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AN INVESTIGATION OF THE RELATIONSHIP BETWEEN PERFECTIONISM, BURNOUT
AND PSYCHOLOGY OF REST IN COLLEGIATE STUDENT-ATHLETES

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To my parents, who are my biggest support in life

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ABSTRACT

NCAA Division I collegiate student-athletes in the US compete at the highest college level. These high-level academic and sport-related demands can create perfectionistic tendencies. Prior literature shows that perfectionistic concerns are positively related to athlete burnout while perfectionistic strivings are negatively related. For the prevention of athlete burnout, physical and psychological rest has been recommended. However, there is no previous study that explored the relationship between perfectionism and psychological rest. Therefore, the present study aims to contribute to the existing literature in two ways. First, the relationship between perfectionism and athlete burnout in D-I collegiate athletes was explored. Second, the relationship between perfectionism and psychological rest was explored in these athletes. A sample of 295 D-I, female, team sport athletes participated. Athletes completed online questionnaires comprised of the Competitive Orientations Scale (Sport MPS-2), The Athlete Burnout Questionnaire (ABQ), and the Wakeful Resting Experiences Questionnaire. Four subsamples were identified from the scores on these measures: a pure evaluative concerns perfectionism group ($n = 11$), a mixed perfectionism group ($n = 28$), a non-perfectionism group ($n = 23$), and a pure personal standards perfectionism group ($n = 18$). Hypothesis 1 stated that burnout scores would be highest in the pure evaluative concerns perfectionism (ECP) group, second highest in the mixed perfectionism group, third highest in the non-perfectionism group, and lowest in the pure personal standards perfectionism (PSP) group. Hypothesis 2 stated that psychological resting experience scores would be highest in the pure PSP group, second highest in the non-perfectionism group, third highest in the mixed perfectionism group, and lowest in the pure ECP group. Two separate One-Way ANOVA tests were performed to test the hypotheses. Hypotheses were partially supported. The results showed that athletes with pure ECP and mixed

perfectionism had significantly higher levels of athlete burnout compared to athletes with non-perfectionism and pure PSP. Moreover, athletes with non-perfectionism reported significantly greater recent engagement in psychological resting experiences compared to athletes with mixed perfectionism. This study contributes to the literature by furthering the research on perfectionism and burnout and being a pioneer in research on the relationship between perfectionism and psychological rest.

Keywords: division I, perfectionistic concerns, perfectionistic strivings, recovery, wakeful rest

CHAPTER 1

INTRODUCTION

Student-athletes represent a special population at colleges and universities across the United States, and they invest significant time in sport activities. Compared to non-athletes they report higher levels of stress, lack of sleep, a higher number of responsibilities, and constrained engagement in extracurricular activities (Pritchard & Wilson, 2005). Approximately 503,623 college students participate annually in National Collegiate Athletic Association (NCAA) member institutions (NCAA, 2020). Unlike most undergraduate students, they are required to follow regulations stipulated by the NCAA (Watt & Moore, 2001). NCAA Division I student-athletes report spending approximately 33 hours per week for sport-related activities, 35.5 hours in academics, and only 14.5 hours for socializing and relaxing (NCAA, 2020). More than half (67%) of the Division I student-athletes said the time they spent in sport-related activities during the off-season is the same or even more than a competitive season (NCAA, 2020). This high-level commitment creates a desire to perform near perfect, which facilitates perfectionistic tendencies in athletes (Flett & Hewitt, 2005; Hall, 2006).

Perfectionism is a multidimensional personality trait associated with endeavoring for flawlessness, having extreme standards, and being highly judgemental of oneself (Flett & Hewitt, 2002; Frost et al., 1990). As a personality trait, perfectionism has been linked to athlete burnout (Appleton et al., 2009; Gotwals 2011; Olsson et al., 2021). Burnout may have critical consequences for athletes including negative effects on well-being, reduced performance, and dropout from sport (Cresswell & Eklund, 2006a; Gustafsson et al., 2011). The symptoms of burnout include a decrease in sense of accomplishment, physical and emotional exhaustion, and sport devaluation (Raedeke & Smith, 2001).

One contributor to burnout is insufficient recovery (Eklund & DeFreese, 2015). Recovery is achieved when baseline levels are acquired in physiological, cognitive, and emotional systems (Kellmann, 2002). One important component of recovery is rest (Kellmann et al., 2018). Rest is generally considered as physical inactivity (Kellmann et al., 2018). However, physical inactivity does not necessarily lead to a surcrease in psychological activity (Eccles & Kazmier, 2019).

The literature includes an extensive amount of research on the relationship between perfectionism and burnout. However, most studies have been carried out with junior athletes (Hill, 2013; Jowett et al., 2016; Madigan et al., 2015; Madigan et al., 2016; Smith et al., 2018) or with collegiate student-athletes from Division II and Division III colleges. For example, Crowell and Madigan (2022) conducted a study with Division II athletes, and their results showed that perfectionistic concerns predicted athlete burnout. Another study was conducted by Garinger et al. (2018) with Division II and III athletes from track and field. They found that stress partially mediated the relationship between perfectionism and burnout. Chen et al. (2008) conducted a study with collegiate Division I athletes in China, and their findings suggested that there was a negative relationship between adaptive perfectionism and burnout, and a positive relationship between maladaptive perfectionism and burnout. Moreover, female athletes have been underrepresented in sport and exercise science literature (Cowley et al., 2021). I do not know whether this pattern is reflected in sport psychology literature, because there are no available published studies that directly focus on sport psychology. But, given the pattern reported by Cowley and colleagues (2021), I wanted to focus on females in this study.

The first purpose of this thesis was to explore the relationship between perfectionism and burnout among Division I female collegiate student-athletes from team sports in the United States. More than 460,000 student-athletes participate in NCAA colleges and universities

(NCAA, 2020). This population needs special attention since the number of collegiate student-athletes is growing each year and will continue to rise according to the NCAA participation rates report (NCAA, 2020). Moreover, little focus has been placed on this population.

The second purpose of this study was to explore the relationship between perfectionism and psychological rest. According to previous studies, perfectionistic concerns (evaluative concerns perfectionism) are positively related to burnout whereas perfectionistic strivings (personal standards perfectionism) are negatively related (Hill et al., 2008; Jowett et al., 2013, Jowett et al., 2016). Moreover, it is well known that sport environments evoke fatigue and tiredness both emotionally and physically, which might lead to burnout (Raedeke, 1997). On the other hand, mental rest (i.e., not thinking about one's sport) is associated with a reduction in mental fatigue among athletes (Eccles & Kazmier, 2019). In light of such findings, this study tested some hypotheses related to types of perfectionism and psychological resting experiences. For the reader's knowledge, "psychological resting experience" and "wakeful resting experiences" are used interchangeably in this thesis. Wakeful resting experiences is the name of the questionnaire that was used to measure the psychological resting experience of athletes.

CHAPTER 2

REVIEW OF LITERATURE

Perfectionism in Athletes

Perfectionism is generally defined as pursuing extremely high standards along with being highly judgmental of oneself when these standards are not met (Frost et al., 1990). The level of perfectionism in college students has increased over 27 years based on analyses of American, Canadian, and British students who completed the Multidimensional Perfectionism Scale (Hill & Curran, 2016).

Numerous models have been conceptualized about perfectionism (e.g., Frost et al., 1990; Hewitt & Flett, 1991; Terry-Short et al., 1995). One of the earliest models that have been used in sport settings has three dimensions (Hewitt & Flett, 1991). The first dimension is self-oriented perfectionism, which is related to having high expectations of oneself. The second dimension is socially prescribed perfectionism and it is related to internalizing the imposed standards of others. The final dimension is other-oriented perfectionism and it is related to imposing high expectations on others. Among these dimensions, socially prescribed perfectionism has typically been most associated with maladaptive outcomes and it is the most important predictor of athlete burnout (Appleton & Hill, 2012; Hill et al., 2010; Smith et al., 2018). On the other hand, negative relationships have been found between burnout and perfectionism that is other-oriented (Childs & Stoeber, 2010) and self-oriented (Appleton et al., 2009; Appleton & Hill, 2012; Hill et al., 2010).

Stoeber and Otto (2006) developed a conceptual framework relying on factor analysis. According to their framework, there are two higher-order dimensions that are used to differentiate healthy, unhealthy, and non-perfectionism. These dimensions are perfectionistic

strivings (also referred to as personal standards perfectionism) and perfectionistic concerns (also referred to as evaluative concerns perfectionism). Perfectionistic strivings are associated with having overly high standards which are self-imposed. On the other hand, perfectionistic concerns are associated with extreme concerns about negative reactions toward one's mistakes and negative responses toward imperfection (Stoeber & Otto, 2006).

Healthy perfectionism is associated with high levels of perfectionistic strivings and low levels of perfectionistic concerns. On the other hand, unhealthy perfectionism is associated with high levels in both dimensions, and non-perfectionism is associated with low levels in both dimensions (Gotwals 2011; Stoeber & Otto, 2006). In an educational context, perfectionistic strivings are correlated with increased academic success; however, perfectionistic concerns are related to poor academic performance (Madigan, 2019). A recent meta-analysis about the relationship between multidimensional perfectionism and test anxiety revealed that perfectionistic concerns have a significant positive relationship with overall test anxiety (Burcaş & Crețu, 2020).

In the sport context, high levels of perfectionistic concerns are related to athletes' perceptions of low competence and negative self-evaluation (Stoeber & Becker, 2008). Stoeber (2011) reviewed 16 studies and suggested that perfectionistic concerns have a positive relationship with competitive anxiety and fear of failure. Perfectionistic strivings, however, have a positive relationship with self-confidence and expectation of success. Even though perfectionistic strivings tend to be adaptive, under the conditions of failure, perfectionistic strivings are found to be maladaptive and related to having negative emotions and cognitions towards oneself and towards one's sport (Curran & Hill, 2018; Hill et al., 2011).

Gaudreau and Thompson (2010) developed a 2x2 model of dispositional perfectionism that avoids the labels of healthy and unhealthy since these labels can be an obstacle for researchers to investigate the moderators that might influence these subtypes. They derived pure personal standards perfectionism (PSP) instead of healthy perfectionism, and they derived mixed perfectionism rather than unhealthy. They also added another subtype which is called pure evaluative concerns perfectionism (ECP) for individuals who have low perfectionistic strivings but high perfectionistic concerns. Gaudreau and Thompson (2010) offered four hypotheses for psychological adjustment based on combinations of PSP and ECP. Hypothesis 1 suggests that pure PSP is more adaptive (1a), less adaptive (1b) or not different (1c) than non-perfectionism in terms of psychological adjustment. Hypothesis 2 suggests that pure ECP is the most maladaptive dimension. Hypothesis 3 suggests that mixed perfectionism is more adaptive than pure ECP. Hypothesis 4 suggests that pure PSP is more adaptive compared to mixed perfectionism. Hypothesis 1a, 2, 3, and 4 have been supported (Cumming & Duda, 2012; Gaudreau, 2016; Hill et al., 2020).

Cumming and Duda (2012) found supporting results in the performance field for the model. They found that dancers with either mixed perfectionism or pure ECP reported greater concerns for failing, higher social physique anxiety, negative affect, and emotional and physical exhaustion compared to the dancers with pure PSP. However, in terms of positive affect, they did not find any significant difference between pure ECP and mixed perfectionism, which contradicts the hypothesis that mixed perfectionism is more adaptive than pure ECP (Gaudreau & Thompson, 2010). Hill (2013) conducted a study with junior soccer players and found support for the 2x2 model. The results showed that mixed perfectionism was associated with negative outcomes such as higher levels of exhaustion, reduced sense of accomplishment, and

higher levels of total burnout compared to pure PSP. Moreover, compared to the mixed perfectionism, pure ECP was associated with higher levels of total burnout, reduced sense of accomplishment, and sport devaluation. One recent study examined the relationship between perfectionism and athlete engagement in junior and adult athletes from different sport branches (Hill et al., 2020). Findings suggested that pure PSP was linked to the highest level of athlete engagement meanwhile, pure ECP was related to the lowest levels.

In another study, Nordin-Bates and colleagues (2017) investigated the relationship between perfectionism, motivation, and burnout in the performance field. Their findings showed that dancers with pure ECP were associated with the unhealthiest motivation (lowest internal regulation), while dancers who had non-perfectionism or pure PSP were associated with the healthiest motivation (highest internal regulation). Moreover, athletes with either mixed perfectionism or pure ECP had higher burnout scores compared to athletes with either non-perfectionism or pure PSP. Contrary to 2x2 model hypothesis that pure ECP is the most maladaptive dimension, Nordin-Bates and colleagues (2017) did not find any significant difference in burnout between mixed perfectionism and pure ECP. Nordin-Bates and colleagues (2017) explained this contradiction by pointing out that the internal motives of mixed perfectionism compared to pure ECP seems to not protect dancers from burnout. They mentioned the necessity of future research with different samples to understand whether this contradiction is because of the samples (dance versus sport) or because of another factor.

Hill and Madigan (2017) conducted a review study of perfectionism in sport, dance, and exercise. Their results also supported the hypotheses of Gaudreau and Thompson (2010). First, they found that for athletes, dancers, and exercisers with the same levels of perfectionistic concerns, it is more adaptive to have higher levels of perfectionistic strivings. Moreover, they

found that mixed perfectionism and non-perfectionism are less adaptive than pure PSP, and non-perfectionism is more adaptive than pure ECP. Lastly, they found that the most problematic perfectionism subtype across sport, dance, and exercise is pure ECP followed by mixed perfectionism.

Burnout in Athletes

Another important concept that has been focused on in perfectionism literature in sport is burnout. Perfectionism is a predictor of athlete burnout (Flett & Hewitt, 2005; Olsson et al., 2021). Maslach and Jackson (1981) explained burnout as a multidimensional concept for the first time. Raedeke (1997) adapted this multidimensional concept to the sport domain. Burnout is associated with three core indicators: a reduced sense of personal accomplishment, emotional and physical exhaustion, and sport devaluation (Raedeke & Smith, 2001). A reduced sense of accomplishment relates to having a negative sense of one's own performance and achievements. Emotional and physical exhaustion is related to psychological and physical exhaustion, and difficulty in achieving vitality. Sport devaluation is characterized by having negative attitudes toward one's sport. Maslach and Jackson's definition included depersonalization instead of sport devaluation (Raedeke, 1997; Raedeke et al., 2002). The reason is, Maslach and Jackson explained the depersonalization subscale based on health and service occupation. Therefore, depersonalization was defined as an impersonal response and unfeeling towards the people who receive care or service (Maslach & Jackson, 1981). In the sport context, Raedeke (1997) argued that for athletes, depersonalization was less applicable. Applying depersonalization to the sport context, sport devaluation may occur as showing less interest in one's sport and one's achievements in sport (Raedeke, 1997).

There are numerous conceptual models related to athlete burnout. One of the early conceptual models is Cognitive Affective Stress Model developed by Smith (1986). According to this model, the athlete faces high demands including performance expectations and training loads. After facing these demands, the athlete appraises the situation relying on her/his abilities. In cases where the athlete perceives she/he is incapable of meeting the demands, cognitive appraisal leads to negative physiological, behavioral, and coping responses, including potentially burnout.

Another early model is the Unidimensional Identity and External Control Model (Coakley, 1992), which was developed as an alternative to the stress-based model of Smith (1986). According to Coakley, stress is not the reason for burnout but it is the symptom. Lack of control in one's sport supports the development of a unidimensional athletic identity. The combination of unidimensional athletic identity and lack of control leads to burnout. He argues that burnout is a social problem, not an individual problem. This model is partly supported (Black & Smith, 2007; Raedeke, 1997).

An alternative model is developed by Raedeke (1997). When athlete participation is due to a sense of entrapment instead of one's own volition, athletes will develop burnout because sport participation is perceived as an obligation rather than something they choose for pleasure. As a result, athletes who are involved in sport primarily for entrapment reasons exhibit higher burnout scores compared to the athletes who are involved because of attraction based reasons.

A more recent framework used in athlete burnout is based on Self Determination Theory (SDT; Ryan & Deci, 2000). SDT states that there are three basic psychological needs which are autonomy (perceptions of control), competence (perceptions of capability), and relatedness (degree of connection to others). Not meeting these needs will have some negative consequences

for mental health which can include burnout (Li et al., 2013). Furthermore, according to SDT, motivation is regulated by a self-determination continuum. Amotivation, which is the least self-determined type of motivation is positively associated with burnout. Meanwhile, intrinsic motivation, which is the highest level of self-determined motivation, is negatively associated with burnout (Appleton & Hill, 2012; Lonsdale & Hodge, 2011). An integrated model is developed by Gustafsson and colleagues (2011) to integrate all these models of burnout and provide a holistic approach. The integrated model consists of (a) major antecedents such as excessive training, early success, and lack of recovery, (b) early signs such as mood disturbance, frustration over lack of results, dysfunctional behaviors, and lack of control, (c) entrapment (the reasons why an athlete is still participating in the sport) such as high investment, unidimensional athletic identity, and lack of alternatives, (d) vulnerability factors such as personality, coping, and environment, and (e) maladaptive consequences such as withdrawal and long-term performance impairment.

Burnout is associated with negative outcomes including depressed mood (Gustafsson et al., 2008), psychological distress (Gustafsson & Skoog, 2012), negative affect (Lemyre et al., 2008), and dropout from sport activity (Isoard-Gauthier et al., 2016; Smith, 1986). Some personality characteristics are also associated with athlete burnout (Goodger et al., 2007). One of the personality characteristics associated with burnout is perfectionism (Hill & Curran, 2016). While perfectionistic strivings are associated with lower levels of burnout, perfectionistic concerns are associated with higher levels of athlete burnout (Hill & Curran, 2016). Madigan et al. (2015) conducted a three-month longitudinal study with junior athletes in the United Kingdom to see whether perfectionism predicts changes in burnout. The results indicated that

perfectionistic concerns predict increases in athlete burnout, whereas perfectionistic strivings predict decreases (Madigan et al., 2015).

Jowett and colleagues (2013) and Madigan et al. (2016), explored whether motivation regulations mediate the relationship between perfectionism and burnout. Both of these studies revealed that autonomous motivation (self-determined motivation is high) mediated the negative relationship between perfectionistic strivings and burnout. On the other hand, controlled motivation (self-determined motivation is low) mediated the positive relationship between perfectionistic concerns and burnout. More recently, Garinger and colleagues (2018) examined the effect of perfectionistic strivings and perfectionistic concerns on athlete burnout. Their results showed a positive direct effect of perfectionistic concerns on athlete burnout. On the other hand, perfectionistic strivings had a negative direct effect.

These findings suggest that perfectionistic concerns might be contributing to athlete burnout. Considering all of these findings, the current study aimed to explore the relationship between perfectionism and burnout in United States women collegiate student-athletes from team sports. To determine the different types of perfectionism, 2x2 Model of Dispositional Perfectionism will be used (Gaudreau & Thompson, 2010). Moreover, there is another construct aimed to be investigated in this research. This construct is mental rest.

Rest in Athletes

For elite athletes, recovery is one of the most important components for protecting health, well-being, and performance proficiency as a result of physical, cognitive, and emotional demands in sport (Balk et al., 2017). Insufficient recovery might result in overtraining syndrome. One of the symptoms of overtraining syndrome is burnout (Meeusen et al., 2013). However, for athlete burnout, overtraining is not a necessity, in fact, Gustafsson and colleagues (2007) did not

find a significant correlation between training load and burnout. For athlete burnout, genuine rest is the main treatment and it includes reducing physical training and not attending competitions (Goodger & Kentta, 2010). Moreover, physical and mental rest is considered as the most functional ways to recover from burnout (Eccles et al., 2021).

To recover sufficiently, athletes should return to baseline levels in physical, cognitive, and emotional systems (Geurts & Sonnentag, 2006). Recent studies have focused on the importance of psychological detachment for recovery in athletes (Balk et al., 2017; Balk & de Jonge, 2021; Eccles & Kazmier, 2019). Psychological detachment is a key concept of recovery, and it involves three components; physical, cognitive, and emotional (de Jonge et al., 2012).

Physical detachment is related to not engaging in any physical effort such as not taking part in training or competition, cognitive detachment is related to not having any sport-related thoughts, and emotional detachment is related to not engaging with negative emotions (Balk et al., 2017). Balk and de Jonge (2021) conducted a study to investigate the daily physical, cognitive, and emotional detachment in sport. Their results suggested that physical fatigue was a mediator between physical and cognitive detachment. In another study, they found that high emotional demands in sport were associated with less emotional detachment (Balk et al., 2017).

One of the key constructs of recovery is rest and it is generally associated with a reduction of physical activity for recovering from physical and psychological fatigue (Kellmann et al., 2018). This view of rest as physical inactivity does not guarantee psychological inactivity such as worrying about the sport while being physically inactive (Eccles & Kazmier, 2019). As a result of high investments, it is not easy for elite athletes to stop thinking about their sport (Gustafsson et al., 2008). It is important to consider the possibility of more psychological engagement related to sport during physical inactivity since attention is not consumed by

external activities. So, athletes are able to get mentally tired from worrying about their sport and performance even though they are physically inactive (Eccles et al., 2021). Little focus has been given to psychological inactivity, even though it is a key component of rest and athlete recovery (Eccles et al., 2021).

Recently, Eccles and Kazmier (2019) developed an initial model to understand rest in the sport psychology field. According to this model, rest is associated with feeling refreshed, being motivated, and enjoying sport participation. Rest is achieved by sleep and wakeful resting. Wakeful resting is defined as engagement with very little physical and cognitive activity while awake and it is acquired by six psychological experiences (Eccles & Kazmier, 2019). Firstly, not thinking about one's sport, "switching off" for a while during a rest day. Second, not engaging in any kind of effortful thinking. Third, assuming increased control of one's life and feeling life is not controlled by sport. Fourth, doing something different than usual, changing daily routines for the rest day. Fifth, catching up with the tasks outside of the sport field (e.g., school work). Lastly, engaging in other hobbies and interests outside of one's sport domain.

Recently, Eccles and colleagues (2022) conducted a review study on the concept of rest in three sport psychology research areas, which are recovery, skill learning, and expertise development. Their results showed that for each area, the rest received little direct attention. They have proposed that rest might be overlooked for several reasons. First, there is a tendency for both researchers and practitioners to focus on physical activity, which makes sports exciting (Podlog & Eklund, 2005). Moreover, athletes' engagement with rest and its direct relation with the outcomes (e.g., medals) are quite unapparent for researchers and practitioners. Third, physical activities are directly visible and concrete, on the other hand, rest is considered more covert and harder to directly observe. Therefore, rest is difficult to define and measure. Lastly,

some researchers and practitioners might deemphasize the importance of rest by considering it as a simple and obvious concept (Eccles et al., 2022).

In summary, perfectionism is a personality characteristic that is associated with athletes' cognitive, affective, and behavioral functioning (Gotwals et al., 2012). It is characterized by striving for flawlessness and having excessively high standards for oneself and being highly critical of one's own performance (Flett & Hewitt, 2002, Frost et al, 1990). Because perfectionism is associated with higher levels of daily stress (Flett & Hewitt, 2005), it is a factor that might induce athlete burnout (Madigan et al., 2015).

Relying on the findings from the literature, perfectionistic concerns are positively correlated with athlete burnout, while perfectionistic strivings are negatively correlated (Hill et al., 2008; Jowett et al., 2013, Jowett et al., 2016). To prevent athlete burnout, sufficient rest is important and it is achieved by sleeping and wakeful resting (Eccles & Kazmier. 2019). Considering all of these findings, the aim of the current study was to explore the relationship between perfectionism, burnout, and psychological rest.

Aims and Hypotheses

Based on prior literature, this study aimed to find answers to the following questions: (a) Is pure PSP associated with similar, higher, or lower levels of athlete burnout compared to non-perfectionism? (b) Is mixed perfectionism associated with similar, higher, or lower levels of athlete burnout compared to non-perfectionism? (c) Is pure ECP associated with similar, higher, or lower levels of athlete burnout compared to all other perfectionism subtypes? (d) Do psychological resting experience scores differ between perfectionism groups?

This study focused on only one gender. The reason was that the key study variables have been shown to differ by gender, and I did not want to have to account for this in the study design. For

example, burnout has been found to be different between males and females. One study looked at the burnout levels between women and men from eight occupational groups in Norway, and their results suggested that women have slightly higher levels of burnout (Innstrand et al., 2011). Similarly, in the sport context, female athletes reported significantly higher levels of athlete burnout compared to male athletes (Dubuc-Charbonneau et al., 2014; Heidari, 2013). When considering the focus on just one gender, I chose to focus on females. Moreover, the key study variables might differ for the team versus individual sports (e.g., dos Santos et al., 2020), therefore, I just focused on team sports.

This study was designed to test two hypotheses. Hypothesis 1: Burnout scores would be highest in the pure ECP group, second highest in the mixed perfectionism group, third highest in the non-perfectionism group, and lowest in the pure PSP group. Hypothesis 2: Psychological resting experience scores would be highest in the pure PSP group, second highest in the non-perfectionism group, third highest in the mixed perfectionism group, and lowest in the pure ECP group.

CHAPTER 3

METHOD

Participants

A convenience sample of NCAA Division I female student-athletes from team sports was obtained. Data were collected online through Qualtrics. All participants were older than 18 years of age, and they were participating in their sport fully. Participants were 295 female athletes playing Division I team sports. The participants' age ranged between 18-24 years old ($M = 20.03$, $SD = 1.46$), and 23.7% ($n = 70$) were freshmen, 27.1% ($n = 80$) were sophomores, 18.0% ($n = 53$) were juniors, 22.0% ($n = 65$) were seniors, and 9.2% were ($n = 27$) graduate students. Participants had been participating in their sport on average for 10.29 years. Participants were from 96 colleges located in 32 US states. Participants were from nine sports: indoor volleyball (45.1%; $n = 133$), basketball (17.3%; $n = 51$), soccer (11.5%; $n = 34$), softball (8.5%; $n = 25$), beach volleyball (7.8 %; $n = 23$), lacrosse (5.8%; $n = 17$), field hockey (3.1%; $n = 9$), rowing (0.7%; $n = 2$), and water polo (0.3%; $n = 1$).

Measures

Demographics Questionnaire (Appendix A)

All participants responded to the Demographics Questionnaire. The questionnaire asked for information about the age, gender, race/ethnicity, year in college, the sport they are playing, number of years played, and level of sport participation. If the participating athlete was not female or was not participating in her sport fully for any reason (e.g., injury), the survey automatically ended.

The Sport Multidimensional Perfectionism Scale-2 (Appendix B)

The Sport Multidimensional Perfectionism Scale-2 (Sport MPS-2; Gotwals & Dunn, 2009) has 42 items and six subscales. It is the adaptation of the Multidimensional Perfectionism Scale (MPS; Frost et al., 1990). The Frost MPS consists of six dimensions of perfectionism which are Personal Standards (PS), Concerns over Mistakes (COM), Parental Criticism (PC), Parental Expectations (PE), Doubts about Actions (DAA), and Organization (ORG). On the other hand, the Sport Multidimensional Perfectionism Scale (Sport MPS; Dunn et al., 2006) was adapted with four subscales. Two subscales (DAA and ORG) were removed by Dunn et al. (2006) because of the validity, and internal consistency concerns. However, in the Sport MPS-2, two subscales of the original scale were adapted to the sport context and included in this version of the scale. The subscales of Sport MPS-2 are PS (7 items; e.g., “I have extremely high goals for myself in sport”), COM (8 items; e.g., “Even if I fail slightly in competition, for me it is as bad as being a complete failure”), Perceived Parental Pressure (PPP: 9 items; e.g., “My parents set very high standards for me in my sport”), Perceived Coach Pressure (PCP: 6 items; e.g., “Only outstanding performance in competition is good enough for my coach”), DAA (6 items; e.g., “I usually feel unsure about the adequacy of my pre-competition practices”), ORG (6 items; e.g., “I have and follow a pre-competitive routine”).

Athletes responded to each item on a 5-point Likert scale (1 *strongly disagree* to 5 *strongly agree*). Based on procedures adapted by Cumming and Duda (2012), data were collected from three subscales instead of six to determine pure PSP, pure ECP, mixed perfectionism, and non-perfectionism groups. These three subscales: Personal Standards (7 items), Concern Over Mistakes (8 items), and Doubts About Actions (6 items). For a detailed

explanation of the creation of four perfectionism groups, see the “Creation of Four Perfectionism Groups” subheading under the Data Analyses section (p. 21).

Previously, acceptable levels of internal consistency have been found for all subscales (i.e., $\alpha \geq .74$) (Gotwals & Dunn, 2009). In the present study, the internal reliability coefficient for the Personal Standards subscale was acceptable ($\alpha = .75$), for the Concern Over Mistakes subscale was good ($\alpha = .82$), and for the Doubts About Actions was good ($\alpha = .81$).

The Athlete Burnout Questionnaire (Appendix C)

The Athlete Burnout Questionnaire (ABQ; Raedeke & Smith, 2001) was used to measure athlete burnout. The ABQ consists of three dimensions and was conceptualized by Maslach and Jackson (1981). The questionnaire includes 15 items; items 1 and 14 are reverse-scored. The subscales of ABQ are: 1) reduced sense of accomplishment (e.g., “I am not achieving much in my sport”), 2) emotional and physical exhaustion (e.g., “I feel so tired from my training that I have trouble finding energy to do other things”), and 3) sport devaluation (e.g., “I have negative feelings toward my sport”). Athletes responded to each item on a 5-point Likert scale (1 *almost never* to 5 *most of the time*). Previously, acceptable levels of internal consistency have been reported for all three subscales ($\alpha > .70$) (Cresswell & Eklund, 2006b). In the present study, for all three subscales, good levels of internal consistency were found ($\alpha = .86$). Moreover, the reliability coefficient was good ($\alpha = .83$) for Reduced Sense of Sport Accomplishment subscale, excellent ($\alpha = .90$) for the Emotional and Physical Exhaustion subscale, and good ($\alpha = .83$) for the Sport Devaluation subscale. Based on prior literature (Garinger et al., 2018; Lemyre et al., 2008), a total burnout score has been used by calculating the average scores of all items in ABQ.

Wakeful Resting Experiences Questionnaire (Appendix D)

Athlete engagement in psychological resting experiences was assessed by the Wakeful Resting Experiences Questionnaire (Eccles & Kazmier, 2019). Questionnaire items assess the extent to which athletes have engaged in six types of resting in the last two weeks. Athletes responded to six questions on 5-point Likert Scale (0 *never* to 4 *always*). Some of the sample questions are “In your free time over the last 2 weeks, how frequently have you been able to get a break from doing things that require you to think hard?”, “In your free time over the last 2 weeks, how frequently have you been able to do something different than your everyday routine?”. Relying on factor analysis, Caviedes (2021) removed the fifth item from the scale, and subsequently, a good reliability level was obtained from a five-item scale ($\alpha = .80$). In the present study, the internal reliability coefficient level was below $\alpha = .70$ with the fifth item included ($\alpha = .64$). Moreover, correlation matrix results showed that the fifth item (undertake required work activities) correlated very weakly with other items. The strongest correlation was $r = .12$ (see Table 1). Therefore, the fifth item was removed from the analysis. An acceptable level of internal reliability was found for the scale without the fifth item ($\alpha = .72$). A total mean score was calculated from five items.

Table 1
Inter-Item Correlation Matrix for Resting Experiences Items

Variable	1	2	3	4	5	6
1. RE1	—					
2. RE2	.26**	—				
3. RE3	.14*	.44**	—			
4. RE4	.17**	.34**	.48**	—		
5. RE5	.12*	.05	.00	.00	—	
6. RE6	.22**	.34**	.44**	.55**	.06	—

Note. $n = 295$; * $p < .05$, ** $p < .01$; RE1 = Reduction in thinking about sport, RE2 =

Reduction in effortful thinking in general, RE3 = Having an internal control, RE4 = Doing

something outside of one's everyday routine, RE5 = Undertake required work activities, RE6 = Doing activities that are unrelated to sport.

Procedure

Approval was obtained from the University's Institutional Review Board (IRB) prior to conducting this study (see Appendix G). NCAA Division I coaches' e-mails were identified manually from colleges' websites and coaches were contacted via e-mail. I reached out to 207 teams via e-mail and nine of them replied back. Because of the low number of returns, I decided to contact athletes directly via Instagram by manual searching. Moreover, because I am from Turkey, by manual searching I was able to identify Turkish athletes. The majority of the indoor volleyball players I contacted were from Turkey and they were eager to help me by sharing the survey link with their teammates. As a result, indoor volleyball players were the majority of the participants. In total, I reached out to 379 athletes via Instagram direct messages (dms) and 149 athletes replied back.

In both e-mails and Instagram messages, brief information was given about the study and then coaches were asked to share the research link with the athletes, and athletes were asked to fill out the research survey. Participating athletes first received informed consent (see Appendix E). The potential risks, benefits, and outcomes were explained. Participants who agreed to take part voluntarily pressed the continue button and after that Sport MPS-2 (see Appendix B), ABQ (see Appendix C), and Wakeful Resting Experiences Questionnaire (see Appendix D) were presented in randomized order to reduce order effect. Data collection was done online through Qualtrics. Participants completed the survey anonymously.

Data Analyses

Analysis of All Participant Data

IBM SPSS Statistics 29.0 was used for all analyses. A correlation matrix was computed for the key study variables (three subscales of Sport MPS-2, burnout, rest). The strength of the Pearson correlation coefficient (r) values was interpreted as follows: Correlation coefficient values between 0 and .19 were described as “very weak”, between .2 and .39 were described as “weak”, between .4 and .59 were described as “moderate”, and between .6 and .79 were described as “strong”, and between .8 and 1.00 were described as “very strong” (Freedman et al., 2007). And then descriptive statistics were computed for all participants ($n = 295$).

Creation of Four Perfectionism Groups

To create the four perfectionism groups from three subscales of Sport MPS-2, z -score criteria were used. Following Nordin-Bates and colleagues (2011), z scores for three subscales (Personal Standards, Concern Over Mistakes, and Doubts About Actions) were calculated and each subscale was labeled as low, moderate, or high. Scores below -0.5 were considered as low, scores between -0.5 and +0.5 as moderate, and scores above +0.5 as high. To find the z scores, firstly, I calculated the sum of scores in each subscale and then I converted these to z scores. Cumming and Duda (2012) proposed that low scores on the Personal Standards, moderate or low scores on the Concern Over Mistakes, and high scores on the Doubts About Actions should be considered as *pure evaluative concerns perfectionism*. High scores on both Personal Standards, Concern Over Mistakes, and Doubts About Actions subscales should be considered as *mixed perfectionism*. Furthermore, low scores on both Personal Standards, Concern Over Mistakes, and Doubts About Actions subscales should be considered as *non-perfectionism*. Finally, high scores on the Personal Standards subscale, moderate or low scores on the Concern Over Mistakes, and

low scores on the Doubts About Actions subscale should be considered as *pure personal standards perfectionism*. I followed these criteria, leading to 80 participants from 295 meeting the criteria for one of the perfectionism groups: 11 participants were in the pure ECP group, 28 participants were in the mixed perfectionism group, 23 participants were in the non-perfectionism group, and 18 participants were in the pure PSP group. The distribution of sport in each perfectionism group is displayed in Table 2.

Table 2
Number and Percentage of Athletes in Each Perfectionism Group by Sport

	Indoor volleyball	Basketball	Soccer	Softball	Beach volleyball	Lacrosse	Field hockey	Rowing	Water polo	Total
Pure ECP	5 (45%)	2 (18%)	3 (27%)	0 (0%)	0 (0%)	0 (0%)	1 (9%)	0 (0%)	0 (0%)	11
Mixed Perfectionism	15 (53%)	3 (10%)	4 (14%)	2 (7%)	1 (3%)	3 (10%)	0 (0%)	0 (0%)	0 (0%)	28
Non-Perfectionism	7 (30%)	5 (21%)	1 (4%)	0 (0%)	5 (21%)	1 (4%)	2 (8%)	1 (4%)	1 (4%)	23
Pure PSP	7 (38%)	3 (16%)	1 (5%)	3 (16%)	3 (16%)	1 (5%)	0 (0%)	0 (0%)	0 (0%)	18
Total	34 (42%)	13 (16%)	9 (11%)	5 (6%)	9 (11%)	5 (6%)	3 (3%)	1 (1%)	1 (1%)	80

Comparison of Four Perfectionism Groups in Burnout and in Wakeful Rest

Descriptive statistics were computed for participants in each perfectionism group ($n = 80$) for the key study variables (three subscales of Sport MPS-2, burnout, rest). To compare the four perfectionism groups in terms of burnout and wakeful resting experiences, two separate One Way ANOVAs were conducted. And then Tukey's post hoc test was conducted for group comparisons and then eta squared was calculated for the overall effect size (η^2), and Cohen's d effect sizes were calculated for pairwise group comparisons. Before computing the two separate One Way ANOVAs, assumptions were checked for each test. Specifically, skewness, kurtosis, and Shapiro-Wilk Test of Normality were computed in descriptive statistics for normality assumption. Levene's test was used to check the homogeneity of variances assumption. To identify the outliers, a boxplot was created. For the first, second, and third research questions, the independent variable was perfectionism groups and the dependent variable was athlete burnout

total score. For the fourth research question, the independent variable was perfectionism groups and the dependent variable was the psychological resting experience score.



CHAPTER 4

RESULTS

Results of Analysis of All Participant Data

Table 3 displays the correlation coefficients for all variables (three subscales of Sport MPS-2, total burnout, and total rest), and Table 4 displays the descriptive statistics for all variables for 295 participants.

Table 3
Correlation Matrix for Study Variables

Variable	1	2	3	4	5
1. PS	—				
2. COM	.35**	—			
3. DAA	.25**	.53**	—		
4. Athlete Burnout	-.06	.44**	.44**	—	
5. Wakeful Resting	-.16*	-.29**	-.24**	-.35**	—

Note. $n = 295$; * $p < .05$; ** $p < .001$, PS = Personal Standards, COM = Concern Over

Mistakes, DAA = Doubts About Actions; Athlete Burnout = Total mean score from ABQ;

Wakeful Resting = Total mean score from Wakeful Resting Experiences Questionnaire;

PS, COM, and DAA are the subscales of Sport MPS-2.

According to the correlation analysis, all three subscales of Sport MPS-2 had statistically significant weak to moderate positive correlations with each subscale; see Table 3. COM subscale had a significant weak positive correlation with PS. DAA subscale had a significant weak positive correlation with PS and a significant moderate positive correlation with COM. This indicates that as athletes scored higher in one of the Sport MPS-2 subscales, they also tended to score higher in the other two subscales.

Athlete burnout scores had a statistically significant weak positive correlation with the two subscales of Sport MPS-2, which are COM and DAA. However, no statistically

significant correlation was found between PS subscale and athlete burnout. This indicates that as athletes scored higher in COM and DAA, they tended to score higher in athlete burnout.

Wakeful Resting scores had a statistically significant weak negative correlation with the Sport MPS-2 subscales (PS, COM, DAA) and athlete burnout. This indicates that as athletes scored higher in terms of perfectionism, they tended to report less frequent engagement in wakeful resting. Moreover, as athletes scored higher in wakeful resting, they also tended to score lower in athlete burnout.

Table 4
Descriptive Statistics for Study Variables of All Participants

Variable	Personal Standards		Concern Over Mistakes		Doubts About Actions		Total Burnout		Total Wakeful Resting		
	<i>n</i>	M	SD	M	SD	M	SD	M	SD	M	SD
Participants	295	3.83	.63	3.23	.78	2.80	.78	2.85	.75	2.66	.60

Note. Personal Standards, Concern Over Mistakes, and Doubts About Actions items ranged from 1 (*strongly disagree*) to 5 (*strongly agree*); Total Burnout (ABQ) items ranged from 1 (*almost never*) to 5 (*most of the time*); Total Wakeful Resting (Wakeful Resting Experiences Questionnaire) items ranged from 0 (*never*) to 4 (*always*).

Results of Analysis of Four Perfectionism Groups

Preliminary Analysis

Table 5 displays the descriptive statistics for the three subscales of Sport MPS-2, total burnout, and total wakeful resting for 80 participants in four perfectionism groups: pure evaluative concerns perfectionism (ECP), mixed perfectionism, non-perfectionism, and pure personal standards perfectionism (PSP). The pure ECP group on average had a

value of 3.16 for the Personal Standards subscale and 2.99 for the Concern Over Mistakes subscale, which means they neither agree nor disagree with the statements in relation to personal standards and concern over mistakes: recall that responses were made on a 5-point agreement scale. The same group had a value of 3.59 on the Doubts About Actions subscale, which means they agree with the statements in relation to doubts about actions.

The mixed perfectionism group on average had a value of 4.55 for the Personal Standards subscale, which means they strongly agree with the statements in relation to personal standards. The same group had a value of 4.20 for the Concern Over Mistakes subscale and 3.79 for the Doubts About Actions subscale, which means they agree with the statements in relation to concern over mistakes and doubts about actions.

The non-perfectionism group on average had a value of 2.86 for the Personal Standards subscale, which means they neither agree nor disagree with the statements in relation to personal standards. The same group had a value of 2.03 for the Concern Over Mistakes subscale, which means that they disagree with the statements in relation to concern over mistakes. Lastly, the non-perfectionism group had a value of 1.79 for the Doubts About Actions subscale, which means they also disagree with the statements in relation to doubts about actions.

The pure PSP group on average had a value of 4.52 for the Personal Standards subscale, which means they strongly agree with the statements in relation to personal standards. The same group had a value of 2.79 for the Concern Over Mistakes subscale, which means they neither agree nor disagree with the statements in relation to concern over mistakes. Lastly, the pure PSP group had a value of 1.91 for the Doubts About

Actions subscale, which means they disagree with the statements in relation to doubts about actions.

Table 5
Descriptive Statistics for Study Variables of Participants in Perfectionism Groups

Variable	<i>n</i>	Personal Standards		Concern Over Mistakes		Doubts About Actions		Total Burnout		Total Wakeful Resting	
		M	SD	M	SD	M	SD	M	SD	M	SD
Pure ECP	11	3.16	.23	2.99	.43	3.59	.27	3.50	.51	2.60	.66
MP	28	4.55	.21	4.20	.43	3.79	.38	3.23	.61	2.41	.58
NP	23	2.86	.56	2.03	.41	1.79	.37	2.23	.86	3.10	.63
Pure PSP	18	4.52	.20	2.79	.47	1.91	.36	2.41	.59	2.67	.52
Total	80	3.86	.86	3.09	.98	2.76	1.02	2.80	.84	2.69	.64

Note. Pure ECP = Pure Evaluative Concerns Perfectionism; MP = Mixed Perfectionism; NP = Non-perfectionism; Pure PSP = Pure Personal Standards Perfectionism; Personal Standards, Concern Over Mistakes, and Doubts About Actions items ranged from 1 (*strongly disagree*) to 5 (*strongly agree*); Burnout (ABQ) items ranged from 1 (*almost never*) to 5 (*most of the time*); Wakeful Resting (Wakeful Resting Experiences Questionnaire) items ranged from 0 (*never*) to 4 (*always*).

Comparison of Four Perfectionism Groups in Burnout

Descriptive statistics for burnout for four perfectionism groups are presented in Table 5. The skewness value for burnout was .06 and the kurtosis value was -.21, indicating that the distribution of burnout in the four perfectionism groups was normal. Shapiro-Wilk Test of Normality also revealed a normal distribution of burnout. The homogeneity of variances assumption was not violated. The boxplot revealed no outliers.

The One Way ANOVA revealed a statistically significant main effect of group on athlete burnout score, $F(3, 76) = 15.058, p < .001, \eta^2 = .37$, indicating a large effect. Tukey's post hoc tests revealed that the pure ECP group had significantly higher athlete burnout scores than the

non-perfectionism group ($p < .001$, 95% C.I. = [.62, 1.92]; $d = 1.79$) and the pure PSP group ($p < .001$, 95% C.I. = [.41, 1.77]; $d = 1.98$). Also, the mixed perfectionism group had significantly higher athlete burnout scores than the non-perfectionism group ($p < .001$, 95% C.I. = [.50, 1.50]; $d = 1.34$) and the pure PSP group ($p < .001$, 95% C.I. = [.28, 1.35]; $d = 1.37$). No statistically significant difference was found in burnout scores between the pure ECP group and the mixed perfectionism group ($p = .68$; $d = 0.48$), or between the non-perfectionism group and the pure PSP group ($p = .83$; $d = 0.24$). Figure 1 summarizes these findings.

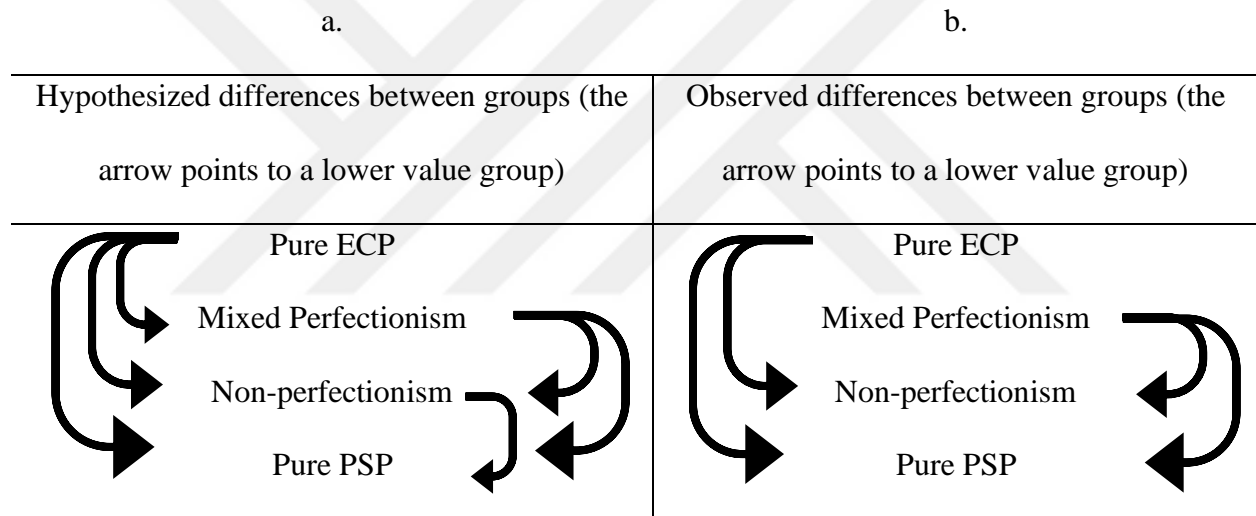


Figure 1
Display of Hypothesized and Observed Differences in Burnout for Hypothesis 1

As shown in Figure 1a, the first hypothesis stated that the burnout scores would be highest in the pure ECP group, second highest in the mixed perfectionism group, third highest in the non-perfectionism group, and lowest in the pure PSP group. The results partly supported the first hypothesis, as shown in Figure 1b. Specifically, burnout scores were significantly higher in the pure ECP group compared to the non-perfectionism group and the pure PSP group. Also, burnout scores were significantly higher in the mixed perfectionism group compared to the non-perfectionism group and the pure PSP group. However, there were no significant differences in

burnout scores between the pure ECP group and the mixed perfectionism group, or between the non-perfectionism group and the pure PSP group.

Comparison of Four Perfectionism Groups in Wakeful Rest

Descriptive statistics for wakeful rest for four perfectionism groups are presented in Table 5. The skewness value for wakeful rest was .24 and the kurtosis value was -.25, indicating that the distribution of wakeful rest in the four perfectionism groups was normal. Shapiro-Wilk Test of Normality also revealed a normal distribution of wakeful rest. The homogeneity of variances assumption was not violated. The boxplot revealed no outliers.

The One Way ANOVA revealed a statistically significant main effect of group on wakeful resting experiences score, $F(3, 76) = 5.817, p = .001, \eta^2 = .19$, indicating a large effect. Tukey's post hoc tests revealed that the non-perfectionism group had significantly higher wakeful resting experiences scores compared to the mixed perfectionism group ($p < .001, 95\% \text{ C.I.} = [.25, 1.13], d = 1.14$). There was no statistically significant difference in wakeful resting experiences scores between any other groups, which are: pure PSP and non-perfectionism ($p = .11; d = 0.74$), pure PSP and mixed perfectionism ($p = .47; d = .47$), pure PSP and pure ECP ($p = .99; d = .11$), non-perfectionism and pure ECP ($p = .11; d = .77$), and mixed perfectionism and pure ECP ($p = .80; d = .31$). Figure 2 summarizes these findings.

As shown in Figure 2a, the second hypothesis stated that the wakeful resting experiences scores would be highest in the pure PSP group, second highest in the non-perfectionism group, third highest in the mixed perfectionism group, and lowest in the pure ECP group. The results partly supported the second hypothesis, as shown in Figure 2b. Wakeful resting experiences scores were significantly higher in the non-perfectionism group compared to the mixed perfectionism group. However, no significant difference was found between the other groups.

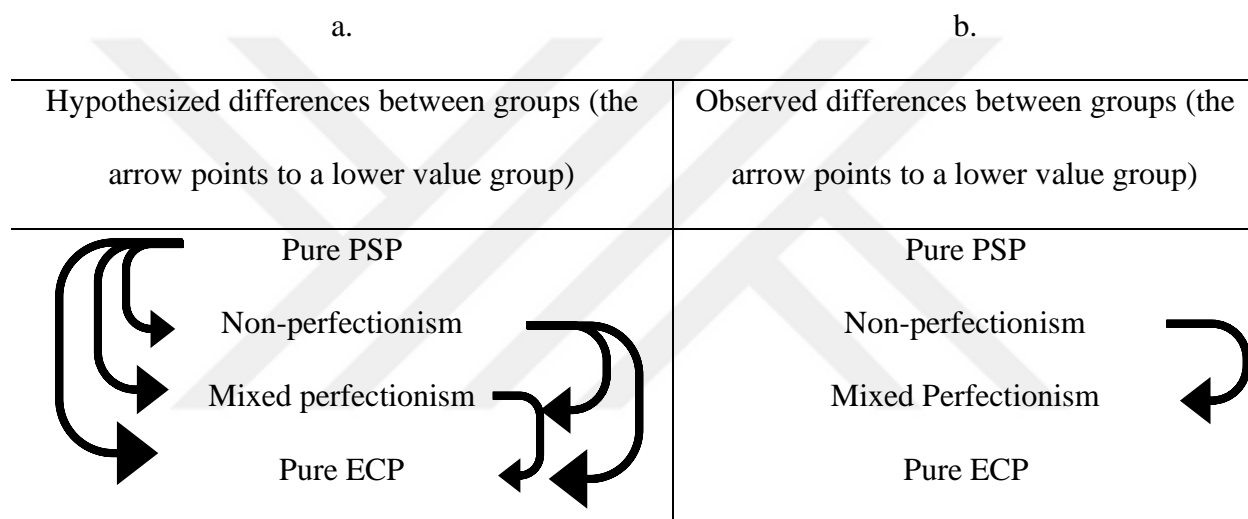


Figure 2
Display of Hypothesized and Observed Differences in Wakeful Rest for Hypothesis 2

CHAPTER 5

DISCUSSION

The first purpose of this study was to examine the relationship between perfectionism and burnout in Division I female student-athletes from team sports. Prior research suggests that (a) pure PSP is more adaptive than non-perfectionism, (b) pure ECP is the most maladaptive dimension, (c) mixed perfectionism is more adaptive than pure ECP, (d) pure PSP is more adaptive than mixed perfectionism (Cumming & Duda, 2012; Gaudreau, 2016; Gaudreau & Thompson, 2010; Hill et al., 2020; Hill & Madigan, 2017). Therefore, the first hypothesis stated that burnout scores would be highest in the pure ECP group, second highest in the mixed perfectionism group, third highest in the non-perfectionism group, and lowest in the pure PSP group. This hypothesis was partly supported. As hypothesized burnout scores were significantly higher in the pure ECP group and mixed perfectionism group compared to the non-perfectionism group and the pure PSP group. However, there were no statistically significant differences in burnout scores between the pure ECP group and the mixed perfectionism group, and between the non-perfectionism group and the pure PSP group.

The results of this study supported the previous findings that mixed perfectionism was associated with higher levels of athlete burnout compared to pure PSP (Cumming & Duda, 2012; Hill, 2013; Nordin-Bates et al., 2017). Likewise, the results align with the previous findings of Hill (2013) and Nordin-Bates and colleagues (2017) that there was no significant difference in burnout between the pure ECP group and the mixed perfectionism group. So, having higher personal standards is not buffering the negative effects of having high evaluative concerns, which is contrary to some research findings (Hill & Madigan, 2017; Madigan et al., 2016). Another noteworthy finding was that the largest proportion of athletes was in the mixed

perfectionism group (35%), which is contrary to the previous findings. Cumming and Duda (2012) found that the pure ECP (30.92%) was the largest perfectionism group and Nordin-Bates and colleagues (2017) found that the non-perfectionism (35.16%) was the largest group. The current research findings suggest that sport psychology practitioners should be aware of the prevalence of mixed perfectionism to prevent its maladaptive aspects.

The current findings are also in line with the previous conceptual models of burnout. Smith's (1986) Cognitive Affective Stress Model states that when athletes are facing high demands such as high achievement expectations, they will appraise the situation based on their abilities. If they decide that their abilities are below the demands, their cognitive appraisal will lead to negative responses. One of these responses might be burnout. When applying this model to perfectionism, it is reasonable to argue that all perfectionism groups have high standards and achievement expectations, therefore high demands. People with perfectionism either have high perfectionistic strivings (pure PSP), perfectionistic concerns (pure ECP), or both (mixed perfectionism) to meet these high demands. Moreover, athletes with perfectionistic concerns have higher levels of evaluative concerns, self-criticism, and fear of failure than athletes with perfectionistic strivings (pure PSP) (Stoeber, 2011). This might possibly lead athletes with perfectionistic concerns to interpret that their resources are not good enough to meet the demands and this negative cognitive appraisal might potentially be one of the reasons why athletes with mixed perfectionism and pure ECP received higher burnout scores compared to athletes with pure PSP and non-perfectionism.

Another framework that has been used in athlete burnout is the Self-Determination Theory (SDT; Ryan & Deci, 2000). SDT defines motivation in a self-determined continuum. Having high levels of self-determined motivation (autonomous motivation) is negatively related

to burnout, whereas having low levels of self-determined motivation (controlled motivation) is positively related to athlete burnout (Appleton & Hill, 2012; Li et al., 2013). Moreover, athletes with perfectionistic strivings have a negative relationship with burnout via autonomous motivation, on the other hand; athletes with perfectionistic concerns have a positive relationship with burnout via controlled motivation (Jowett et al., 2013; Madigan et al., 2016). Relying on these findings, one possible explanation of the current results might be that athletes with mixed perfectionism and pure ECP might be tended to have higher levels of burnout compared to the athletes with pure PSP and non-perfectionism because both of these former two groups have high perfectionistic concerns, therefore, they might have high levels of controlled motivation rather than autonomous motivation.

Recently, Eccles and Kazmier (2019) introduced the term “wakeful resting”. Wakeful resting is acquired via multiple resting experiences including not engaging in any sport-related thoughts and it is an important part of athlete recovery. Insufficient rest can lead to burnout syndrome (Cresswell & Eklund, 2007). Even though the literature has an excessive amount of research on perfectionism and athlete burnout, the relationship between perfectionism and wakeful rest has not been investigated. Therefore, the second purpose of this study was to examine the relationship between perfectionism and wakeful rest in Division-I female athletes from team sports. Relying on the aforementioned research findings, the second hypothesis stated that psychological resting experience scores would be highest in the pure PSP group, second highest in the non-perfectionism group, third highest in the mixed perfectionism group, and lowest in the pure ECP group. The results partly supported the hypothesis. Wakeful resting experiences scores were significantly higher in the non-perfectionism group compared to the mixed perfectionism group. The results provide an important insight by showing that athletes

with non-perfectionism have significantly higher levels of psychological rest and significantly lower levels of athlete burnout compared to athletes with mixed perfectionism.

The reason behind these results could be that the athletes with non-perfectionism would be able to switch off more easily, keep their mind away from the sport, and not engage in overtraining on their rest day as it is one of the symptoms of burnout (Meeusen et al., 2013). The opposite could be the case for athletes with mixed perfectionism. Even on a rest day, athletes with mixed perfectionism might be constantly thinking about their sport, and they might engage in overtraining. However, the present study did not assess the engagement with overtraining. Previously, Madigan and colleagues (2017) found that perfectionistic strivings negatively predicted training distress, which is one of the key indicators of overtraining syndrome. On the other hand, perfectionistic concerns positively predicted training distress. In terms of future research, it would be useful to extend the current findings by examining the relationship between perfectionism, rest, and overtraining.

Limitations and Future Research

The present study has a number of limitations. Firstly, to keep the scope of the study manageable, I only focused on female athletes from team sports, playing at one level (college D-I), and aged between 18-24. In addition, convenience and snowball sampling were used in this study. It is likely that the majority of the athletes who were playing indoor volleyball as a sport, who were counted for 45.1%, were international students. This is because I personally contacted Turkish athletes, being Turkish myself. Therefore, the percentage of athletes in the overall sample who were international was likely higher than that for the actual population of NCAA Division I female athletes. As a consequence, the results may not be representative of this total

population of athletes. Researchers should aim to obtain more representative samples in the future studies.

Another limitation of this study was the post COVID-19 pandemic effects. Specifically, the level of athlete burnout might be increased as a result of heightened levels of stress that was caused during the pandemic. Di Fronso and colleagues (2022) found that COVID-19 increased the perceived level of stress and dysfunctional psychobiological states in Italian elite athletes. In another study, Liu and colleagues (2022) found the COVID-19 pandemic was an important factor leading to athlete burnout in Chinese college football athletes. A recent review study about the effects of the lockdown period showed that COVID-19 was linked to increase in stress, anxiety, and psychological distress (Carnevale Pellino et al., 2022). Moreover, even though every participant was fully participating in their sport, the extent of demands and stress may differ as a result of the number of competitions they had when they filled out the survey and this might affect their burnout and wakeful resting experiences scores.

One another limitation was related to the two questionnaires that were used in this study. Wakeful Resting Experiences Questionnaire (Eccles & Kazmier, 2019) is a self-reported questionnaire so the actual level of resting behavior was not measured. Moreover, there was no identified cut-off score for Sport MPS-2. Therefore, to group participants into four perfectionism groups, a standardized z score was used based on the procedure reported by Cumming and Duda (2012). Two-thirds of the participants did not meet any conditions. For the reader's interpretations of these findings, I have presented eta squared (η^2) and Cohen's d effect sizes in the Result section. In addition, because of the nature of the standardized z scores, I wanted to see whether the four perfectionism groups in the current study were similar to the perfectionism groups from previous research. I compared the mean scores of each subscale (PS, COM, DAA)

from Sport MPS-2 in each perfectionism group (pure ECP, mixed perfectionism, non-perfectionism, pure PSP) with the subscale scores for the same group types created by Cumming and Duda (2012) and Nordin-Bates and colleagues (2017). I did not observe any marked difference between my scores and those obtained by these two sets of researchers. The last limitation was the self-selection bias. The participants who were interested in variables that might affect the mental health of athletes could be inherently more likely to complete the survey.

Despite these limitations, the results suggest several theoretical and practical implications. Firstly, sport psychology practitioners should look out for athletes who might possibly have mixed perfectionism or pure ECP. By recognizing it, practitioners can work on preventing athlete burnout in these two groups. Prevention is better than cure. Moreover, the present study has provided information about the importance of psychological rest in athletes with mixed perfectionism. Athletes with mixed perfectionism engage with lower levels of psychological rest. Therefore, sport psychology practitioners might give special attention to teaching and encouraging athletes with mixed perfectionism to engage in five ways of wakeful rest, which might help to reduce their chances of burnout. However, it is important to be cautious when interpreting the findings. This was a cross-sectional study; therefore, causal explanations cannot be derived. Longitudinal studies on perfectionism, burnout, and psychological rest are necessary to understand the causation between perfectionism, burnout, and psychological rest.

Conclusion

This is the first study that gives insight into the relationship between perfectionism, burnout, and psychological rest. The results of this study show that Division-I female team sport athletes with mixed perfectionism and pure ECP have significantly higher levels of athlete burnout compared to the athletes with non-perfectionism and pure PSP. Moreover, athletes with

mixed perfectionism have significantly lower levels of psychological rest compared to athletes with non-perfectionism. Although the generality of the current results must be established by future research, the present study has provided some insight into the effect of perfectionism types on athlete burnout and psychological resting experiences. It is important to obtain wakeful rest, specifically for athletes with mixed perfectionism.



APPENDIX A

DEMOGRAPHICS SURVEY

1. How old are you? (Answer in numeric years)
2. What is your gender?
 - Male
 - Female
 - Other: _____
 - Prefer not to answer
3. What race/ethnicity do you identify with? (Please check all that apply)
 - Caucasian
 - African-American/Black
 - Asian
 - Native American
 - Hawaiian or Other Pacific Islander
 - Hispanic or Latina/o
 - Other: _____
 - Prefer not to answer
4. What is your year in school?
 - Freshman
 - Sophomore
 - Junior
 - Senior
 - Graduate
5. What sport are you currently playing at the college?

<input type="radio"/> Baseball	<input type="radio"/> Lacrosse	<input type="radio"/> Volleyball
<input type="radio"/> Basketball	<input type="radio"/> Rowing	<input type="radio"/> (indoor)
<input type="radio"/> Field Hockey	<input type="radio"/> Soccer	<input type="radio"/> Beach Volleyball
<input type="radio"/> Football	<input type="radio"/> Softball	<input type="radio"/> Water Polo
<input type="radio"/> Ice Hockey		
6. How many years have you been involved in your sport? (Answer in numeric years)
7. Is your sport participation currently limited for any reason?
 - No, I am currently fully participating in my sport.
 - Yes, my participation is currently limited for health/injury related reasons.
 - Yes, my participation is currently limited for reasons not related to health/injury.

APPENDIX B

COMPETITIVE ORIENTATIONS SCALE (Sport-MPS-2)

INSTRUCTIONS: The purpose of this questionnaire is to identify how players view certain aspects of their competitive experiences in sport. Please help us to more fully understand how players view a variety of their competitive experiences by indicating the extent to which you agree or disagree with the following statements. (Circle one response option to the right of each statement). Some of the questions relate to your sport experiences in general, while others relate specifically to experiences on the team that you have most recently played with. There are no right or wrong answers so please don't spend too much time on any one statement; simply choose the answer that best describes how you view each statement.

To what extent do you agree or disagree with the following statements?		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	If I do not set the highest standards for myself in my sport, I am likely to end up a second-rate player.	1	2	3	4	5
2	Even if I fail slightly in competition, for me, it is as bad as being a complete failure.	1	2	3	4	5
3	I usually feel uncertain as to whether or not my training effectively prepares me for competition.	1	2	3	4	5
4	I hate being less than the best at things in my sport.	1	2	3	4	5
5	If I fail in competition, I feel like a failure as a person.	1	2	3	4	5
6	I usually feel unsure about the adequacy of my pre-competition practices.	1	2	3	4	5
7	I rarely feel that my training fully prepares me for competition.	1	2	3	4	5
8	The fewer mistakes I make in competition, the more people will like me.	1	2	3	4	5
9	It is important to me that I be thoroughly competent in everything I do in my sport.	1	2	3	4	5
10	Prior to competition, I rarely feel satisfied with my training.	1	2	3	4	5
11	I think I expect higher performance and greater results in my daily sport-training than most players.	1	2	3	4	5
12	I feel that other players generally accept lower standards for themselves in sport than I do.	1	2	3	4	5
13	I should be upset if I make a mistake in competition.	1	2	3	4	5

To what extent do you agree or disagree with the following statements?		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
14	If a team-mate or opponent (who plays a similar position to me) plays better than me during competition, then I feel like I failed to some degree.	1	2	3	4	5
15	I rarely feel that I have trained enough in preparation for a competition.	1	2	3	4	5
16	If I do not do well all the time in competition, I feel that people will not respect me as an athlete.	1	2	3	4	5
17	I have extremely high goals for myself in my sport.	1	2	3	4	5
18	I set higher achievement goals than most athletes who play my sport.	1	2	3	4	5
19	I usually have trouble deciding when I have practiced enough heading into a competition.	1	2	3	4	5
20	People will probably think less of me if I make mistakes in competition.	1	2	3	4	5
21	If I play well but only make one obvious mistake in the entire game, I still feel disappointed with my performance.	1	2	3	4	5

APPENDIX C

THE ATHLETE BURNOUT QUESTIONNAIRE

Select the number that best represents your experiences.

Please be sure to answer each question.

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

APPENDIX D

WAKEFUL RESTING EXPERIENCES QUESTIONNAIRE

Select the number that best represents your experiences.
Please be sure to answer each question.

Free Time Over the Last Two Weeks

Please think about your *free time* outside of training, competitions, and your university class schedule (e.g., lectures, labs, etc.) over the last 2 weeks.

In your free time over the last 2 weeks, how frequently have you been able to...		Never	Rarely	Sometimes	Often	Always
1	Spend time thinking about something other than your sport?	0	1	2	3	4
2	Get a break from doing things that require you to “think hard”?	0	1	2	3	4
3	Feel free from obligations and commitments (e.g., from your sport, from studying, from a job) so that you could do exactly what you wanted?	0	1	2	3	4
4	Do something different from your everyday routine (e.g., spend time with different people, eat different foods, go to different places, walk and drive different routes)?	0	1	2	3	4
5	Undertake required work activities (e.g., class assignments, studying, paid work, chores, etc.)?	0	1	2	3	4
6	Engage in personal activities and areas of life outside of your sport (e.g., family, friends, relationships & hobbies)?	0	1	2	3	4

APPENDIX E

INFORMED CONSENT

You are being asked to voluntarily participate in a research study. We are doing this study to learn about how college student athletes experience certain variables in competitive sport. We may publish the results in academic journals and discuss the results at scientific conferences. In any publication, information will be provided in such a way that you cannot be identified. If you choose to participate, you will be asked to complete two brief online questionnaires. Answering all of the questions should take approximately 20 minutes. No discomforts or inconveniences besides some boredom are reasonably expected. No risks are reasonably expected as a result of your participation in this study. We cannot and do not guarantee or promise that you will receive any benefits from this study.

We will not record your name or any information that shows your identity. You will not be signing this form.

If you have any questions, please contact Elif Erdem [REDACTED] or Dr. Brian Foster ([REDACTED]), or Dr. David Eccles [REDACTED] ([REDACTED]).

If you have any questions or concerns about your rights as a research participant, or questions or concerns regarding the study and would like to talk to someone other than the researcher(s), you are encouraged to contact the FSU Office for Human Subjects Protection (OHSP) at (850) 644-7900, by email at humansubjects@fsu.edu, or by mail at 2010 Levy Avenue, Research Foundation Building B, Suite 276, Tallahassee, FL 32306-2742.

PARTICIPANT CONSENT

By continuing, you are making a decision to participate. Clicking the button below indicates that, having read the information provided on the participant information sheet, you have decided to participate.

To withdraw your consent, simply close the browser tab. Your data will be deleted from our records.

APPENDIX F

COACH RECRUITMENT EMAIL SCRIPT

Subject: FSU Sport Psychology Research Survey

Dear [Coach's name],

I hope this e-mail finds you well. My name is Elif Erdem, and I am conducting a research study for my master's thesis. The goal of the project is to explore the relationship between perfectionism, burnout, and psychological rest in Division I women team athletes. Hopefully the result will be beneficial to find ways to prevent athlete burnout. I would be very grateful if you could forward the following email to the members of your team. In order to participate in the study, participants must be between the ages of 18 and 55, able to independently read and comprehend written materials, and able to provide informed consent. If you have any questions about this project, please contact me at [REDACTED] or one of my advisors: Dr. Brian Foster, at [REDACTED] and Dr. David Eccles, at [REDACTED] at Florida State University. Thank you!

Dear [Team Name] members,

You are invited to participate in a research project being conducted at Florida State University. The primary purpose of this study is to understand how college student athletes view certain aspects of their competitive experiences in sport. In order to participate in the study, you must be between the ages of 18 and 55, able to independently read and comprehend written materials, and able to provide informed consent.

If you agree to participate, we would like you to complete a brief, voluntary online survey (found below). You are free to stop taking this survey if you prefer not to answer any question. It will take approximately **20 minutes**. Confidential research data will be kept anonymous and secure. If you have any questions about this project, please contact Elif Erdem ([REDACTED]) or one of her advisors: Dr. Brian Foster ([REDACTED]) and Dr. David Eccles ([REDACTED]) at Florida State University.

Follow this link: [Survey Link]

APPENDIX G

IRB APPROVAL MEMO

FLORIDA STATE UNIVERSITY
OFFICE of the VICE PRESIDENT for RESEARCH



EXEMPTION DETERMINATION

May 24, 2022

Elif Erdem, [REDACTED]

Dear Elif Erdem:

On 5/24/2022, the IRB staff reviewed the following submission:

Type of Review:	Exempt (2)(ii) Tests, surveys, interviews, or observation (low risk)
Title:	An Investigation of Relationship Between Perfectionism, Burnout, and Psychology of Rest in Collegiate Student-Athletes
Investigator:	Elif Erdem
Submission ID:	STUDY00003154
Study ID:	STUDY00003154
Funding:	None
Grant ID:	None
IND, IDE, or HDE:	None
Documents Reviewed:	<ul style="list-style-type: none">• Informed Consent.pdf, Category: Consent Form;• recruitment materials.pdf, Category: Recruitment Materials;• Thesis IRB Protocol ElifErdem.pdf, Category: IRB Protocol;

The IRB staff determined the protocol qualifies for exemption, and where applicable the IRB has determined that the protocol qualifies for approval in accordance with federal regulatory requirements for Limited IRB review, effective on 5/24/2022. Further IRB review and approval by this organization is not required.

COVID-19 Information for Research Involving Human Subjects: Note that the U.S. is operating under the national emergency Proclamation 9994 concerning the COVID-19 pandemic and that this national emergency remains in effect until rescinded or terminated by the President of the U.S. (go here for the Proclamation letter). Conditions are dynamic and related policies or guidance evolve accordingly; as applicable, refer to the U.S. Centers for Disease Control and Prevention website specific for universities or refer to our COVID-19 and Human Research Studies web page to learn more about how you should or may protect persons (whether vaccinated or unvaccinated) involved in any of your in-person research activities.

FLORIDA STATE UNIVERSITY
OFFICE of the VICE PRESIDENT for RESEARCH



EXEMPTION DETERMINATION

May 31, 2022

Elif Erdem, [REDACTED]

Dear Elif Erdem:

On 5/31/2022, the IRB staff reviewed the following submission:

Type of Review:	Exempt (2)(ii) Tests, surveys, interviews, or observation (low risk)
Title:	An Investigation of Relationship Between Perfectionism, Burnout, and Psychology of Rest in Collegiate Student-Athletes
Investigator:	Elif Erdem
Submission ID:	MOD00002390 (changing recruitment approach, using personal emails and social media in lieu of via coaches)
Study ID:	STUDY00003154
Funding:	None
Grant ID:	None
IND, IDE, or HDE:	None
Documents Reviewed:	None

The IRB staff determined the protocol qualifies for exemption, and where applicable the IRB has determined that the protocol qualifies for approval in accordance with federal regulatory requirements for Limited IRB review, effective on 5/31/2022. Further IRB review and approval by this organization is not required.

COVID-19 Information for Research Involving Human Subjects: Note that the U.S. is operating under the national emergency Proclamation 9994 concerning the COVID-19 pandemic and that this national emergency remains in effect until rescinded or terminated by the President of the U.S. (go here for the Proclamation letter). Conditions are dynamic and related policies or guidance evolve accordingly; as applicable, refer to the U.S. Centers for Disease Control and Prevention website specific for universities or refer to our COVID-19 and Human Research Studies web page to learn more about how you should or may protect persons (whether vaccinated or unvaccinated) involved in any of your in-person research activities.

Other Information:

You are advised that any modification(s) to the protocol for this project that may alter this exemption determination must be reviewed and approved prior to implementation of the proposed modification(s).

Modifications to the research may invalidate the exemption determination (because the research no longer meets the exemption criteria described in HRP-312 – WORKSHEET – Exemption Determination).

Examples of minor changes to exempt research that would *not* alter the exemption determination and should therefore not be submitted to the IRB for further review include the following:

- Making administrative (formatting, grammar, spelling) revisions to the protocol, consentor recruitment materials or other study documents
- Adding or revising non-sensitive questions or non-identifiable response options to a survey, interview, focus group or other data collection instrument
- Increasing or decreasing the number of study subjects—*unless* adding a new study sample such as children or prisoners or adding a new source of data or records
- Making study team/personnel changes—*except* (1) a change in Principal Investigator (PI) or (2) a change in other study personnel for whom regulatory approval of involvement in the study must be documented for purposes of institutional policy, sponsorship or funding, or other administrative purposes (e.g., graduation or manuscript clearance; addition of non-FSU study personnel).

Examples of changes to exempt research that do require prospectively submitting a modification to the IRB before implementing changes include the following:

- Making substantive revisions or additions (e.g., change in PI; funding source; sample; source of study subjects or their data; study sites or settings; procedures, interventions or interactions with study subjects; use of any drug, device, supplement or biologic; study subjects' time or duration spent performing or participating in study activities) to the protocol, consent or recruitment materials or other study documents
- Adding or revising sensitive questions or identifiable response options to a survey, interview, focus group or other data collection instrument
- Adding a new study sample such as children or prisoners or adding a new source of data or records
- Obtaining, using, studying, analyzing, generating, storing or maintaining identifiable information or identifiable biospecimens in addition to or in lieu of de-identified or anonymous information or specimens
- Change in study risks (e.g., impact upon study subjects; impact upon students' opportunity to learn educational content or assessment of educators who provide instruction; any disclosure of study subjects' responses outside of the research may place study subjects at risk of criminal or civil liability or be damaging to subjects' financial standing, employability, educational advancement or reputation)
- Change in Principal Investigator (PI) or (for students) faculty advisor
- Any involvement of a non-FSU institution or organization
- New or change in financial interest

In conducting this protocol, you are required to follow the applicable requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the Library within the RAMP IRB system.

REFERENCES

- 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*(4), 457–465. <https://doi.org/10.1016/j.psychsport.2008.12.006>
- Appleton, P. R., & Hill, A. P. (2012). Perfectionism and athlete burnout in junior elite athletes: The mediating role of motivation regulations. *Journal of Clinical Sport Psychology, 6*(2), 129–145. <https://doi.org/10.1123/jcsp.6.2.129>
- Balk, Y. A., de Jonge, J., Oerlemans, W. G., & Geurts, S. A. (2017). Testing the triple-match principle among Dutch elite athletes: A day-level study on sport demands, detachment and recovery. *Psychology of Sport and Exercise, 33*, 7–17. <https://doi.org/10.1016/j.psychsport.2017.07.006>
- Balk, Y. A., & de Jonge, J. (2021). The “underrecovery trap”: When physical fatigue impairs the physical and mental recovery process. *Sport, Exercise, and Performance Psychology, 10*(1), 88–101. <https://psycnet.apa.org/doi/10.1037/spy0000249>
- Barcza-Renner, K., Eklund, R. C., Morin, A. J., & Habeeb, C. M. (2016). Controlling coaching behaviors and athlete burnout: Investigating the mediating roles of perfectionism and motivation. *Journal of Sport and Exercise Psychology, 38*(1), 30–44. <https://doi.org/10.1123/jsep.2015-0059>
- Black, J. M., & Smith, A. L. (2007). An examination of Coakley’s perspective on identity’. *International Journal of Sport Psychology, 38*(4), 417–436.
- Burcaş, S., & Creţu, R. Z. (2020). Multidimensional perfectionism and test anxiety: A meta-analytic review of two decades of research. *Educational Psychology Review, 33*, 1–25. <https://doi-org.proxy.lib.fsu.edu/10.1007/s10648-020-09531-3>
- Carnevale Pellino, V., Lovecchio, N., Puci, M. V., Marin, L., Gatti, A., Pirazzi, A., Negri, F., Ferraro, O. E., & Vandoni, M. (2022). Effects of the lockdown period on the mental health of elite athletes during the COVID-19 pandemic: A narrative review. *Sport Sciences for Health, 18*(4), 1187–1199. <https://doi.org/10.1007/s11332-022-00964-7>
- Caviedes, G. (2021). *The importance of psychological rest: Relationships between demands, mental rest, depressive symptoms, and well-being in collegiate student-athletes* (Publication No. 28323286) [Master’s thesis, Florida State University] ProQuest Dissertations and Theses Global.
- Chen, L. H., Chen, M. Y., Kee, Y. H., & Tsai, Y. M. (2008). Relation of perfectionism with athletes' burnout: Further examination. *Perceptual and Motor Skills, 106*(3), 811–820. <https://doi.org/10.2466/pms.106.3.811-820>

- Childs, J. H., & Stoeber, J. (2010). Self-oriented, other-oriented, and socially prescribed perfectionism in employees: Relationships with burnout and engagement. *Journal of Workplace Behavioral Health, 25*(4), 269–281. <https://doi.org/10.1080/15555240.2010.518486>
- Coakley, J. (1992). Burnout among adolescent athletes: A personal failure or social problem?. *Sociology of Sport Journal, 9*(3), 271–285. <https://doi.org/10.1123/ssj.9.3.271>
- Cowley, E. S., Olenick, A. A., McNulty, K. L., & Ross, E. Z. (2021). “Invisible sportswomen”: The sex data gap in sport and exercise science research. *Women in Sport and Physical Activity Journal, 29*(2), 146–151. <https://doi.org/10.1123/wspaj.2021-0028>
- Cresswell, S. L., & Eklund, R. C. (2006a). The nature of player burnout in rugby: Key characteristics and attributions. *Journal of Applied Sport Psychology, 18*(3), 219–239. <https://doi.org/10.1080/10413200600830299>
- Cresswell, S. L., & Eklund, R. C. (2006b). The convergent and discriminant validity of burnout measures in sport: A multi-trait/multi-method analysis. *Journal of Sports Sciences, 24*(2), 209–220. <https://doi.org/10.1080/02640410500131431>
- Cresswell, S. L., & Eklund, R. C. (2007). Athlete burnout: A longitudinal qualitative study. *The Sport Psychologist, 21*(1), 1–20. <https://doi.org/10.1123/tsp.21.1.1>
- Crowell, D., & Madigan, D. J. (2022). Perfectionistic concerns cognitions predict burnout in college athletes: a three-month longitudinal study. *International Journal of Sport and Exercise Psychology, 20*(2), 532–550. <https://doi.org/10.1080/1612197X.2020.1869802>
- Cumming, J., & Duda, J. L. (2012). Profiles of perfectionism, body-related concerns, and indicators of psychological health in vocational dance students: An investigation of the 2×2 model of perfectionism. *Psychology of Sport and Exercise, 13*(6), 729–738. <https://doi.org/10.1016/j.psychsport.2012.05.004>
- Curran, T., & Hill, A. P. (2018). A test of perfectionistic vulnerability following competitive failure among college athletes. *Journal of Sport and Exercise Psychology, 40*(5), 269–279. <https://doi.org/10.1123/jsep.2018-0059>
- de Jonge, J., Spoor, E., Sonnentag, S., Dormann, C., & van den Tooren, M. (2012). “Take a break?!” Off-job recovery, job demands, and job resources as predictors of health, active learning, and creativity. *European Journal of Work and Organizational Psychology, 21*(3), 321–348. <https://doi.org/10.1080/1359432X.2011.576009>
- Di Fronso, S., Costa, S., Montesano, C., Di Gruttola, F., Ciofi, E. G., Morgilli, L., Robazza, C., & Bertollo, M. (2022). The effects of COVID-19 pandemic on perceived stress and psychobiosocial states in Italian athletes. *International Journal of Sport and Exercise Psychology, 20*(1), 79–91. <https://doi.org/10.1080/1612197X.2020.1802612>

- dos Santos, A. C. A., Pires, D. A., Vorkapic, C. M. F., & de Andrade Bastos, A. (2020). Differences in perception of burnout syndrome among young athletes from individual and team sports. *Motricidade, 16*(1), 39–46. <https://doi.org/10.6063/motricidade.15939>
- Dubuc-Charbonneau, N., Durand-Bush, N., & Forneris, T. (2014). Exploring levels of student-athlete burnout at two Canadian universities. *Canadian Journal of Higher Education, 44*(2), 135–151. <https://doi.org/10.47678/cjhe.v44i2.183864>
- Dunn, J. G., Dunn, J. C., Gotwals, J. K., Vallance, J. K., Craft, J. M., & Syrotuik, D. G. (2006). Establishing construct validity evidence for the Sport Multidimensional Perfectionism Scale. *Psychology of Sport and Exercise, 7*(1), 57–79. <https://doi.org/10.1016/j.psychsport.2005.04.003>
- Eccles, D. W., Balk, Y., Gretton, T. W., & Harris, N. (2022). “The forgotten session”: Advancing research and practice concerning the psychology of rest in athletes. *Journal of Applied Sport Psychology, 34*(1), 3–24. <https://doi.org/10.1080/10413200.2020.1756526>
- Eccles, D. W., Caviedes, G., Balk, Y. A., Harris, N., & Gretton, T. W. (2021). How to help athletes get the mental rest needed to perform well and stay healthy. *Journal of Sport Psychology in Action, 12*(4), 259–270. <https://doi.org/10.1080/21520704.2021.1873208>
- Eccles, D. W., & Kazmier, A. W. (2019). The psychology of rest in athletes: An empirical study and initial model. *Psychology of Sport and Exercise, 44*, 90–98. <https://doi.org/10.1016/j.psychsport.2019.05.007>
- Eklund, R. C., & DeFreese, J. D. (2015). Athlete burnout: What we know, what we could know, and how we can find out more. *International Journal of Applied Sports Sciences, 27*(2), 63–75. <http://dx.doi.org/10.24985/ijass.2015.27.2.63>
- Flett, G. L., & Hewitt, P. L. (2002). Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 5–31). American Psychological Association. <https://doi.org/10.1037/10458-001>
- Flett, G. L., & Hewitt, P. L. (2005). The perils of perfectionism in sports and exercise. *Current Directions in Psychological Science, 14*(1), 14–18. <https://doi.org/10.1111%2Fj.0963-7214.2005.00326.x>
- Freedman, D. R., Pisani, R., & Purves, R. (2007). *Statistics* (4th ed.). W. W. Norton & Company.
- Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research, 14*(5), 449–468. <https://doi.org/10.1007/BF01172967>
- 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*, 31(6), 714–727.
<https://doi.org/10.1080/10615806.2018.1521514>
- Gaudreau, P. (2016). The 2×2 model of perfectionism in sport, dance, and exercise. In P. Gaudreau (Ed.), *The psychology of perfectionism in sport, dance and exercise* (pp. 190–216). Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315661100-14/2-2-model-perfectionism-sport-dance-exercise-patrick-gaudreau>
- Gaudreau, P., & Thompson, A. (2010). Testing a 2×2 model of dispositional perfectionism. *Personality and Individual Differences*, 48(5), 532–537.
<https://doi.org/10.1016/j.paid.2009.11.031>
- Geurts, S. A., & Sonnentag, S. (2006). Recovery as an explanatory mechanism in the relation between acute stress reactions and chronic health impairment. *Scandinavian Journal of Work, Environment & Health*, 32(6), 482–492. <http://dx.doi.org/10.5271/sjweh.1053>.
- Goodger, K., Gorely, T., Lavallee, D., & Harwood, C. (2007). Burnout in sport: A systematic review. *The Sport Psychologist*, 21(2), 127–151. <https://doi.org/10.1123/tsp.21.2.127>
- Goodger, K., & Kentta, G. (2010). Professional practice issues in athlete burnout. In S. Hanton, & S. Mellalieu (Eds.), *Professional practice in sport psychology: A review* (pp. 133–165). Routledge. <https://ebookcentral-proquest-com.proxy.lib.fsu.edu/lib/fsu/detail.action?docID=957582>
- Gotwals, J. K. (2011). Perfectionism and burnout within intercollegiate sport: A person-oriented approach. *The Sport Psychologist*, 25(4), 489–510. <https://doi.org/10.1123/tsp.25.4.489>
- Gotwals, J. K., & Dunn, J. G. (2009). A multi-method multi-analytic approach to establishing internal construct validity evidence: The Sport Multidimensional Perfectionism Scale 2. *Measurement in Physical Education and Exercise Science*, 13(2), 71–92.
<https://doi.org/10.1080/10913670902812663>
- Gotwals, J. K., Stoeber, J., Dunn, J. G., & Stoll, O. (2012). Are perfectionistic strivings in sport adaptive? A systematic review of confirmatory, contradictory, and mixed evidence. *Canadian Psychology/Psychologie Canadienne*, 53(4), 263–279.
<https://psycnet.apa.org/doi/10.1037/a0030288>
- Gustafsson, H., Hassmén, P., Kenttä, G., & Johansson, M. (2008). A qualitative analysis of burnout in elite Swedish athletes. *Psychology of Sport and Exercise*, 9(6), 800–816.
<https://doi.org/10.1016/j.psychsport.2007.11.004>
- Gustafsson, H., Kenttä, G., & Hassmén, P. (2011). Athlete burnout: An integrated model and future research directions. *International Review of Sport and Exercise Psychology*, 4(1), 3–24. <https://doi.org/10.1080/1750984X.2010.541927>

- Gustafsson, H., Kenttä, G., Hassmén, P., & Lundqvist, C. (2007). Prevalence of burnout in competitive adolescent athletes. *Sport Psychologist*, *21*(1), 21–37. <https://doi.org/10.1123/tsp.21.1.21>
- Gustafsson, H., & Skoog, T. (2012). The mediational role of perceived stress in the relation between optimism and burnout in competitive athletes. *Anxiety, Stress & Coping*, *25*(2), 183–199. <https://doi.org/10.1080/10615806.2011.594045>
- 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.), *Essential processes for attaining peak performance* (pp. 178–211). Meyer & Meyer Sport.
- Heidari, S. (2013). Gender differences in burnout in individual athletes. *European Journal of Experimental Biology*, *3*(3), 583–588.
- Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts: conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology*, *60*(3), 456–470. <https://psycnet.apa.org/doi/10.1037/0022-3514.60.3.456>
- Hill, A. P. (2013). Perfectionism and burnout in junior soccer players: A test of the 2×2 model of dispositional perfectionism. *Journal of Sport and Exercise Psychology*, *35*(1), 18–29. <https://doi.org/10.1123/jsep.35.1.18>
- 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%2F1088868315596286>
- 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, & Coping*, *23*(4), 415–430. <https://doi.org/10.1080/10615800903330966>
- Hill, A. P., Hall, H. K., & Appleton, P. R. (2011). The relationship between multidimensional perfectionism and contingencies of self-worth. *Personality and Individual Differences*, *50*(2), 238–242. <https://doi.org/10.1016/j.paid.2010.09.036>
- Hill, A. P., Hall, H. K., Appleton, P. R., & Kozub, S. A. (2008). Perfectionism and burnout in junior elite soccer players: The mediating influence of unconditional self-acceptance. *Psychology of Sport and Exercise*, *9*(5), 630–644. <https://doi.org/10.1016/j.psychsport.2007.09.004>
- Hill, A. P., Hall, H. K., Appleton, P. R., & Murray, J. J. (2010). Perfectionism and burnout in canoe polo and kayak slalom athletes: The mediating influence of validation and growth-seeking. *The Sport Psychologist*, *24*(1), 16–34. <https://doi.org/10.1123/tsp.24.1.16>

- Hill, A. P., & Madigan, D. J. (2017). A short review of perfectionism in sport, dance and exercise: Out with the old, in with the 2×2. *Current Opinion in Psychology*, *16*, 72–77. <https://doi.org/10.1016/j.copsyc.2017.04.021>
- Hill, A. P., Madigan, D. J., & Jowett, G. E. (2020). Perfectionism and athlete engagement: A multi-sample test of the 2×2 model of perfectionism. *Psychology of Sport and Exercise*, *48*, 1–12. <https://doi.org/10.1016/j.psychsport.2020.101664>
- Innstrand, S. T., Langballe, E. M., Falkum, E., & Aasland, O. G. (2011). Exploring within-and between-gender differences in burnout: 8 different occupational groups. *International Archives of Occupational and Environmental Health*, *84*(7), 813–824. <https://doi.org/10.1007/s00420-011-0667-y>
- Isoard-Gauthier, S., Guillet-Descas, E., & Gustafsson, H. (2016). Athlete burnout and the risk of dropout among young elite handball players. *The Sport Psychologist*, *30*(2), 123–130. <https://doi.org/10.1123/tsp.2014-0140>
- Jowett, G. E., Hill, A. P., Hall, H. K., & Curran, T. (2013). Perfectionism and junior athlete burnout: The mediating role of autonomous and controlled motivation. *Sport, Exercise, and Performance Psychology*, *2*(1), 48–61. <https://psycnet.apa.org/doi/10.1037/a0029770>
- Jowett, G. E., Hill, A. P., Hall, H. K., & Curran, T. (2016). Perfectionism, burnout and engagement in youth sport: The mediating role of basic psychological needs. *Psychology of Sport and Exercise*, *24*, 18–26. <https://doi.org/10.1016/j.psychsport.2016.01.001>
- Kellmann, M. (2002). Underrecovery and overtraining: Different concepts-similar impact. In M. Kellmann (Ed.), *Enhancing recovery: Preventing under-performance in athletes* (pp. 3–24). Human Kinetics.
- Kellmann, M., Bertollo, M., Bosquet, L., Brink, M., Coutts, A. J., Duffield, R., Erlacher, D., Halson, S. L., Hecksteden, A., Heidari, J., Kallus, K. W., Meeusen, R., Mujika, I., Robazza, C., Skorski, S., Venter, R., & Beckmann, J. (2018). Recovery and performance in sport: consensus statement. *International Journal of Sports Physiology and Performance*, *13*(2), 240–245. <https://doi.org/10.1123/ijsp.2017-0759>
- Lemyre, P. N., Hall, H. K., & Roberts, G. C. (2008). A social cognitive approach to burnout in elite athletes. *Scandinavian Journal of Medicine & Science in Sports*, *18*(2), 221–234. <https://doi.org/10.1111/j.1600-0838.2007.00671.x>
- Li, C., Wang, C. J., & Kee, Y. H. (2013). Burnout and its relations with basic psychological needs and motivation among athletes: A systematic review and meta-analysis. *Psychology of Sport and Exercise*, *14*(5), 692–700. <https://doi.org/10.1016/j.psychsport.2013.04.00>

- Liu, M., Zhao, X., & Liu, Z. (2022). Relationship between psychological distress, basic psychological needs, anxiety, mental pressure, and athletic burnout of Chinese college football athletes during the COVID-19 pandemic. *Sustainability*, *14*(12), 1–13. <https://doi.org/10.3390/su14127100>
- Lonsdale, C., & Hodge, K. (2011). Temporal ordering of motivational quality and athlete burnout in elite sport. *Medicine & Science in Sports & Exercise*, *43*(5), 913–921. 10.1249/MSS.0b013e3181ff56c6
- Madigan, D. J. (2019). A meta-analysis of perfectionism and academic achievement. *Educational Psychology Review*, *31*, 967–989. <https://doi.org/10.1007/s10648-019-09484-2>
- Madigan, D. J., Stoeber, J., & Passfield, L. (2015). Perfectionism and burnout in junior athletes: A three-month longitudinal study. *Journal of Sport and Exercise Psychology*, *37*(3), 305–315. <https://doi.org/10.1123/jsep.2014-0266>
- Madigan, D. J., Stoeber, J., & Passfield, L. (2016). Motivation mediates the perfectionism-burnout relationship: A three-wave longitudinal study with junior athletes. *Journal of Sport and Exercise Psychology*, *38*(4), 341–354. <https://doi.org/10.1123/jsep.2015-0238>
- Madigan, D. J., Stoeber, J., & Passfield, L. (2017). Perfectionism and training distress in junior athletes: A longitudinal investigation. *Journal of Sports Sciences*, *35*(5), 470–475. <https://doi.org/10.1080/02640414.2016.1172726>
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, *2*(2), 99–113. <https://doi.org/10.1002/job.4030020205>
- Meeusen, R., Duclos, M., Foster, C., Fry, A., Gleeson, M., Nieman, D., Raglin, J., Rietjens, G., Steinacker, J., & Urhausen, A. (2013). Prevention, diagnosis and treatment of the overtraining syndrome: Joint consensus statement of the European College of Sport Science (ECSS) and the American College of Sports Medicine (ACSM). *European Journal of Sport Science*, *13*(1), 1–24. <https://doi.org/10.1080/17461391.2012.730061>
- National Collegiate Athletic Association (2020, September 1). *NCAA sports sponsorship and participation rates report*. https://ncaaorg.s3.amazonaws.com/research/sportpart/2019-20RES_SportsSponsorshipParticipationRatesReport.pdf
- Nordin-Bates, S. M., Cumming, J., Aways, D., & Sharp, L. (2011). Imagining yourself dancing to perfection? Correlates of perfectionism among ballet and contemporary dancers. *Journal of Clinical Sport Psychology*, *5*(1), 58–76. <https://doi.org/10.1123/jcsp.5.1.58>
- Nordin-Bates, S. M., Raedeke, T. D., & Madigan, D. J. (2017). Perfectionism, burnout, and motivation in dance: A replication and test of the 2×2 model of perfectionism. *Journal of*

- Dance Medicine & Science*, 21(3), 115–122. <https://doi.org/10.12678/1089-313X.21.3.115>
- Olsson, L. F., Grugan, M. C., Martin, J. N., & Madigan, D. J. (2021). Perfectionism and burnout in athletes: The mediating role of perceived stress. *Journal of Clinical Sport Psychology*, 16(1), 55–74. <https://doi.org/10.1123/jcsp.2021-0030>
- Paul, R. W., Sonnier, J. H., Johnson, E. E., Hall, A. T., Osman, A., Connors, G. M., Freedman, K. B., & Bishop, M. E. (2022). Inequalities in the evaluation of male versus female athletes in sports medicine research: A systematic review. *The American Journal of Sports Medicine*, 1–8. <https://doi.org/10.1177/03635465221131281>
- Podlog, L., & Eklund, R. C. (2005). Return to sport after serious injury: A retrospective examination of motivation and psychological outcomes. *Journal of Sport Rehabilitation*, 14(1), 20–34. <https://doi.org/10.1123/jsr.14.1.20>
- Pritchard, M., & Wilson, G. (2005). Comparing sources of stress in college student athletes and non-athletes. *Athletic Insight: The Online Journal of Sports Psychology*, 7(1), 1–8.
- Raedeke, T. D. (1997). Is athlete burnout more than just stress? A sport commitment perspective. *Journal of Sport and Exercise Psychology*, 19(4), 396–417. <https://doi.org/10.1123/jsep.19.4.396>
- Raedeke, T. D., Lunney, K., & Venables, K. (2002). Understanding athlete burnout: Coach perspectives. *Journal of Sport Behavior*, 25(2), 181–206.
- Raedeke, T. D., & Smith, A. L. (2001). Development and preliminary validation of an athlete burnout measure. *Journal of Sport and Exercise Psychology*, 23(4), 281–306. <https://doi.org/10.1123/jsep.23.4.281>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://psycnet.apa.org/buy/2000-13324-007>
- Smith, R. E. (1986). Toward a cognitive-affective model of athletic burnout. *Journal of Sport and Exercise Psychology*, 8(1), 36–50. <https://doi.org/10.1123/jsp.8.1.36>
- Smith, E. P., Hill, A. P., & Hall, H. K. (2018). Perfectionism, burnout, and depression in youth soccer players: A longitudinal study. *Journal of Clinical Sport Psychology*, 12(2), 179–200. <https://doi.org/10.1123/jcsp.2017-0015>
- Stoeber, J., & Becker, C. (2008). Perfectionism, achievement motives, and attribution of success and failure in female soccer players. *International Journal of Psychology*, 43(6), 980–987. <https://doi.org/10.1080/00207590701403850>

- Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality and Social Psychology Review, 10*(4), 295–319.
https://doi.org/10.1207%2Fs15327957pspr1004_2
- Terry-Short, L. A., Owens, R. G., Slade, P. D., & Dewey, M. E. (1995). Positive and negative perfectionism. *Personality and Individual Differences, 18*(5), 663–668.
[https://doi.org/10.1016/0191-8869\(94\)00192-U](https://doi.org/10.1016/0191-8869(94)00192-U)
- Watt, S. K., & Moore, J. L. (2001). Who are student athletes?. *New Directions For Student Services, 93*, 7–18.



BIOGRAPHICAL SKETCH

Curriculum Vitae

EDUCATION

M.S. in Educational Psychology, Sport Psychology

Expected May 2023

Florida State University, Tallahassee, FL, USA

Thesis: “An Investigation of the Relationship Between Perfectionism, Burnout and Psychology of Rest in Collegiate Student-Athletes”

Committee: Dr. Alysia D. Roehrig, Dr. Brian Foster, Dr. David Eccles, Dr. Robert Eklund

Co-advisors: Dr. David W. Eccles, Dr. Brian Foster

B.S. in Psychology

June 2021

Baskent University, Ankara, Turkey

HONORS/AWARDS

Fulbright Master’s Degree Grant

Fulbright Foreign Student Program, 2021-2023

Erasmus + Exchange Grant for One Semester

Kazmier Wielki University, Bydgoszcz, Poland, 2019-2020 Spring Semester

Research Assistantship Grant

Touro College, Berlin, Germany, July-September 2019

Baskent University Merit Based Grant

2016-2021, Ankara, Turkey

RESEARCH EXPERIENCE

Thesis Project, Principal Investigator

January 2021 - Present

“An investigation of the Relationship Between Perfectionism, Burnout, and Psychology of Rest in Collegiate Student-Athletes”

Co-advisors: Dr. David Eccles, Dr. Brian Foster

- **Overview:** This study is concerned with examining the relationship of perfectionism, burnout, and psychological rest in Division I collegiate student athletes.
- **Responsibilities:** As the principal investigator, responsibilities included IRB documentation, designing the research method, conducting data collection and data analysis, and disseminating the work.

Research Project, Assistant Investigator

July 2019 - September 2019

“Media Use as an Avenue to Political Identity in an Authoritarian Context? An Interview Study With Emerging Adults in Turkey on Political Exploration and Commitment”

Principal Investigator: Ozen Odag, Touro College Berlin

- **Overview:** This study is concerned with examining the entertainment media’s effect on political identity in Turkish emerging adults.
- **Responsibilities:** As an assistant investigator, I was responsible for the data collection. I conducted and transcribed semi-structured interviews.