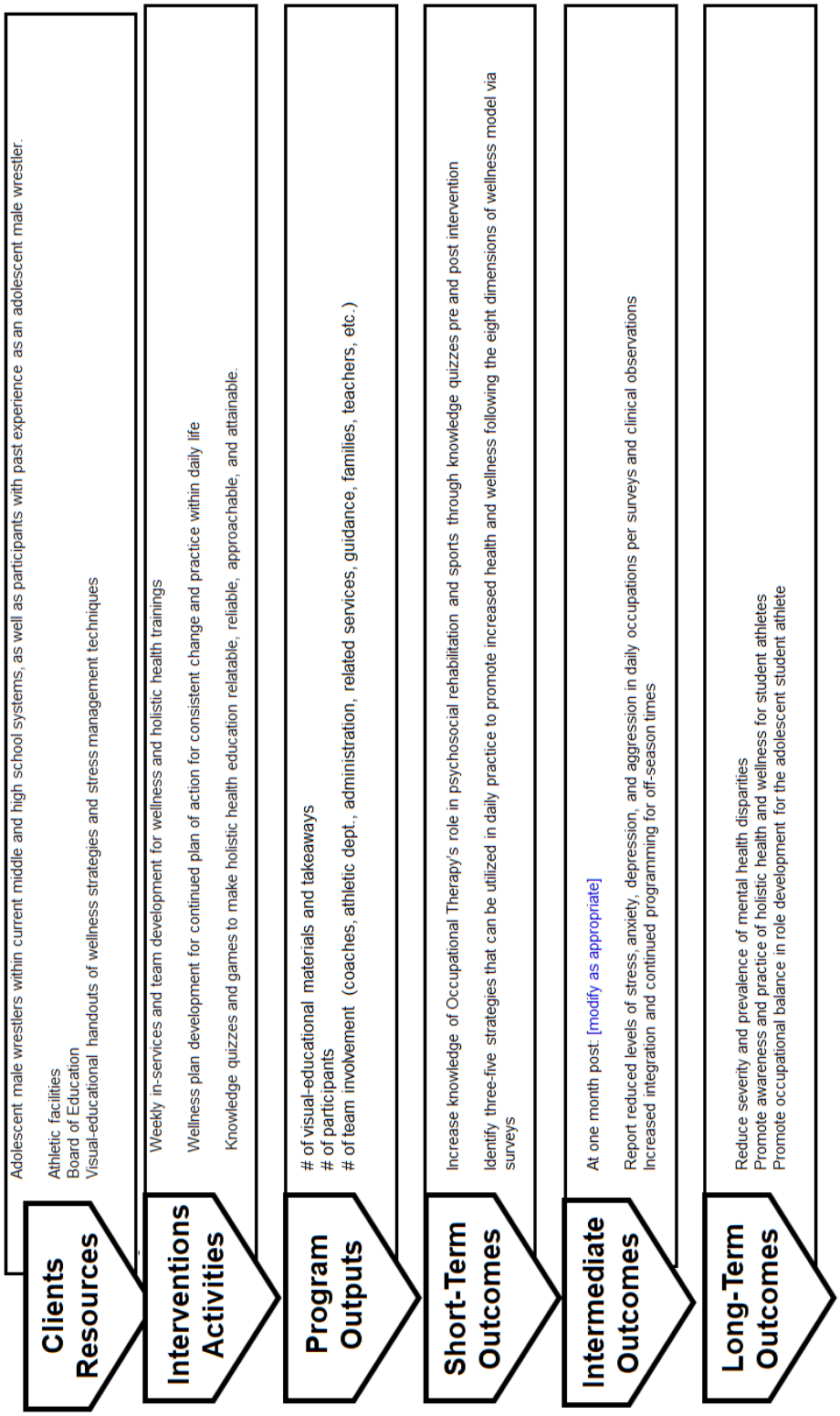
promote greater sense of self and one's mental health and well-being, develop positive peer relationships and support networks, and strengthen their participation and performance in attaining school success.

Implications for future research could compare student-athletes mental health care or lack thereof among male and female wrestlers. Future implications for practice can be conducted among the occupational therapy profession to inquire and educate the profession about a gap area where OTPs could serve in additional capacities within the school-based setting.

APPENDIX A – Full Logic Model of the Proposed Program



APPENDIX B- Simplified Logic Model for Use with Stakeholders



APPENDIX C- Program Evaluation Research Questions by Stakeholder Group

Stakeholder Group	Qualitative and Quantitative Questions for Program Evaluation Research
Direct intervention participants of current adolescent male wrestlers. - Program evaluation research questions are to be measured post intervention based upon experience during intervention activities, takeaways of content attained, and survey results completed by participants pre and post intervention. - Survey questions inquire with participants regarding demographic information, positive and negative aspects of adolescent male wrestling, awareness into mental health care, and understanding of the role of OT in mental health.	Qualitative: Did I find the integration of physical and mental health and wellness into my sports training beneficial to my performance and balance of my roles and daily routines? Quantitative: Did I experience less anxiety, depression, stress, and aggression after participation in mental health and wellness services?
Wrestling coaches, athletic trainer, and athletics staff. - Program evaluation research questions are to be measured based on personal report and observations of coaching staff, athletic trainer, and athletics staff throughout pre-season and in-season training and involvement within intervention programs as directed.	Qualitative: Do we see a difference in the disposition, attitudes, and interactions of our adolescent student male wrestlers after participation in mental health and wellness sports training? Quantitative: How many reports of injury (physical and/or psychological) have been reported since the integration of mental health and wellness services in sports training and programming?
Administrators, teachers, and Board of Education. - Program evaluation research questions to be measured based on decreased frequency of aggression and anxiety per teacher and/or guidance counselor reports,	Qualitative: Have we witnessed an increased positive school culture and reduction of mental health disparities among student athletes through inclusion of physical and mental health and wellness programming within male wrestling sports training?

observed improvements in academic performance, observed classroom attention and engagement, and increased activity participation.	Quantitative: Has academic performance improved in our student adolescent male wrestlers post participation in mental health and wellness sports programming through increased sleep, attention, and completion of assignments?
For Occupational Therapy practitioner who facilitated intervention. - Program evaluation research questions to be measured based upon survey results received from participants pre and post intervention, collection of stakeholder input, COPM-E results received from each participant, and clinical observations through pre-season and in-season training.	Qualitative: Did the adolescent male wrestlers experience an increased quality of life through improved role management and mental health care within their sport and student contexts? Quantitative: Was there a reduction in the prevalence, frequency, and severity of mental health disparities among adolescent male wrestlers?

APPENDIX D: Survey for Adolescent Male Wrestler Participants

1) Please select your current age:
   a) 13–15
   b) 16–18

2) What is your ethnicity?
   a) Hispanic or Latino
   b) Not Hispanic or Latino
   c) Prefer not to say

3) What is your race? Please select all that apply:
   a) American Indian or Alaska Native
   b) Asian
   c) Black or African American
   d) Native Hawaiian or Other Pacific Islander
   e) White/Caucasian
   f) Prefer not to say

4) How many years have you been an athlete, involved in the sport of wrestling?
   a) 1–2
   b) 2–3
   c) 3–4
   d) 4+

5) Were you involved in wrestling in:

   a) Middle school
   b) High school
   c) Both middle school and high school

6) Do you feel wrestling had a positive or negative impact on your health and wellness?
   a) Positive impact – both physical and mental health
   b) Negative impact – both physical and mental health
   c) Positive impact on physical health, but negative on mental health
   d) Negative impact on physical health, but positive on mental health

7) Please select all areas in which being involved in the sport of wrestling has **positively** impacted you:
   a) Athletic performance

b) Self-identity
c) Responsibility
d) Discipline
e) Health and Wellness (physical, mental, spiritual, emotional)
f) Self-esteem
g) Eating habits
h) Weight Loss
i) N/A – None
j) Other: _____

- If you answered Yes to any of these options and would like to elaborate, please do so here:
  _____
  _____
  _____
  _____
  _____

8) Please select all areas in which being involved in the sport of wrestling has **negatively** impacted you:
   k) Athletic performance
   l) Self-identity
   m) Responsibility
   n) Discipline
   o) Health and Wellness (physical, mental, spiritual, emotional)
   p) Self-esteem
   q) Eating habits
   r) Weight Loss
   s) N/A – None
   t) Other: _____

- If you answered Yes to any of these options and would like to elaborate, please do so here:
  _____
  _____
  _____
  _____
  _____

9) Do you believe one's gender and gender identity as a male influence how the sport is taught, trained, and delivered (i.e., "be a man"; "man up"; "men get this done"; "that's what it means to be a man")?

   a. Yes, there is a heavy influence on my male gender identity
   b. No, there is no influence on my male gender identity
   c. Neither agree nor disagree

10) Do you believe there is an equal focus on individual and team, or is one area held to a higher standard than the other? Please explain.
   a. Yes, there is an equal focus on individual and team standards
   b. There is a higher standard for individual performance
   c. There is a higher standard for team-oriented approach
   d. Neither agree nor disagree

11) Please select all behaviors that apply:
   During your time a wrestler, did you engage in any of the following behaviors:
   a) self-induced vomiting
   b) starvation
   c) neglecting of food
   d) use of steroids
   e) over-exertion of exercise to the point of injury/vomiting
   f) self-harm
   g) disordered eating
   h) excessive fixation on weight
   i) eating disorder(s)

12) How often would you engage in behaviors marked above?
   a) Daily
   b) 1–2x/week
   c) 3–4x/week
   d) Other: _____

13) What provoked engagement in the behaviors marked above? Check all that apply.
   a) High stress
   b) Difficulty with balancing responsibilities
   c) Pressure to perform to sport's standards
   d) Lack of supports (school, home, coaches, teachers)
   e) Pressure from coaches
   f) Challenges with body image, self-esteem, personal body weight
   g) Other: _____

14) How would you rate your attention to your **physical** health during your time as a wrestler?
    a) Excellent
    b) Mindful
    c) Average
    d) Poor
    e) Ignored

15) How would you rate your attention to your **mental** health during your time as a wrestler?
    f) Excellent
    g) Mindful
    h) Average
    i) Poor
    j) Ignored

16) Do you feel you have a confident understanding of what mental health is?
    a) Yes
    b) No
    c) Unsure

17) Do you feel you have a confident understanding of what Occupational Therapy is?
    a) Yes
    b) No
    c) Unsure

18) Are you aware of Occupational Therapy's role in providing mental health services to students?
    a) Yes
    b) No

19) Do you feel you would benefit from having a trained professional who understands the impact and connections of your roles (student, athlete, family member, etc.) to help process stress, mental health, and overall wellness as part of your coaching staff?
    a) Yes
    b) No
    c) Unsure

20) Do you feel your coach has a positive impact on your mental health during your time as a wrestler?
    a) Yes
    b) No

APPENDIX E- Dissemination Plan Budget

Contribution to Dissemination	Cost	Role in Dissemination Plan
Primary facilitator- Occupational therapy practitioner (OTP)	$1,040	Leading distributor of dissemination plan. OTP will be paid $65/hour for four hours a week for four weeks.
Spokesperson- Chief Executive Officer from VinnyVarsity, LLC	No cost	Ideal spokesperson for primary audience to conduct assembly-style learning for primary audience
VinnyVaristy Leadership Development Course for Wrestling Coaching Staff	$497.00	Virtual course for foundations related to leadership of self and others for sports education and application. Completion of course can be accomplished during the pre-intervention stage when facilitating OTP is doing initial data collection with participants.
Hilinski's Hope Foundation "Game Plan" Program Materials	$1,000	Ideal organization for the secondary audience and staff training materials
American Occupational Therapy Association (AOTA) Conference	$455.00	Admission into conference toward the long-term goal of continuing education through conference presentation
Total cost	$2,992.00	///

APPENDIX F – Funding Plan for Years One and Two of *More than the Mat*

Funding Element:	Year 1 Expenses:	Year 2 Expenses:	Expenses Include:
Personnel Pay	$8,820.00	$8,820.00	Facilitating occupational therapy practitioner salary: Hourly Rate of $65/hour for six hours a week of 18 weeks. Total cost equivalents to approximately $7,020.00 Two research data specialists time and expertise: Hourly rate of $50/hour per data specialist with anticipated estimate between two-three hours per week for six weeks total. Total cost is $1,800.
Equipment	$272.96	$272.96	Projector screen, projector system, HDMI cable, Mobile Wifi Hotspot
Supplies	$512.68	$512.68	Large mobile white board, Expo dry erase markers, printer/copier/scanner system, printer paper, black and colored printer ink, construction paper, scissors, black pens, pencils, glue sticks, scotch tape, and composition notebooks
Travel Reimbursement	$0.75 per mile reimbursed to driver (OTP) when traveling to training/ competition sites outside assigned school grounds. Expense cost will vary based on need for off-site services.	$0.75 per mile reimbursed to driver (OTP) when traveling to training/ competition sites outside assigned school grounds. Expense cost will vary based on need for off-site services.	Must be recorded and submitted on a separate time sheet on a monthly basis to the Athletic Director to submit to the Payroll Department to be reimbursed in addition to the stipend provided.

Rental of Spaces	N/A	N/A	No cost associated with rental of spaces due to classroom assignment and training services being provided on school grounds.
Dissemination	$2,992.00	$2,992.00	Salary for OTP as main distributor of dissemination plan, VinnyVarsity Leadership Training Course, Hilinski's Hope Foundation "Game Plan" Program Materials, and AOTA conference registration cost.
TOTALS:	$12,597.64	$12,597.64	//

APPENDIX G– Grants

Name of Grant	Details of Grant
Dr. Gary Kielhofner Doctoral Research Scholarship in Occupational Therapy.	• This grant is awarded by the American Occupational Therapy Foundation (AOTF). • Grant award is $5,000. • This grant's initiative is aimed to expand the amount of research related to models and approaches utilized within the Occupational Therapy profession for clinical practice, with specific emphasis on areas of social justice and human volition (AOTF, 2022). • Eligibility criteria requires: ○ IRB approval or process of completing the IRB application process ○ Awardee agrees to utilize scholarship funds during their time as a doctoral candidate without carryover, ○ Have a mentor who has expertise in research study. ○ Conduct research at a US academic institution. ○ Be a US citizen or have appropriate residence/visa documents. ○ Be an occupational therapist enrolled in a research doctoral program ○ Have successfully defended their dissertation proposal at the time of their application, however, they may use the funds for a research study (in the scholarship's focus area) other than their dissertation study. ○ Have completed all departmental and institutional coursework requirements except for writing and defense of the dissertation. Reference: The American Occupational Therapy Foundation (2022). Dr. Gary Kielhofner doctoral research scholarship in occupational therapy. Retrieved from Kielhofner Doctoral Research Scholarship (aotf.org).
Health Services Research Grant Program	• This grant is awarded by the American Occupational Therapy Foundation (AOTF). • Grant award is up to $100,000 over the duration of two years of research conducted. • This grant's mission is to advance occupational therapy as a science utilized to promote and support people's full participation in meaningful activities and daily occupations. The Health Services Research Grant specifically aims to assess people's

	access to health care and the results and repercussions of when health care is and is not accessed. • Eligibility Criteria: o Primary investigator (PI) has a research degree o PI has a full-time faculty position or equivalent research position at the time of application o PI is a U.S. citizen and credentialed OT Reference: The American Occupational Therapy Foundation (2022). Health services research grant program. Retrieved from AOTF > Grants > Health Services Research Grant.
Intervention Research Grant Program	• This grant is awarded by the AOTF. • No specific amount was disclosed under award information. • The mission of this grant is to implement pilot intervention studies and provide foundations through the development of new ideas to further increase, expand, and enhance research within the occupational therapy profession. • Eligibility criteria: o Primary investigator (PI) has a research degree o PI has a full-time faculty position or equivalent research position at the time of application o PI is a U.S. citizen and credentialed OT Reference: The American Occupational Therapy Foundation (2022). Intervention research grant. Retrieved from AOTF > Grants > Intervention Research Grant.
The School-Based Mental Health (SBMH) Services Grant Program	• This grant is awarded by the United States Department of Education. • No specific amount disclosed per award recipient. Department of Education stated awards can be up to $145 million, but are distributed in percentage increments of 10%, 15%, 20%, and 25% of budget proposal submitted with applications. • The initiative behind this grant is to find solutions to address staff shortages and mental health programming through providing opportunities for school-based providers to have increased training and certifications needed for efficient services. • Eligibility criteria: o Applicant must work for a school educational agency and works in an elementary or secondary school o Must submit program proposal with action plan of school-based mental health programs to supplement

	○ Mental health services, including telehealth services, must adhere to rules and regulations with Family Educational Rights and Privacy Act (FERPA), Protection of Pupils Rights Amendment (PPRA), Individuals with Disabilities Act (IDEA), Section 504, American with Disabilities Act (ADA), as well as other state laws. Reference: American Occupational Therapy Association (2022). New actions to strengthen school-based mental health services. Retrieved from New Actions to Strengthen School-Based Mental Health Services | AOTA 2022-16557.pdf (govinfo.gov)
Adolescent Health Grant	• This grant is awarded by the State of New Jersey Department of Health. • Estimated amount of grant award available is up to $1, 288,809.00 • This grant aims to improve the health, safety and well-being of middle-and high-school students using the Centers for Disease Control (CDC) Whole School, Whole Community, Whole Child (WSCC) framework. ○ The WSCC model is student-centered and emphasizes the role of the community in supporting the school, the connections between health and academic achievement and the importance of evidence-based school policies and practices. ○ Some components of the WSCC model include physical education and activity, health education, social and emotional climate, health services, community involvement, family engagement, and psychological services. References: State of New Jersey Department of Health (2022). Department of health directory of grant programs. Retrieved from Health Department Grants (state.nj.us) Centers for Disease Control and Prevention (2022). Whole school, whole community, whole child. Retrieved from Whole School, Whole Community, Whole Child (WSCC) | Healthy Schools | CDC
National Institute of Mental Health	• Foundational grants with yearly rotation of funding opportunities relevant to mental health research for clinical practice. Reference: National Institute of Mental Health (2022). Funding: Opportunities and announcements. Retrieved from NIMH » Opportunities & Announcements (nih.gov)

Charles Koch Foundation-General Proposals for Health Care Research	• This grant is awarded by the Charles Koch Foundation
	• Amount awarded varies based on funding proposal and dissemination plan. Grants are awarded on a rolling submission process.
	• This grant aims to fund research related to providing innovative ideas to health care research that allows mutual access, social progression, and benefits from various health care solutions.
	• Eligibility criteria:
	  ○ Brief, itemized budget
	  ○ Curriculum vitae or resume
	  ○ One-two page abstract on behalf of university with project description and intentions, and of original work.
	
	Reference: Charles Koch Foundation (2022). General grant proposals and opportunities. Retrieved from General Proposals - Charles Koch Foundation

Student Success Grants	• This grant is awarded by the National Education Association (NEA) Foundation.
	• Grant awards vary between $1,500 and $5,000
	• This grant aims to develop and enhance student skill sets to achieve mastery of communication and collaboration skills, cultural competency, and provide direct learning experiences to real-world issues and barriers.
	• Eligibility criteria:
	  ○ Applicants must be teachers, education support specialists, or specialized instructional staff
	  ○ Must be a current enrolled member of NEA
	
	Reference: The NEA Foundation (2022). Student success grants. Retrieved from Student Success Grants – NEA Foundation

APPENDIX H – Executive Summary

Introduction

Student athletics are one of several active communities within a secondary school experience. Nationally, approximately 57.4% played on at least one school or community sports team within the last year (Riser-Kositsky & Peele, 2022). Among that percentage, men account for approximately 58.1% of total high school student-athletes (Zippia, 2022). As student-athletes, individuals are responsible for several roles: student, athlete, peer, and teammate. Attempting to balance multiple roles can create major challenges in managing stress from various sources of interest and participation. Students must manage a rigorous, structured workload related to academic achievement and educational attainment for multiple courses of study, as well as form a consistent schedule for coping with physical, physiological, and mental demands that come with athletic training and performance. Experiencing high levels of stress have demonstrated a correlation with a greater likelihood of mental health disparities and symptoms such as injury, depression, suicidal ideation, disordered eating, anxiety, and substance abuse and use (Putukian, 2015). As role demands and expectations of student-athletes have increased, the active mental health resources available and accessible to student-athletes demand opportunity for growth and improvement.

Project Overview

More than the Mat is a sixteen-week program dedicated to providing mental health and wellness services to adolescent male wrestlers within secondary school

settings. Among all male student-athletic programs, wrestling is the most common sport in which athletes experience mental health issues related to depression, anxiety, stress, disordered eating, eating disorders, rapid weight loss, aggression, deprived sleep, etc. (Sarkar & Fletcher, 2014). A student-athlete's participation in any sport provides a connection between their health, wellness, and well-being to their everyday occupations. Occupations are daily activities that provide meaning and purpose to one's life that contribute to a person's identity, overall health, and well-being (American Occupational Therapy Association, 2020). As a leisure occupation, the sport of wrestling presents a unique area that impacts additional occupations such as self-care, education, and social participation. Under the direction of an occupational therapy practitioner (OTP) and in collaboration with the athletics department and wrestling coaching staff, this program is designed to educate student athletes about the eight dimensions of wellness, assess one's own mental health, provide strategies and skill sets to enhance healthy coping strategies and holistic health care, and execute a comprehensive wellness plan to be active in one's mental and physical health care status.

Weekly psychoeducation groups will occur once each week for sixteen weeks total in place of a physical training practice session throughout the wrestling season. These groups will include topics related to defining the student-athlete and male wrestler, in-depth discussions regarding each of the eight dimensions of wellness, and the internal and external benefits and barriers to holistic health care when considering physical and mental health. Additional topics will include identifying support networks, assessing intrinsic and extrinsic motivations, and developing an action plan for continued carryover

of learned skill sets for the daily practice postseason. Weekly group sessions will incorporate coaching staff and male wrestling athletes. Visual-educational materials, interactive activities, and connection to daily occupations will be utilized to demonstrate relevance in conjunction with physical sports training in order to enhance the context of this program's objective. The OTP will also be available for stand-by services, an additional two days of each week for any adolescent male wrestler that may require additional mental health and wellness services.

Expected Outcomes

OTPs are trained and educated to work with people of all ages and abilities to maximize their functioning and independence in performing their daily occupations. OTPs within the school-based setting direct their services toward achieving goals related to the occupation of education. Some of these services within the secondary school setting may present as improving handwriting, functional typing, assistive technology, sensory processing, organizational strategies, and vocational skill development (American Occupational Therapy Association, 2016). Typically students who receive occupational therapy services have a classification, disability, or diagnosis that qualifies them for an Individualized Education Plan (IEP). *More than the Mat* allows students without classifications, disabilities, or diagnoses to have access to a health care professional to assist them in navigating various role demands to maximize their functioning, participation, and independence in a leisure occupation that carries deep meaning and purpose as a student-athlete.

More than the Mat follows the Health Belief Model (HBM) as its theory for practice and implementation. The HBM considers a person's self-perception of their level of susceptibility and severity toward a certain healthcare condition or predisposition, such as mental health disparities. From there, it considers the individual's perceived barriers, benefits, and motivations that would influence them when making an action toward a health care decision, such as to seek help for a mental health issue or to avoid based on fear, stigmas, etc. The Health Belief Model demonstrates significant correlation between an individual's demographic and psychological variables, and the practice of a person-centered approach to promote their health care management. The Eight Dimensions of Wellness will also serve as a framework toward various areas of well-being in its circular process and correlation to everyday life.

The primary purpose of *More than the Mat* is to promote positive mental health and wellness for adolescent male wrestlers to increase balance among role demands (i.e. student, athlete, peer, teammate). One expected outcome of *More than the Mat* is that adolescent male wrestlers will gain greater insight and awareness into their perceived barriers and benefits in order to develop and practice active attention and action in caring for their physical and mental health with equal regard. A second expected outcome of this program is for adolescent male wrestlers and student-athletes to increase their knowledge and practice of the eight dimensions of wellness to enhance their roles and create greater balance between stress and health care management. A third expected outcome is that student-athletes will attain positive coping skills, develop greater social-emotional competency for healthy relationships and support networks, and increase mindfulness

toward self-treatment of physical and mental sources of energy depletion. All three expected outcomes drive a direction to enhance adolescent male wrestlers' participation and performance in school success, development and maintenance of positive peer relationships, and greater sense of self and one's mental health care and wellbeing.

OTPs are a distinct health care professional that receives training and education in both physical rehabilitation and mental health. As a related service provider within student support service departments in public school systems, OTPs offer a valuable opportunity to expand their skill set offerings within this setting to increase accessibility and holistic health care services for optimal functioning of student-athletes as related to secondary school programming.

Implementation plan

More than the Mat will be implemented under the direction of the facilitating OTP, in collaboration with the wrestling coaching staff, and under supervision of the Athletic Director. The school's building principal and Athletic Director must provide approval prior to training season for implementation of the program. During pre-season meetings, parents and guardians will be notified of the corresponding program in alignment with the physical training schedule as part of the school's wrestling program. Intent is for majority, if not all, wrestlers to participate in this program to promote group dynamics and enhance individual and team performance. However, the parent, guardian, and/or adolescent wrestler reserve the right to not participate in mental health programming. If the adolescent wrestler chooses not to participate in mental health

programming, they will be directed to a study hall for the duration of the group session, approximately 60–75 minutes. The facilitating OTP, wrestling coaching staff, and Athletic Director will collaborate for scheduling of weekly group sessions in relation to competition matches and practices to begin for the first week of in-season training. The facilitating OTP will be eligible for and receive a stipend, similar in timeline to that of an in-season coach with consideration to the level of education and qualifications of the OTP, upon approval of the Board of Education.

Conclusion

More than the Mat creates opportunities for inclusion of student-athletes' mental health in addition to physical wellness, promotes greater outcomes for positive peer to peer relationships for school climate and culture, and enhances balance among student-athlete responsibilities for greater academic achievement, self-care practices, and social skill development. Utilizing the HBM, adolescent male wrestlers will gain knowledge of their intrinsic and extrinsic factors that influence their beliefs, motivations, and actions toward their health care management, providing greater awareness, education, and advocacy efforts. Collaboration among the OTP, wrestling coaching staff, and Athletic Director initiates a multidisciplinary approach to enhance perspectives, practices, and service provisions for cohesion and comprehensive care of student-athletes. Implementation of this program will provide improved educational achievement, greater group dynamics and social-emotional competency for self-identity and peer to peer relationships, and enhance participation, functioning, and independence within multiple areas of the secondary school experience

APPENDIX I– Fact Sheet

BOSTON UNIVERSITY

More than the Mat:

Promoting the Role of Occupational Therapy in Providing Mental Health and Wellness Services for Adolescent Male Wrestlers

Victoria Gazzillo, MS, OTR/L, OTD Candidate

Overview of the Problem

Student-athletics are one of several active communities within a secondary school experience.

- Nationally, approximately 57.4% of secondary school students play on at least one school or community sports team within the last year (Riser-Kositsky & Peele, 2022).
- Among that percentage, men account for approximately 58.1% of total high school student-athletes (Zippia, 2022).
- Wrestling is the most common male sport to experience mental health issues related to depression, anxiety, stress, disordered eating, eating disorders, rapid weight loss, aggression, deprived sleep, etc. (Sarkar & Fletcher, 2014).

(West Texas A&M University, 2022)

Proposed Program

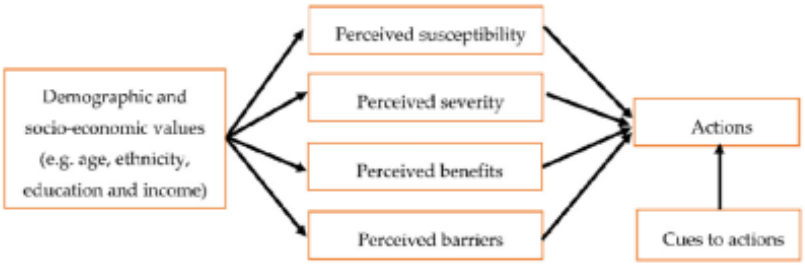
More than the Mat is a 16-week program dedicated to providing mental health and wellness services to adolescent male wrestlers within secondary school settings.

(Roethel, 2016)

Under the direction of an occupational therapy practitioner and in collaboration with the athletics department and wrestling coaching staff, this program is designed to:

- Educate student athletes about the eight dimensions of wellness and how to assess one's own mental health
- Provide strategies and skill sets to enhance healthy coping strategies and holistic health care
- Execute a comprehensive wellness plan to be active in one's mental and physical health care status.

Guiding Theoretical Framework



(Alhamad & Donyai, 2021)

The Health Belief Model (HBM) considers a *person's self-perception* of their level of *susceptibility and severity* toward a certain healthcare condition or predisposition, such as mental health disparities. From there, it considers the individual's *perceived barriers, benefits, and motivations* that would influence them when making an *action toward a health care decision*, such as to seek help for a mental health issue or to avoid based on fear, stigmas, etc.

The **HBM** demonstrates significant correlation between an individual's *demographic and psychological variables*, and the *practice of a person-centered approach to promote their health care management.*

Implications for Occupational Therapy Practice

Occupational therapy practitioners are a distinct health care professional that receives training and education in both physical rehabilitation and mental health.

As a related service provider within student support service departments in public school systems, occupational therapy practitioners offer a valuable opportunity to expand their skill set offerings within this setting to increase accessibility and holistic health care services for optimal functioning of student-athletes as related to secondary school programming.

Scan for key references.

Projected Outcomes

Adolescent male wrestlers will:

- Gain greater insight and awareness into their perceived barriers and benefits in order to develop and practice active attention and action in caring for their physical and mental health with equal regard.
- Increase their knowledge and practice of the eight dimensions of wellness to enhance their roles and create greater balance between stress and health care management.
- Attain skills needed for:
  - Positive coping strategies
  - Greater social-emotional competency
  - Mindfulness toward self-treatment of physical and mental sources of energy depletion.

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