

7-2022

## The Developmental Pathways and Treatment Approaches for Maladaptive Perfectionism in Undergraduate Student Athletes

Kara Hoff

Follow this and additional works at: <https://digitalcommons.nl.edu/diss>



Part of the [Clinical Psychology Commons](#)

---

### Recommended Citation

Hoff, Kara, "The Developmental Pathways and Treatment Approaches for Maladaptive Perfectionism in Undergraduate Student Athletes" (2022). *Dissertations*. 667.

<https://digitalcommons.nl.edu/diss/667>

This Dissertation - Public Access is brought to you for free and open access by Digital Commons@NLU. It has been accepted for inclusion in Dissertations by an authorized administrator of Digital Commons@NLU. For more information, please contact [digitalcommons@nl.edu](mailto:digitalcommons@nl.edu).

The Developmental Pathways and Treatment Approaches for Maladaptive Perfectionism in

Undergraduate Student Athletes

Kara Hoff, M.S., M.A.

Florida School of Professional Psychology

Christina D. Brown, Psy.D.

Chair

Lisa Costas, Ph.D.

Member

A Clinical Research Project submitted to the Faculty of the Florida School of Professional Psychology at National Louis University in partial fulfillment of the requirements for the degree of Doctor of Psychology in Clinical Psychology.

Tampa, Florida

May 9, 2022

The Doctorate Program in Clinical Psychology  
Florida School of Professional Psychology  
at National Louis University

CERTIFICATE OF APPROVAL

---

Clinical Research Project

---

This is to certify that the Clinical Research Project of

Kara Hoff

has been approved by the  
CRP Committee on May 9, 2022  
as satisfactory for the CRP requirement  
for the Doctorate of Psychology degree  
with a major in Clinical Psychology

Examining Committee:



Committee Chair: Christina D. Brown, Psy.D.



---

Member: Lisa Costas, Ph.D.

## Abstract

Developmental and contextual factors may largely contribute to how an undergraduate student athlete develops maladaptive perfectionism (MP) within his or her athletic performance. Being able to understand different possible etiologies of MP will provide enriching clinical information to tailor more in-depth treatment approaches for the student-athlete(s) being impacted by the serious and life-threatening side effects of MP. This literature review provides a comprehensive summary on MP and how it may manifest in the athlete, in addition to how it can mature and intensify throughout one's athletic career. Treatment approaches for MP in undergraduate student athletes will be discussed in how it dovetails with diverse and cultural factors to consider in the athlete's conceptualization. Clinical implications will include methods that continue to bridge the stigmatized gap between college counseling centers and the university's athletic departments.

*Keywords:* Maladaptive perfectionism, undergraduate student athlete, developmental and contextual factors

**THE DEVELOPMENTAL PATHWAYS AND TREATMENT APPROACHES FOR  
MALADAPTIVE PERFECTIONISM IN UNDERGRADUATE STUDENT ATHLETES**

## **DEDICATION**

I would like to dedicate this manuscript to anyone who has or is continuously struggling with maladaptive perfectionism. I wish you hope and healing in that you can experience the joys of life openly and freely, with unapologetic vulnerability.

## **ACKNOWLEDGMENTS**

I would like to acknowledge both of my chairs, Dr. Christina Brown and Dr. Lisa Costas, for their time, dedication, and vantage points that they contributed towards this project.

Additionally, I would like to thank my close friends and family that helped instill motivation and accountability throughout this rigorous program and journey. Cliché to say, but I truly could not have finished strong without you all in my corner. And last, but arguably far from least, I would like to thank my former clients and their resilience for providing inspiration and endless teachable moments that led my driving curiosity down this remarkable path and fascination of perfectionism.

## TABLE OF CONTENTS

<i>Abstract</i> .....	<i>i</i>
<i>DEDICATION</i> .....	<i>iii</i>
<i>ACKNOWLEDGMENTS</i> .....	<i>iv</i>
<i>CHAPTER I: INTRODUCTION</i> .....	<i>1</i>
Case Study .....	1
Concerns about Maladaptive Perfectionism.....	2
Undergraduate Students .....	3
Challenges Faced by Undergraduate Students.....	4
Undergraduate Student Athletes.....	4
Challenges Faced by Student Athletes.....	5
Perfectionism.....	7
Adaptive and Maladaptive Perfectionism.....	7
Perfectionism Versus Stress.....	9
Assessment of Perfectionism .....	9
Prevalence of Perfectionism in Undergraduate Education .....	12
Prevalence of Perfectionism in Undergraduate Student Athletes .....	13
Potential Benefits of Perfectionism .....	15
Possible Disadvantages of Perfectionism .....	15
Etiology of Perfectionism .....	18
Literature Review Questions .....	18
<i>CHAPTER II: DEVELOPMENTAL FACTORS THAT CONTRIBUTE TO MALADAPTIVE PERFECTIONISM IN STUDENT ATHLETES</i> .....	<i>21</i>
Four Pathways Model .....	21
First Pathway: Social Learning .....	21
Second Pathway: Social Expectations .....	29
Third Pathway: Social Reaction (expansion of second pathway) .....	36

Fourth Pathway: Anxious Rearing .....	39
Perfectionism and Cultural Differences .....	41
<i>CHAPTER III: CONTEXTUAL FACTORS THAT LEAD TO THE DEVELOPMENT OF MALADAPTIVE PERFECTIONISM IN STUDENT ATHLETES</i> .....	46
Case Study .....	46
An Emerging Pathway: Coaching Climate and Teammate Expectations.....	48
Evaluation and Perceived Stress.....	52
Difference in Sport.....	56
Difference in NCAA Division.....	58
<i>CHAPTER IV: TREATMENT APPROACHES AND CONSIDERATIONS FOR MALADAPTIVE PERFECTIONISM IN COLLEGE ATHLETES</i> .....	61
Identifying Perfectionism in an Athlete .....	61
Cognitive Behavioral Therapy (CBT) .....	63
CBT and Eating Disorders .....	72
Integration of Interpersonal Psychodynamic.....	75
Family Systems Approach .....	81
Mindfulness Based Techniques .....	82
Integrative Approach: One Size Does Not Fit All.....	85
Strengths and Challenges in Treating College Athletes .....	86
Challenges of Treatment .....	88
<i>CHAPTER V: DISCUSSION AND FUTURE RESEARCH</i> .....	92
Limitations and Directions for Future Research.....	96
Clinical Implications.....	99
Conclusion.....	100
<i>Appendix A</i> .....	<b>Error! Bookmark not defined.</b>
<i>References</i> .....	101

## CHAPTER I: INTRODUCTION

Undergraduate student athletes may be at a risk for maladaptive perfectionism (MP) in their athletic performances, which may ultimately lead to significant or extreme consequences, such as being driven to suicide. Maladaptive perfectionism can be referred as striving for high, unachievable standards, and often includes harsh self-criticism (Bieling et al., 2004). Thus, in order to provide treatment and offer preventative strategies for severe consequences of maladaptive perfectionism, mental health professionals must begin to understand the possible etiologies in the development of maladaptive perfectionism in a student athlete. Further, cultural factors should be strongly considered in understanding the multi-dimensional conceptualization of each athlete and how MP may have manifested in their personal development.

### **Case Study**

The following case study, discussed in the literature, demonstrates the lethal consequence of a college student who was believed to have been impacted by maladaptive perfectionism. Ryan was an 18-year-old male who took his life shortly after starting university in the U.K., where he grew up (Bell et al., 2010). His parents described how their son's personality and physical demeanor changed as a result of his maladaptive perfectionism (Bell et al., 2010). Despite excellent results in the academic setting, Ryan's parents explained that their son struggled to celebrate or enjoy his successes, but instead appeared emotionally exhausted and lacked satisfaction in his achievements (Bell et al., 2010). Before Ryan's death, he was diagnosed with anxiety and depressive disorders, which also led to taking antidepressant medication. In spite of the psychiatric intervention, Ryan completed suicide shortly after starting college. His parents believed this to be the result of the surmounting pressure their son felt to perform well (Bell et al., 2010). A notable excerpt from the case study about Ryan was his

mother sharing her and Ryan's last phone call the night he completed suicide. "He felt down and he didn't know why. . . But he couldn't explain how he felt, couldn't explain it. . . [Ryan] said my head is, my head's not right, my head...I need to sort out my head. . . he [Ryan] didn't understand either, you know why he was feeling the way that he did, because in fact he had everything going for him" (Bell et al., 2010, p. 259). Ryan's story illustrates the need to examine perfectionism in the college setting before it leads to suicide.

### **Concerns about Maladaptive Perfectionism**

Concern over maladaptive perfectionism in academic settings has become more prevalent in recent years. Studies have shown that maladaptive perfectionism has been a risk factor in mental illnesses such as mood disorders (anxiety and/or depression) and eating disorders, which ultimately may also lead to suicide (Pirbaglou et al., 2013). Colleges nationwide have been reporting an overall increase in mental health concerns. The American College Health Association suggested that 40% of college students admitted to experiencing "overwhelming anxiety", which leads to difficulty in overall functioning (Jones, 2018). Perfectionism has been labeled as one of the main contributors to this increased anxiety and may be influenced by family expectations, social media, and past experiences (Jones, 2018).

A meta-analytic review of studies conducted from 1989 to 2016 demonstrated a steady increase in rates of perfectionism among college-students. The studies used the Multidimensional Perfectionism Scale (MPS; Frost et al., 1990) to record the different trends in perfectionism. Results revealed that the more recent generations of college students indicated being increasingly demanding of themselves and others, as well as perceiving that others are more demanding of them (Curran & Hill, 2019).

## **Undergraduate Students**

As the data suggests perfectionism is increasing in college students, it is important to understand the scope of the problem by looking at the specifics of this population. In the fall of 2018, the National Center for Education Statistics (2019) reported about 16.6 million students were enrolled in undergraduate education in the United States. Fifty-six percent of the students (9.4 million) were female, while male students accounted for the remaining forty-four percent (7.2 million). When broken down by ethnic group, 8.7 million students were White, 3.4 million were Hispanic, 2.1 million were Black, 120,000 were Alaska Native, and 45,000 were Pacific Islander (National Center for Education Statistics, 2019).

Ages were dispersed throughout undergraduate studies, depending on whether the student chose a two- or four-year university, as well as pursuing an education at either a public, private non-profit, or private for-profit institution (National Center for Education Statistics, 2019). In the fall of 2017, 90% of undergraduate students at public institutions were under 25 years of age, while private nonprofit institutions reported a similar figure at 87% (National Center for Education Statistics, 2019). In contrast, private for-profit institutions reported only 33% of their undergraduates being under the age of 25 (National Center for Education Statistics, 2019). On the other hand, the percentage of undergraduate students between the ages of 25 to 34 at public and private nonprofit institutions each equated to approximately 8 percent (National Center for Education Statistics, 2019). However, private for-profit 4-year institutions were found to have a higher rate of full-time students between the ages of 25-34 by reporting 39% enrollment (National Center for Education Statistics, 2019).

In the fall of 2017, 10.4 million undergraduate students were registered as full-time, while the remaining 6.4 million were registered as part-time students (National Center for

Education Statistics, 2019). In summary, these statistics show the variety of ages, race and ethnicities, and student status of undergraduate students. The majority of students appear to be White and female as well as pursuing their degree at a full-time status.

### ***Challenges Faced by Undergraduate Students***

Undergraduate students are faced with many challenges, such as adjustment concerns, while transitioning from a high school education into a college setting. The separation-individuation process, as conceptualized by psychodynamic theory, involves the shedding of family dependencies throughout the adolescent developmental period (Blos, 1962). Leaving for college is the first time that many young people are separated from their parents for an extended period of time. Thus, the disconnection from caregivers promotes independence and regular decision-making.

The college adjustment process is conceptualized as wellness in relation to a student's academic, emotional, and social stability, as well as institutional attachment (Baker & Syrik, 1989). Students are faced with learning to juggle the demands of higher education while being placed into a new social atmosphere with environmental and communicative challenges. A new challenge is the task of establishing a new social support network as well as embracing the opportunity of autonomous growth and decision-making.

### ***Undergraduate Student Athletes***

Since the late 1930s, colleges and universities have relied heavily on collegiate sports to advertise their campuses across the nation. Often, universities have depended on the media coverage at the sporting events for advertising (Watt & Moore, 2001). Thus, student athletes have become essential components to the university's student body. Student athletes can be worshipped as heroes by other students, faculty, and the university administration by means of

idolizing their athletic talent as well as the financial benefit they bring to the university (Watt & Moore, 2001). Student athletes have the remarkable ability to attract masses that look forward to commercial sport entertainment.

The National Collegiate Athletic Association (NCAA) is a nonprofit organization that regulates the 24 collegiate sports across the United States and Puerto Rico. In March 2018, NCAA updated their statistics by sharing that the organization included 490,000 student athletes across the three divisions (NCAA, 2018). Division I schools, which notoriously provide the most athletic scholarships, accounted for 179,200 student athletes among 351 colleges and universities. In 2017, these athletes averaged about 4% of the student body throughout all Division I schools (NCAA, 2018). Throughout the 310 Division II college and universities, an estimated 121,900 student athletes accounted for an average of 9% of the student body at these institutions in 2017 (NCAA, 2018). Lastly, Division III colleges and universities reported an estimated 190,900 student athletes at their 443 institutions in 2017, which equates to approximately 26% of their respective student bodies (NCAA, 2018). The 24 sports within the three divisions monitored by the NCAA include the following: baseball, basketball, bowling, cross country, fencing, field hockey, football, golf, gymnastics, ice hockey, rifle, lacrosse, rowing, skiing, soccer, softball, swimming & diving, tennis, track and field (indoor), track and field (outdoor), volleyball (indoor), volleyball (beach), water polo, and wrestling (NCAA, 2018).

### ***Challenges Faced by Student Athletes***

When comparing a student athlete to a non-student athlete, the difference seems obvious in that the student athletes participate and play in an intercollegiate sport; however, the experiences can be vastly different between the two populations (Watt & Moore, 2001). Playing a college sport can be a rewarding experience, including not only the athletic success but also the

camaraderie made with teammates (Watson, 2006). However, the experience also presents stressful challenges. Aside from adjusting to academic demands, developing new emotional and personal goals, and navigating the social environment similar to that of a non-athlete, college athletes face additional challenges they must overcome while balancing academic and athletic demands. College athletes are faced with the rigorous stresses of time management and their athletic performance (Watson, 2006). On average, student athletes regularly devote at least 20 hours a week toward athletic practices and performance, resulting in less time for academic work (Watson, 2006).

Outside of physical performances, athletes are also responsible for seeking sports medicine, which may be used to prevent or heal sports-related injuries to improve athletic performance (Watson, 2016). Athletes also face the additional time commitment of travelling for competitions and learning their sport by engaging in observation (e.g., film study; Ferrante, Etzel, and Lantz, 1996). The student athlete may feel pressure from coaches, parents, or themselves to win. Some institutions across the nation value winning at all costs, such that the use of aggression, steroids, and unhealthy body-image may be tolerated (Watt & Moore, 2001).

Researchers have even shown that attitudes focused strongly on winning can contribute to tolerance of trash talking, hazing, homophobia, or the illegal use of sports enhancing drugs (Burke, 1993; Fields & Pelaney, 1993; Hebel, 1999; Presley, 1997). Student athletes often struggle with identity development throughout the course of attending university. While the word 'student' does come before 'athlete', student athletes may overemphasize their athletic identity, neglecting their education. Playing a sport in college requires intense discipline, commitment, and hard work that may require most of the student athlete's attention. The athletic

responsibilities needed to improve their performance are sometimes prioritized over their student responsibilities (Watt & Moore, 2001).

One consequence of the dichotomy between their two roles is that student-athletes may be negatively stereotyped as academically inferior to non-athletes. Negative images of student athletes portrayed by newspapers, magazines, or everyday conversations consequently leads to a negative self-image within the student athlete (O'Bryant, 1993). Due to their athletic responsibilities, student-athletes may rarely interact with non- student athletes. The isolation of not being around other student peers throughout their years at university can further lead to student athletes not having the opportunity to establish meaningful relationships with non-athletic peers (Watt & Moore, 2001). The role of being a student athlete can provide many opportunities as well as many challenges during undergraduate studies. Balancing the demands of school and the sport, feeling isolated from non-student athletes, as well as feeling pressure to perform in their sport, are some of the main challenges tasked to a student athlete.

## **Perfectionism**

### ***Adaptive and Maladaptive Perfectionism***

Within academic environments such as a college or university setting, evaluation has become a standard practice in rating an individual's performance. Students are rated by their professors on multiple aspects of their academic performances with the object to perform at "near perfect levels" (DeDonno & Rivera-Torres, 2018, pg. 192). The students who strive to earn A's on evaluations may suggest that perfectionism can be related to one's academic success. Research has suggested that perfectionism specifically may be one of the more difficult challenges that impact undergraduate students at an academic setting. However, whether in academics or sport, researchers have agreed that perfectionism in an individual is motivated by

an extreme fear of failure that is most likely the associated with gaining approval from influential figures (e.g., teachers, coaches, parents; Hamachek, 1978). When evaluating an individual with perfectionism, that individual may view the evaluation as an opportunity to fail rather to succeed and showcase their skill (Hamachek, 1978).

Perfectionism has gained increased attention by mental health professionals as a trait that may be more problematic than beneficial (DeDonno & Rivera-Torres, 2018). Perfectionism has been conceptualized as either normal or neurotic perfectionism (Hamacheck, 1978), respectively meaning adaptive or maladaptive perfectionism (Frost et al., 1990; Hewitt & Flett, 1990, 1991; Slade & Owens, 1998). Adaptive perfectionists describe individuals who have high standards and wish to excel in a particular skill or task, but also have flexibility in self-evaluation (Frost et al., 1990). Often referred to as a “healthy perfectionist”, individuals with adaptive perfectionist traits enjoy high personal strivings, but do not rely on approval they receive from others (Hamachek, 1978). Neurotic or maladaptive perfectionists have standards that are unreachable and unattainable. They define their own personal worth based on their productivity and accomplishment (Halgin & Leahy, 1989). These individuals typically avoid positive self-evaluation unless their performance is perfect. For the purpose of this study, perfectionism will be referenced as adaptive perfectionism or maladaptive perfectionism.

After reviewing the interchangeable terms on perfectionism, Strober and Otto (2006) developed a tripartite model to illustrate existing literature and the two-higher order factors that accurately reflect perfectionism: perfectionistic strivings (PS) and perfectionistic concerns (PC; Damian, Stoeber, Negru-Subtirica, & Baban, 2017). PS is conceptualized to be more affiliated with adaptive perfectionism, while PC is affiliated with maladaptive perfectionism. The proposed model aids in creating a profile for perfectionist type, depending on the varying degree

of self-report perfectionism: healthy (adaptive), unhealthy (maladaptive), and non-perfectionists (Strober & Otto, 2006).

### ***Perfectionism Versus Stress***

Because the term *perceived stress* is used in abundance in describing the pressure one may feel in a sport, understanding the difference between *perfectionism* and *stress* should be acknowledged. Stress is defined as “an ongoing process that involves individuals transacting with their environments, making appraisals of the situations they find themselves in, and endeavoring to cope with any issues that may arise” (Fletcher, Hanton, & Mellalieu, 2006, p. 329). On the other hand, maladaptive perfectionism can be described as striving for high, unachievable standards, which often includes harsh self-criticism and self-doubt (Bieling et al., 2004). While stress and perfectionism are different, both have been shown to be increasingly related in that stress is the mediating factor, which, in turn, is essential for understanding how perfectionism can contextually develop in an athlete.

### ***Assessment of Perfectionism***

When measuring perfectionism for research, the most commonly used assessments are the Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990), the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1989; 1991b), the Short Revised Almost Perfect Scale (SAP; Rice et al., 2014), the Sport Multidimensional Perfectionism Scale (Sport-MPS; Dunn et al., 2002), and the Sport Multidimensional Perfectionism Scale-2 (Gotwals & Dunn, 2009).

Researchers have used the Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990) to measure an individual's perfectionism. Participants have used this 35-item measure to report their perfectionism on a 5-point Likert-type scale, ranging from 1 (strongly disagree) to

5 (strongly agree). The measure classifies each response into six different dimensions of perfectionism that include: (a) concern over mistakes, (b) personal standards, (c) parental expectations, (d) parental criticism, (e) doubts about actions, and (f) organization (FMPS; Frost et al., 1990). Internal consistency has been established for the subscales ( $\alpha = 0.73 - 0.93$ ; Frost et al., 1990).

Directly after Frost and colleagues (1990) developed their model to assess perfectionism, Hewitt and Flett (1991) developed another model as a means to also evaluate domain specificity in perfectionism within the college student population, called the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1989; 1991b). The measure is a 45-item scale used to assess self-oriented perfectionism (SOP), others-oriented perfectionism (OOP), and socially prescribed perfectionism (SPP; Hewitt & Flett, 1991). In sum, self-oriented perfectionists are concerned with their own performance, as opposed to worrying about what other influential figures may demand. An example item to measure SOP included, "I demand nothing less than perfection from myself." (Hewitt & Flett, 1991). The next subscale, Other-Oriented Perfectionists, go beyond the dimensions of oneself, but demand perfection from teammates or possibly significant others (Hewitt & Flett, 1991). For example, a high-scoring soccer player on a team may hold high standards of their other teammates to also score. Lastly, socially prescribed perfectionism describes a perfectionist who is concerned with achieving high standards to please or earn approval from influential figures, such as coaches or parents (Hewitt & Flett, 1991). An example item to measure SPP included, "My team expects me to be perfect" (Hewitt & Flett, 1991). Prior studies have determined that internal consistency for MPS subscales SOP, OOP, and SPP were indicated as .88, .74, and .81, respectively (Hewitt & Flett, 1991b).

The Short Almost Perfect Scale (SAPS; Rice et al., 2014) is an assessment tool to measure an individual's perfectionism. Participants have used this 8-item measure to report their perfectionism on a 7-point (1 = *strongly disagree* through 7 = *strongly agree*) Likert-type scale. The subscales used in this measure include: (1) Standards, consisting of 4 items including, "I have high expectations for myself"; and (2) Discrepancy, consisting of 4 items, including, "Doing my best never seems to be enough" (Rice et al., 2014). Internal consistency within a United States sample has been established for the subscales ( $\alpha = .72-.91$ ; Rice et al., 2014).

The *Sport Multidimensional Perfectionism Scale* (Sport-MPS; Dunn et al., 2002) is an assessment tool designed to measure how athletes view certain aspects in their competitive sport. The Sport-MPS contains 30 items and four subscales, using a 5-point Likert-type scale (1 = *strongly disagree* through 5 = *strongly agree*). The subscales used in this measure include: (1) Personal Standards (PS), consisting of 7 items, including, "I have extremely high goals for myself in my sport"; (2) Concern Over Mistakes (COM), consisting of 8 items, including, "If I play well but only make one obvious mistake in the entire game, I still feel disappointed in my performance"; (3) Perceived Parental Pressure (PPP), consisting of 9 items, including, "In competition, I feel like I can never quite meet my parents expectations"; and (4) Perceived Coach Pressure (PCP), consisting of 6 items, including, "Only outstanding performance in competition is good enough for my coach" (Dunn et al., 2002). All subscales contain high internal consistency, with coefficient alphas ranging from 0.76 to 0.89 (Dunn et al., 2002).

Gotwals and Dunn (2009) developed two additional subscales for the Sport-MPS, which lead to the development of the Sport-MPS-2. The first new subscale is Organization (OR), which measures the individuals' emphasis on organization and order. The subscale consists of 6 items, including, "On the day of competition I have a routine that I try to follow" (Gotwals & Dunn,

2009). The second new subscale for the Sport-MPS-2 is Doubts About Actions (DAA), which evaluates athletes' tendency to doubt their own performance in the sport. It consists of 6 items, including, "I usually feel unsure about the adequacy of my pre-competition practices" (Gotwals & Dunn, 2009).

The Sport-MPS-2 scale is composed of 42 items (Gotwals & Dunn, 2009). Similar to the original Sport-MPS, answers are given on a five-point Likert type- scale (1 = *strongly disagree* to 5 = *strongly agree*). Each subscale score is calculated from the average of the sum of the items' answers with which it is composed. Higher values in each dimension mean greater orientation in the target domain (Gotwals & Dunn, 2009). Cronbach's alpha for each domain ranges between 0.70-0.90, thus concluding to be satisfactory (Gotwals & Dunn, 2009).

### ***Prevalence of Perfectionism in Undergraduate Education***

DeDonna and River-Torres (2018) has labeled perfectionism as one of the many challenges faced by undergraduate students while at university. In order to assess the prevalence of perfectionism in college students, a recent study was conducted across the college population that consisted of 1,802 students who attended their college counseling centers and 1,040 university students who did not attend their college counseling center (Rice & Taber, 2019). The study was used to determine whether the students had maladaptive or adaptive or non-perfectionistic traits. The hypothesis of the study predicted that the students who were clients of the counseling center would be more likely to be maladaptive perfectionists as opposed to adaptive perfectionists, since they may have been seeking treatment at their various counseling centers for depression and/or anxiety (Rice & Taber, 2019). The hypothesis supports research suggesting a correlation between mental illnesses and maladaptive perfectionism (Hewitt et al.,

2017). The short Almost Perfect Scale–Revised (SAPS; Rice, Richardson, & Tueller, 2014) was used to evaluate the students for maladaptive, adaptive, or non-perfectionism traits.

The study revealed that around 662 students from the non-counseling center sample indicated elevated levels of perfectionism, while 1,290 students who were attending their university counseling center indicated elevated levels of perfectionism (Rice & Taber, 2019). The results were consistent with other studies across the country. On average, about 20-25% of students not seeking counseling center services had maladaptive perfectionism traits, while roughly 50-60% of those students had adaptive traits (Rice & Taber, 2019). On the other hand, students receiving counseling services had lower levels of adaptive perfectionism by approximating near 33% (Rice & Taber, 2019).

### ***Prevalence of Perfectionism in Undergraduate Student Athletes***

Recent research has been conducted in order to identify perfectionism among student athletes. A study surveyed 201 college athletes (both male athletes and female athletes) who trained an average of approximately 6.24 hours per week (Chabaud et al., 2010). The Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991) was used to assess the athletes' perfectionism. Two subscales, both containing 15 items, that were used in this study included Self-Oriented Perfectionism (SOP) and Socially Prescribed Perfectionism (SPP). The participant can score anywhere from 7 to 105 points on each subscale. The third subscale, Other-Oriented Perfectionism, was unused, as it did not have relevance to the research questions (Chabaud et al., 2010). Out of the 201 athletes, 33 athletes, based upon their age and gender, met the threshold for perfectionism by indicating a high score in either SPP or SOP. The results concluded SOP scores ranged from 29 to 103 ( $M = 65.57$ ;  $SD = 13.59$ ) and the SPP scores ranged from 21 to 88 ( $M = 56.03$ ;  $SD = 11.01$ ), thus suggesting that the athletes had high or

unrealistic expectations of themselves or feeling perceived demands from others (Hewitt & Flett, 1991).

Gotwals and Spencer-Cavaliere (2014) used the Sport-MPS-2 in order to assess athletes as healthy (adaptive) or unhealthy (maladaptive) perfectionists. 117 male and female athletes from Lyon University were surveyed early in their athletic seasons to determine if their responses elicited healthy or unhealthy perfectionism, mainly defined by the two dimensions of personal standards (PS) and concerns over mistakes (COM). Of the 117, 25 of those athletes responded within the top 60<sup>th</sup> percentile of the two domains, meaning 25 of 117 athletes met criteria to be considered a healthy or unhealthy perfectionist (Gotwals & Spencer-Cavaliere, 2014). The results indicate that perfectionism, healthy and unhealthy, may be present in the athlete population.

**Gender Differences in Perfectionism Among Athletes.** Literature has revealed that male collegiate athletes tend to demonstrate significantly higher perfectionistic tendencies in their sport as opposed to their female counterparts (Dunn et al., 2005). Findings from studies on gender differences in athletes, even as young as elementary age, report that male athletes tend to have a stronger desire to win, as well as believe they possess more athletic ability than female athletes (Eccles & Harold, 1991; Eccles et al., 1993). Ryska (2003) reported male athletes also rely on their athletic successes to promote their self-concept more, as opposed to female athletes. Thus, perfectionism may be stronger in male athletes than female athletes if the pressure to win will help promote and determine one's self-concept. The desire to win may therefore be stronger in the individual who is motivated for success in helping to promote own self-worth.

### ***Potential Benefits of Perfectionism***

Although perfectionism may have negative consequences, there are also positive outcomes that may evolve from perfectionism. Researchers have shown that adaptive perfectionism seen in students has often yielded a stronger academic adjustment as well as a better social connectedness (Pritchard, Wilson, & Yamnitz, 2007; Rice, Leever, Christopher, & Porter, 2006; Rice, Vergara et al., 2006).

*Mental toughness* (MT) is a psychological construct and term that is linked with success and often used in competitive sports (Cowden et al., 2019). An integrative modeling approach was used to examine the associations of MT, motivational orientations, and different dimensions of perfectionism (i.e. concerns over mistakes [CMP] and personal standards [PS]; Cowden et al., 2019). When comparing two players, the player with higher CMP and PS will on average report higher MT (Cowden et al., 2019). On the other hand, if both players have the same PS scores, the player found with a higher CMP will report a lower MT, meaning the player with more maladaptive perfectionist qualities may not be as successful in their sport (Cowden et al., 2019).

### ***Possible Disadvantages of Perfectionism***

Students may exhibit poor academic adjustment and low peer engagement as a result of their maladaptive perfectionism, which may increase self-criticalness and a lack of fulfillment in their accomplishments (Rice et al., 2006). In students, MP can appear to resemble performance anxiety, writer's block, or sleep disturbances (Vieth, A. Z., & Trull, T. J., 1999). Maladaptive perfectionism has been linked to an array of problems, both physical and psychological, such as self-inefficacy, OCD-like behaviors, depression (Barrow & Moore, 1983), irritable bowel syndrome, ulcerative colitis, Munchausen syndrome, and alcoholism (Vieth, A. Z., & Trull, T. J., 1999). To add, MP traits, such as concerns over making mistakes or parental criticism, have

also been found to be the differentiating factor between women with bulimia as opposed to women without bulimia (Lilenfeld et al., 2000).

Several studies have demonstrated a strong correlation with the Frost MPS subscales and abnormal eating or eating disorders (Bastiani et al., 1995; Minarik & Ahrens, 1996; Srinivasagam et al., 1995). Socially prescribed perfectionism and low self-esteem are associated with higher rates of burnout and self-criticalness, such as body image concerns in athletes (Appleton et al., 2009; Hill et al., 2010; Madigan et al., 2015; Stoeber et al., 2007). The maladaptive perfectionism trait, concern over mistakes, as measured on the Frost Multidimensional Perfectionism Scale (FMPS; Frost, Marten, Lahart, & Rosenblate, 1990), has also been found to predict burnout in athletes (Hill & Curran, 2016).

While athletes may engage in higher intensity workouts to improve or excel in their sport, they may also be receiving additional pressure from coaches, parents, or fellow teammates to achieve a change in body weight (Thompson & Sherman, 1999). The desire to be thin may perhaps invite female athletes to demand perfection in their body image or appearance in order to improve athletic performance. The significant lack of research in disordered eating and female athletes leads results to be equivocal; however, some research suggests a strong correlation between perfectionism and disordered eating (Stice, 2001).

The personality trait of perfectionism and a higher need for achievement has been correlated with individuals struggling with eating disorders (Fulkerson et al., 1999). Research has indicated that eating disorder behaviors and attitudes do not demonstrate any significant difference between athletes and non-athletes; however, recent reports have indicated that college athletes are at an increased risk of developing an eating disorder compared to non-athletes (Plateau et al., 2007).

Certain sports have been correlated stronger to eating concerns (Fulkerson et al., 1999). Competitive sports linked to increased prevalence and risk toward developing an eating disorder have been reported to be gymnastics, swimming, long-distance running, wrestling, and ballet (Fulkerson et al., 1999). Competitive pressures for enhanced performance of their sport attribute to additional societal pressures for female athletes to encompass a thinner, leaner physique, while men desire to be more muscular and cut (Fulkerson et al., 1999). Consequentially, collegiate athletes may tread a fine line between competitive attitudes and detrimental behaviors.

Athletes who show excessive perfectionism may also be more susceptible to anabolic steroid use (McDuff & Baron, 2005). These substances are more common in sports requiring strength, such as weightlifting, football, and baseball (McDuff & Baron, 2005). Athletes who have peers who use performance enhancing drugs are more likely to have positive attitudes toward doping (Zucchetti, Candela, & Villosio, 2015). Unfortunately, steroid use has also been linked to increased hostility, aggression, irritability, mood lability, paranoia, suicide, and other mood-related issues (McDuff & Baron, 2005; Pope & Katz, 1994). Some athletes also described how perfectionism was a significant source of personal and interpersonal difficulties. These difficulties included negative mental (e.g., worry), emotional (e.g., anxiety), and physical experiences (e.g., sleepless nights), as well as poorer relationships with others, such as family and friends (Hill, Mallinson-Howard, & Jowett, 2018).

Maladaptive perfectionism may also affect athletes by them not experiencing joy or pleasure in the sport (Stoeber et al., 2007). When high standards are met by the perfectionists, they will most likely devalue the achievement and not be impressed with meeting their desired goals (Hill, 2016). Devaluing the achievement can equate to a goal being “too easy,” since the perfectionist met the goal. Therefore, the perfectionist will set more stringent goals in the future.

In turn, the perfectionist gets trapped in the shameful cycle of either not being good enough to meet the goal, or the goal being too easy- thus the perfectionist did not actually achieve anything impressive. Therefore, the result becomes a lose-lose situation for the perfectionist.

In summary, the potential negative consequences of perfectionism in athletes may include burnout in their sport, illegal use of performance enhancements, and interpersonal difficulties with friends or family. Major consequences of perfectionism in athletes may also include mental health concerns, ranging from mood disorders and eating concerns to suicide (Blatt, 1995). As of 2015, the NCAA classified suicide to be the third leading cause of death in collegiate student athletes, representing 7.3% of student-athlete related deaths (Rao et al., 2015).

### ***Etiology of Perfectionism***

While researchers continue to contest the etiology of perfectionism, it has been universally recognized to be a multi-dimensional trait that can be both constructive and harmful in performance (Hall, 2006). Flett, Hewitt, Oliver, and Macdonald (2002) stress the importance of familial and parental practices that may impact the formation of perfectionism in an individual. While the aforementioned research does suggest that early childhood experiences contribute to one's budding perfectionism, this literature will provide additional, contextual factors that should be included for a comprehensive conceptualization of possible etiology.

### **Literature Review Questions**

The following questions guided this review of the literature and aimed to provide a more comprehensive guide to serve collegiate athletes who struggle with maladaptive perfectionism:

1. What developmental factors contribute to maladaptive perfectionism in student athletes?
2. What contextual factors contribute to maladaptive perfectionism in student athletes?
3. What are effective approaches to manage maladaptive perfectionism in student athletes?

## Research Procedure/Methods

The use of relevant literature was reviewed to determine the best treatment approaches for perfectionism in student athletes. Peer-reviewed academic journals were used to search and provide a comprehensive and up-to-date review of the topic. Databases used for searching included Academic Search Complete, ERIC, APA PsycArticles, APA PsycInfo, EBSCOhost, Google Scholar, Medline, eBook Psychology Collection, and APA PsycExtra. Due to the limited literature linking student athletes to perfectionism, the time period of published articles and references varied and a doctoral thesis was also utilized.

The following terms were used to search for new and existing literature: *student athlete, perfectionism, college athletes, athletes, treatment, college counseling, parenting styles, perfect, treatment approaches, perfectionism in sport, perfectionism and eating disorders, perfectionistic striving, sport psychology, performance anxiety, maladaptive, adaptive, assessment tools, measuring perfectionism, treatment outcomes, treatment issues, theoretical approaches, and limitations.*

Selected sources used for the inclusion of the literature review were determined in identifying the gaps, debates, and themes in the stated hypothesis. Key concepts found in the articles were evaluated and determined if what the literature said had provided any contribution or understanding of the topic towards treatment approaches in perfectionism. Literature that both challenged and confirmed the hypothesis was included to provide a thorough examination of the topic. Lastly, evaluation of the strengths and weaknesses of each article as well as the credibility of the author(s) determined its use.

Relevant literature, including the time of publication, author credibility, and contribution of its work, was used to determine the usefulness towards this review. Provided reliable and

credible information is essential when configuring treatment approaches that can be used towards a clinical concern in the field. The aim of the review will be to provide clinicians with a better understanding and conceptualization of an underserved population in college settings in addition to discussing the most current, evidence-based practices tagged with the underlying assumption that counseling/psychological treatment is heavily stigmatized within college athletics.

## **CHAPTER II: DEVELOPMENTAL FACTORS THAT CONTRIBUTE TO MALADAPTIVE PERFECTIONISM IN STUDENT ATHLETES**

Multiple factors in childhood or adolescence may contribute to the development of perfectionism in a student athlete. The family environment in which the child grows has been a major motivational factor in individual development (Greenspon, 2000). One critical aspect that is often agreed upon among researchers is the significance of verbal and nonverbal messages relayed to children by parents or caregivers throughout their childhood (Greenspon, 2000).

### **Four Pathways Model**

While researchers generally agree that perfectionism development is multi-dimensional, conceptualizations may differ for how or when maladaptive perfectionism may begin within the child. Flett and colleagues (2002) describe a model that includes four distinct pathways for how perfectionism may be transferred to an athlete from their parents. The four pathways/models include the social learning model, the social expectations model, the social reaction model, and the anxious rearing model. Regardless of specific pathways, however, researched opinions have generally concluded that perfectionism is multi-dimensional in nature to include undermining influences from the child's parents or caregivers.

#### ***First Pathway: Social Learning***

The first pathway identified by Flett and colleagues (2002), the social learning model, may be linked to perfectionism traits in the parent(s). The social learning model, as initially developed by Albert Bandura (1977), describes how a child can start mimicking behavior after observing that similar behavior in influential figures. Some findings in perfectionism development point toward the social learning model in that the child imitates their own parents' behaviors (Appleton et al., 2007). The theory is in line with the perspective that children develop

self-perceptions and social patterns that align with maladaptive perfectionism through their interactions with their social environment (Bandura, 1986). For example, if a child is living in a strict, hostile, and negative environment, their social environment will begin to influence a negative self-perception. To add, the child's behaviors may be replicated from observing the parents or caregiver's behaviors. An example is Albert Bandura's (1977) famous Bobo doll experiment where the influence of social learning was seen when children observed and then imitated aggressive behaviors towards a doll after watching an adult exercise those same behaviors. In relation to perfectionism, social learning theory of MP development suggests that children begin to habitually repeat MP traits after observing a parent or caregiver engage in those same MP traits.

To illustrate this point through an athlete's lens, Martina Hingis, who is a former Wimbledon, French Open, and US Open tennis champion, was interviewed about her own perfectionistic tendencies within the sport. She explained that perfectionism was instilled within her as a child as she recalled her mother's philosophy of, "for something to be done properly, it must be done perfectly" (Jones, 2001, pg.4). Like Hingis, a plethora of other professional athletes have alluded to similar views where perfectionism reflected their parents' behaviors and views when starting out as a young athlete, which then transpired to their perfectionistic tendencies and beliefs as an adult athlete.

Frost and colleagues (1991) investigated the hypothesis that perfectionism among college students is a product of their parent's demandingness and perfectionism. Forty-one undergraduate college students were recruited from a dormitory and were asked to provide the names and address of each parent as well as how long they had lived with their parent(s) throughout childhood. The researchers believed their results could be an indicator on

perfectionism development as described by the social learning model. Their study employed the Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990), which was used to measure six subscales of perfectionism among the sample of women and their parents. A correlation was used to calculate and analyze the different scores reported by the female participants as well as the scores of their corresponding parent(s) to determine the related characteristics they share (Frost et al., 1991).

The study revealed that the overall perfectionism score of the participants' mothers, and not the fathers, was a positive predictor on how the female undergraduate sample reported their perfectionism on the FMPS (Frost et al., 1991). The mothers overall score resulted in a significant correlation of  $r(31) = .39, p < .05$ , which support the researchers' hypothesis that a person's perfectionism may be a product of their parent's perfectionism. The researchers thus concluded that their results suggested that perfectionism appeared to be related to the mothers' perfectionism traits as opposed to the fathers' traits within the household. Thus, they concluded that a child may acquire perfectionism by imitating their mothers, being that the mothers are often given more childcare responsibilities. Therefore, the amount of time spent with a caregiver may determine the likelihood that a child may begin imitating that caregiver's behavior. However, the change in social and familial roles that have evolved throughout the more recent generations may perhaps yield different results, due to fathers sharing more childcare responsibilities (Frost et al., 1991).

Looking specifically at perfectionism and athletics, Appleton and colleagues (2010) investigated the multidimensions of perfectionism in junior athletes as well as the athlete's parents in order to determine if the social learning model would correspond between the child and caregiver's perfectionism rates. The elite athletic participants were recruited from sport

academies and professional clubs, and they played across a variety of sports (e.g., swimming, rugby, squash, gymnastics, soccer, rowing, cricket, and tennis; Appleton et al., 2010). Due to difficulty in having both parents available concurrently, the researchers employed two separate independent samples where they tested the athlete's mother and father separately, in addition to the athlete by each individual (Appleton et al., 2010). The mother-athlete sample included 302 mothers ( $M$  age = 44.05,  $SD$  = 5.00) and their junior athlete (173 sons,  $M$  age = 14.76,  $SD$  = 1.70; 129 daughters,  $M$  age = 14.55,  $SD$  = 2.14), while the athlete's father sample included 259 fathers ( $M$  age = 46.47,  $SD$  = 5.59) and their junior athlete (151 sons,  $M$  age = 14.87,  $SD$  = 1.68; 108 daughters,  $M$  age = 14.52,  $SD$  = 2.00; Appleton et al., 2010). The caregivers and their junior athletes were asked to fill out the Multidimensional Perfectionism Scale (MPS) in order to access the multidimensions of perfectionism.

The results from the MPS were then used to perform a moderate regression analysis to demonstrate if any significance was found amongst the scores the junior athlete and their parents. Findings suggested that the athletes' perceptions of the fathers' or mothers' self-oriented perfectionism (SOP) was the solitary predictor in the athletes' own SOP (Appleton et al., 2010). They concluded that the fathers' reported perfectionism was just as influential in predicting the junior athlete's perfectionism as the mothers' reported perfectionism, which therefore suggests that the gender of the parent does not support a child's perfectionism rate. Although scarce research exists linking social learning theory directly with perfectionism in sport, the study does support athletes' perfectionism being influenced by witnessing their own parents' perfectionistic tendencies.

A separate explanation in line with social learning theory is to consider the child's innate ability, as gifted children with more innate ability in sport or academics may believe that

perfection is more realistic to attain (Hill, 2016). It would not be unreasonable to suggest that gifted children could think that perfectionism is a more realistic goal to achieve when it may also be an expected standard due to their higher achieving abilities.

While the social environment may provoke MP, parenting styles and practices have been largely attested for how perfectionistic demands are transmitted from parent to child. Parenting styles can thus describe the parent and child interactions beyond social learning, and how those messages may specifically transmit to the child's development.

Parenting styles can be used as a psychological construct to identify the relationship and child-rearing strategies between parents and children (Halgin & Leahy, 1989). Two axes that describe the different parenting styles are warmth and control. Warmth can be defined as the parents' overall genuine care and affection shown toward their children, while control is the parent's environmental structure to manage the child's behaviors (Kyung et al, 2015). Through a series of childcare practices and research, Diana Baumrind (1966) helped to identify four parenting styles that fluctuate in parental warmth and control: Authoritative, Permissive, Authoritarian, and Neglectful.

Authoritative parenting includes a delicate balance of parental warmth and control to the child (Baumrind, 1996). This parenting style promotes the child to have autonomous self-will, but is equally valued alongside parental discipline (Baumrind, 1966). Positive outcomes in youth, such as prosocial behaviors, have been linked authoritative parenting (Eisenberg, Fabes, & Spinrad, 2006; Grusec & Sherman, 2011). This balance of high responsiveness or control and parental warmth given to the child has been correlated with children being able to emotionally self-regulate as well as promote moral values within the child (e.g., consideration and respect for others; Eisenberg, Fabes, & Spinrad, 2006; Grusec & Sherman, 2011). In addition, authoritative

parenting in youth has also been linked to positive academic outcomes, which theorists believe is associated with the child feeling more motivated in an academic environment (Eisenberg, Fabes, & Spinrad, 2006; Grusec & Sherman, 2011).

Permissive style exhibits a low level of parental control, but with warmth and love (Baumrind, 1966). Parents who have a permissive style choose to accept the child's impulses and desires, with little to no putative consequences. Typically, there are few demands regarding orderly behavior and obedience, which is continuously reaffirmed by the parent not exercising control (Baumrind, 1966). Parental warmth and affection are present, but the parents allow the child to regulate his or her own activities without defined standards.

Authoritarian style exhibits a high level of parental control, without the expression of parental love and warmth to the child (Baumrind, 1966). This style attempts to shape the child's behavior with the standard of conduct that is expected by the parent. Normally, the child is met with increased household responsibilities and structure to restrict the child's autonomy and independence (Baumrind, 1966). In contrast to authoritative parenting, authoritarian parenting has been linked to children having more emotional dysregulation due to the high level of demands and low levels of parental warmth (Eisenberg, Fabes, & Spinrad, 2006). Children from authoritarian parenting often feel less motivated and willing to engage in academic environments (Eisenberg, Fabes, & Spinrad, 2006; Grusec & Sherman, 2011).

Maccoby and Martin (1983) identified a category of neglectful parent, which is one who exhibits a lack of control and a lack of parental warmth to their child. In most cases, these parents are often dismissive, unresponsive, or indifferent when addressing their child's needs (Maccoby & Martin, 1983). Just as the style sounds, a neglectful parenting style is still broadly

used along Baumrind's identified styles to capture an improved holistic view that is seen across attachment.

Using a multidimensional approach to explore the development of perfectionism, Flett, Hewitt, Oliver, and Macdonald (2002) emphasized the importance of the general family environment. They argued that the two parenting dimensions identified by Baumrind (1971), control and harshness (lack of warmth), are relevant toward the development of perfectionism and may intersect with parental expectations (Flett et al., 2002). Specifically, the combination of high expectations and low parental warmth could result in maladaptive perfectionism (Flett et al., 2002).

Hibbard and Walton (2014) provided research to support how the relationship and child-rearing strategies between children and their parents may lead to the development of perfectionism within the child. Participants included 231 undergraduate students (60 male participants and 171 female participants) who were voluntarily recruited from a psychology course at a university in North America. The average age of the participants was 22.19 years while their demographics varied (79% White, 7% Hispanic, 5% Asian, 1% African American, 8% other). The participants were given the MPS (Frost et al., 1990) and the Parental Authority Questionnaire (PAQ; Buri, 1991) to record perfectionism characteristics and their perceived parenting style, respectfully. A bivariate correlation coefficient was calculated between the different perfectionism dimensions and parenting styles (Hibbard & Walton, 2014).

Results revealed that authoritative parenting style may be associated with adaptive perfectionism characteristics, such as setting one's own personal standards as well as developing organizational skills. The researchers also concluded that authoritarian style parenting was much more strongly correlated with maladaptive characteristics associated with perfectionism, which

include doubting one's abilities, having concerns about making mistakes, and having feelings of being criticized. Additionally, their research suggested that permissive parenting style was found to be unrelated to most dimensions of perfectionism, while neglectful parenting was found to be related to MP in that participants from neglectful style often endorsed doubts about one's abilities, as well as feeling easily criticized (Hibbard & Walton, 2014).

Gong, Fletcher, and Bolin (2015) supported the existing literature about parenting styles and perfectionism. They added that the use of coping styles may be a product of that individual's parenting style received throughout development. Results implied that authoritative parenting style may reduce the individual's concern over mistakes, which therefore greatly reduces the chances that the individual will suffer from negative psychological outcomes, such as low self-esteem, depression, or negative affect (Gong et al., 2015). Authoritative parenting style was also strongly associated with strategy coping (Gaylord-Harden et al., 2010; Swanson et al., 2011) and socioemotional coping (Gaylord-Harden et al., 2010), whereas authoritarian parenting was associated with more use of avoidant coping (Caples & Barrera, 2006; Chan, 2010; Wolfradt et al., 2003; Zhou et al., 2008). Children from authoritarian parents may have little experience when dealing with stressful situations, as they were more likely raised by being given rigid direction, clear command, or ultimatums when making decisions (Darlow et al., 2017). Therefore, when stressful situations arise in becoming an emerging adult at college, students from authoritarian parenting styles are more likely to cope by avoiding the situation, as there is no parental demand or guidance on how to deal with the situation (Gong et al., 2015). In other words, that individual would be at a loss on how to proceed when feeling stressed, whereas previously they have been given demands on what to do. Therefore, the ability to self-cope was not established when growing up in a more rigid household. Avoidant coping styles commonly

seen are avoiding or denying the stressor, as well as an increased risk for using alcohol and drugs (Gong et al., 2015).

As demonstrated by research, parenting styles and practices can play a crucial role in the development of MP, as they can provide an extension to the social learning pathway. The extension of the pathway captures how a parent or caregiver's expectations may be communicated to the child or athlete. As discussed in the recent research, authoritarian parenting style was seen to be more closely linked to MP traits, which included individuals doubting their abilities, having concerns about making mistakes, and having feelings of being criticized (Hibbard & Walton, 2014). An avoidant coping style, which is also linked with MP, was seen more in individuals who received authoritarian parenting as opposed to other parenting styles (Gong et al., 2015). Thus, the strengths from the research can indicate a strong correlation to MP and authoritarian parenting style as well as conceptually provide an explanation on why individuals may engage in avoidance or procrastination when experiencing MP.

### ***Second Pathway: Social Expectations***

The second pathway identified by Flett and colleagues (2002), the social expectations model, describes how a child's worth and acceptance within the family is conditional upon their successes. Greenspon (2000) explained how the parents' facial expressions, strict demands, and parenting style can become the main contributor in how maladaptive perfectionism develops. Parents who respond to their children in a critical manner while imposing stringent standards can lead to them feeling like their self-worth is contingent on their achievements (Frost et al., 1990). Thus, they are more likely to receive praise and positive feedback when they meet the desired expectations of the stringent parents. However, creating an environment of contingent self-worth also engenders shame and guilt when the child fails to meet the desired parental expectations

(Hollender, 1965). Furthermore, when a child is seeking to please their parents while being met with feelings of inferiority, maladaptive perfectionism may develop (Hollender, 1965). Hewitt and colleagues (2017) described a relational model that theorizes the influence of a child's parents in the development of perfectionism. The model discusses the importance of child attachment to their parent or caregiver, suggesting that parents who consistently respond to their child's needs help manifest self-esteem and belongingness for that child. On the other hand, when a parent inconsistently responds to their child, or provides conditional positive regard, that child begins to view their parents as being judgmental, thus impacting the child's own self-worth in remaining fragile and insecure (Hewitt et al., 2017). The relational model described by the researchers also suggests that the child internalizes feelings of shame or unworthiness when they are inconsistently responded to, meaning that the child may feel they are the problem or issue if they are not being comforted or responded to by the parent or caregiver (Hewitt et al., 2017). Thus, the child must learn to survive and cope without the adult from a young age, which can also lead to adverse physiological effects (Hewitt et al., 2017).

Through interpersonal interactions, a child can also learn what induces anxiety as well as what reduces anxiety. Sullivan (1953) translates the early childhood experiences as being either the "good me", meaning an interaction with anxiety reduction, or "bad me", meaning the interaction induced anxiety. For example, a parent may become anxious and upset when the child is sad and emotional. The anxiety felt by the parents results in the child feeling as if their tearfulness and sadness caused the parent's anxiety, which translated into the child experiencing the "bad me" (Brustein, 2013). To protect the parent from becoming anxious, the child then suppresses any sad or distraught emotions, leaving that child unfilled in emotional expression as well as a lack of support. The interpersonal style of that child then develops and continues to be

rigid throughout development into adulthood in that the child affiliates the parent with other figures in their life. Regarding perfectionism, the child may feel they have to act or appear perfect, or avoid showing distressing emotions, to fulfill the “good me” role within the family or team (Sullivan, 1953).

Also under the psychodynamic umbrella, Melanie Klein (1935) offered a theory that may also explain how perfectionism is acquired within an individual and how perfectionism can therefore be treated. Klein explained that pathology is a result of an internal battle between a good self versus a bad self. She elaborated that when the bad self, meaning the individual’s sense of aggression, occurs more than a person’s good self, or their love and kindness, then adverse psychological symptoms develop (Greenberg & Mitchell, 1983). In regard to perfectionism, Brustein (2013) suggested that athletes or individuals who experience socially prescribed perfectionism may experience an internal battle where their bad self is outweighing their good self. In other words, the person may be trying to overcompensate by nurturing others, engaging in activities, or trying to make others feel fulfilled due to the individual’s own guilt about their bad self.

The development of perfectionism partly becomes what is considered a socially conditioned coping method for that child. To avoid the pain of rejection, as well as help instill their own self-worth, the child strives to obtain validation and approval from their parent or caregiver (Hewitt et al., 2017). Relationally, the child’s perfectionism is developed based upon the interactions they have early on with the caregiver. Barber (1996) discusses that achievement areas, like sports or academics, are an example of where the parent may provide only conditional responses to the child. Love, affection, and attention can be positive reinforcements used by parents when their child performs satisfactorily; however, if performance expectations are not

met, the child is met with feelings of shame and failure in that they did not satisfy their parents to be given approval. Not obtaining approval can result in the emotional cost of the parents withdrawing their love and affection when the child does not perform to their expectations or satisfaction (Assor, Roth & Deci, 2004).

Carl Rogers (1951) initially theorized how unconditional self-acceptance contributes to positive well-being and personal adjustment. His theory has become a fundamental cornerstone to modern western psychology, which, in turn, has allowed for a conceptual understanding of perfectionism development. Rogers (1951) believed that humans had one basic motive throughout life, which is their inherent tendency in wanting to reach self-actualization. Self-actualization was defined as the person's ideal self becoming congruent with their 'actual self' or current behaviors (Rogers, 1951). In order for a person to develop toward self-actualization, Roger's (1951) explained that the individual needs an environment that provides opportunity for growth, which includes unconditional positive regard as well as feeling understood around their own subjective thoughts and feelings. When an individual only receives conditional worth based upon their actions, Roger's (1951) explained how an individual can develop a poor self-concept, which will misalign one's ideal self from current self.

In line with Hewitt et al.'s model (2017), Rogers (1951) emphasized how the conditional regard by parents teaches the child that self-esteem and approval are only intermittently gained when the child is successful. Therefore, that child may begin to become preoccupied with avoiding mistakes in performances, or being perfect, in order to gain desired approval. Therefore, when a child feels the need to perform to another person's standard, perfectionistic tendencies such as perfectionistic cognitions may begin to develop. Perfectionistic cognitions are defined as automatic thoughts an individual has that are characterized with the desire to be

perfect (Flett et al., 1998). Those cognitive beliefs or thoughts are most likely comparing that person's actual performance to that individual's ideal performance. Burns (1980) explained that perfectionists feel intense pressure to overemphasize certain qualities of the sport in order to help reach perfection (e.g., organization, neatness, form) all while working tirelessly to avoid imperfection. The increased, intense pressure a perfectionist feels to deliver quality performances during every game or competition of the sport can manifest into "all or nothing" thinking, meaning if the performance is not perfect to their standards, then failure is the result (Burns, 1980). Flett and colleagues emphasized the importance of perfectionistic cognitions influencing the individual's emotional regulation. Since thoughts and emotions are impacted by one another, the effect of unrealistic, perfectionistic cognitions can lead to emotional difficulties that can later transpire to mood-related psychopathology.

Curran (2018) conducted the first empirical study investigating how conditional positive regard influences perfectionism in sport. While many theorists suggested that an athlete's internal self-worth was dependent upon their performance in the sport in relation to parent conditional regard, Curran (2018) was able to provide empirical data to support existing theory. He surveyed 153 adolescent athletes (93 male athletes, 60 female athletes,  $M$  age = 15.16 years,  $SD = 1.65$ ) who played various sports across the United Kingdom (UK). Participants eligible for recruitment included the individual playing their sport at a regional level throughout the UK in addition to having parental approval due to the ages of the participants. Information about race and ethnicity of participants was not provided by the authors. The purpose of the study was to find the mediating effects between the athlete's self-worth and perfectionistic concerns, as well as the perceived parent conditional regard. In order to access the data, participants were asked to fill out questionnaires that included the Parental Conditional Negative Regard Scale (PCNRS;

Assor & Tal, 2012), Competence subscale of the Contingencies of Self-Worth Scale (CSWS; Crocker, Luhtanen, Cooper, & Bouvrette, 2003), and the Sport Multidimensional Perfectionism Scale (SMPS-2; Gotwals & Dunn, 2009). To analyze the results, the study combined a factor analysis with regression to assess the relationships throughout the data (Curran, 2018). The study further included using a causal steps procedure to test for direct pathways between parental conditional regard and perfectionism (see Holmbeck, 1997).

The results revealed parental conditional regard to positive predict perfectionistic concerns ( $\beta = .63, 95\%$ ), in addition to accounting for 70% of the variance in perfectionistic concerns (Curran, 2018). It should be noted that the association between parent conditional regard and perfectionistic concerns displayed a large correlation, which may account for the child's preoccupation to avoid mistakes to satisfy their parents' expectations. Since the association between parental conditional regard and perfectionistic concerns was deemed positive, this study was the first to provide empirical evidence to support relational theories on perfectionism development. To proceed, the numerical data strongly suggests that the adolescent athletes may ascribe to a preoccupation with others' approval (e.g., perfectionistic concerns) when the parent or caregiver conditions their love and approval upon their child's success in sport (Curran, 2018).

Recently, a study was conducted on both male and female freshman collegiate athletes ( $N = 155$ ) to determine if their level of perfectionism is impacted by their parental involvement within their sport (Cremades et al., 2013). While the recruitment process was not identified, the demographics amongst the participants varied (approximately 77% White, 5% Hispanic, 5% African American, one participant was Latino, and 13% classified themselves as "other"). The represented sports were wrestling ( $n = 34$ ), gymnastics ( $n = 34$ ), diving ( $n = 14$ ), golf ( $n = 7$ ),

tennis ( $n = 21$ ), swimming ( $n = 35$ ), bowling ( $n = 4$ ), and track & field ( $n = 6$ ). The Family Involvement Questionnaire (FIQ; Fantuzzo, Tighe, & Childs, 2000) was used to determine past family involvement while the Perfectionism Inventory (PI; Hill, Huelsman, Furr, Kibler, Vicente, & Kennedy, 2004) helped determine the differing constructs of perfectionism. The instruments were used to determine how family involvement may differ between athletes and their reports of perfectionism. A MANOVA was used to measure the intersection of the independent variables (gender, father involvement, mother involvement) across measures.

The results concluded that there were significances among gender and father involvement in the sample of athletes. The study showed that the freshman female athletes reported a significantly lower Concern Over Mistakes (COM, a perfectionism subscale) compared to freshman male athletes,  $F(1, 140) = 9.69, p < 0.01$  (Cremades et al., 2013). In addition, athletes who reported more father involvement in their sport also reported having significantly higher standards for others within the sport, as opposed to those with less father involvement (Cremades et al., 2013). Thus, individuals whose fathers contributed to more emotional, functional, or financial investment throughout their sport demanded and expected more success from their teammates. Parental involvement can further appear as volunteering to help with transportation to practices/games, attending team meetings/conferences, displaying support at events (e.g., cheering), as well as participating in the individual or athlete's performance goals; Cremades et al., 2013). Further, mother involvement was not a factor that led to any significance among the sample's perfectionism (Cremades et al., 2013). Therefore, the findings can suggest that perfectionism among collegiate athletes varied amongst parental involvement within the sport. Athletes who reported more father involvement, specifically, reported higher levels of other oriented perfectionism in their sport; however, no differences were detected in the rates of

perfectionism with mother involvement. Thus, a father's presence may be impactful to an athlete's perfectionism development in sport. Limitations to the study include the small sample size and uneven distribution across the type of sport and participant demographic differences. Parenting styles and perception of parental demands may vary across cultures; thus, results should be interpreted with caution.

Relevant research has supported the significance of parenting styles and practices to describe how MP, in addition to adverse coping styles, can develop in a child or athlete. Studies have demonstrated how the parent's gender can be a differentiating factor in how certain dimensions of perfectionism may develop within an individual (Cremades et al., 2013; Frost et al., 1991). While the data has been limited, further research is needed to identify how much of a mediating role that parent gender may contribute to parenting styles and the development of a child or athlete's perfectionism. Further, parent conditional positive regard was seen as a significant correlation in the relationship with a child's maladaptive perfectionism traits (Curran, 2018). While the social expectations pathway demonstrates how high expectations and conditioned approval can produce unhealthy perfectionism, the third pathway builds yet another extension to perfectionism development through the exposure of physical punishment or maltreatment.

***Third Pathway: Social Reaction (expansion of second pathway)***

The third pathway identified by Flett and colleagues (2002), the social reaction pathway, addresses how child maltreatment, such as physical abuse, can contribute to how that child works diligently to avoid errors. Whereas the social expectations model involves conditional acceptance, the social reaction model describes situations in which a child experiences an unpredictable family environment that can often lead to physical rearing or maltreatment when

making a mistake (Flett et al., 2002). Flett and colleagues (2002) described the considerable overlap between the second and third pathway; however, the division among pathways was necessary due to the emphasis of parenting dimensions in each pathway. While the social expectations pathway captures more of parental expectations (control), the third pathway focuses more on the parental domain of harshness (lack of warmth). The lack of warmth may extend farther than removing affection but may also include physical rearing or maltreatment as previously noted. Differentiating the pathways was necessary, as different combinations have existed within parenting practices. For example, some parents may provide warmth and approval of their child while still having strict expectations, while on the other hand, other parents may withhold warmth and affection despite positive performance outcomes (Flett et al., 2002).

McArdle and Duda (2004) conducted a study to show how an adolescent athlete's perfectionistic tendencies were related to their perception of the parental environment, coupled with the adolescent's own motivation within sport. Participants in the study included adolescent athletes ( $M$  age = 14.0,  $SD$  = 1.42) comprised of both male ( $n$  = 77) and female ( $n$  = 119) athletes who were eligible to compete in their sport at a national competition level (McArdle & Duda, 2004). The sports played amongst athletes included gymnastics, diving, swimming, synchronized swimming, trampolining, skating, squash, and golf. For the study, the athletes were asked to fill out questionnaires in order to report their perfectionistic tendencies (MPS; Frost et al., 1990) as well as the perceived parental environment. In order to measure the environment, the Family Adaptability and Cohesion Scale II (FACES II; Olson, Portner, & Bell, 1982) was used to determine the flexibility of the home in regards to structure and rules. Lastly, the motivation of the athlete participant was gathered using the Sport Motivation Scale (SMS; Pelletier et al., 1995) to record the reasoning as to why the athlete participates in sport. A Pearson product

correlation was used to determine the relationships between the factors (McArdle & Duda, 2004). A one-way MANOVA was specifically used to evaluate the flexibility of the household as well as the perfectionistic tendencies of the athlete (McArdle & Duda, 2004). Results from the MANOVA suggested that the athletes who viewed their home environment as inflexible and punitive also reported that not meeting their parent's expectations was unacceptable (McArdle & Duda, 2004). The data may suggest that athletes who are raised in a more structured and inflexible household may contribute towards having negative self-evaluation tendencies (McArdle & Duda, 2004).

Other research suggests that household environments, such as McArdle and Duda's (2004) study, had described may be a key indicator on how MP develops. Researchers explain that children who believe their satisfactory performance will only lead to a neutral parental response and their unsatisfactory performance will convey a harsh, punitive response, can often inhibit themselves from developing self-determination and self-motivation (Deci & Ryan, 1992; Eccles et al., 1998). Deci and Ryan (1992) offer an explanation by saying how the emphasis of performing to someone else's standards, even if that performance feedback is neutral, begins to weaken the individual's self-motivation or determination. Figuratively speaking, the athlete's self-worthiness lies directly in the hands of the evaluator, which in this case would be the parents or caregivers.

The research by Flett and colleagues (2002) helped to identify how parental warmth, in addition to control, can contribute to the development of perfectionism in an athlete (Baumrind, 1966). McArdle and Duda's (2004) study demonstrated in particular how self-determination and motivation can be impacted due to the harsh punishment or maltreatment that may stem from underperforming to parental expectations. Thus, in order to avoid punishment or repercussions of

an unsatisfactory performance, the athlete may feel pressured to perform, thus contributing to perfectionistic tendencies.

#### ***Fourth Pathway: Anxious Rearing***

The fourth pathway identified by Flett and colleagues (2002), the anxious rearing model, suggests the child develops perfectionism in response to their anxious parents. Due to possible overprotection, the parents continuously remind the child to be cognizant of errors to avoid harsh judgment from others (Flett et al., 2002). In other words, parents are often prompting the child to be on the lookout to avoid errors, as the parents reinforce that mistakes will be viewed detrimentally. In sport and athletics, the anxious rearing model has been indirectly linked to an athlete's perfectionistic cognitions by the parents' motivating climate (Appleton et al., 2011; Hill, 2016). A parent motivating climate is a construct that explains how the parent(s) can encourage their child to derive personal pleasure and satisfaction from goal achievement (Hill, 2016). Through their research, Appleton and colleagues (2011) found that a father-initiated worry conducive climate was positively linked to male athlete's perfectionistic cognitions, while mother-initiated worry conducive climate positively predicted perfectionistic cognitions in female athletes. Therefore, the athletes' perfectionistic thinking was positively correlated to him or her anticipating the negative implications from their performance errors.

Mitchell and colleagues (2013) conducted a study to demonstrate how anxious rearing was a supported pathway in the development of MP. Due to the limited experimental designs to specifically research the anxious rearing pathway, the following study was conducted using a non-athlete sample (Mitchell et al., 2013). In sum, seventy-seven participants, aged 7 to 12, were recruited along with their parents. Forty-two of the participants were recruited from a child and adolescent mental health clinic and met criteria for an anxiety-related disorder in the Diagnostic

and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994), while the remaining thirty-five children were recruited from the surrounding community and did not meet criteria for an anxiety-related disorder (Mitchell et al., 2013). The children were asked to do a 'copy figure' task in that they would have to draw and try to replicate a figure on a piece of paper. The participants were randomized into two different conditions during the task. The first condition included participants who received high levels of perfectionistic rearing by the parents, which included instructing parents to exhibit verbal and nonverbal behaviors outlined by Flett and colleagues (2002). The behaviors included focusing on mistakes as well as the consequences of making the mistakes (Flett et al., 2002). The second condition included the remaining randomized participants where perfectionistic rearing by parents would not be present.

Before and after the task, the participants were asked to fill out questionnaires to evaluate their stress and anxiety levels in addition to their perfectionism rates. The questionnaires included The Child and Adolescent Perfectionism Scale (CAPS; Flett, Hewitt, Boucher, Davidson, & Munro, 2001), the Subjective Units of Distress Scale (SUDS; Wolpe, 1969), and the child and parent versions of the Spence Children's Anxiety Scale (SCAS-C and SCAS-P, respectively; Nauta et al., 2004, Spence, 1998).

A one-way ANOVA test was conducted to compare the two groups and how each participant responded to levels of anxiety and perfectionism. Findings showed that SOP, a dimension of perfectionism, was significantly elevated in children who had met criteria for an anxiety diagnosis as opposed to the non-clinically anxious children. A bivariate correlation was also used to explore the relations with the child and mother, and how that relationship had impacted the rates of perfectionism. Findings revealed that the child's observed SOP had increased in the first condition when the mothers were instilling perfectionistic rearing behaviors

(e.g., emphasis on accuracy, avoiding mistakes); however, while the SOP had increased amongst the participants, the performance had not improved. Unlike the first condition, the second condition of participants did not have mothers showing perfectionistic rearing. The second group was observed to have a decrease in their SOP as well as demonstrated improvement in their performance (more accuracy on the drawing). Thus, the results support that perfectionistic rearing given by parents appear to negatively impact the child's performance as well as increase one's SOP.

Significant limitations are to be considered in the study by Mitchell and colleagues (2013), including a significantly small sample size. Furthermore, scarce literature in the anxious rearing pathway makes it difficult for the results to become noteworthy, especially when using a sample that appears to have diagnostic comorbidity (perfectionism and anxiety). The study also only employed mothers being the parent to use perfectionistic rearing, which limits the findings and their impact.

While limited research and experimental studies exist on the anxious rearing pathway, the information and findings that are present deserve to be considered when conceptualizing MP in an athlete. Mitchell and colleagues (2013) study, which did not include athletes, did demonstrate that individuals with anxiety disorders appeared to have significantly higher SOP as opposed to a non-clinically anxious sample. Increased SOP in an anxious individual does further support anxiety being a symptom of MP, which was noted in the previous chapter.

### **Perfectionism and Cultural Differences**

Inclusion of the family's ethnic background or cultural style should be noted as a crucial element when discussing differences in perfectionism development within a child. While an abundance of research includes athletes or college students from Western, White, or European

families, other cultures may have vastly different traditions and disciplinarian styles, suggesting the current research should not reflect or generalize all cultures and races in the study perfectionism development. Despite the growing interest in perfectionism, little research continues to exist surrounding the cultural differences between the development of the multi-dimensional construct.

Regarding ethnic comparison between Asians and White families, Wang (2010) found that Asians and Asian Americans on average reported experiencing an increase of family perfectionism as opposed to White or European Americans. Also, Castro and Rice (2003) discovered that Asian Americans typically reported higher levels of parental expectations and parental criticism as opposed to their White American counterparts. Because many Asian families endorse a hierarchal system that demands high levels of respect for the family elders, research concluded that setting higher, sometimes unrealistic, standards is not uncommon for Asian parents to employ for their children (Castro & Rice, 2003; Oishi & Sullivan, 2005). However, that being said, the children may also internalize those strict and high demands that can result in feeling more pressure to succeed.

In comparison to White college students, Asian American college students reportedly did not differ much in adaptive perfectionism qualities such as organization and personal standards; however, Asian American university students did typically report higher doubts regarding their actions, their concerns over mistakes, as well as greater parental expectations (Chang, 1998). Interestingly, Chang also noted that Asian American students also reported having higher suicidality and hopelessness, although those same students were less likely to attempt suicide as opposed to White university students.

Other research that included ethnic comparison in perfectionism included Nilsson et al. (1999) who used the Multidimensional Perfectionism Scales (Frost et al., 1990; Hewitt & Flett, 1991) to compare White and African American college students. The researchers found that the African American students reported significantly higher scores in the domains of Parental Expectations (PE) and Other Oriented Perfectionism (OOP); however, they reported lower scores in the domains of Concern Over Mistakes (COM) as well as Parental Criticism.

Racial differences have also been seen within the perfectionism subscale on the Eating Disorder Inventory (EDI; Garner & Olmstead, 1984; Garner, Olmstead, & Polivy, 1983). That particular subscale represents a more problematic perfectionism, like MP, that measures the individual's standards and goals. One study reported by Wassenaar, Le Grange, Winship, and Lachenicht (2000) dissected the differences in EDI reports among Asian (9.4%), White (52%), and South African Black (38.6%) students ( $M = 22$  years). The results indicated that White women indicated the highest level of body dissatisfaction ( $p < 0.01$ ); however, Black women reported the highest scores in the subscale of problematic perfectionism and desire to be thin on the EDI (Wassenaar et al., 2000).

Given the prior research, the family environment, cultural factors, and parenting styles have been empirically demonstrated to affect the development of perfectionism in a child or young athlete. The interactions and observed behaviors that a young developing athlete may experience can alter their interpersonal and intrapersonal self-image. The impact of continuously observing maladaptive perfectionistic behaviors by a parent can lead to the child mimicking or imitating those same behaviors, as that is their experienced environmental norm (Appleton et al., 2007). Additionally, conditional responses given by the parent can structurally build a child's belief system (Greenspon, 2000). For example, a child who only receives attention or love

expression after a satisfactory performance will believe that they are only loved when they successfully perform. Thus, striving to deliver successful performances each time they perform can trigger perfectionistic cognitions. Athletes who feel pressure to perfectly perform each time they play or perform can lead to an array of mental health concerns, which can then continue to fester as the athlete matures with years. Monumental concerns, such as substances and doping, eating disorders, depression, anxiety, and burnout in sport, have all been previously discussed as possible outcomes of maladaptive perfectionism within a developing athlete (Barrow & Moore, 1983; Stice, 2001; Zucchetti, Candela, & Villosio, 2015).

While the different pathways towards MP were discussed and supported with empirical data, the limited research specifically involving athletes suggests the need to use caution in interpreting the results. Trends noted throughout the cited research in the developmental pathways were seen to be primarily outdated. Given the presence of social changes and norms in every generation, current research should be conducted to evaluate the effect of parenting practices as well as the gender of the parent and the impact those variables have on a child's MP. Furthermore, the smaller sample sizes that were seen throughout the studies should also be considered when evaluating the findings in that a small sample may not be representative of the overall population, thus making the results unsatisfactory.

While the presence of different parenting styles and environments appears to have been moderately researched, the differences in family culture deserves a more thorough examination. Parenting styles within cultures can appear differently based upon systemic or cultural beliefs, which can then impact that child's interactions or observed behaviors within the household. The studies reviewed that illustrated parenting styles were predominantly involving White or European households; thus, a strong consideration for other ethnic backgrounds is strongly

recommended. For example, the study conducted by Cremades and colleagues (2013) discussed parental involvement and the effect that involvement had on the athlete's perfectionism in sport. In that particular study, the authors identified 77% of the participants being White, which supports the notion that an uneven distribution of racial and ethnic identities comprised the sample. Other studies discussed throughout the pathways did not provide the ethnic identities of the participants, thus providing difficulty in contribution of ethnic variability.

### **CHAPTER III: CONTEXTUAL FACTORS THAT LEAD TO THE DEVELOPMENT OF MALADAPTIVE PERFECTIONISM IN STUDENT ATHLETES**

Aside from the family environment and parenting practices that an athlete may endure, other variables need to be considered when theorizing about the MP development in a student athlete. In the title of student athlete, athletics or sport is an essential component of the individual's identity, thus, variables relative to sport may provide additional pathways in how MP manifestation occurs. The Outcome Measures in Rheumatology (OMERACT) defined a contextual factor as a variable that needs to be studied or measured to understand the outcome of the study (Boers et al., 2014). Thus, contextual factors relative to perfectionism and sport will allow for a more comprehensive review of development. Furthermore, components apart of athletic culture, such as coaching climate, type of sport, or competition level, may begin to fill in the necessary gaps to how MP can foster and mature in an athlete outside of the family environment.

#### **Case Study Example**

On October 8<sup>th</sup>, 2012, Madison Holleran posted an Instagram picture of a quote from Seventeen magazine that read, "Even people you think are perfect are going through something difficult" (Fagan, 2015, pg. 18). Two years later, she was a Division I Ivy League freshman, and a track star who ran track and field at the University of Pennsylvania. She was wildly successful in her athletic career as well as in her academic career, maintaining a 3.5 GPA. On the morning of January 14, 2014, Madison was texting her friends and family as she would any other day, and even insinuating the plans she had for the semester ahead at U of Penn; however, the plans Madison shared with her friends and family were dramatically different than the plans she had in mind. That evening, Madison walked to the 9<sup>th</sup> story of a parking garage on campus and jumped

to her death, leaving behind a bag of gifts she had bought for her friends and family at the University bookstore, as well as a suicide note that began, “I thought how unpleasant it is to be locked out, and I thought how it is worse perhaps to be locked in” (Fagan, 2015, pg. 14). Those closest to Madison believe those words reflected how trapped and unhappy Madison felt, despite the illusion and appearance of her seemingly perfect life, being a smart, talented Ivy League athlete. Her family shared that Madison had always struggled with perfectionism throughout her life and even sought help through therapy, but ultimately the pressure she felt to maintain perfection was far too overwhelming to bear (Fagan, 2018).

The story about Madison not only demonstrates how perfectionism can result in a traumatic loss, but her story also shares how the pressures of playing sport for an Ivy League Division I University may have further contributed to perfectionism image she desperately tried to maintain. Although perfectionism has been widely considered as a developed personality trait, contextual factors may further explain how that personality trait manifests and progresses (Hewitt & Flett, 1991). Differences among coaching expectations, team culture, sport, evaluation, and scholarship pressures should be considered in how contextual factors may further impact the development and intensity of that athlete’s perfectionism. In other words, multiple facets must be considered to provide a broader understanding of how maladaptive perfectionism (MP) matures. Slade and Owens (1998) even suggested that the more successful an athlete becomes in their sport, the more pressure they may feel to perform to higher expectations. Henschen (2000) agreed by saying that many high-level athletes are indeed perfectionists, which leads to frequent rumination and worry about performing to the standards that fans or influential figures (e.g., coaches, parents) expect. To counter, Hardy et al. (1996) emphasized that even though many world-class and high-level athletes may be perfectionistic in their training and

performances, “they [athletes] have learned to deal with their perfectionistic tendencies in a positive manner, allowing these tendencies to facilitate, as opposed to inhibit their development” (p. 243). Respectfully, researchers continue to debate on how athletes who compete at higher levels cope with the pressure they may experience or feel within sport. An important aspect to reflect, however, is that individuals who exhibit and experience perfectionism in their sport may not necessarily experience or exhibit that same trait in other areas of their life. Anthony and Swinson (1998) emphasize perfectionism as a trait that can display itself differently according to the situation across a person’s lifespan, thus referencing how perfectionism may only appear in certain domains of a person’s lifestyle.

### **An Emerging Pathway: Coaching Climate and Teammate Expectations**

Through their research, Flett and colleagues (2002) recognized how the influence of societal and social factors can contribute to the development of perfectionism in an athlete through sport. Thus, firmly limiting our understanding of perfectionism development to the role of the family environment within the household would be gravely limiting its origin.

Perfectionistic tendencies can develop in the relational context of the current environment, which includes the social interactions the athlete has throughout his or her athletic journey (Greenspoon, 2008). In other words, if a child believes he or she must achieve perfection in order to satisfy their parents, that child may transfer those similar beliefs to his or her coaches, teammates, and fans (Burns, 1980).

While coach-related pressures were not a part of the original four pathways that contribute to perfectionism in an athlete, studies have concluded that coaching expectations, pressures, and criticism have become evident in their contribution toward perfectionism in

athletes. Thus, the emergence of a fifth pathway should be considered when discussing the possible etiologies of maladaptive perfectionism (Anshel & Eom, 2003; Dunn et al., 2006).

In the sport culture, excellence and success can be demanded, but also praised. The habitual pattern that entails the child feeling worthy after delivering an acceptable and satisfactory performance to their parents translates steadily as having the same cognitive beliefs while being in a different environment other than the household. Thus, if the athlete performs satisfactorily, he or she will be met with praise and acknowledgement by the coach, teammates, and fans. If the athlete does not perform to satisfactory standards, however, they may feel similarly as to how they felt in a punitive, inflexible family environment.

Gotwals and Spencer-Cavaliere (2014) conducted a recent study that helped demonstrate the added pressure an athlete feels from coaches and teammates. The study's purpose was to explore domain specificity of perfectionism among male and female collegiate athletes. Eighteen athletes ( $M$  age = 21.46) were recruited from a previous study to become participants in a qualitative interview that would follow a semi-structured guide (Patton, 2002). The participants were undergraduate students from a Canadian university and competed in sport at a varsity level for an average of 2.44 years (Gotwals & Spencer-Cavaliere, 2014). After the interview was complete, the researchers analyzed the data through latent content, inductive and theme analysis to produce summary patterns of what was reported (Gotwals & Spencer-Cavaliere, 2014; Sandelowski, 2000).

The researchers found a common thread amongst the responses of athletes who were more aligned with unhealthy, or maladaptive, perfectionism in that the role of others influenced their desire for achievement. Perceived coach pressure (PCP) was a measured domain highlighted in the study that identified athletes feeling as if their coach was not a positive

influence. Athletes who reported an increase in PCP identified feeling significant pressure to perform in their sport to what some participants quoted, avoid “being yelled [at]”, in addition to “a bad feeling...when coach gets on you” (Spencer-Cavaliere, 2014, pg. 286). The participants further illustrated their views on their fellow teammates by expressing the pressure they felt to perform in order to not “let the team down” or being “worried about what [their] teammates think” (Spencer-Cavaliere, 2014). Thus, the PCP domain specificity of perfectionism can suggest that maladaptive perfectionism may be attributed to the desire to perform well for others, such as coaches and teammates. Although the sample size for the qualitative study was small, the patterned responses by the participants appeared to be relative towards the theme of the involvement of others. Athletes whose responses were more aligned with MP had additionally indicated perceiving pressure from coaches and/or teammates. Thus, to suggest that an athlete’s perfectionism in sport may be indicative of the pressure they feel from coaches is a possibility of how their MP is developed and maintained. The results may have more support if the study can be replicated to yield similar findings.

While coaches are labeled as being a subject of pressure for some athletes, one must consider the different coaching climates in that the athlete develops. Coaching climate is a term that defines the approach and skills used in coaching to help others grow together to meet target and goals (Newton et al., 2000). Being that a coach is an influential figure in the athlete’s world, given the time and dedication an athlete gives to sport, examining the differences in coaching climate would essentially be as valuable as the previous chapter that discussed the differential impact among parenting styles.

Achievement goal theory provides a framework within the athletic environment that strives to explain how the athlete’s cognitions can be understood within two different coaching

climates: mastery climate and performance climate (Newton et al., 2000). A mastery coaching climate focuses on skill development and progress within sport, which has been more positively associated with adaptive qualities (Newton et al., 2000). A performance climate, however, has been linked to more maladaptive qualities (e.g., concern over mistakes and doubts about actions; Lemyre et al., 2008; Ommundsen et al., 2005). In a performance climate, athletes perceive that they are in competition with their fellow teammates and compete to earn the coach's approval and recognition by means of athletic ability. This climate also instills the belief that poor performance errors will be punishable by the coach, which most often leads to frequent cognitive ruminations within the athlete to avoid error (Newton et al., 2000). Therefore, the performance coaching climate in that the athlete may perceive or experience can provide context in how an athlete's maladaptive perfectionistic cognitions may begin to develop or continuing aging.

Researchers confirmed the hypotheses of performance coaching climate in relation to perfectionistic cognitions. Appleton and colleagues (2011) surveyed 190 elite junior athletes (*M* age = 15.2) as well as their coaches and parents to investigate how each relational environment impacts the athlete's cognitions. The athletes were recruited from sport academics throughout the UK and on average had participated in their sport for 6.7 years (Appleton et al., 2011). In order to measure the parenting and coaching climate, the junior athletes completed the Parent-Initiated Motivational Climate Questionnaire-2 (PIMCQ-2; White & Duda, 1993) and the Perceived Motivational Climate in Sport Questionnaire-2 (PMCSQ-2; Newton et al., 2000). To measure the perfectionistic cognitions of the participants, the athletes completed the Perfectionistic Cognitions Inventory (PCI; Flett et al., 1998).

A regression analysis determined the difference in both parents and coaching climates and its impact on perfectionistic cognitions in addition to gender analysis. The results concluded

that the parent environment appeared to be the stronger predictor between the two climates that contributed towards perfectionistic cognitions; however, results further suggested that a performance coaching climate was statistically significant within the junior athlete sample (Appleton et al., 2011). Performance climate ( $\beta = 0.25, p < 0.5$ ) was reported as a positive, significant predictor in perfectionistic cognitions, which equated to 4% of the variance. Female athletes reported mastery ( $\beta = 0.25, p < 0.5$ ) and performance climates ( $\beta = .30, p < 0.1$ ) to be both positive and significant predictors in the emergence of their perfectionistic cognitions in sport, explaining an 11% variance (Appleton et al., 2011). The results of the study provided further evidence to support how the coaching climate on an athletic team can bear difference on an athlete's perfectionism. Therefore, societal factors in addition to home environment can contribute to perfectionistic tendencies and cognitions.

### **Evaluation and Perceived Stress**

The growing impact of evaluation on performance has been no stranger to researchers. Whether evaluation is made in an academic or sport setting, the fear of critical evaluation has been seen to hinder an individual's ability to perform (Choy & McInerney, 2001). The fear of negative, or critical, evaluation has been defined as "the nervousness and anguish arising from worries about being judged despairingly or bitterly by others" (Carleton et al., 2006, p. 297). Additionally, being negatively evaluated has also been seen as one of the major causes that contribute to burnout. As previously mentioned, perceived stress has been shown to be the mediating factor in effecting the triangle complexity of negative perfectionism and burnout, meaning that burnout, stress, and perfectionism all play a role in the multi-dimensional complexity of the athlete's MP in sport (Shafique et al., 2017).

Shafique, Gul, and Raseed (2017) found supporting evidence to link maladaptive perfectionism to negative evaluation and perceived stress. A sample of 300 university students (66% undergraduate and 34% graduate) from the metropolitan region of Pakistan were administered questionnaires (Shafique et al., 2017). The measures consisted of Frost Multidimensional Perfectionism Scale (FMPS; Frost et al., 1990), Perceived Stress Scale (PSS; Cohen, Kamarck & Mermelstein, 1983), and the Fear of Negative Evaluation (BFNE; Leary, 1983), which were used to measure perfectionism, stress, and fear of evaluation, respectively.

A mediation analysis was used in order to uncover the indirect relationship between MP and perceived stress through fear of negative evaluation, which was reflected in the results ( $B = 0.30, p < 0.001$ ; Shafique, 2017), explaining 19 percent variance. Results further concluded that when the fear of negative evaluation was controlled, there was no significant relationship between MP and perceived stress, thus suggesting that fear of evaluations plays a mediating role (Shafique, 2017). To further add, the study also supported evidence of previous research by suggesting maladaptive perfectionists are more likely to focus on the negative aspects of their performances, which results in further distress and discouragement as opposed to a healthy perfectionist (Rice & Slaney, 2002; Ashby & Rice, 2002). In sum, maladaptive perfectionists struggle to obtain happiness or true satisfaction in any performance since they are focused on the fear of negative evaluation (Shafique, 2017).

A recent study on Division II and III athletes supported the relationship between perceived stress and a specific domain of MP known as Concern Over Mistakes (COM; Garinger et al., 2018). Data was collected from 351 collegiate athletes, both male athletes ( $n = 133$ ) and female athletes ( $n = 218$ ) who competed in the NCAA track and field programs (Garinger et al., 2018). The athletes consisted of Division II (38%) and Division III (62%) competition levels

across 62 athletic programs. The study required the athletes to complete the Sport-Multidimensional Perfectionism Scale-2 (Sport-MPS-2; Gotwals & Dunn, 2009), Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983), and the Athlete Burnout Questionnaire (ABQ; Raedeke & Smith, 2001) to evaluate the participants perfectionism, stress, and burnout.

Descriptive statistics and bivariate correlations were used to measure the impact of all variables. The research demonstrated a positive correlation of an athlete's perceived stress and COM ( $\beta = .48, p < .001$ ), thus suggesting an athlete who has MP may be easily susceptible to stress (Garinger et al., 2018). The relationship between COM and perceived stress can also be understood through the cognitive-appraisal stress described by Lazarus (1999), where he described an individual being more susceptible to perceived stress when he or she believes that they do not have the resources to overcome their mistakes. In other words, an athlete's perceived stress may cognitively appear as the athlete mentally translating stress as a threat rather than a challenge. In turn, COM also had a positive correlation with burnout in sport ( $\beta = .47, p < .001$ ), signifying how burnout, perceived stress, and COM all contribute to the complexity of perfectionism (Garinger et al., 2018).

In line with perceived stress, multicultural and minority stress should be included in discussion when conceptualizing the different stressors faced by a competitor. While judges are trained to score with objectivity, the aspect of human error from the judges can result in scoring inconsistently among the different athletes. For example, nationality or ethnicity of the athlete, or perhaps political affiliation, may result in bias scoring (Looney, 2004). While there may not be a definitive way to prove bias, one must consider the different multicultural elements that pertain to each sport that may contribute to the development of maladaptive perfectionism in the athlete.

Specifically, the lens of being continuously and critically evaluated may perhaps result in adverse psychological effects, such as multi-racial stress, eating disorders, or even suicide.

The overall results of the research support that evaluation and stress perceived by athletes appear to be contextual factors to consider when quantifying different pathways of MP development. While non-athletes have been previously linked to MP and evaluation, Garinger and colleagues (2018) provided the first study of its kind to measure how an athlete's perfectionism was affected by variables such as evaluation and stress. Findings appeared to demonstrate stress as a partial mediating factor between burnout and perfectionistic concerns among athletes, while a direct path between COM and burnout in sport was noted (Garinger et al., 2018). The mentioned research seemed to have larger and more diverse sample sizes to show stronger support in the results across culture; however, the study performed by Garinger and researchers (2018) in particular had only recruited athletes from one sport, which may consequently result in more debate when measuring the differences among all sports. In other words, evaluating the perceived stress an athlete may feel in each individual sport can vary across the different dimensions and demands required of that sport. In addition to perceived stress and evaluation that an athlete may experience, the gender and cultural identity of the athlete should further allow for a more in-depth vantage point of the athlete's development. While no studies to date exist to confirm cultural bias in sport, the cultural identity is another identity expressed and held by the athlete, which furthermore would be categorized as a contextual factor. Since some sports such as ice skating or diving are judged through a subjective lens, athletes with a minority identify may experience minority stress compared to athletes without a minority identity since bias judging and human error have been confirmed to exist within sport (Looney, 2004). In other words, an athlete with a cultural, religious, or other

minority identify may fear that they will not be judged fairly against their competitors if the judges hold bias, which discounts a fair and equal opportunity to compete.

One should also consider the additional external pressures held by an athlete of a minority status, since they may experience demands to perform and maintain their athletic scholarship at the university, which can also impact their status of eligibility if that student is identified as being international. Further, more investigation is needed into the pressures and demands of students who plan to transition into professional sports throughout their collegiate career since the perceived stress to perform to a higher caliber may be anticipated.

### **Difference in Sport**

Just as the difference in coaching climate has been shown to impact an athlete's perfectionism, their development within sport may further be explained by the sport itself. Aesthetic sports such as gymnastics, diving, ballet, synchronized swimming, and ice skating are few examples of sports that include subjective rating scales used to evaluate the athlete on precision, neatness and appearance, and organization (Burns, 1980). On the other hand, sports, such as track and field or soccer, lack subjective evaluation from judges that contributes to the athletes' success. From a psychological perspective, athletes who have competed in aesthetic sports have reported an increase in generalized anxiety or depressive disorders as opposed to athletes who compete with an objective evaluation (Schaal et al., 2011).

Research has also revealed a difference in perfectionism levels in athletes who play team sports (e.g., rugby, soccer, basketball, volleyball) as opposed to an individual based sport (e.g., tennis, swimming, gymnastics, ice skating). Pearce (1998a) discovered that perfectionists who exhibited more maladaptive traits preferred to play the individualized sports as opposed to team sports, due the respective perfectionistic athlete wanting more control over the performance and

outcome. In a team sport, the perfectionistic athlete would have to rely on other teammates for a successful performance, thereby limiting the control the athlete has in the game. Anshel et al. (1998) supported Pearce's results by sharing their study on determining the difference in perfectionism between team and individualized sports, revealing a higher rate of athletes exhibiting maladaptive traits in individualized sports as opposed to team sports.

Elite gymnasts have previously expressed feelings like "lack of control" and "powerlessness" towards the outcome of their performances because their score is dependent upon the evaluation and judgment of others (Kerr & Goss, 1997). This is relevant because powerlessness has been linked to triggering anxious psychopathology, which some researchers believe can lead toward more adverse consequences, such as developing negative perfectionism (Schaal et al., 2011). Thus, athletes who compete in sports involving subjective evaluation from judges may contribute to the development of maladaptive perfectionism in that athlete. The slightest difference in performance, whether it be precision or neatness, can impact mere fractions of a point, resulting in a first or last place finish. Therefore, athletes may face intense pressure to deliver a "perfect performance" in sports involving subjective scoring (Schaal et al., 2011).

Research has further indicated that athletes, especially ones who play in aesthetic sports, are also at a higher risk from suffering body dissatisfaction (Prnjak et al., 2019). Constant exposure to evaluation can lead to a preoccupation with body shape and size. Literature has even reported mediating effects of perfectionism and unhealthy, disordered eating. To date, researchers estimate that around 45% of female athletes suffer from disordered eating, while the percentage in male athletes is unknown due to gaps in research (Bratland-Sanda & Sundgot-

Borgen, 2013). Thus, the staggering percentage of disordered eating athletes may be strongly correlated with maladaptive perfectionism, resulting from subjectivity scoring in sport.

Although research continues to verify that perfectionism exists among athletes, only two studies have identified how perfectionism dimensions can vary amongst the type of sport an athlete plays (Anshel et al., 1998; Pearce, 1998a). Both studies support that athletes in individualized sports (tennis, gymnastics, swimming) are at more of a risk for MP as opposed to those in team sports (soccer, basketball, volleyball). Additionally, both studies are outdated and need more relevant data to deem significant support in this area.

### **Difference in NCAA Division**

An important contextual factor to consider is the differences among the three NCAA divisions and how those distinctions can influence an athlete's potential in developing MP. Scarce literature exists to measure the disparities between perfectionism among athletes throughout the different divisions; however, a recent study captured relevant data from athletes competing at Division II and Division III universities (Garinger et al., 2018). The study's original design was intended to measure the relationship between perceived stress, perfectionism, and burnout, which yielded participant responses specific to maladaptive perfectionism.

As a part of a previously noted study by Garinger et al. (2018), the 351 track and field athletes (male athletes = 133 and female athletes = 218) were reportedly from a Division II or III university. In addition to measuring perceived stress and evaluation, a further research question posed by the authors was to determine the how perfectionism varied amongst athletes who competed at NCAA divisions II and III. They completed the Sport-Multidimensional Perfectionism Scale-2 (Sport-MPS-2; Gotwals & Dunn, 2009) to assess the six facets of sport perfectionism, while burnout and perceived stress was assessed through other measures

(Garinger et al., 2018). Concern Over Mistakes, or COM, is one of the six subscales used in the Sport-MPS-2 to reflect maladaptive perfectionism.

The overall results of this study yielded significant differences in burnout and perceived stress between Division II and Division III track and field athletes; however, they do not show any significant differences between the athletes' COM (Garinger et al., 2018). Although no significant differences were reported, Division II athletes ( $M = 2.86, SD = .81$ ) did report a higher COM mean score than Division III athletes ( $M = 2.75, SD = .78$ ); (Garinger et al., 2018).

Several contextual factors have been identified that may contribute and intensify an athlete's MP. These include coaching and team climate, perceived stress and evaluation, as well as the difference in sport and division. Aside from influential figures being present within a student athlete's household, one must consider the influential figures that are present in the athlete's sport. One of the main identities of the athlete is the sport in which they perform; thus, individuals such as coaches, teammates or athletic trainers would account for key individuals that the athlete interacts with on a regular basis. Therefore, the emerging pathway of perfectionism fostering from an influential figure's expectation is essential when accounting for the possible etiologies of MP in a student athlete. While the previous pathways identify the differences between interpersonal dynamics, contextual factors such as difference in sport, NCAA division, and culture can all lead to how an athlete is perceived and evaluated in performance. Research indicates that aesthetic sports involve more subjective scoring compared to non-aesthetic sports, which often require more skill mastery and artistry for successful performance execution. The added components required to increase one's score can often add additional stress and pressure onto an athlete, which may translate into MP characteristics. Further, the cultural characteristics and identities held by the athlete should be considered when performances are judged

subjectively. Outward or hidden biases and cultural stereotyping can negatively impact how a judge views an athlete's performance, despite a sound performance. While cultural and hidden bias have been discussed in sport literature (Looney, 2004), no empirical study to date has been found to offer support. Thus, the multicultural identities held by an athlete and how those identities impact performance and evaluation is an expansive gap that needs addressed. Lastly, the mediating factors of burnout and perceived stress can further impact the degree of MP that an athlete may exhibit. While limited research discusses the differences in NCAA divisions and the impact on MP among athletes, some literature did confirm a higher degree of sport burnout and perceived stress felt among athletes who perform at stronger divisions; however, no significant differences regarding MP was found. Future research is highly suggested to examine the differences in perfectionism among divisions to determine if those differences exist, and if so, how those differences can be understood. The contextual factors reviewed in sum may determine MP etiology and maintenance can be developed later in the athlete's sport career instead of suggesting that MP's development merely stems from early childhood experiences within the household.

## **CHAPTER IV: TREATMENT APPROACHES AND CONSIDERATIONS FOR MALADAPTIVE PERFECTIONISM IN COLLEGE ATHLETES**

While the development of perfectionism does not have a clear etiology, a clear treatment has not been identified to absolve MP in a student athlete. Before treatment can begin, labeling MP as a source of concern within an athlete may be difficult as the side effects of MP overlap with other mood disorders and physical conditions (Hill, Mallinson-Howard, & Jowett, 2018). Therefore, clinical judgement is required in order to determine the presence of MP in an athlete. Once MP has been established as being a source of primary concern in the athlete, a clinician can begin to utilize treatment to help the athlete find awareness and insight on how the symptoms were manifested and maintained in order to work towards change. Although many identified approaches have not been empirically used with the student athlete population, the conceptualization of MP can dictate what treatment may be the most effective, which will be discussed in the upcoming chapter.

### **Identifying Perfectionism in an Athlete**

As most therapists have experienced, the presenting problem that a client may bring to therapy may be only a symptom of the core root issue. College students typically do not seek treatment for perfectionism, so the therapist is often tasked with looking beyond the client's presenting problem or symptoms to determine if the individual may be struggling with perfectionistic tendencies and cognitions (Halgin & Leahy, 1989). Researchers have described that an unhappy perfectionist may be known for being a high achiever in whichever setting they exercise their perfectionism (Halgin & Leahy, 1989). Brustein (2013) suggested that the indication of perfectionism existence can be communicated nonverbally by a client, such as their self-presentation; thus, a therapist should consider both verbal and nonverbal forms of

communication when evaluating. Three factors have been identified that suggest the presence of perfectionism: Self-promotion (appearing or promoting perfection in self-image), the non-display of imperfection (e.g., concern about behaving in nonperfect way), and nondisclosure of imperfection (e.g., concern over verbalizing imperfection; Brustein, 2013; Hewitt et al., 2013). Clinical and professional judgment by a health care provider can determine if these factors are being used by the client to promote a perfect self-image. Furthermore, these signs can be an indicator for identifying perfectionism in clients in cases such that the client may be unaware that perfectionism is a clinical concern. Individuals who struggle with perfectionism may be using defenses (e.g., denial, rationalization) in order to protect their fragile self-image or self-esteem in order to justify their behaviors or interpersonal issues (Halgin & Leahy, 1989). Additionally, a perfectionist may become easily distressed in the following experiences in which their perfection is present: anxiety, suicidal thoughts, depression, interpersonal situations, and inefficacy (Halgin & Leahy, 1989). For example, a perfectionist who is unable to control their own anxiety or manage their suicidal ideation, or perhaps unable to achieve their athletic goals, will become noticeably distressed and discouraged.

As stated, perfectionism may not be the presenting concern that is communicated to the therapist by the client; therefore, being able to identify the root of the presenting concern is evaluative task of the therapist. In order for clinicians to evaluate if perfectionism is present, using specific measures as an assessment tool such as the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1989; 1991b), Short Revised Almost Perfect Scale (SAP; Rice et al., 2014), or the Sport Multidimensional Perfectionism Scale-2 (Gotwals & Dunn, 2009) is recommended to determine if any dimensions of perfectionism exist within the athlete. If an athlete does endorse perfectionism to any degree, the clinician can use the opportunity to provide

psychoeducation about how perfectionism may show up and be maintained throughout the client's lifestyle. Thus, the endorsement of perfectionistic traits can also provide options toward treatment depending on which aligns most effectively with the client's presenting symptoms and conceptualizing framework.

The following chapter will include what the literature has identified to be the leading treatments used for individuals struggling with MP. Treatments may include the provision of short- or long-term therapy in either an individual or group-based modality. The most notable treatment methods contain theory utilized from CBT, psychodynamic, and mindfulness-based techniques.

### **Cognitive Behavioral Therapy (CBT)**

For a range of psychological disorders, especially emotionally related, CBT has been seen to be the top choice in treatment due to its continuous improvement and evaluation by researchers (Hoffman et al., 2012). CBT essentially stands for the fusion between cognition, behaviors, and emotions, thus indicating an intertwined, triangular relationship. Aaron Beck (1976) explained that CBT is largely based on the individual becoming their own problem solver by first understanding and identifying the problematic thinking. Then, the individual can make their choice or behavior based off the thought, which elicits an emotional reaction. Four core principles that are derived from CBT, in which can be applied to treatment in sport psychology, are (a) interacting systems, (b) cognitive change (c) varying degrees of cognitive processing, and (d) linking cognitions to case formulation (McArdle & Moore, 2012).

The first principle, interacting systems, refers to the initial distortion that contributes to the individual's development and maintenance in the presenting concern (McArdle & Moore, 2012). In other words, life experiences lead to the psychological problems which they are

experiencing. The development of perfectionism in an athlete may have stemmed from the environmental aspects or interactions from early childhood experiences, as described in the pathways (e.g., social learning, social expectation, social reaction, anxious rearing) or contextual factors.

The second principle of CBT emphasizes that cognitive change can only occur through mediating or modifying the individual's cognitions (McArdle & Moore, 2012). The thoughts typically expressed by a perfectionist is the cognitive distortion of 'all-or-nothing' thinking, meaning black or white thinking (Leahy, 1995). For example, an athlete who loses a match may have the thought they are an awful tennis player, despite playing well throughout the match. 'All-or-nothing' thinking is a specific cognitive distortion, which are typically conscious thoughts, or faulty thinking that is associated with negative affect (Leahy, 1995).

Karen Horney's (1950) "tyranny of should" as well as Ellis's (2002) "musterbation" emphasizes a situation where an individual uses irrational thoughts while trying to achieve stringent standards. Horney explained her 'tyranny of should' as a personality splitting process where a person's inner critic becomes present when the ideal self is not meeting expectations (Horney, 1950). With perfectionism specifically, a perfectionist may express a desire to attain a goal using the terms "must" or "should", which can promote self-shaming language. For example, an athlete may say, 'I must score 1000 points this season', suggesting that meeting that goal is the only option. In turn, if the goal is not met, the vicious cycle of self-criticism and conditioned approval will most likely occur. Thus, being attuned to an individual's language can be crucial in identifying an athlete who may be struggling with perfectionism in sport, or perhaps in other domains of their life. By substituting or correcting words like 'should' or 'must', the cognitive restructuring intervention will be dismissive of rigid expectations by the perfectionist.

The third principle used in CBT is being able to distinguish the different levels and degrees of cognitions of the athlete or client (McArdle & Moore, 2012). Beck (1976) labeled the three degrees of cognitions as core beliefs, assumptions and attitudes, and automatic thoughts. Core beliefs are identified as the root of the psychopathology, which influences the other two cognitive levels. Beck (2011) defined a core belief as an absolute and lasting comprehension that a person developed towards him or herself, or the world, which are often constructed from extracting the meaning of a childhood or formative experience. Core beliefs are often unconscious and not readily accessible, and they can stem from environmental or influential factors (Beck, 2011). Assumptions and attitudes are the degrees of cognition that are on the conscious level and typically reveal the rules that generalize across the area in which the individual has perfectionism (Beck, 1995). For example, a player may think, “I have to score each game, or the coach and teammates will think I am useless.” In this example, the athlete may hold the assumption and attitude that their contribution is inadequate to the team unless they score.

Automatic thoughts are the third and final level of cognitions, which are often involuntary, yet exist at the preconscious level (Beck, 1995). Automatic thoughts are comparative to cognitive distortions in that both of these thoughts are spontaneous in the individual’s conscious, which are usually affiliated with negative affect (Leahy, 1995). Automatic thoughts can be detected by the therapist and explored in therapy to eventually trace the thought back to its attitude and assumption, and then to its core belief. Because the main course of treatment is to identify and change dysfunctional beliefs or thoughts into functional thinking, the therapist and client work collaboratively to understand the client’s perspective to foster change in cognitions.

Linking specific thoughts to a case formulation is the last key principle that is identified in a CBT approach (McArdle & Moore, 2012). In the lens of CBT, case formulation is portrayed as a conceptualization where the clinician is forming a collective understanding of the client problems based upon their psychological, and interpersonal and behavioral contexts (Eells, 2002). When conceptualizing through a CBT lens, begin using the client's symptomology and difficulties to better understand the origin of the problems. The clinician should become attuned to the student athlete's language to uncover unconscious automatic thoughts, which can help lead to that player's assumptions and beliefs. Consider the previous assumption example of, "I have to score each game, or the coach and teammates will think I am useless." This assumption may lead to a common core belief of the person feeling worthless, which may have resulted from a negative previous experience with a parent or caregiver.

Throughout treatment, a common technique frequently used in CBT is cognitive restructuring, which helps to identify the faulty thinking that is causing anxiety or stress then and reframe the thought to change the internal dialogue of the perfectionist (Meichenbaum, 1977). To achieve a safe space for the client to express their cognitions, the therapist is tasked with developing a therapeutic alliance, which translates to providing a safe and comfortable environment for the client to openly share their world (Willis & Sanders, 2013). Since perfectionism often employs unrealistic standards and irrational thought processes, cognitive restructuring may be vastly beneficial in the treatment process.

Aside from the technique of cognitive restructuring, Halgin and Leahy (1989) also proposed the importance of psychoeducation and modeling throughout CBT. Didactics, including the varying level of cognitions as well as the potential pathways in which the client may have initially developed perfectionism, can be useful in raising consciousness. Additionally,

the therapist, modeling stress reduction behavioral techniques, can help the client begin to make new pairings and conditions in their behavior. Further, Socratic questioning is another technique that is suggested to be used in the case formulation process to instill introspection and reflection in the athlete (Wills, 2009).

As described, using CBT, the therapist and athlete will work collaboratively to uncover and change the athlete's thoughts that influence emotions and behaviors. To promote a successful and effective treatment, the therapist is recommended to assign homework to the athlete so that they can continue to monitor and work towards progress in the days between appointments (Robinson, 2008). Robinson (2008) suggests that assigning homework to an athlete can pair nicely with their motivation for improvement, as well as instill an assignment into their daily routine, such as a sport practice. The therapist should provide a rationale for the assignment as well as custom the assignment to the athlete's presenting concern in their sport (Robinson, 2008). For example, an assignment that a client could be tasked with doing is to write down and identify their negative automatic thoughts throughout practice or during a game. The utility of the assignment will provide clarity on specific maladaptive thoughts the athlete may be experiencing, as well as the occurrence of the thoughts.

The goal of the CBT approach is to create new pairings and modeling through a non-maladaptive lens to help the athlete lead a more functional lifestyle through a reduction in symptomology (Robinson, 2008). CBT can be delivered in a group, individual, or internet-based setting, which offers convenience to athletes who may feel shameful or unsure in seeking treatment (Robinson, 2008) Typically, CBT treatment is conducted over the course of 10 sessions in an eight-week span; however, group treatment may be more condensed (Shafran et

al., 2016). Traditional CBT models can be found in various sources (Egan et al., 2014; Wills & Sanders, 2013), which provide a referenced guide on the manualized treatment.

### **CBT and Perfectionism**

Throughout the short span of research that exists on perfectionism, the use of cognitive-behavioral therapy (CBT) to treat perfectionism has been seen to be effective and sustainable; however, because research in the treatment of athletic perfectionism is scarcer, research has been limited. The use of CBT in the treatment of perfectionism continues to be in its infancy stages; however, a growing body of interest and evidence has led researchers to suggest that the theoretical approach is effective.

Egan and colleagues (2014) provided empirical support for the use of CBT treatment for perfectionism, delivered in an in-person and online setting. Recruitment for the participants was conducted throughout advertisements to psychologists, mental health professionals, as well as radio and newspaper. To qualify, the participant had to be over eighteen years of age as well as meet the threshold score of 25 or greater on the Concern Over Mistake subscale from the FMPS (Frost, Marten, Lahart, & Rosenblate, 1990). The final sample included 52 participants (58% female and 42% male) between the ages of 20-65 years ( $M = 39.88$ ,  $SD = 11.88$ ; Egan et al., 2014). Aside from scoring at high on COM, the participants could not exhibit high suicide ideation or endorse substance use or psychosis in order to qualify (Egan et al., 2014). While the study did not include the use of student-athletes, the participants were believed to have been significantly struggling with MP based on their inclusion criteria from anxiety and perfection measures (Egan et al., 2014).

The study included two experimental groups (in person and online self-help) and one control group (eight-week waitlisted). Participants thus completed pre- and post-tests of the

measures to determine the impact of treatment. The measures used included the following: Frost Multidimensional Perfectionism Scale (FMPS; Frost, Marten, Lahart, & Rosenblate, 1990), Clinical Perfectionism Questionnaire (CPQ; Fairburn, Cooper, & Shafran, 2003), Dysfunctional Attitude Scale (DAS; Weissman & Beck, 1978), Dichotomous Thinking in Eating Disorders Scale (DTEDS; Byrne, Cooper, & Fairburn, 2004), Depression Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995), Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), Eating Disorders Examination Questionnaire (EDEQ; Fairburn & Beglin, 1994), Quality of Life Enjoyment and Satisfaction Questionnaire e 18 (Q-LES-Q-18; Ritsner, Kurs, Gibel, Ratner, & Endicott, 2005), and the Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998).

Linear mixed models using the SPSS GENLIMMIXED procedure was used to determine the results of the study (Egan et al., 2014). Results identified that individuals who sought both style of treatment, in-person and online, reported significant reductions in their perfectionism, anxiety, and depression, in addition to seeing an increase in self-esteem (Egan et al., 2014). The results were further maintained at a six-month post-treatment check-in. The research concluded that CBT treatment for perfectionism may be a promising choice of theoretical approach when treating athletes who suffer from perfectionism and other adverse effects.

One of the first empirical studies investigating the effectiveness of MP treatment in university students involved 90 undergraduates (75 female students and 15 male students) at a mid-size Western Canadian university. Participants were recruited through advertisements across campus as well as through referrals at the school's college counseling center (Kutlesa & Arthur, 2008). The students were divided equally into one treatment group and two comparison groups. The treatment group (23 North American; 4 Chinese; 3 identified other ethnocultural group) was

divided into 6 smaller groups to ensure the group treatment size was limited to allow enough time to explore each individual's needs (Kutlesa & Arthur, 2008). The comparison groups were divided into two sections (30 = career group; 30 = psychology group) where the students were enrolled in a class, on either career or psychology, while the experimental group received treatment (Kutlesa & Arthur, 2008). The researchers employed a quasi-experimental design by using comparison groups to minimize internal validity (Kutlesa & Arthur, 2008). Due to the design, groups were not selected at random; however, self-selection provided a means to compare scores between the treatment and comparison groups (Kutlesa & Arthur, 2008). Additionally, the comparison groups reportedly had similar demographic characteristics as the treatment group (Kutlesa & Arthur, 2008).

All participants were given a pretest and a posttest at the beginning and end of the 4-week treatment to compare scores across groups. Instruments that were used for the pretest and posttest comparison included the Beck Depression Inventory (BDI; Beck et al. 1996), Beck Anxiety Inventory (BAI; Beck & Steer, 1993), and the MPS (Hewitt and Flett 1991a). The experimental group received treatment that was delivered twice a week for four weeks, which was primarily based off a treatment manual, *Overcoming Perfectionism* (Kutlesa & Arthur, 2008). The treatment for perfectionism used by Kutlesa and Arthur (2008) is based on a CBT approach that is comprised of eight group sessions. The first session includes an introduction and orientation for the group as well as begins the planning and goal setting stage for each member's perfectionistic concerns. The second session reviews the goals and homework assigned from the previous session as well as discusses the cost and benefit of perfectionism, as well as coping skills (e.g., relaxation techniques, how to recognize negative self-talk). The third session is dedicated towards reviewing homework as well as revisiting positive and negative self-talk.

Guided self-imagery is also introduced during this session. Session four consists of reviewing homework and goals as well as exploring the impact of cognitive distortions. Session five continues to review goals and homework while the group is encouraged to process and dispute cognitive distortions. Further, the group also explores their feedback to guided imagery and their overall feelings relative to perfectionism. In session six, irrational beliefs and alternative relaxation techniques are discussed as well as the routine inquiry about goals and homework from the previous session. Session seven includes an introduction to the wheel of life exercise as well as reviewing goals and homework. Termination and planning of the last session is included. Session eight, or the final session, is used to explore the groups experience which may include their short- and long-term goals. Giving and receiving feedback, reviewing of goals and homework, and getting connected with community resources to find continued support are reviewed.

The approach combined the theoretical orientations of CBT and interpersonal therapy to provide insight and understanding of MP and its negative side effects as well as strategies for change (Kutlesa & Arthur, 2008). The treatment was focused on the here-and-now and concentrates on the interaction and group process in order to emphasis the affective, behavioral, cognitive and interpersonal components of MP (Kutlesa & Arthur, 2008). The researchers credited the works and principles of Yalom (1995), Beck (1993), Ellis (1991), and Meichenbaum (1977) in the development of the manualized treatment.

Results of the study determined that treatment group saw a reduction between their pretest scores (SOP = 84.87; SPP = 63.43; OOP = 59.73) and their posttest scores (SOP = 72.20; SPP = 57.83; OOP = 52.80) while the comparison group pretest scores (SOP = 61.63, 63.33; SPP = 47.30, 44.67.; OOP = 41.27, 50.50) and posttest scores (SOP = 61.50, 62.47 ; SPP =

46.63, 50.70; OOP = 48.40, 47.67) remained relatively stagnant (Kutlesa & Arthur, 2008).

Additionally, depression and anxiety levels appeared to decrease between pretest and posttest for the treatment groups; however, the comparison group also saw a similar decrease between the pre- and post-BDI and BAI scores (Kutlesa & Arthur, 2008).

The researchers noted that while the results appeared promising for group treatment of MP, they also mentioned that some participants in the study were receiving individualized counseling sessions in addition to the treatment, which may have impacted the results. Further, the participants were not identified as being student athletes at the university. Another major limitation of the study was the fact that the participants were not randomized, therefore the generalization of the study's findings is more limited. While the integration of CBT and interpersonal theory suggested positive results, the small sample size of 30 participants in the treatment group also questions the confidence in how that treatment would be received by the general population. The posttest measure was given immediately following the 4-week treatment, which further questions the long-term effects of the treatment.

The empirical studies completed thus far on documenting the effects of using CBT to treat perfectionism have appeared to provide positive outcomes. The delivery of the method has included being in-person and online in either an individual or group format. Although slim research exists, the approach has appeared effective in the studies to date for MP; however, the longitudinal effects remain unclear.

### ***CBT and Eating Disorders***

CBT has also been linked to the treatment of eating disorders in athletes and non-athletes (Arthur-Cameselle & Quatromoni, 2014; Bratland-Sanda & Sundgot-Borgen, 2013; Fairburn & Beglin, 2008); Plateau et al., 2017). Given the close relationship between MP and eating disorder

symptomology, a recent study (Valentine et al., 2018) explored how internet-based CBT affected perfectionism and eating disorder symptomology in individuals who engaged in compulsive exercise, defined as 11.5 hours per week. A total of sixty-seven participants ( $M$  age = 37;  $SD$  = 12) were recruited through an Australian sports club via newspaper ads, social networking, and coach referrals (Valentine et al., 2018). The group was comprised of 41 female and 26 male participants who were randomized to either the experimental group ( $n$  = 38) or waitlisted to the control group ( $n$  = 29; Valentine et al., 2018).

Participants who were selected to be a part of the experimental group engaged in unguided ICBT (internet-based cognitive behavioral therapy) for eight weeks, meaning they received eight weekly emails with readings and assignments from *Overcoming Perfectionism* (Shafran, Egan, & Wade, 2010). A number of measures were given in order to record several data baselines, which were then used to compare three- and six-month post-tests between the experimental and control groups. Measures used to assess perfectionism and eating disorder symptomology in athletes were the Frost Multidimensional Perfectionism Scale Concern Over Mistakes subscale (FMPS-CM; Frost et al., 1990), Clinical Perfectionism Questionnaire (CPQ; Fairburn, Cooper, & Shafran, 2003), Eating Disorder Examination-Questionnaire global scale (EDE-Q; Fairburn & Beglin, 2008), Compulsive Exercise Test (CET; Taranis et al., 2011), and Athlete Burnout Questionnaire (ABQ; Raedeke & Smith, 2001). Each participant completed the measure pre and posttreatment; however, only the experimental group completed the measures at the three-month and six-month follow-up after the study had completed (Valentine et al., 2018).

Results from the study indicated that participants from the experimental group found significant decrease in perfectionism (pre-FMPS-CM = 29.11; post-FMPS-CM = 22.08; pre-CPQ = 30.24; post-CPQ = 24.87), eating disorder symptomology (pre-EDE-Q = 2.18; post-EDE-

Q= 1.64) and their compulsive exercise behaviors (pre-CET= 68.47; post-CET=55.53; Valentine et al., 2018). In addition, no significant changes were seen between the pre- and post- athletic burnout (pre-ABQ = 2.70; post-ABQ = 2.57; Valentine et al., 2018). In regards to the control group, their results remained relatively unchanged throughout the study in each of the measures (pre-FMPS-CM = 30.45; post FMPS-CM = 30.35; pre-CPQ = 31.68; post-CPQ = 30.77; pre-EDE-Q = 2.24; post-EDE-Q = 2.09; pre-CET = 63.61; post-CET = 62.00; pre-ABQ = 2.65; post-ABQ = 2.50; Valentine et al., 2018).

Thus, the results in the experimental group suggests that unguided ICBT delivered a significant reduction in perfectionism, eating disorder symptomology, and compulsive exercise behaviors; however, athletic burnout remained relatively unchanged. Furthermore, while the changes were significant for the treatment group, the attrition rate of those changes appeared to be 55% at the six-month follow-up (Valentine et al., 2018). In sum, the study was the first to demonstrate the significant reductions in eating disorder symptomology using ICBT. Similar studies have also yielded similar findings (Egan et al., 2014; Rozental et al., 2017; Shafran et al., 2017); however, the attrition rates of change appeared to last longer (Valentine et al., 2018). Valentine and colleagues believe that the difference in why their effect sizes were lower compared to other studies was because that the participants did not have any other reported psychological disorders. Since these findings presented by Valentine et al. (2018), Shu and colleagues (2019) have appeared to replicate a similar study by employing an unguided ICBT with a three-month and six-month follow-up; however, instead of using adult participants, they recruited adolescent participants. Their findings yielded similar results in those participants by demonstrating a reduction in scores in perfectionism traits as well as eating concerns (Shu et al., 2019).

It should be noted that previous research has also found a reduction in eating disorder symptomology and perfectionism in individual and group-based CBT approaches (Steele & Wade, 2008; Handley et al., 2015). Thus, CBT approaches in treatment have provided empirical support to individuals who struggle with perfectionistic and eating concerns; however, the research on the approach with athletes continues to remain scarce. Therefore, research is strongly encouraged for using ICBT for athletes struggling with both disordered eating concerns as well as perfectionism.

### **Integration of Interpersonal Psychodynamic**

The development of perfectionism is believed to be linked to the interpersonal and intrapersonal processes between the individual and others, as described in the prior pathways of development. Sullivan (1953) emphasized the importance of understanding how an individual functions through the way one interacts with another. The interaction itself provides enriching information on how an individual may view themselves and others in the world, as well as how they get their needs met. Interpersonal theory states how humans seek to meet their satisfactory (emotional closeness) and security (avoidance of anxiety) needs, which translates into their interpersonal dynamics. Mitchell and Black (1996) further state that anxiety is the motivating factor for interpersonal interactions in that humans actively try to avoid it.

In therapy, the therapist is tasked with helping the client or athlete become more flexible and vulnerable in their interpersonal interactions (Mitchell, 1988). The therapist and client will interpersonally engage just as the client would in the world. The mirrored interpersonal style provides the therapist an opportunity to process transference the client may be experiencing in session, which in turn helps the client become less rigid interpersonally (Mitchell, 1988). Contemporary interpersonal theory further states that the therapist is not necessarily representing

the parent or coach in the room, but the client will exercise the same attitudes and beliefs toward the therapist as they would with the parent or coach. Essentially, the client will be attending to the therapist's behavior in order to affirm that the therapist has the same expectations that a coach or parent would with the client or athlete (Mitchell, 1988). Thus, interpersonal therapy requires the therapist to be attuned to the here and now and to frequently use processing comments and questions in order to elicit depth in the client's present experiences. The therapist will be able to provide noticeable interpersonal patterns of the client, as well as be able to explore the experiences that initially shaped the client's interactions (Mitchell, 1988).

Interpersonal therapy has been suggested to be valuable for individuals who struggle with socially oriented perfectionism (Brustein, 2013). A perfectionist who scores high in the domain of socially oriented would feel pressure to meet the exceptionally high standards that they believe others (parents or coach) have of them. As with the example provided above, the client may feel they are not allowed to show or express anxiety or sadness around a parent. Or perhaps, an athlete may feel stress to score each game in order to be useful to the team. Interpersonal therapy addresses the concerns a client or athlete may possess, which they ultimately believe protects them from rejection and isolation (Brustein, 2013).

The psychodynamic approach is relational in nature and often dovetails with interpersonal theory. In the vein of psychodynamic theory, Heinz Kohut (1971) proposed the theory of self-psychology by explaining how a child can have stunted development, known as a developmental arrest, if their needs are not met. Kohut identified mirroring, idealizing, and twinship as three separate developmental needs within the theory that must be fulfilled for the child to develop confidence, self-esteem, and autonomy. The unmet needs must be identified so that the therapist can raise insight and awareness to the client, in addition to providing the

corrected experience they developmentally need. Mirroring is defined as the need for validation, which leads to a child feeling confident, whereas idealizing is defined as the child having an influential figure or parent to “look up” to (Brustein, 2013). A strong, idealizing figure would be an individual the child would feel safe and trusting towards in accepting help to navigate through their emerging and developing world. Lastly, Kohut (1984) explains that twinship is being on similar levels as the parent or influential figure, in that a mutual respect is given for each other’s autonomy.

In relation to perfectionism, previous developmental pathways explained how a child’s perfectionism may have emerged from conditional self-worth. Therefore, when the developmental needs are met in self-psychology, the child should have been able to develop a sense of self (self-esteem and self-confidence) that is not reliant on others. Brustein (2013) explains that children or athletes with mirroring deficiencies, for example, most likely represent socially oriented perfectionism in that they seek approval and affirmation through others. An athlete may strive to meet unrealistic demands because they have learned that approval only comes when they achieve success based upon their parents’ standards. In addition, Brustein (2013) also mentioned how self-oriented perfectionism may also appear as a client with a deficiency in idealization, meaning they did not have an influential figure to idealize growing up that set realistic goals.

In psychodynamic therapy, the goal of the therapist is to be attentive to the needs of the perfectionist. Kohut (1971) explained that by providing empathy and a strong understanding of the perfectionist’s subjective experience, the therapist will be able to capture the developmental deficiency. Thus, the therapist providing empathy will allow the perfectionist to feel understood, which begins to help heal the mirroring deficiency as well as bridging a sense of self. The use of

transference and countertransference will further help the therapist and perfectionist to attend the present interaction and how it may have developed from the client's past relationships. Attending the present moment within the relationship allows the therapist and struggling perfectionist to discuss and repair the ruptures that occur within the context of their therapeutic relationship. Making repairs and processing how to navigate the rupture will provide a corrective experience for the client, in they can still be close with an influential or authority figure (e.g., parent, coach, therapist) even when they feel misunderstood or disappointed. Repairing the rupture will emphasize unconditional self-worth to the perfectionist, thereby demonstrating that they will still receive approval and affirmation, despite any emotional or situational outcome. Further, the use of modeling, done by the therapist, can be beneficial when the therapist admits their own imperfections to the client (Brustein, 2013). The client, or athlete, will be able to witness the therapist, who represents an influential figure, take responsibility for their own imperfections, which models behavior to the athlete. He or she can also begin to accept their imperfections.

As the therapist, using an integration of interpersonal and psychodynamic processes can be beneficial when treating a client or athlete struggling with perfectionism. Brustein (2013) suggests that a technique that may be useful is to frequently ask the client their reaction to the therapist's feedback. The therapist will then be able to understand more about how the client processes the interpretations without making unclear assumptions. Because the interpersonal and psychodynamic integration occur at an interpersonal and intrapersonal level, the therapist is tasked with exploring the processes that occur between the client and therapist, as well as exploring the reaction within the client.

A recent study from 2015 demonstrated the treatment effectiveness of delivering a short-term psychodynamic interpersonal (PI) therapy group to individuals struggling with

perfectionistic traits (Hewitt et al., 2015). The PI approach was chosen to target ingrained perfectionistic traits, such as self-presentation, perfectionistic cognitions, and interpersonal impact of perfectionism (Hewitt et al., 2015). 71 participants (24 males and 47 females) of the study were divided into treatment (53 participants) and control groups (18 participants) in order to identify progress made over the 11 weeks from the PI intervention. The participants were recruited from the University of British Columbia and provided demographic information of marital status (27 single, 28 married, 16 divorced) and employment (20 unemployed, 35 full-time, 16 part-time; Hewitt et al., 2015).

The following measures were given in order to assess a baseline of perfectionism, depression, and interpersonal difficulty: Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991); Perfectionistic Self-Presentation Scale (PCPS; Hewitt et al., 2013); Perfectionism Cognitions Inventory (PCI; Flett et al., 1998); Beck Depression Inventory (BDI; Beck & Steer, 1987); Beck Anxiety Inventory (BAI; Beck et al., 1988); Interaction Anxious Scale (IAS; Leary, 1983); and Inventory of Interpersonal Problems (IIP; Horowitz et al., 1988).

Short-term PI group treatment was given over a span of eleven weeks by mental health therapists, where the sessions lasted for 1.5 hours weekly (Hewitt et al., 2015). The treatment group included processing interpersonal feedback among members and expressing the reaction of failing as well as using perfectionism as a main defense against rejection and abandonment, while the control group was waitlisted for treatment (Hewitt et al., 2015).

In order to determine the results, Hewitt and colleagues (2015) performed chi-square tests and independent samples *t* tests to assess the differences between the treatment and control conditions. Results of the study showed significant reductions in all areas of perfectionistic traits (e.g., self-oriented, other-oriented, socially prescribed, BDI, BAI) among the sample who

received the treatment. For example, the pretreatment perfectionistic cognitions ( $M = 50.07$ ) significantly reduced posttreatment ( $M = 36.88$ ) while the control group reported their pretreatment perfectionistic cognitions ( $M = 50.00$ ) and their posttreatment perfectionistic cognitions ( $M = 51.97$ ; Hewitt et al., 2015). Participants in the experimental group who initially reported high levels of self-oriented perfectionism ( $M = 87.07$ ) further saw a reduction at the 4-month follow-up posttreatment ( $M = 70.68$ ; Hewitt et al., 2015). Further, the experimental group who initially reported high levels of socially prescribed perfectionism ( $M = 65.05$ ) saw a reduction at the four-month follow-up post treatment ( $M = 52.75$ ) whereas the control group saw less of a reduction between pretreatment ( $M = 75.17$ ) and post treatment ( $M = 71.75$ ). In regards to the BDI and BAI, the experimental group also saw a reduction between their pretreatment ( $M = 18.00$ ) and post treatment ( $M = 9.23$ ) BDI and their pretreatment ( $M = 15.44$ ) and post treatment ( $M = 8.81$ ) BAI. Comparatively to the control group, they reported their pretreatment ( $M = 15.28$ ) and post treatment ( $M = 13.94$ ) BDI followed by the pretreatment ( $M = 16.81$ ) and post treatment ( $M = 10.17$ ) BAI (Hewitt et al., 2015). In addition, while a reduction was found on the IIP for the treatment group in pretreatment ( $M = 1.64$ ) to post treatment ( $M = 1.30$ ), results were not significant.

Thus, the results of the short-term group PI treatment can suggest that treatment modality in a group setting can be beneficial with individuals struggling with perfectionistic, mood-related, and interpersonal concerns. Short-term treatment that comprised of 11 weeks can be comparable to a typical college semester. The decreased levels of distress and perfectionism seen in PI therapy may provide the underpinnings of multiple benefits for clients or athletes who report these difficulties in performance.

Although the research yielded crucial findings in individuals struggling with depression, perfectionism, and interpersonal concerns, the anxiety levels from pre-treatment to post treatment did not change much in either the treatment or control groups. Further, the study also disclosed that the participants were not randomly assigned, but assigned based upon their gender, age, and perfectionism (Hewitt et al., 2015). Thus, randomization cannot be accounted for in these results, which skews the validity since the groups appeared to have been pre-assigned by categories. Additionally, other factors must be considered when analyzing the results since the changes in the participants' symptoms may have changed their perfectionism. The study did not provide information on the participants in regard to if medication intervention was present. Future research is suggested to test the PI treatment in an individual format as well as vary the length of treatment duration to see if any changes occur.

### **Family Systems Approach**

While no studies to date provide empirical support on the effectiveness of a family systems approach with student-athletes struggling with MP, the orientation could be a reasonable recommendation due to the nature of perfectionism etiology. The approach generally contains three commonalities that are used to produce change (Goldenberg & Goldenberg, 1991; Liddle, 1987). The commonalities include (a) an emphasis on viewing the individual in context of his or her relationships, (b) an emphasis on both overt and covert interaction patterns, and (c) emphasis on the communication styles that goes on within relationships (Brown, 2001). These commonalities can be reasonably used alongside the presenting problem of MP, given that the concern leads to interpersonal dysfunction within the perfectionist. The different pathways illustrated in the earlier chapters demonstrated a common thread of early childhood interaction with a parent or caregiver and how those interactions can later foster interpersonal patterns.

Thus, a family systems approach may be extremely effective in examining the root of interactions in a perfectionist and their influential figures. Suggested interventions to use within the approach include psychoeducation, clarifying the problem(s), goal(s), and plan(s), restructuring the family dynamic in session, assigning homework, reframing language, and the use of self (Brown, 2001). While students or athletes may attend university farther away from home, involving the family in treatment may not be practical given the geographical distance; however, the work of a therapist in individual treatment can include exploring the perceptions that the athlete has of their family and the role of how the family may have shaped and maintained their interpersonal tendencies (Brown, 2001).

### **Mindfulness Based Techniques**

Brustein (2013) suggested the use of mindfulness techniques in the treatment of perfectionism for the client to practice self-acceptance and cognitive diffusion. Perfectionists are often dichotomous thinkers, meaning that they cognitively think in black in white, such as feeling that anything less than a 'perfect' score is a failure. When a perfectionist does not achieve their standard or set goal, they often become full of defeat and disappointment, which leads to self-loathing and an internalization of that the defeatist attitude (Hill, 2016). For example, if a diver who exhibits MP places second overall at a swimming and diving competition, they may displace their disappointment and feelings of failure over coming in a second-place finish onto themselves as the person. Instead of recognizing the *feeling* of defeat and failure separate from who they are as a person, they may believe they *are* the failure (Brustein, 2013). Thus, by thinking non-categorically, a perfectionist can work to accept that feelings come and go, which is the basis of practicing mindfulness. When an athlete begins to practice viewing their emotions and feelings judgement-free, the athlete or perfectionist will begin to recognize that the feelings

they have are diffused from the person they are, so they can then accompany the experience (Brustein, 2013). Aside from cognitive diffusion, the benefit of being able to recognize and label emotions without judgment can be a healthy style with which to cope. Perfectionists who grew up in a more rigid household may exhibit more avoidant coping styles, and thus increase the risk of using alcohol and drugs (Gong et al., 2015). The practice of mindfulness, therefore, may allow the perfectionist, or athlete, to experience sitting with any emotion judgment-free instead of resorting to avoidant-style coping strategies.

A recent study examined how using Mindful Sport Performance Enhancement (MSPE; Kaufman & Glass, 2006) could improve the performance and perfectionism in long distance runners from a NCAA Division III private university (De Petrillo et al, 2009). MSPE is a mindfulness-based approach that interweaves cognitive therapy with Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1990). The MSPE workshop was conducted over four weekly sessions that lasted 2.5-3 hours and consisted of the following mindfulness-based interventions: body scan meditation, mindful yoga, deep breathing, and walking meditation (De Petrillo et al, 2009). In addition to the workshop, participants were asked to practice their new skills between each workshop with the purpose of making mindfulness more routine. Results revealed that the perfectionism dimension of organization on the MPS appeared significantly lower between the pre- and post- workshop runners; however, sport performance remained relatively unchanged (De Petrillo et al, 2009). Thus, the workshop may have contributed towards the runners, placing less emphasis on neatness in precision in the sport, although considering only one out of the six perfectionism dimensions on the MPS was changed, the usefulness of mindfulness-based techniques cannot be strongly suggested.

A separate study was conducted that also used the MSPE to see how the workshop would impact perfectionism and sport performance among recreational athletes (34.4% archers; 65.6% golfers; Kaufman et al., 2009). The participants ( $M$  age = 52.19) completed multiple measures, including the MPS, which recorded their levels of perfectionism pre- and post- workshop. The results showed that the archers and golfers became more perfectionistic between the pre- and post- workshop. A significant increase was further seen in the domain of parental expectations in the archers in their post-workshop perfectionism score, as opposed to their pre-workshop score (Kaufman et al., 2009). Researchers speculated that the increase in this specific domain may have been due to the participants being asked to complete homework assignments, or perhaps learning skills from an authority figure, which may have retriggered past situations from their childhood home (Kaufman et al., 2009). Furthermore, the utility of using a mindfulness-based workshop, like MSPE, remains relatively inconclusive on the benefits or downfalls the approach may have toward perfectionism.

While the utility of using a mindfulness-based practice would make logical sense in treatment for a perfectionist on many fronts, both empirical studies showed no significant supporting evidence on the effectiveness of the approach. De Petrillo and colleagues (2009) did find that the Organization dimension on the MPS was lower; however, the dimension of Organization has been mostly referred to as an adaptive perfectionistic trait, like positive achieve striving and work habits, as opposed to maladaptive quality (Frost et al., 1990). Future research involving a mindfulness-based approach should be considered for further testing in this area since the limited data is not sufficient to warrant that the approach is unsuccessful.

### **Integrative Approach: One Size Does Not Fit All**

Possible etiologies and developmental trajectories were presented in differing four pathways (e.g., Social Learning, Social Expectations, Social Reaction, and Anxious Rearing) by Flett and colleagues (2002) to examine the potential root causes that led to maladaptive perfectionism within a student athlete. Since one pathway does not conceptually fit every athlete who struggles with MP, providing different evidence-based treatments is appropriate in tailoring different treatment for each athlete's needs. An array of approaches and techniques have been proposed that may help treatment maladaptive perfectionism; however, empirical studies to support the approaches and its efficacy with student athletes are scant.

Halgin and Leahy (1989) recommended the use of pragmatic blending when working with a perfectionist to tailor a treatment plan to align with their specific needs. Pragmatic blending consists of using techniques from different theories that include behavioral, psychodynamic, and person-centered approaches to address attitudes, beliefs, cognitions, and relational interventions. Interventions include transference, modeling, and cognitive restructuring, which can help identify and change the cognitive dialogue a perfectionist may have due to early childhood interactions. Efficacy of the therapeutic relationship is further established within the unconditional positive regard that the therapist has for the client (Halgin & Leahy, 1989). This common factor is critical when working with perfectionists, since many different developmental trajectories that may have fostered perfectionism are mostly rooted from conditioned acceptance from parents and/or coaches (Halgin & Leahy, 1989). Therefore, providing unconditional acceptance to the athlete or struggling perfectionist can help instill confidence and reassurance in the client, since performance is no longer conditional.

## **Strengths and Challenges in Treating College Athletes**

Several characteristics associated with being a student athlete may be beneficial in receiving treatment for perfectionism. Adding family members or coaches to treatment may be valuable for several purposes. When an athlete develops perfectionism from environmental factors, this often refers to the pressure one feels from coaches and teammates to perform. The social learning pathway demonstrated by observing a parent's perfectionistic tendencies can lead to the child or athlete's own development of those similar tendencies. The therapist can assess the type of response that a powerful or influential figure has to the athlete's perfectionism (Hill, 2016). For example, if a parent or coach responds with praise to an athlete's weight loss, the athlete may feel pressure to maintain their physical image. Often, an athlete's attitude surrounding their performance, weight management or eating are influenced by key figures like parents or coaches (Hays, 1999). Thus, positive reinforcement given by a parent or coach can be more detrimental than beneficial, considering the context in which the praise is given. The athlete's perfectionism can lead to further negative events to maintain a physical image, such as food deprivation, diuretics, purging, or other negative behaviors. Therefore, providing psychoeducation to the parents and coaches may be beneficial to understanding how certain reinforcements can be more harmful than valuable. By adding influential figures to treatment, the therapist will have more allies in treatment in that these authority figures can begin to help reinforce adaptive behaviors outside of the therapeutic setting in addition to the therapy session (Hill, 2016). Thus, consistency will begin to occur both in and out of the therapeutic setting; however, using caution to determine if adding family members and coaches to treatment is recommended, as it may provide more intrusion than benefit, depending on the client's circumstances (Glick et al., 2012).

Plateau et al. (2007) suggested that the use of adding coaches to treatment after the results of their study showed that athletes felt they were able to maintain their athletic identity throughout treatment, due to coach involvement. Because being an athlete is a large part of individual identity, having a coach involved in treatment may provide additional support to that identity if the therapist or treatment providers are unfamiliar with athletics. Specifically, the coach can provide more information to the therapist about the sport and athletic identity as well as be a source of support for the athlete throughout their duration of treatment.

Another important factor to consider when adding others to the athlete's treatment is to provide diagnostic clarity. Like any other client, an athlete may be in denial or lie about the accuracy of their symptoms to the therapist; therefore, obtaining information from coaches, teammates, or parents may be beneficial in accessing the athlete's presenting concerns (Glicker et al., 2012). In order to provide successful treatment, the problem must be clearly and accurately defined.

The identity of being a student athlete can be profitable when entering treatment, in that many qualities an athlete possesses would be similar qualities that would allow for successful treatment. Athletes typically have a very strong sense of discipline, considering their rigorous training and dedication to sport (Hays, 1999). As a coach would provide instruction, athletes are accustomed to listening to that instruction, which typically leads into practicing new skills for sport. Like therapy, the therapist would provide psychoeducation and rationale for why certain skills may be beneficial for that athlete. As noted in CBT, giving homework assignments is also a part of the approach, which may be more motivating for an athlete to complete, being that they already hold the skill set of dedication and compliance, since they are more focused on achieving a given goal (Hays, 1999). Brustein (2013) recommends that instead of using the phrase

‘Cognitive Behavioral Treatment’, the clinician can replace the word *treatment* with *training* to suggest ‘Cognitive Behavioral Training’. By promoting therapeutic engagement as a training instead of treatment, the language helps to destigmatize help-seeking behaviors as well as capture the athletic identity in mental health treatment.

### **Challenges of Treatment**

Research has indicated that stigma surrounding mental health is the number one barrier that inhibits athletes from seeking treatment (Gulliver et al., 2012). When student-athletes were asked specifically about the stigma, common answers that were reported appeared to be a poor understanding of mental health, negative past experiences when asking for help, and the perception that asking for help displays weakness within the athlete (Glick & Horsfall, 2005; Glick et al., 2012; Gulliver et al., 2012). In sport, athletes are taught and trained to ‘work through pain’, which may further escalate the stigma and belief in that asking for help is a sign of weakness, as well as pose difficulty for openly sharing emotional hardships (Glick et al., 2012). Plateau and colleagues (2007) emphasized that athletes may struggle to confide in others or even ask for help, due to perceived lack of emotional support they feel. The authors provided an athlete’s description of how her experience was when she shared to her coach about her eating disorder. The 22-year-old athlete disclosed that her coach responded to her by saying, “I really like, I don’t really have any experience in this, he really didn’t know what to say or do... I think sometimes he didn’t really know how to act. I don’t think any of them knew to be honest” (Plateau et al., 2007, p. 257). Furthermore, the athlete being able to perceive emotional or psychological support if they decide to reach out for support to the coaching staff can be critical in if that athlete decides to pursue treatment or not (Plateau et al., 2007).

Situational narcissism has also been suggested as a reason that may further inhibit an athlete from seeking support. Situational narcissism refers to that athlete being in the spotlight or receiving ‘VIP’ treatment, depending on their elite status in the sport (Glick et al., 2012). With elite status, the athlete may be accustomed to receiving praise or gifts from their athletic achievements and may expect special attention from the therapist in relation to scheduling, fees, and seeking support in a secure location due to confidentiality concerns (Glick et al., 2012).

Another challenge is difficulty forming a working relationship with individuals who struggle with perfectionism. Research shows that clients with perfectionism are more challenging to form a therapeutic alliance with, as opposed to clients without perfectionism (Blatt et al., 1998; Zuroff et al., 2000). Interpersonal dysfunction is often a symptom of perfectionism, which can mirror a relationship between the client and therapist in session. As described by Horney’s (1950) interpersonal style, a perfectionist often *moves away* from others, meaning they may literally physically distance themselves or emotionally withdraw from others as a form of their own protection from heightened sensitivity towards rejection and criticism. Their interpersonal working model may resemble strong self-sufficiency, which can also appear as difficulty asking others for help. Therefore, without establishing a solid and trusting therapeutic alliance between the perfectionist and therapist, the perfectionist is unlikely to remain in treatment (Hill, 2016). An added challenging layer to treatment in establishing a strong therapeutic relationship may also be how competent the practitioner or clinician is in sport and athletics. An emerging theme that was found in a study between female athletes seeking eating disorder treatment was how the athletes felt in struggling to maintain their athletic identity due to the staff not acknowledging or relating to that identity (Plateau et al., 2017). Thus, an athlete’s perfectionism in addition to their

athletic identity may provide multiple hurdles when trying to establish a therapeutic connection and working relationship within the clinical setting.

As with any client regardless of identity, confidentiality continues to remain a vital facet when seeking treatment. To add on to the stigma of receiving mental health counseling, some athletes may also be more accustomed to receiving health care treatments, such as athletic training or physical therapy, in a private location or at the sporting arena to avoid public exposure (Glick et al., 2012). Therefore, the location of a college or university psychological and counseling service may prohibit athletes from seeking any form of treatment if that athlete feels their personal identity or affiliation is associated with the university counseling department. Treating a perfectionistic athlete in their home base of an athletic complex may increase comfortability and reduce resistance in MP treatment (Glick et al., 2012).

Given the complexity and multi-dimensionality of MP, determining a treatment course can be an intricate process by means of evaluating and gathering accurate data. While an athlete may not state a presenting concern of MP, the clinician is recommended to use their professional opinion and discretion to assess if the athlete is at risk. Unfortunately, literature regarding the treatment of MP specifically in relation to undergraduate collegiate athletes is limited; however, the studies and theories that do exist can provide direction. CBT, psychodynamic, interpersonal, or person-centered approaches may be used alone or in conjunction with one another to provide an integrative treatment. Treatments specifically seen with athletes who have eating disorder symptomology may provide a stronger direction for MP treatment, being that symptoms between eating disorders and MP often overlap. Key interventions such as cognitive restructuring and mindfulness are some of the heavily mentioned interventions that have been demonstrated to provide results in reducing dimensions of perfectionism. While family systems approach is a

treatment not yet empirically supported in MP literature with student athletes, sports psychology does suggest that family systems may be a direction to consider when thinking about the initial interaction or dynamic that unfolded towards MP in the athlete (Brown, 2001). Therefore, the restructuring dynamic as well as exploring the athlete's role in their family system may treat the root of development. Despite the presented theories and approaches, challenges may often arise or accompany the treatment of these athletes, which can ultimately inhibit the effectiveness of treatment. Furthermore, the clinician should continue to use their clinical judgement to determine the best course of action, depending on the client's presenting concerns, individual identities, and safety risk.

## CHAPTER V: DISCUSSION AND FUTURE RESEARCH

The purpose of this literature review was to explore the possible etiologies and conceptualizations of MP manifestation in undergraduate student athletes as well as discuss effective approaches that can guide MP treatment. Perfectionism continues to be under-researched within the field of clinical psychology; however, the topic has been acquiring more attention as of late since studies show a steady increase of perfectionistic concerns among college students nationwide (Curran & Hill, 2019). The rise of cases has been attributed to college students demanding more of themselves as well as perceiving that others (e.g. influential figures) are demanding more of them (Curran & Hill, 2019). The demand of one's perfection translates beyond the evaluative stresses and pressures in an academic setting but has also been tied to situations with athletes and their sport performance (Curran & Hill, 2019). Although positive outcomes have been linked to healthy or adaptive perfectionism, unhealthy or maladaptive perfectionism has been noted to lead to a plethora of physical, interpersonal, and psychological problems (Barrow & Moore, 1983; Bell et al., 2010; Hill, Mallinson-Howard, & Jowett, 2018; McDuff & Baron, 2005; Rice et al., 2006; Stoeber et al., 2007; Vieth & Trull, 1999). In severe cases, MP has also been identified as a main factor linked to suicide.

The root cause of how perfectionism initially develops within an athlete continues to be debated; however, a majority of researchers appear to agree that perfectionism etiology most likely develops because of early childhood experiences that impact an individual, both intrapersonally and interpersonally (Flett et al., 2002). The environment in that the child or athlete develops is suggested to be the root of how MP begins (Flett et al., 2002). Based on theories of social learning, nonverbal messages, behavior imitation, or observation are some of

the methods in that researchers believe a child can reenact and crystallize traits of perfectionism (Appleton et al., 2007; Greenspon, 2000; McArdle & Duda, 2004).

Differences among parenting styles within the home have also been labeled as a pathway toward MP etiology. The varying degree of parental control and parental warmth can translate into how a young child or athlete perceives oneself within a family system as well as perceives his or her own self-image and develops a coping style (Flett et al., 2002; Gong et al., 2015). Strict demands and low parental warmth, as described in authoritarian parenting styles, have been linked to more children displaying MP qualities, as opposed to children who received other reported parenting styles (Hibbard & Walton, 2014). Often, the child's self-worth is directly impacted by their successes and accomplishments, which in turn is relative with the amount of attention and affection they receive from the parents or caregivers. Thus, approval that a child seeks from their parents was contingent upon meeting demanded expectations. Intrapersonally, a negative self-image develops in that the child demands 'perfection' from him or herself since the child believes that his or her own worth is dependent upon meeting those strict demands. As a result, the child or athlete may grow older and develop interpersonal difficulties or unhealthy coping to either move away from others in order to avoid rejection or to move towards others to people please and satisfy the influential figure they want approval from (Brustein, 2013; Hewitt et al., 2017).

However, perfectionism etiology should not be pigeonholed in early childhood experiences only. Literature also suggests that perfectionism can emerge through a relational context that may stem from interactions in their sport or performance (Greenspon, 2008). Research has determined that athletes who present mediating factors such as eating disorder symptoms, sport burnout, or fear of negative evaluation and stress may pose as a greater risk to

exhibit MP (Shafique et al., 2017; Stice, 2001; Stoeber et al., 2007). The type of sport can also be a fundamental characteristic in determining MP risk, as aesthetic sports that require more precision and artistic qualities can promote the athlete, demanding more perfection and control in their performances. Aesthetic sport performances are judged on subjective scoring, as opposed to non-aesthetic sports that use objectivity. Looney (2004) emphasizes that human biases and cultural discrimination from judges can directly impact performance scores. The identities of the judges and athletes should be taken into colossal consideration when evaluating multicultural stress in relation to MP. If the athlete is of a minority ethnic or racial group or not of a similar identity to the judge(s), that athlete may feel they need to perform to perfection in order to be fairly evaluated against their competitors. While slim data exists to confirm Looney's (2004) theory of human biases in sport judging performances, the proposition should be further examined and evaluated, given the ongoing nature and stress of the sociopolitical climate. The difference between the NCAA divisions in which the athlete performs may also present a concern to MP risk and development; however, this area needs further research to confirm that a link exists between MP and higher collegiate divisions.

Despite the growing concern over perfectionism across multiple settings, MP treatment specifically within the domain of sport and athletics is minimal. The lack of research within this area may attest to the lack of competency in perfectionism symptomology shared amongst individuals, which can explain why perfectionism is more under-researched within the field of psychology. Most treatment approaches suggested to treat MP are based off clinical experiences rather than collaboration with empirical studies to examine the effectiveness of the approach (Kutlesa & Arthur, 2008).

CBT was identified and suggested as being an effective approach to treat MP, since an overlap of symptoms is present among eating disorders and perfectionism. Literature has reported mediating effects between MP and eating disorders, which can be important when considering the approach and clinical intervention in treatment (Prnjak et al., 2019). Cognitive restructuring is an intervention within CBT that can be used when correcting faulty or negative thinking (Meichenbaum, 1977). Focusing and reframing one's cognitive thinking can be effective when an individual struggle with a negative self-view, or perhaps 'all or nothing' thinking, which are both traits commonly seen in individuals with MP. Empirical studies have supported the effectiveness of a CBT approach when treating MP, both in an internet-based setting as well as in a group format (Egan et al., 2014; Kutlesa & Arthur, 2008). In a group setting, CBT was integrated with Interpersonal therapy, which demonstrated a significant reduction in perfectionism traits; however, the participants in the study were not identified as being of the student athlete population.

Integrative approaches have been primarily suggested throughout existing literature, since the development of perfectionism in any individual is not a universal trajectory. Mindfulness-based approaches and psychodynamic, person-centered, and family systems are other theoretical orientations that have been discussed throughout research as being potentially effective when treating MP (Brown, 2001; Brustein, 2013). Again, while empirical data may not necessarily exist to date in supporting the approaches to treat student-athletes specifically, the diverse approaches may significantly impact MP pathology when considering how each approach compliments MP etiology and conceptualization for that individual.

## **Limitations and Directions for Future Research**

A major limitation seen throughout literature is the lack of multicultural diversity among study participants. Because many of the studies observed the college population, most of the participants were identified as being of White, European descent. Culture plays an important role when discussing how MP develops, being that cultural norms, traditions, and parenting styles vary dramatically across cultures. In particular, studying the impact of cultural practices and how they intersect with the four pathways presented by Flett and colleagues (2002) would provide a wealth of information for MP etiology. As noted, the minority status of an athlete can largely impact the how MP is initially fostered as well as maintained throughout one's athletic career. For some athletes, competing at a collegiate level, or perhaps eventually being recruited into a professional league, may be the only option that the athlete has at receiving an education as well as making a financial income for the family. Thus, more research is needed uncover the athlete's pressure to perform, especially when transitioning into professional sports is a possibility. The added pressures of maintaining status of eligibility in the country that the university is located should also be explored as a perceived stress and contextual factor that weighs on the athlete's performance.

Additionally, the perfectionism measurements such as the MPS (Hewitt & Flett, 1991) were initially developed and normalized off Canadian undergraduate students and psychiatric patients; thus, caution is advised when analyzing and interpreting an athlete's score, since diversity factors should not be generalized under one umbrella (Appleton, 2009). Therefore, more research needs to be conducted to determine the weight of each subdimension of perfectionism and how it contributes to the development and intensity of MP (Hill, 2009). Learning more about the specific dimensions will provide clarity and direction in understanding

perfectionism etiology, but also provide clarity in how to treat the athlete more effectively. To add, the emerging pathway that included the impact of coaches and teammates' influence should be further studied to determine the significance of how coaching style can activate MP etiology within an athlete. Being able to understand the coaching dynamics will provide clinicians with more data to educate the coaching staff and athletic departments in potentially helping to reduce the number of athletes developing MP. Since MP can greatly impact performance, researchers should consider ways to more effectively, and fairly evaluate individuals who struggle with MP. In other words, ways to better gauge a more accurate representation of the individual's skill level without the pressures and stress of performance.

In regards to treatment, empirical studies to date that yielded effectiveness in treatment approaches have come with limitations. For example, studies conducted by Kutlesa and colleagues (2008) and Hewitt and colleagues (2015) both demonstrated the significance in using CBT and short-term interpersonal approaches towards the effectiveness of MP; however, both studies did not use randomized sampling amongst participants, thus not providing as much confidence in the results since they cannot be deemed universal. Both of those studies also contained a small sample of participants, making the results less plausible. Even in supportive studies, such as investigating with CBT in eating disorders for athletes, Valentine and colleagues (2018) only sampled a small size of sixty-seven athletes, which makes the results less potent to the overall population of college athletes.

Another consideration to be aware of is the population used in the studies. In the mindfulness study performed by Kaufman et al. (2009), the mean age of the participants was reported to be 52.19 years, which is dramatically different than the mean age of a college student cited by the National Center of Education Statistics (2019), which was reported to be 25 years.

Kaufman and colleagues (2009) study also used recreational athletes and not collegiate athletes, which may be a wide varying degree of the surmountable pressures an athlete may feel in performance. To be fair, De Petrillo et al. 2009 conducted research on the effectiveness of mindfulness-based approaches as well, and they did sample college-athletes from a NCAA Division III university. Results continued to produce minimal changes from the approach on the samples MP levels; however, the collegiate athletes were also reported to be distance runners (De Petrillo et al, 2009). An important aspect to consider when moving forward with research in perfectionism with collegiate athletes is to recall there are a total of twenty-four collegiate sports in the NCAA (NCAA, 2018). The difference in sport, as noted in a previous section, can impact an athlete's perfectionism (Burns, 1980), which potentially may impact the approach of treatment type.

Overall, relevant studies have begun to recognize results from varying approaches when working with collegiate athletes, but due to the vast limitations seen in restricting studies, caution and uncertainty should be weighed when engaging in treatment. Future research is crucially needed throughout all twenty-four NCAA sports as well as the differencing divisions of the universities, since a difference in perfectionism has been determined to exist among divisions (Garinger et al., 2018). In order to adequately serve the entirety of student athletes, developmental factors and contextual factors should be taken into dual consideration when conducting any future research.

Lastly, the role of social media, especially throughout the changes of younger and developing generations, should be an area of future direction and consideration. Researchers may want to inquiry if social media impacts the view of how the general population sees a collegiate athlete as well as how the sport and identity is viewed through an online platform. Regarding

new generations, parental involvement should further be researched over time to record how involvement may change depending on the age and skill level of the athlete.

### **Clinical Implications**

Clinical implications can be recognized from the existing literature. The empirical study conducted by Kutlesa and Arthur (2008) demonstrated the effectiveness of the integrative approach containing CBT and interpersonal therapy delivered in a group format. Because of the interpersonal deficiencies and difficulties exhibited by persons struggling with perfectionism, treatment in a group format may be more effective in that those interpersonal skills can be recognized and repaired. A perfectionist may be reluctant to show vulnerability to just a therapist due to fear of judgement and rejection; however, involving multiple perfectionists may promote vulnerability in that more commonalities are shared and understood. CBT has thus far appeared to be more of the researched orientation in treating perfectionism; however, other orientations may be just as or more effective, but more research is clearly warranted.

As seen in eating disorder research, findings have illustrated lower levels of competence between athletes, further reinforcing the need for education and support within the athletic community (Plateau et al., 2007). Being that perfectionism has similar correlations and overlaps with eating disorders, the need to spread awareness surrounding the dangers and impact of maladaptive perfectionism is arguably just as crucial. The demand for education, guidance, and treatment options available would be recommended for key players that influence and surround the athlete. Parents, coaches, teammates, or any influential individual close to the athlete should be made aware of the risks associated with MP, so that the athlete can perceive support if they choose to seek treatment. Further, in considering the identity of an athlete, sport psychology

recommends that clinicians should reflect on reframing language in treatment to better align with the athletic identity (Brustein, 2013).

## **Conclusion**

Overall, working with perfectionistic clients, especially an under- researched group like college athletes, can be very intricate and complex work. Clinicians should be familiar with diverse therapeutic frameworks in order to tailor appropriate interventions to the identities and needs of each athlete as well as to monitor the clinician's own perfectionism in treatment. Providing treatment to individuals that have been reported to be more challenging in establishing a therapeutic alliance can be added pressure to the therapist. They may feel more stressed to provide results within a quicker time frame in order to reduce the client from treatment withdraw.

Due to the rising concerns seen across college institutions, more research is needed to determine effective treatments that can be done within the sport and academic calendars. Further, stigma poses a large problem, as it inhibits a lot of athletes, and/or clients, from seeking help. Being able to better understand the athletic identity may close the gap between college counseling centers and athletic departments within a university setting. Providing psychoeducation about MP and its potentially lethal side effects is necessary in university settings as the rise of MP continues. Perfectionistic symptoms and concerns can be seen across multiple cultures and populations on a college campus rather than just in sports and recreation, which in turn can be useful for students and faculty campus wide.

## References

- Anshel, M. H., Patterson, K., & Jamieson, J. (1998). *Identifying perfectionism among competitive athletes*. Unpublished manuscript.
- Anshel, M. H., & Eom, H. J. (2003). Exploring the dimensions of perfectionism in sport. *International Journal of Sport Psychology, 34*, 255–271.
- Antony, M. M., & Swinson, R. P. (1998). *When perfect isn't good enough: Strategies for coping with perfectionism*. New Harbinger Publications.
- Appleton, P. (2009). *Examining perfectionism in elite junior athletes: Measurement and development issues* (Thesis doctoral). University of Bedfordshire.
- Appleton, P. R., Hall, H. K., & Hill, A. P. (2009). Relations between multidimensional perfectionism and burnout in junior-elite male athletes. *Psychology of Sport and Exercise, 10*, 457–465. <https://doi.org/10.1016/j.psychsport.2008.12.006>
- Appleton, P., Hall, H., & Hill, A. (2010). Family patterns of perfectionism: An examination of elite junior athletes and their parents. *Psychology of Sport and Exercise, 11*, 363–371. <https://doi.org/10.1016/j.psychsport.2010.04.005>.
- Appleton, P. R., Hall, H. K., & Hill, A. P. (2011). Examining the influence of the parent-initiated and coach-created motivational climate upon athletes' perfectionistic cognitions. *Journal of Sports Sciences, 29*, 661–671. <https://doi.org/10.1080/02640414.2010.551541>
- Arthur-Cameselle, J. N., & Quatromoni, P. A. (2014). Eating disorders in collegiate female athletes: Factors that assist recovery. *Eating Disorders, 22*(1), 50–61. <https://doi.org/10.1080/10640266.2014.857518>

- Ashby, J. S., & Rice, K. G. (2002). Perfectionism, dysfunctional attitudes, and self-esteem: A structural equations analysis. *Journal of Counseling & Development, 80*(2), 197–203. <https://doi.org/10.1002/j.1556-6678.2002.tb00183.x>.
- Assor, A., Roth, G., & Deci, E. L. (2004). The emotional costs of parents' conditional regard: A Self-Determination Theory analysis. *Journal of Personality, 72*, 47-88. <https://doi.org/10.1111/j.0022-3506.2004.00256.x>
- Baker, R. W., & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology, 31*, 179–189. <https://doi.org/10.1037/0022-0167.31.2.179>
- Bandura, A., 1977. *Social learning theory*. Prentice Hall.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
- Barrow, J. C., & Moore, C. A. (1983). Group interventions with perfectionist thinking. *The Personnel and Guidance Journal, 61*, 612-615. <https://doi.org/10.1111/j.2164-4918.1983.tb00008.x>
- Bastiani, A. M., Rao, R., Weltzin, T. E., & Kaye, W. H. (1995). Perfectionism in anorexia nervosa. *International Journal of Eating Disorders, 17*, 147-152.
- Baumrind, D. H. (1966). Effects of authoritative parental control on child behavior. *Child Development, 37*, 887-907. <http://doi.org/c77v5p>
- Beck, A. T. (1976). *Cognitive therapy and emotional disorders*. International Universities Press.
- Beck, A. T. (1993). Cognitive therapy: Past, present, and future. *Journal of Consulting and Clinical Psychology, 62*, 194–198. <https://doi.org/10.1037//0022-006x.61.2.194>
- Beck, J. S. (1995). *Cognitive therapy: Basics and beyond*. Guilford
- Beck, J. S. (2011). *Cognitive behavior therapy: Basics and beyond* (2nd ed.). Guilford Press.

- Beck, A. T., & Steer, R. A. (1987). *Beck depression inventory - Manual*. The Psychological Corporation, Harcourt Brace Jovanovich, Inc.
- Beck, A. T., & Steer, R. (1991). Relationships between the Beck Anxiety Inventory and the Hamilton Anxiety Rating Scale with outpatients. *Journal of Anxiety Disorders*, 5, 213–223. [https://doi.org/10.1016/0887-6185\(91\)90002-B](https://doi.org/10.1016/0887-6185(91)90002-B)
- Bell, J., Stanley, N., Mallon, S., & Manthorpe, J. (2010). The Role of perfectionism in student suicide: Three case studies from the UK. *Omega: Journal of Death & Dying*, 61(3), 251–267. <https://doi-org.nl.idm.oclc.org/10.2190/OM.61.3.e>
- Bieling, P. J., Israeli, A. L., & Antony, M. M. (2004). Is perfectionism good, bad, or both? Examining models of the perfectionism construct. *Personality and Individual Differences*, 36(6), 1373–1385. [https://doi.org/10.1016/s0191-8869\(03\)00235-6](https://doi.org/10.1016/s0191-8869(03)00235-6)
- Blatt, S. J. (1995). The destructiveness of perfectionism: Implications for the treatment of depression. *American Psychologist*, 50, 1003-1020. doi:10.1037//0003-066x.50.12.1003
- Blos, P. (1962). *On Adolescence: A psychoanalytic perspective*. Free Press.
- Boers, M., Kirwan, J. R., Wells, G., Beaton, D., Gossec, L., d'Agostino, M. A., Conaghan, P. G., Bingham, C. O., 3rd, Brooks, P., Landewé, R., March, L., Simon, L. S., Singh, J. A., Strand, V., & Tugwell, P. (2014). Developing core outcome measurement sets for clinical trials: OMERACT filter 2.0. *Journal of clinical epidemiology*, 67(7), 745–753. <https://doi.org/10.1016/j.jclinepi.2013.11.013>
- Bratland-Sanda, S., Sundgot-Borgen, J. (2013). Eating disorders in athletes: Overview of prevalence, risk factors and recommendations for prevention and treatment. *Eur. J. Sport Sci.* 13, 499–508. <https://doi.org/10.1080/17461391.2012.740504>

- Bricker, J., Ramcharan, R., & Krimmel, J. (2014). *Signaling status: The impact of relative income on household consumption and financial decisions* (FEDS Working Paper 2014–76). Federal Reserve Board. <http://dx.doi.org/10.2139/ssrn.2503557>
- Brown, C. H., Jr. (2001). Clinical cross-training: Compatibility of sport and family systems psychology. *Professional Psychology: Research and Practice*, 32(1), 19–26. <https://doi-org.nl.idm.oclc.org/10.1037/0735-7028.32.1.19>
- Brustein, M.P. (2013). *Perfectionism: A Guide for Mental Health Professionals*. Springer Publishing Company.
- Burke, K. L. (1993). The negative stereotyping of student athletes. In W. D. Kirk & S. V. Kirk (Eds.), *Student athletes: Shattering the myths and sharing the realities*. (pp. 93–98). American Counseling Association.
- Burns, D. D. (1980). The perfectionist's script for self-defeat. *Psychology Today*, 14, 34-51.
- Byrne, S. M., Cooper, Z., & Fairburn, C. G. (2004). Psychological predictors of weight regain in obesity. *Behaviour Research and Therapy*, 42, 1341-1356. <https://doi.org/10.1016/j.brat.2003.09.004>
- Caples, H. S., & Barrera, M., Jr. (2006). Conflict, support and coping as mediators of the relation between degrading parenting and adolescent adjustment. *Journal of Youth and Adolescence*, 35, 603–615. <https://doi.org/10.1007/s10964-006-9057-2>
- Castro, J., & Rice, K. (2003). Perfectionism and ethnicity: implications for depressive symptoms and self-reported academic achievement. *Cultural Diversity & Ethnic Minority Psychology*, 9(1), 64-78.
- Chabaud, P., Ferrand, C., & Maury, J. (2010). Individual differences in undergraduate student athletes: The roles of perfectionism and trait anxiety on perception of procrastination

- behavior. *Social Behavior & Personality: An International Journal*, 38(8), 1041–1056.  
<https://doi-org.nl.idm.oclc.org/10.2224/sbp.2010.38.8.1041>
- Chan, S. M. (2010). Aggressive behaviour in early elementary school children: Relations to authoritarian parenting, children's negative emotionality and coping strategies. *Early Child Development and Care*, 180, 1253–1269.  
<https://doi.org/10.1080/03004430902981447>
- Chang, E. C. (1998). Cultural differences, perfectionism, and suicidal risk in a college population: Does social problem solving still matter? *Cognitive Therapy and Research*, 22, 237–254.
- Cohen, S.; Kamarck, T.; & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385–396. <https://doi.org/10.2307/2136404>.
- Cowden, R. G., Crust, L., Jackman, P. C., & Duckett, T. R. (2019). Perfectionism and motivation in sport: The mediating role of mental toughness. *South African Journal of Science*, 115(1/2), 57–63. <https://doi-org.nl.idm.oclc.org/10.17159/sajs.2019/5271>
- Credé, M., & Niehorster, S. (2012). Adjustment to college as measured by the Student Adaptation to College Questionnaire: A quantitative review of its structure and relationships with correlates and consequences. *Educational Psychology Review*, 24, 133–165. doi:10.1007/s10648-011-9184-5
- Cremades, J. G., Donlon, C. J., Poczwardowski, A. (2013). Parental involvement and gender differences in the psychological profile of freshmen collegiate athletes. *J Sport Health Sci*, 2(3), 160–167. <https://doi.org/10.1016/j.jshs.2012.05.001>
- Curran, T. (2018). Parental conditional regard and the development of perfectionism in adolescent athletes: The mediating role of competence contingent self-worth. *Sport*,

- Exercise, and Performance Psychology*, 7(3), 284-296. <https://doi.org/10.1037/spy0000126>
- Curran, T., & Hill, A. P. (2019). Perfectionism is increasing over time: A meta-analysis of birth cohort differences from 1989 to 2016. *Psychological Bulletin*, 145(4), 410–429. <https://doi-org.nl.idm.oclc.org/10.1037/bul0000138>
- Darlow, V., Norvilitis, J., & Schuetze, P. (2017). The Relationship between Helicopter Parenting and Adjustment to College. *Journal of Child & Family Studies*, 26(8), 2291– 2298. <https://doi-org.nl.idm.oclc.org/10.1007/s10826-017-0751-3>
- De Petrillo, L. A., Kaufman, K. A., Glass, C. R., & Arnkoff, D. B. (2009). Mindfulness for long distance runners: An open trial using mindful sport performance enhancement (MSPE). *Journal of Clinical Sport Psychology*, 4, 357-376. <https://doi.org/10.1123/jcsp.3.4.357>
- Deci, E. L., & Ryan, R. M. (1992). The initiation and regulation of intrinsically motivated learning and achievement. In A. K. Boggiano & T. S. Pittman (Eds.), *Achievement and motivation: A social-developmental perspective*. (pp. 9–36). Cambridge University Press.
- DeDonno, M. A., & Rivera-Torres, K. (2018). The Influence of Perfectionism on Academic Self-Concept. *International Journal of Education and Practice*, 6(4), 192–199.
- Diehl, K., Thiel, A., Zipfel, S., Mayer, J., & Schneider, S. (2014). Substance use among elite adolescent athletes: Findings from the goal study. *Scandinavian Journal of Medicine and Science in Sports*, 24, 250–258. <https://doi.org/10.1111/j.1600-0838.2012.01472.x>
- Dunn, J. G. H., Causgrove Dunn, J., Gotwals, J. K., Vallance, J. K. H., Craft, J. M., & Syrotuik, D. G. (2006). Establishing construct validity evidence for the Sport Multidimensional Perfectionism Scale. *Psychology of Sport and Exercise*, 7, 57–79. <https://doi.org/10.1016/j.psychsport.2005.04.003>

- Dunn, J. G. H., Causgrove Dunn, J., & Syrotuik, D. G. (2002). Relationship between multidimensional perfectionism and goal orientations in sport. *Journal of Sport & Exercise Psychology, 24*, 376–395. <https://doi.org/10.1123/jsep.23.4.376>
- Dunn, J., Gotwals, J. K., Dunn, J. C. (2005). An examination of the domain specificity of perfectionism among intercollegiate student-athletes. *Pers Individ Differ, 38*, pp. 1439-1448. <https://doi.org/10.1016/j.paid.2004.09.009>
- Eccles, J., Harold, R. (1991). Gender differences in sport involvement: applying the Eccles's expectancy-value model. *J Appl Sport Psychol, 3*, pp. 7-35. <https://doi.org/10.1080/10413209108406432>
- Eccles, J. S., Wigfield, A., Harold, R. D., Blumenfeld, P. (1993). Ontogeny of children's self-perceptions and subjective task values across activity domains during the early elementary school years. *Child Dev, 64*, pp. 830-847. <https://doi.org/10.1111/j.1467-8624.1993.tb02946.x>
- Eccles, J. S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon & N. Eisenberg (Eds.), *Social, emotional and personality development: Handbook of child psychology* (pp. 1017– 1095). Wiley
- Eells, T. D. (2002). Formulation. In M. Hersen & W. Sledge (Eds.), *The encyclopedia of psychotherapy* (pp. 815–822). Academic Press.
- Egan, S. J., van Noort, E., Chee, A., Kane, R. T., Hoiles, K. J., Shafran, R., & Wade, T. D. (2014). A randomized controlled trial of face to face versus pure online self-help cognitive behavioral treatment for perfectionism. *Behavior Research and Therapy, 63*, 107–113. <https://doi-org.nl.idm.oclc.org/10.1016/j.brat.2014.09.009>

- Egan, S. J., Wade, T. D., Shafran, R., & Antony, M. M. (2014). *Cognitive-behavioral treatment of perfectionism*. Guilford Publications.
- Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2006). Prosocial development. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 646–718). Wiley.
- Ellis, A. (1991). The revised ABC's of rational-emotive therapy (RET). *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *9*, 139–172.  
<https://doi.org/10.1007/BF01061227>
- Ellis, A. (1992). Psychotherapy Can and Will Create Social Change. Hallelujah! Psychotherapy in Private Practice, *10*, 117-121. [https://doi.org/10.1300/J294v10n04\\_12](https://doi.org/10.1300/J294v10n04_12)
- Engler, P., Crowther, J., Dalton, G., & Sanftner, J. (2006). Predicting eating disorder group membership: An examination and extension of the sociocultural model. *Behavior Therapy*, *37*, 69–79. <https://doi.org/10.1016/j.beth.2005.04.003>
- Enns, M. W., & Cox, B. J. (2002). *The nature and assessment of perfectionism: A critical analysis*. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (p.33–62). American Psychological Association. <https://doi.org/10.1037/10458-002>
- Fagan, K. (2015, May 7). *Split Image*. ESPN. Retrieved from [http://www.espn.com/espn/feature/story/\\_/id/12833146/instagram-account-university-pennsylvania-runner-showed-only-part-story](http://www.espn.com/espn/feature/story/_/id/12833146/instagram-account-university-pennsylvania-runner-showed-only-part-story)
- Fagan, K. (2018). *What made Maddy run: the secret struggles and tragic death of an all-American teen*. Back Bay Books / Little, Brown and Company.

- Fairburn, C. G., & Beglin, S. (1994). Assessment of eating disorders: Interview or self-report? *International Journal of Eating Disorders*, *16*, 363-370. [https://doi.org/10.1002/1098-108X\(199412\)16:4<363::AID-EAT2260160405>3.0.CO;2-%23](https://doi.org/10.1002/1098-108X(199412)16:4<363::AID-EAT2260160405>3.0.CO;2-%23)
- Fairburn, C. G., & Beglin, S. (2008). Eating Disorder Examination Questionnaire (EDE-Q 6.0). In C. G. Fairburn (Ed.), *Cognitive behavior therapy and eating disorders* (pp 309–313). Guilford.
- Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). *The clinical perfectionism questionnaire*. University of Oxford, UK: Unpublished scale.
- Fantuzzo, J., Tighe, E., & Childs, S. (2000). Family Involvement Questionnaire: A multivariate assessment of family participation in early childhood education. *Journal of Educational Psychology*, *92*(2), 367–376. <https://doi.org/10.1037/0022-0663.92.2.367>
- Farmer, R. F., & Chapman, A. L. (2016). Behavioral interventions in cognitive behavior therapy: Practical guidance for putting theory into action (2nd ed.). *American Psychological Association*. <https://doi.org/10.1037/14691-000>
- Ferrante, A. P., Etzel, E., & Lantz, C. (1996). *Counseling college student-athletes: The problem, the need*. *Counseling college student-athletes: Issues and interventions*, *2*, 3-26. Fitness Information Technology.
- Ferrier-Auerbach, A. G., & Martens, M. P. (2009). Perceived incompetence moderates the relationship between maladaptive perfectionism and disordered eating. *Eating Disorders: The Journal of Treatment & Prevention*, *17*(4), 333–344. <https://doi-org.nl.idm.oclc.org/10.1080/10640260902991244>

- Fields, K. B., & Pelaney, M. J. (1993). Controversies in Sports Medicine. *Student Athletes: Shattering the Myths and Sharing the Realities*. Alexandria, Va.: American Counseling Association.
- Fletcher, D., Hanton, S., & Mellalieu, S. D. (2006). An organizational stress review: Conceptual and theoretical issues in competitive sport. In S. Hanton & S. D. Mellalieu (Eds.), *Literature reviews in sport psychology* (pp. 321–374). Nova Science.
- Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Gray, L. (1998). Psychological distress and the frequency of perfectionistic thinking. *Journal of Personality and Social Psychology*, *75*, 1363–1381. <https://doi.org/10.1037/0022-3514.75.5.1363>
- Flett, G. L., & Hewitt, P. L., Oliver, J. M., & Macdonald, S. (2002). Perfectionism in children and their parents: A developmental analysis. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 89-132). Washington, DC: American Psychological Association. <http://doi.org/c9wc3b>
- Flett, G., Hewitt, P. L., Boucher, D. J., Davidson, L. A., & Munro, Y. (2001). *The Child–Adolescent Perfectionism Scale: Development, validation, and association with adjustment*. Unpublished manuscript, York University.
- Flett, G. L., Hewitt, P. L., Whelan, T., & Martin, T. R. (2007). The Perfectionism Cognitions Inventory: Psychometric properties and associations with distress and deficits in cognitive self-management. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *25*, 255–277.
- Frost, R. O., Marten, P., Lahart, C. M., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research*, *4*, 449-468. <http://doi.org/cw8>

- Frost, R. O., Lahart, C. M., & Rosenblate, R. (1991). The development of perfectionism: A study of daughters and their parents. *Cognitive Therapy and Research, 15*, 469-489.  
<https://doi.org/10.1007/BF01175730>
- Fulkerson, J. A., Keel, P. K., Leon, G. R., & Dorr, T. (1999). Eating-disordered behaviors and personality characteristics of high school athletes and nonathletes. *International Journal of Eating Disorders, 26*(1), 73–79. [https://doi-org.nl.idm.oclc.org/10.1002/\(SICI\)1098-108X\(199907\)26:1<73::AID-EAT9>3.0.CO;2-F](https://doi-org.nl.idm.oclc.org/10.1002/(SICI)1098-108X(199907)26:1<73::AID-EAT9>3.0.CO;2-F)
- Garinger, L. M., Chow, G. M., & Luzzi, M. (2018). The effect of perceived stress and specialization on the relationship between perfectionism and burnout in collegiate athletes. *Anxiety, stress & coping: An International Journal, 31*(6), 714–727. <https://doi-org.nl.idm.oclc.org/10.1080/10615806.2018.1521514>
- Garner, D. M., & Olmsted, M. P. (1984). *The Eating Disorder Inventory manual*. Psychological Assessment Resources.
- Garner, D. M., Olmsted, M. P., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International Journal of Eating Disorders, 2*, 15–35. [https://doi.org/10.1002/1098-108X\(198321\)2:2<15::AID-EAT2260020203>3.0.CO;2-6](https://doi.org/10.1002/1098-108X(198321)2:2<15::AID-EAT2260020203>3.0.CO;2-6)
- Gaylord-Harden, N. K., Campbell, C. L., & Kesselring, C. M. (2010). Maternal parenting behaviors and coping in African American children: The influence of gender and stress. *Journal of Child and Family Studies, 19*, 579–587. <https://doi.org/10.1007/s10826-009-9333-3>
- Glick, I. D., & Horsfall, J. L. (2005). Diagnosis and psychiatric treatment of athletes. *Clinical Sports Medicine, 24*(4), 771–781. <https://doi.org/10.1016/j.csm.2005.03.007>

- Glick, I.D., Kamm, R., & Morse, E. (2009). The evolution of sport psychiatry, circa 2009. *Sports Medicine*, 39, 607–613. <https://doi.org/10.2165/00007256-200939080-00001>
- Glick, I.D., Stillman, M.A., Reardon, C.L., & Ritvo, E. (2012). Managing psychiatric issues in elite athletes. *Journal of Clinical Psychiatry*, 73, 640–644. <https://doi.org/10.4088/JCP.11r07381>
- Gong, X., Fletcher, K. L., & Bolin, J. H. (2015). Dimensions of perfectionism mediate the relationship between parenting styles and coping. *Journal of Counseling & Development*, 93(3), 259–268. <https://doi-org.nl.idm.oclc.org/10.1002/jcad.12024>
- Gotwals, J. K., Dunn, J. G. H., Causgrove Dunn, J., & Gamache, V. (2010). Establishing validity evidence for the Sport Multidimensional Perfectionism Scale-2 in intercollegiate sport. *Psychology of Sport and Exercise*, 11, 423-432. <https://doi.org/10.1016/j.psychsport.2010.04.013>
- Gotwals, J. K., & Spencer-Cavaliere, N. (2014). Intercollegiate perfectionistic athletes' perspectives on achievement: Contributions to the understanding and assessment of perfectionism in sport. *International Journal of Sport Psychology*, 45, 271– 297. <https://doi.org/10.7352/IJSP2014.45.271>
- Greenspon, T. S. (2000). “Healthy Perfectionism” is an oxymoron!: Reflections on the psychology of perfectionism and the sociology of science. *The Journal of Secondary Gifted Education*, 11, 197-208.
- Greenberg, J. R., & Mitchell, S. A. (1983). *Object relations in psychoanalytic theory*. Harvard University Press.

- Grusec, J. E., & Sherman, A. (2011). Prosocial behavior. In M. K. Underwood & L. H. Rosen (Eds.), *Social development: Relationships in infancy, childhood, and adolescence* (pp. 263–286). Guilford.
- Gulliver, A., Griffiths, K.M., & Christensen, H. (2012). Barriers and facilitators to mental health help-seeking for young elite athletes: A qualitative study. *BMC Psychiatry, 12*, 1–14. <https://doi.org/10.1186/1471-244X-12-157>
- Halgin, R. P., & Leahy, P. M. (1989). Understanding and Treating Perfectionistic College Students. *Journal of Counseling & Development, 68*(2), 222. <https://doi-org.nl.idm.oclc.org/10.1002/j.1556-6676.1989.tb01362.x>
- Hall, H. K. (2006). Perfectionism: A hallmark quality of world class performers, or a psychological impediment to athletic development. In D. Hackfort, & G. Tenenbaum (Eds.), *Perspectives in sport and exercise psychology: Essential processes for attaining peak performance* (Vol. 1, pp. 178-211). Meyer & Meyer.
- Hamachek, D. E. (1978). Psychodynamics of Normal and Neurotic Perfectionism. *Psychology: A Journal of Human Behavior, 15*, 27-33.
- Handley, A. K., Egan, S. J., Kane, R. T., & Rees, C. S. (2015). A randomized controlled trial of group cognitive behavioral therapy for perfectionism. *Behavior Research and Therapy, 68*, 37–47. <https://doi.org/10.1016/j.brat.2015.02.006>
- Hausenblaus, H.A., Carron, A.V. (1999). Eating disorder indices and athletes: an integration. *JSEP, 21*, 230-258. <https://doi.org/10.1123/jsep.21.3.230>
- Hays, K. F. (1999). *Working it out: Using exercise in psychotherapy*. American Psychological Association. <https://doi.org/10.1037/10333-000>
- Hebel, S. “Supreme Court Says Colleges May Be Liable for Student-on-Student Harassment.”

- Chronicle of Higher Education*, May 4, 1999, pp. A40–A41.
- Hewitt, P. L., & Flett, G. L. (1990). Perfectionism and depression: A multidimensional analysis. *Journal of Social Behavior and Personality*, *5*, 423-438.
- Hewitt, R. L., & Flett, G. L. (1991b). Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology*, *60*, 456-470. <https://doi.org/10.1037/0022-3514.60.3.456>
- Hewitt, P. L., Mikail, S. F., Flett, G. L., Tasca, G. A., Flynn, C. A., Deng, X., Kaldas, J., & Chen, C. (2015). Psychodynamic/interpersonal group psychotherapy for perfectionism: Evaluating the effectiveness of a short-term treatment. *Psychotherapy*, *52*(2), 205–217. <https://doi-org.nl.idm.oclc.org/10.1037/pst0000016>
- Hewitt, P. L., Flett, G. L., & Mikail, S. F. (2017). *Perfectionism: A relational approach to conceptualization, assessment, and treatment*. Guilford Press.
- Hibbard, D. R., & Walton, G. E. (2014). Exploring the development of perfectionism: The influence of parenting style and gender. *Social Behavior & Personality: An International Journal*, *42*(2), 269–278.
- Hill, R. W., Huelsman, T. J., Furr, R. M., Kibler, J., Vicente, B. B., & Kennedy, C. (2004). A New Measure of Perfectionism: The Perfectionism Inventory. *Journal of Personality Assessment*, *82*, 80 - 91.
- Hill, A. (Ed.). (2016). *The Psychology of Perfectionism in Sport, Dance and Exercise* (1st ed.).
- Hill, A. P., & Curran, T. (2016). Multidimensional perfectionism and burnout: A meta-analysis. *Personality and Social Psychology Review*, *20*(3), 269–288. <https://doi.org/10.1177/1088868315596286>

- Hill, A. P., Hall, H. K., & Appleton, P. R. (2010). Perfectionism and athlete burnout in junior elite athletes: the mediating role of coping tendencies. *Anxiety, stress, and coping*, 23(4), 415–430. <https://doi.org/10.1080/10615800903330966>
- Hinton, P. S., & Kubas, K. L. (2005). Psychosocial correlates of disordered eating in female collegiate athletes: Validation of the athlete questionnaire. *Journal of American College Health*, 54(3), 149. <https://doi.org/10.3200/JACH.54.3.149-156>
- Hofmann, S. G., Asnaani, A., Vonk, I. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy and Research*, 36, 427–440. <https://doi.org/10.1007/s10608-012-9476-1>
- Hollender, M. H. (1965). Perfectionism. *Comprehensive Psychiatry*, 6, 94–103. [https://doi.org/10.1016/s0010-440x\(65\)80016-5](https://doi.org/10.1016/s0010-440x(65)80016-5)
- Horney, K. (1950). *Neurosis and Human Growth: The Struggle Toward Self-Realization*. W. W. Norton & Company, Inc. (1991 edition)
- Horowitz, L. M., Rosenberg, S. E., Baer, B. A., Ureño, G., & Villaseñor, V. S. (1988). Inventory of interpersonal problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology*, 56, 885–892. <http://dx.doi.org/10.1037/0022-006X.56.6.885>
- Jones, D. (2001, June 3). “So, tell me about your mother.” *The Guardian*. Accessed 03 June 2021. Retrieved from <http://www.theguardian.com/sport/2001/jun/03/tennis.features>.
- Jones, J. (2018). Perfectionism: A Growing Challenge for College Students. *Psych Central*. Retrieved on August 27, 2020 from <https://psychcentral.com/lib/perfectionism-a-growing-challenge-for-college-students/>
- Kabat-Zinn, J. (1990). *Full catastrophe living*. Delta.

- Kaufman, K. A., Glass, C. R., & Arnkoff, D. B. (2009). Evaluation of Mindful Sport Performance Enhancement (MSPE): A new approach to promote flow in athletes, *Journal of Clinical Sport Psychology*, 3(4), 334-356.
- Kerr, G & Goss, J. (1997). Personal control in elite gymnasts: the relationships between locus of control, self-esteem and trait anxiety. *Journal of Sport Behavior*, 20, 69–82.
- Klein, M. (1935). A contribution to the psychogenesis of manic-depressive states. *International Journal of Psycho-Analysis*, 16, 145-174.
- Kohut, H. (1971). *The analysis of the self: A systematic approach to the psychoanalytic treatment of narcissistic personality disorders*. International Universities Press.
- Kohut, H. (1984). *How does analysis cure?* University of Chicago Press.
- Kutlesa, N., & Arthur, N. (2008). Overcoming negative aspects of perfectionism through group treatment. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 26(3), 134–150. <https://doi-org.nl.idm.oclc.org/10.1007/s10942-007-0064-3>
- Kyung E. R., Dickstein, S., Jelalian, E., Boutelle, K., Seifer, R., & Rena, W. (2015). Development of the general parenting observational scale to assess parenting during family meals. *International Journal of Behavioral Nutrition & Physical Activity*, 12, 1–15. <https://doi-org.nl.idm.oclc.org/10.1186/s12966-015-0207-3>
- Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development*, 62, 1049-1065. <http://doi.org/b97>
- Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. Springer.

- Leahy, R. L. (1995). Cognitive development and cognitive therapy. *Journal of Cognitive Psychotherapy: An International Quarterly*, 9(3), 173-184. <https://doi.org/10.1891/0889-8391.9.3.173>
- Leary, M. R. (1983). A brief version of the Fear of Negative Evaluation Scale. *Personality and Social Psychology Bulletin*, 9, 371-375. <https://doi.org/10.1177/0146167283093007>
- Leary, M. R. (1983). Social anxiousness: The construct and its measurement. *Journal of Personality Assessment*, 47, 66–75. [https://doi.org/10.1207/s15327752jpa4701\\_8](https://doi.org/10.1207/s15327752jpa4701_8)
- Lemyre, P. N., Hall, H. K., & Roberts, G. C. (2008). A social cognitive approach to burnout in elite athletes. *Scandinavian Journal of Medicine and Science in Sports*, 18, 221–234.
- Lilenfeld, L. R., Stein, D., Bulik, C. M., Strober, M., Plotnicov, K., Pollice, C., Rao, R., Merikangas, K. R., Nagy, L., & Kaye, W. H. (2000). Personality traits among currently eating disordered, recovered and never ill first-degree female relatives of bulimic and control women. *Psychological Medicine*, 30(6), 1399–1410. <https://doi.org/10.1017/s0033291799002792>
- Locke, B. D., Buzolitz, J. S., Lei, P.-W., Boswell, J. F., McAleavey, A. A., Sevig, T. D., Hayes, J. A. (2011). Development of the Counseling Center Assessment of Psychological Symptoms-62 (CCAPS-62). *Journal of Counseling Psychology*, 58, 97–109. <http://dx.doi.org/10.1037/a0021282>
- Looney, M. A. (2004). Evaluating judge performance in sport. *Journal of Applied Measure*, 5(1), 31–47.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression

- and Anxiety Inventories. *Behaviour Research and Therapy*, 33, 335-343.  
[https://doi.org/10.1016/0005-7967\(94\)00075-u](https://doi.org/10.1016/0005-7967(94)00075-u)
- Maccoby, E. E., & Martin, J. (1983). Socialization in the context of the family: Parent child interaction. In E. M. Hetherington (Ed.), P. H. Mussen (Series Ed.), *Hand book of child psychology: Socialization, personality, and social development* (vol. 4, pp. 1-101). Wiley.
- Madigan, D. J., Stoeber, J., & Passfield, L. (2015). Perfectionism and burnout in junior athletes: A three-month longitudinal study. *Journal of Sport & Exercise Psychology*, 37, 305–315.  
<https://doi.org/10.1123/jsep.2014-0266>
- McArdle, S., & Duda, J. L. (2004). Exploring social-contextual correlates of perfectionism in adolescents: A multivariate perspective. *Cognitive Therapy & Research*, 28(6), 765–788.  
<https://doi-org.nl.idm.oclc.org/10.1007/s10608-004-0665-4>
- McArdle, S., & Duda, J. L. (2008). Exploring the etiology of perfectionism and perceptions of self-worth in young athletes. *Social Development*, 17(4), 980–997. <https://doi-org.nl.idm.oclc.org/10.1111/j.1467-9507.2007.00456.x>
- McDuff, D. R., & Baron, D. (2005). Substance use in athletes: A sports psychiatry perspective. *Clinics in Sports Medicine*, 24, 885–897. <https://doi.org/10.1016/j.csm.2005.06.004>
- Meichenbaum, D.H. (Ed.) (1977). *Cognitive behavior modification: An integrative approach*. Plenum.
- Millman, R. P., Working Group on Sleepiness in Adolescents/Young Adults, & AAP Committee on Adolescence (2005). Excessive sleepiness in adolescents and young adults: causes, consequences, and treatment strategies. *Pediatrics*, 115(6), 1774–1786.  
<https://doi.org/10.1542/peds.2005-0772>

- Minarik, M. L., & Ahrens, A. H. (1996). Relations of eating behavior and symptoms of depression and anxiety to dimensions of perfectionism among undergraduate women. *Cognitive Therapy and Research, 20*, 155-169.
- Mitchell, J. H., Broeren, S., Newall, C., & Hudson, J. L. (2013). An experimental manipulation of maternal perfectionistic anxious rearing behaviors with anxious and non-anxious children. *Journal of experimental child psychology, 116*(1), 1–18.  
<https://doi.org/10.1016/j.jecp.2012.12.006>
- Mitchell, S. (1988). *Relational concepts in psychoanalysis: An Integration*. Harvard University Press.
- Mitchell, S. A., & Black, M. J. (1996). *Freud and beyond: A history of modern psychoanalytic thought*. Basic Books.
- National Collegiate Athletic Association (2019). Retrieved from  
<https://www.ncaa.org/sites/default/files/Recruiting%20Fact%20Sheet%20WEB>.
- Nauta, M. H., Scholing, A., Rapee, R. M., Abbott, M. J., Spence, S. H., & Waters, A. (2004). A parent report measure of children's anxiety. *Behaviour Research and Therapy, 47*, 813–839. [https://doi.org/10.1016/S0005-7967\(03\)00200-6](https://doi.org/10.1016/S0005-7967(03)00200-6)
- Newton, M. L., Duda, J. L., & Yin, Z. (2000). Examination of the psychometric properties of the Perceived Motivational Climate in Sport Questionnaire-2 in a sample of female athletes. *Journal of Sports Sciences, 18*, 275–290. <https://doi.org/10.1080/026404100365018>
- Nilsson, J. E., Paul, B. D., Lupini, L. N., & Tatem, B. (1999). Cultural differences in perfectionism: A comparison of African American and White college students. *Journal of College Student Development, 40*, 141–150.

- O'Bryant, B. J. (1993). School counseling and the student athlete. In W. D. Kirk & S. V. Kirk (Eds.), *Student athletes: Shattering the myths and sharing the realities*. (pp. 13–24). American Counseling Association.
- Olson, D. H., Portner, J., & Bell, R. Q. (1982). *FACES II: Family adaptability and cohesion evaluation scales*. University of Minnesota, Family Social Science.
- Ommundsen, Y., Roberts, G. C., Lemyre, P. N., & Miller, B. W. (2005). Peer relationships in adolescent competitive soccer: Associations to perceived motivational climate, achievement goals and perfectionism. *Journal of Sports Sciences, 23*, 977–989. <https://doi.org/10.1080/02640410500127975>
- Pearce, G. D. (1998a). Categories of perfectionism as the discriminators between individual versus team sports, preference and performance. In Y. Theodorakis, M. Goudas, & K. Bagiatas (Eds.), *Second International congress on Sport Psychology: Proceedings* (pp. 56-58). University of Thessaly Press.
- Pelletier, L. G., Fortier, M. S., Vallerand, R. J., Tuson, K. M., Briere, N. M., & Blais, M. R. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and amotivation in sports: The sport motivation scale (SMS). *Journal of Sport and Exercise Psychology, 17*, 35–53. <https://doi.org/10.1123/jsep.17.1.35>
- Petrie, T., Greenleaf, C., Reel, J., & Carter, J. (2009). Personality and Psychological Factors as Predictors of Disordered Eating Among Female Collegiate Athletes. *Eating Disorders, 17*(4), 302–321. <https://doi-org.nl.idm.oclc.org/10.1080/10640260902991160>
- Pirbaglou, M., Cribbie, R., Irvine, J., Radhu, N., Vora, K., & Ritvo, P. (2013). Perfectionism, anxiety, and depressive distress: Evidence for the mediating role of negative automatic

- thoughts and anxiety sensitivity. *Journal of American College Health*, 61(8), 477–483.  
<https://doi-org.nl.idm.oclc.org/10.1080/07448481.2013.833932>
- Plateau, C. R., Arcelus, J., Leung, N., & Meyer, C. (2017). Female athlete experiences of seeking and receiving treatment for an eating disorder. *Eating Disorders: The Journal of Treatment & Prevention*, 25(3), 273–277.  
<https://doi.org/nl.idm.oclc.org/10.1080/10640266.2016.1269551>
- Presley, C. A. (1997). *Alcohol and drugs on American college campuses: Issues of violence and harassment: a report to college presidents*. Core Institute, Southern Illinois University.
- Pritchard, M. E., Wilson, G. S., & Yamnitz, B. (2007). What predicts adjustment among college students? A longitudinal panel study. *Journal of American College Health*, 56, 15–22.  
<https://doi.org/10.3200/JACH.56.1.15-22>
- Prnjak, K., Jukic, I., & Tufano, J. J. (2019). Perfectionism, body satisfaction and dieting in athletes: The role of gender and sport type. *Sports (Basel, Switzerland)*, 7(8), 181.  
<https://doi.org/10.3390/sports7080181>
- Radhu, N., Daskalakis, Z. J., Arpin-Cribbie, C. A., Irvine, J., & Ritvo, P. (2012). Evaluating a web-based cognitive-behavioral therapy for maladaptive perfectionism in university students. *Journal of American College Health*, 60(5), 357–366.
- Raedeke, T. D., & Smith, A. L. (2001). Development and preliminary validation of an athlete burnout measure. *Journal of Sport & Exercise Psychology*, 23(4), 281–306.
- Rao, A. L., Asif, I. M., Drezner, J. A., Toresdahl, B. G., & Harmon, K. G. (2015). Suicide in National Collegiate Athletic Association (NCAA) athletes: A 9-Year analysis of the NCAA resolutions database. *Sports health*, 7(5), 452–457.  
<https://doi.org/10.1177/1941738115587675>

- Rice, K. G., Leever, B. A., Christopher, J., & Porter, J. (2006). Perfectionism, stress, and social (dis)connection: A short-term study of hopelessness, depression, and academic adjustment among honors students. *Journal of Counseling Psychology, 53*, 524–534. <https://doi.org/10.1037/0022-0167.53.4.524>
- Rice, K. G., Richardson, M. E., & Tueller, S. (2014). The Short Form of the Revised Almost Perfect Scale. *Journal of Personality Assessment, 96*(3), 368-379. doi: <https://dx.doi.org/10.1080/00223891.2013.838172>
- Rice, K. G., & Slaney, R. (2002). Clusters of perfectionists: Two studies of emotional adjustment and academic achievement. *Measurement & Evaluation in Counseling & Development (American Counseling Association), 35*, 35–48. <https://doi.org/10.1080/07481756.2002.12069046>
- Rice, K. G., & Taber, Z. B. (2019). Measurement invariance and latent profiles of perfectionism in clients and nonclients. *Journal of Counseling Psychology, 66*(2), 210–223. <https://doi-org.nl.idm.oclc.org/10.1037/cou0000326>
- Rice, K. G., Vergara, D. T., & Aldea, M. A. (2006). Cognitive-affective mediators of perfectionism and college student adjustment. *Personality and Individual Differences, 40*, 463–473. <http://doi.org/c9wc3b/10.1016/j.paid.2005.05.011>
- Ritsner, M., Kurs, R., Gibel, A., Ratner, Y., & Endicott, J. (2005). Validity of an abbreviated Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES Q- 18) for schizophrenia, schizoaffective, and mood disorder patients. *Quality of Life Research, 14*, 1693-1703.
- Rosenberg, M. (1965). *Society and the self-image*. Princeton University Press. Rozenal, A., Shafran, R., Wade, T., Egan, S., Nordgren, L. B., Carlbring, P., Andersson, G. (2017). A

- randomized controlled trial of Internet-Based Cognitive Behavior Therapy for perfectionism including an investigation of outcome predictors. *Behaviour Research and Therapy*, 95, 79–86. <https://doi.org/10.1016/j.brat.2017.05.015>
- Ryska, T. A. (2003). Sport Involvement and Perceived Scholastic Competence in Student-Athletes: A Multivariate Analysis. *International Sports Journal*, 7(1), 155.
- Sankaran, S. (2018). Learned helplessness in sports: The role of repetitive failure experience, performance anxiety and perfectionism. *Polish Psychological Bulletin*, 49(3), 311–321. <https://doi-org.nl.idm.oclc.org/10.24425/119498>
- Schaal, K., Tafflet, M., Nassif, H., Thibault, V., Pichard, C., Alcotte, M., Toussaint, J. F. (2011). Psychological balance in high level athletes: Gender-based differences and sport-specific patterns. *Plos one*, 6, e19007. <https://doi.org/10.1371/journal.pone.019007>
- Shafran, R., Egan, S., & Wade, T. (2010). *Overcoming perfectionism: A self-help guide using cognitive behavioural techniques*. London, UK: Constable & Robinson.
- Shafran, R., Coughtrey, A., & Kothari, R. (2016). New frontiers in the treatment of perfectionism. *International Journal of Cognitive Therapy*, 9(2), 156–170. <https://doi.org/10.1521/ijct.2016.9.2.156>
- Shafran, R., Wade, T., Egan, S., Kothari, R., Allcott-Watson, H., Carlbring, P., Andersson, G. (2017). Is the devil in the detail? A randomized controlled trial of guided internet-based CBT for perfectionism. *Behaviour Research and Therapy*, 95, 99–106. <https://doi.org/10.1016/j.brat.2017.05.014>
- Shafique, N., Gul, S., & Raseed, S. (2017). Perfectionism and perceived stress: The role of fear of negative evaluation. *International Journal of Mental Health*, 46(4), 312–326. <https://doi-org.nl.idm.oclc.org/10.1080/00207411.2017.1345046>

- Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., Hergueta, T., Baker, R., et al. (1998). The Mini-International Neuropsychiatric Interview (M.I.N.I): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry, 59*, 22-33.
- Slade, P. D., & Owens, R. G. (1998). A dual process model of perfectionism based on reinforcement theory. *Behavior Modification, 22*, 372-390.  
<https://doi.org/10.1177/01454455980223010>
- Sorotzkin, B. (1985). The quest for perfection: Avoiding guilt or avoiding shame? *Psychotherapy: Theory, Research, Practice, Training, 22*(3), 564.  
<https://doi.org/10.1037/h0085541>
- Spence, S. H. (1998). A measure of anxiety symptoms among children. *Behaviour Research and Therapy, 36*, 545–566. [https://doi.org/10.1016/S0005-7967\(98\)00034-5](https://doi.org/10.1016/S0005-7967(98)00034-5)
- Srinivasagam, N. M., Kaye, W. H., Plotnicov, K. H., Greeno, C., Weltzin, T. E., & Rao, R. (1995). Persistent perfectionism, symmetry, and exactness after long-term recovery from anorexia nervosa. *The American Journal of Psychiatry, 152*(11), 1630–1634. <https://doi.org/10.1176/ajp.152.11.1630>
- Steele, A., & Wade, T. (2008). A randomized trial investigating guided self-help to reduce perfectionism and its impact on bulimia nervosa: A pilot study. *Behavior Research and Therapy, 46*, 1316–1323. <https://doi.org/10.1016/j.brat.2008.09.006>
- Stice, E. (2001). Risk factors for eating pathology: Recent advances and future directions. In R. Striegel-Moore & L. Smolak (Eds.), *Eating disorders: Innovative directions in research and practice* (pp. 51–73). American Psychological Association.

- Stoeber, J., Otto, K., Pescheck, E., Becker, C., & Stoll, O. (2007). Perfectionism and competitive anxiety in athletes: Differentiating striving for perfection and negative reactions to imperfection. *Personality and Individual Differences, 42*, 959–969.  
<https://doi.org/10.1016/j.paid.2006.09.006>
- Sullivan, H. S. (Ed.). (1953). *The interpersonal theory of psychiatry*. New York, NY: W. Norton.
- Swanson, J., Valiente, C., Lemery-Chalfant, K., & O'Brien, T. C. (2011). Predicting early adolescents' academic achievement, social competence, and physical health from parenting, ego resilience, and engagement coping. *Journal of Early Adolescence, 31*, 548–576. <https://doi.org/10.1177/0272431610366249>
- Taranis, L., Touyz, S., & Meyer, C. (2011). Disordered eating and exercise: Development and preliminary validation of the Compulsive Exercise Test (CET). *European Eating Disorders Review, 19*(3), 256–268. <https://doi.org/10.1002/erv.1108>
- Thompson, R., & Sherman, R. (1999). “Good athlete” traits and characteristics of anorexia nervosa: Are they similar. *Eating Disorders, 7*, 181–190.  
<https://doi.org/10.1080/10640269908249284>
- U.S. Department of Education, National Center for Education Statistics. (2019). Retrieved from [https://nces.ed.gov/programs/coe/indicator\\_cha.asp](https://nces.ed.gov/programs/coe/indicator_cha.asp)
- Valentine, E. G., Bodill, K. O., Watson, H. J., Hagger, M. S., Kane, R. T., Anderson, R. A., & Egan, S. J. (2018). A randomized controlled trial of unguided internet cognitive-behavioral treatment for perfectionism in individuals who engage in regular exercise. *International Journal of Eating Disorders, 51*(8), 984–988.  
<https://doi.org/nl.idm.oclc.org/10.1002/eat.22888>

- Vieth, A. Z., & Trull, T. J. (1999). Family patterns of perfectionism: An examination of college students and their parents. *Journal of personality assessment*, 72, 49-67.  
[https://doi.org/10.1207/s15327752jpa7201\\_3](https://doi.org/10.1207/s15327752jpa7201_3)
- Wang, L., Wong, Y. J., & Chung, Y. B. (2018). Family perfectionism, shame, and mental health among Asian American and Asian international emerging adults: Mediating and moderating relationships. *Asian American Journal of Psychology*, 9(2), 117.  
<https://doi.org/10.1037/aap0000098>
- Wang, K. T., Fu, C.-C., & Rice, K. G. (2012). Perfectionism in gifted students: Moderating effects of goal orientation and contingent self-worth. *School Psychology Quarterly*, 27(2), 96–108. <https://doi-org.nl.idm.oclc.org/10.1037/a0029215>
- Wassenaar, D., Le Grange, D., Winship, J., & Lachenicht, L. (2000). The prevalence of eating disorder pathology in a cross-ethnic population of female students in South Africa. *European Eating Disorders Review: The Professional Journal of the Eating Disorders Association*, 8(3), 225-236.
- Watson, J. C. (2006). Student-athletes and counseling: Factors influencing the decision to seek counseling services. *College Student Journal*, 40(1), 35–42.
- Watt, S. K., & Moore, J. L., 3rd. (2001). Who are student athletes? *New Directions for Student Services*, (93), 7–18. <https://doi.org/10.1002/ss.1>
- Weissman, A. N., & Beck, A. T. (1978). *Development and validation of the Dysfunctional Attitude Scale: a preliminary investigation*. Retrieved from <https://files.eric.ed.gov/fulltext/ED167619.pdf>

- White, S. A., & Duda, J. (1993, June). The relationship between goal orientation and parent-initiated motivational climate among children learning a physical skill. *In 8th World meeting for the International Society for Sport Psychology, Lisbon, Portugal.*
- Wilksch, S. M., Durbridge, M. R., & Wade, T. D. (2008). A preliminary controlled comparison of programs designed to reduce risk of eating disorders targeting perfectionism and media literacy. *Journal of the American Academy of Child & Adolescent Psychiatry, 47*(8), 939–947. <https://doi.org/10.1097/CHI.0b013e3181799f4a>
- Wills, F. (2009). *Beck's cognitive therapy*. London: Routledge.
- Willis, F., & Sanders, D. (2013). *Cognitive Behaviour Therapy: Foundations for Practice* (3rd ed.). London, England: Sage.
- Wolfradt, U., Hempel, S., & Miles, J. N. V. (2003). Perceived parenting styles, depersonalization, anxiety and coping behavior in adolescents. *Personality and Individual Differences, 34*, 521–532. [https://doi.org/10.1016/S0191-8869\(02\)00092-](https://doi.org/10.1016/S0191-8869(02)00092-)
- Wolpe, J. (1969). For phobia: A hair of the hound. *Psychology Today, 22*, 34–37.
- Yalom, I. D. (1995). *The theory and practice of group psychotherapy* (4th ed.). New York: Basic Books
- Zhou, Q., Wang, Y., Deng, X., Eisenberg, N., Wolchik, S. A., & Tein, J.-Y. (2008). Relations of parenting and temperament to Chinese children's experience of negative life events, coping efficacy, and externalizing problems. *Child Development, 79*, 493–513. <https://doi.org/10.1111/j.1467-8624.2008.01139.x>
- Zucchetti, G., Candela, F., & Villosio, C. (2015). Psychological and social correlates of doping attitudes among Italian athletes. *International Journal of Drug Policy, 26*, 162–168. <https://doi.org/10.1016/j.drugpo.2014.07.021>

Zuroff, D. C., Blatt, S. J., Sotsky, S. M., Krupnick, J. L., Martin, D. J., Sanislow, C. A. 3rd., & Simmens, S. (2000). Relation of therapeutic alliance and perfectionism to outcome in brief outpatient treatment of depression. *Journal of Consulting and Clinical Psychology*, 68(1), 114–124. <https://doi.org/10.1037/0022-006X.68.1.114>