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Burnout, Motivation, and Self-Handicapping in Collegiate Club Athletes

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BURNOUT, MOTIVATION, AND SELF-HANDICAPPING IN COLLEGIATE CLUB
ATHLETES

Jordan Allen

A Master's Project

Submitted to the Graduate College of Bowling Green
State University in partial fulfillment of the
requirements for the degree of

MASTER OF EDUCATION

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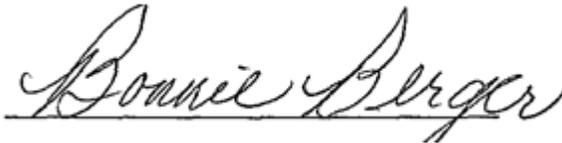
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ABSTRACT

The purpose of this study was to investigate the relationships among burnout, motivation, and self-handicapping in collegiate club athletes. Male and female collegiate club athletes ($N = 67$; ages 18-29) from two sports (rugby and volleyball) at a Midwestern University completed a battery of questionnaires at one time point that included a demographics questionnaire, the Athlete Burnout Questionnaire (ABQ), Sport Motivation Scale – 2 (SMS-2), and Self-Handicapping Scale (SHS). Results of independent t -tests and one-way ANOVAs revealed that there were no significant gender or sport differences in athletic burnout, motivation, and self-handicapping. The data from both genders and sport teams was then collapsed into a single sample for further data analysis. Bivariate correlations were used to examine the relationship between each of the variables and a stepwise multiple regression was used to determine whether burnout and motivation were significant predictors of self-handicapping. Results of bivariate correlations found that factors of athletic burnout were positively correlated with amotivation, emotional/physical exhaustion ($r = .357$), reduced sense of accomplishment ($r = .349$), sport devaluation ($r = .410$), global sport index ($r = .497$). Bivariate correlations also found that factors of athletic burnout were also negatively correlated with intrinsic motivation, sport devaluation ($r = -.464$), global burnout index ($r = -.410$). Correlation results showed that athletes with higher trait self-handicapping reported higher reduced sense of accomplishment ($r = .379$) and global burnout index levels ($r = .303$). Additionally, stepwise multiple regression analysis showed that self-handicapping scores may be predicted by subscales of burnout and motivation ($R^2 = .238$, $R^2_{\text{adj}} = .214$, $F(2,64) = 9.98$, $p < .001$). The results of this study suggest that athletes with high levels of athletic burnout and extrinsic forms of motivation may lead athletes to engage in self-handicapping strategies. Overall, this study showed that there are significant relationships between the variables of athletic burnout, motivation, and self-handicapping.

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Burnout, Motivation, and Self-Handicapping in Collegiate Club Athletes

Most individuals become involved in sports and athletics because they are attracted to the fun and enjoyment of the activity. As individuals become more involved and spend time participating in their activity, they are likely to feel competent and self-confident regarding their athletic ability (Bowker, 2006; Findlay, & Bowker, 2009; Slutzky & Simpkins, 2009). While participating, various stressors and factors may become prevalent in their athletic involvement and detract from an individual's fun and enjoyment of the activity (Gilbert, Gilbert, & Morawski, 2007; Hanton, Fletcher, & Coughlin, 2005). Stressors such as anxiety, parental and social pressures, performance expectations, training demands, and many other physical and psychological stressors may affect a person's motivation and behavior in sports which may potentially lead to athletic burnout (Lemrye, Roberts, & Stray-Gundersen, 2007; Norton, Burns, Hope, & Bauer, 2000; Sarkar & Fletcher, 2014). Individuals in sport may experience motivational and behavioral issues while participating in sports as well as the symptoms of athletic burnout (Coudeville, Gernigon, & Ginis, 2011; Lemrye et al., 2007; Raedeke & Smith, 2009).

Success and winning has become the only acceptable expectation of athletes, coaches, and sports fans and the mindsets of athletes also have needed to adapt to meet this demand (Gould & Whitley, 2009, p. 17). Many athletes train for years to prepare themselves to become competitors at the collegiate and professional levels. Throughout their training and preparation, athletes encounter multiple internal and external demands such as school, work, and overtraining, along with pressure from parents, coaches, and teammates. These factors may influence athletes' motivation, behavior, and reasons for participating in sports. These stressors

can lead to negative consequences of sport such as athletic burnout, self-handicapping, and low motivation (Akin, 2012; Gustafsson, Hassmén, Kenttä, & Johansson, 2007; Lonsdale, Hoge & Rose, 2009, Raedeke & Smith, 2009). These negative consequences may affect the physical and psychological well-being of athletes by increasing stress, anxiety, and decreasing motivation (Raedeke & Smith, 2001). Researchers examining the undesirable effects of competitive sport have focused on elite level youth, adolescents, collegiate and professional athletes. However, many sport participants do not reach elite levels of competition after they graduate from high school.

Athletes who are unable to compete at the highest-level of sport in colleges and universities may continue participation in club sports. Colleges and universities typically offer students an opportunity to continue competing in athletics at a high level through club sports. Pennington (2008) defined collegiate club athletics as sports offered by a university or college that compete with other universities and colleges but are not regulated by the National Collegiate Athletic Association (NCAA) or the National Association of Intercollegiate Athletes (NAIA) and do not have varsity status. Approximately 2,000,000 college students participate in competitive club sports while an estimated 430,000 students compete under the NCAA and NAIA governing bodies (Pennington, 2008). Minimal research has been published regarding collegiate club athletes to determine if their negative experiences with sport are similar to those of collegiate varsity and professional athletes. The purpose of this study is to gain more understanding of the relationships of burnout, self-handicapping, and motivation among collegiate club athletes.

Burnout

Many athletes experience stress and pressure from internal and external sources as they participate in sports. This stress and pressure can be detrimental to their psychological well-being

over time as they strive to achieve their goals (Raedeke, 1997). One possible result of stress that is debilitating to an athlete is burnout. Athletic burnout has been defined as “a syndrome of physical/emotional exhaustion, sport devaluation and reduced athletic accomplishment” (Raedeke 1997, p. 398). Burnout in sport has become apparent throughout all levels of sport that include youth, high school, collegiate and professional sports (Gould & Whitley, 2009). Athletic burnout is a concern for various organizations, coaches, and athletes because of potential negative consequences in athletic performance and athlete well-being (Cresswell & Eklund, 2005c).

The results of many early studies of sport burnout showed a high prevalence in athletics. However, inconsistent definitions of burnout made it hard to determine the true frequency of burnout. In an exploratory study on burnout, Gould, Udry, Tuffey, and Loehr (1996) suggested that 47 percent of the college athletes they tested would experience athletic burnout, on average, 1.5 times throughout their collegiate career. Given the exploratory nature of their study, Gould and colleagues (1996) clarified that these results needed to be replicated and should be observed with caution. Gould et al. (1996) suggested that a valid and reliable measure of burnout is needed to measure athletic burnout. In addition to developing a valid measure of burnout, Gould et al. (1996) suggested that many athletes experience symptoms of athletic burnout at some point, even if they are not considered to be burned out.

In order to establish a valid and reliable measure of athletic burnout, Raedeke and Smith (2001) developed the Athlete Burnout Questionnaire (ABQ). This questionnaire is comprised of three different subscales that measure levels of emotional/physical exhaustion, sport devaluation, and reduced sense of accomplishment. These subscales are consistent with Raedeke’s (1997) definition of burnout. The ABQ has been found to be a valid and reliable measure in researching

the three dimensions of athlete burnout (Raedeke & Smith, 2001). Raedeke and Smith (2009) emphasized that the ABQ does not diagnose an athlete with burnout, but rather, the ABQ suggests that the scores from this measure may reflect the strongest experience of burnout (Raedeke & Smith, 2009, p. 51).

Other researchers have suggested that the prevalence of athletic burnout is lower than the 47 percent reported by Gould et al. (1996). Rates of athletic burnout vary in each study. Raedeke (1997) reported an estimated 3% of athletes experience burnout, while Gustafsson, Kenttä, Hassmén, and Lundqvist (2007) found that 1-9% of female athletes and 2-6% of male athletes experienced high levels of burnout. With individuals placing greater emphasis on sports, increases in competitive and training stress may lead to higher rates of burnout (Gould & Dieffenbach, 2002). Explanations have been offered as to why athletic burnout may be reported to be as low as 3%. Researchers contend that determining athletic burnout is difficult because there are not any specific criteria or established cutoffs of burnout and that caution should be used in determining burnout (Gould & Whitley, 2009; Raedeke & Smith, 2009). In addition to the absence of specific diagnostic criteria of burnout, Raedeke and Smith (2009) suggested that athletes who have already experienced burnout may have discontinued sport participation prior to being tested.

Cresswell and Eklund (2007) contended that the strongest experience of burnout should be determined by the proportion of athletes scoring above a certain level of scores across the three ABQ subscales. For example, high mean scores may indicate that an individual is more prone to athletic burnout while low mean scores may suggest that an athlete is less likely to experience burnout. Raedeke and Smith (2009) analyzed studies that used the ABQ to determine mean scores of the ABQ subscales. They concluded that 6.9% of the participants reported mean

scores of 3 or greater (based on a 1-5 Likert scale) on all the subscales. This percentage of individuals is consistent to other studies that suggest ABQ subscale scores may help determine if an individual is experiencing burnout or not, but an official cut-off point has yet to be determined.

Motivation: Self-Determination Theory

Researchers have suggested that burnout is associated with sport discontinuation, and Self-Determination Theory may help provide an explanation of why some athletes stop participation and others do not. Self-Determination Theory is a metatheory that is comprised of multiple mini-theories (Deci & Ryan, 1985; Vansteenkiste, Niemiec, & Soenens, 2010). This study will focus on the theoretical concepts related to the psychological needs and motivation of an individual. Researchers have suggested there is a significant relationship between athletic burnout and a lack of motivation (Gould et al., 1996; Holmberg & Sheridan, 2013; Raedeke & Smith, 2001). The results of these studies are consistent with Self-Determination Theory.

According to Self-Determination Theory, individuals have the three basic psychological needs of autonomy, competence, and relatedness (Deci & Ryan, 1985). *Competence* consists of being effective in one's environment and the sense of success. *Autonomy* refers to the feelings of personal choice or control. *Relatedness* involves the social connection to others and the feelings of acceptance and belonging. When these needs are met, an individual experiences optimal motivation and psychological well-being.

Deci and Ryan (1985) defined several types of motivation that include amotivation, external motivation (external, introjected, identified, and integrated regulation) as well as intrinsic motivation. Self-Determination Theory contends that these different types of motivation correlate to a self-determination continuum for activity continuation. *Amotivation* is the absence

of motivation and the least self-determined form along the continuum. Researchers have reported a positive correlation between amotivation and burnout (Cresswell & Eklund, 2005a; Cresswell & Eklund, 2005b; Cresswell & Eklund, 2005c; Gould et al., 1996; Raedeke & Smith, 2001).

Extrinsic motivation refers to an individual's participation in an activity for external reasons, such as scholarships, or parental approval. According to Self-Determination Theory researchers, there are four forms of external motivation that range from lower to higher degrees of self-determination (Deci & Ryan, 1985). The four factors of extrinsic motivation include: external regulation, introjected regulation, identified regulation and integrated regulation. *External regulation* is the least self-determined form of extrinsic motivation that occurs when athletes participate to obtain rewards and avoid punishment. *Introjected regulation* is characterized by athletes participating to enhance self-worth or avoiding feelings of guilt. *Identified regulation* occurs in athletes who do not perceive the activity as fun, but rather, they see the activity as beneficial to them in some ways such as to their health and fitness. *Integrated regulation* is the most self-determined form of extrinsic motivation and occurs when athletes view sport as being congruent with personal values and their sense of self (Deci & Ryan, 1985). Correlations between burnout and external motivation have been varied yielding inconsistent results throughout studies (Cresswell & Eklund, 2005a; Cresswell & Eklund, 2005b; Cresswell & Eklund, 2005c).

The most self-determined type of motivation is intrinsic motivation. *Intrinsic motivation* is characterized by athletes participating in sport for the inherent joy of the activity. Researchers have reported that intrinsic motivation is negatively correlated with athletic burnout (Cresswell & Eklund, 2005a; Cresswell & Eklund, 2005b; Cresswell & Eklund, 2005c; Gould et al., 1996; Raedeke & Smith, 2001). The relationship between motivation and burnout is important in

athletics because burnout and motivation may impact athletic performance and the well-being of athletes. Researchers have suggested that this relationship should be further examined (Lonsdale et al., 2009).

Self-Handicapping

Relative to motivation and Self-Determination Theory, it is important to recognize that the different forms of motivation may affect the behavior of an individual. Sport participants may report real or claimed impediments as an “excuse” for potential poor performance (Duda & Treasure, 2015). This concept is known as self-handicapping. Berglas & Jones (1978, p. 406) defined *self-handicapping* as “any action or choice of performance setting that enhances the opportunity to externalize (or excuse) failure and to internalize (reasonably accept credit for) success.” Individuals who engage in these self-handicapping strategies essentially create a scenario where they cannot lose (Jones & Berglas, 1978). For example, an individual may attribute a negative performance to a prior impediment, such as feeling ill or a lack of sleep, whereas positive performance outcomes are associated with the person’s ability in spite of the impediment. Unlike attributions that are made after participation, self-handicapping occurs before the activity.

Leary and Shepperd (1986) suggested that there are different types of self-handicapping that involve behavioral and claimed (self-reported) strategies. Claimed strategies of self-handicapping are impediments that individuals report prior to a performance, while behavioral strategies are observable impediments that individuals engage in before a performance (Leary & Shepperd, 1986). Individuals may engage in self-handicapping for many different reasons. Researchers have suggested that self-protection is the most prevalent reason an individual may choose to self-handicap (Jones & Berglas, 1978, Kolditz & Arkin, 1982).

Researchers have suggested that there are many different psychological influences on self-handicapping strategies such as self-esteem, fear of failure, social anxiety, introversion, self-determination, maladaptive perfectionism, and performance goals, as well as academic underachievement (Akin, 2012, Berger & Tobar, in press; Knee & Zuckerman, 1998; Strube, 1986; Rhodewalt, 1994). Zuckerman and Tsai (2005) explain that engaging in self-handicapping strategies may protect oneself in the short term, but undesirable long-term effects may become apparent. Long-term effects may include poor health, diminished well-being, low competence satisfaction, low intrinsic motivation, negative moods and symptoms, higher substance abuse, and burnout. Additionally, Bailis (2001) contended that the benefits outweighed the risks in self-handicapping and that positive outcomes also were associated with self-handicapping. Bailis (2001) proposed that athletes who engaged in self-handicapping may escape the evaluative pressures they face, report having an optimal experience with sport performance, and protect their self-esteem.

Gap in the Literature

There is a paucity of research regarding burnout, self-handicapping and motivation in elite and professional athletics, and almost none in collegiate club athletics. Due to a lack of research, knowledge on these topics is minimal and comparisons of collegiate club athletes to varsity and professional athletes is nonexistent. This research study may further the knowledge of literature of athletic burnout, motivation, and self-handicapping in collegiate club athletes. The purpose of this study is to understand the factors of burnout, motivation, and self-handicapping to help create a better experience in club athletics. Results from this study may be generalizable to collegiate club athletes on the topics of burnout, motivation and self-handicapping. Collegiate club athletes encompass a large demographic population. Pennington

(2008) suggests there are approximately two million collegiate club athletes compared to 430,000 NCAA and NAIA student athletes. This demographic is important because of the large amount of collegiate club athletes has not been studied in depth.

Problem Statement

Athletes in club sports may face many stressors such as work, anxiety, homework and social demands while training and competing in sport. These circumstances may lead to negative consequences and actions that are associated with sport, such as motivational issues, self-handicapping behaviors, and athletic burnout. Athletes may engage in behaviors that promote under-achievement to provide justification for their lack of performance outcomes (Akin, 2012). Sport stress may also lead to athletic burnout and sport discontinuation (Gould et al., 1996; Raedeke, 1997). Athletes may experience burnout, low motivation, and self-handicapping for a variety of reasons and factors, but the literature lacks understanding of the links among these topics, especially in collegiate club sports. The purpose of this study is to gain more understanding of the relationships of self-handicapping, motivation, and burnout in collegiate club athletes.

Hypotheses

This study tests the hypothesis that there will be no significant gender or sport differences in athletic burnout, motivation, and self-handicapping. It is also hypothesized that athletic burnout will be positively associated with trait self-handicapping tendencies. Furthermore, it is hypothesized that athletic burnout will be positively associated with amotivation and extrinsic motivation, and negatively associated with intrinsic motivation.

Research Questions

The lack of research on the relationships between self-handicapping, motivation, and burnout has lead the researchers of this study to explore two research questions regarding these topics. Is there a relationship between amotivation, extrinsic, and intrinsic motivation and self-handicapping? Is burnout and motivation a significant predictor of trait self-handicapping?

Literature Review

It is hoped that this review of literature will aid in understanding the topics of athletic burnout, Self-Determination Theory, and self-handicapping strategies. The focus of this chapter is to examine different motivational and behavioral aspects of athletic participation in sport that include burnout, self-handicapping, and Self-Determination Theory. Another focus of this chapter is to review each topic mentioned regarding different components, theoretical concepts, prevalence rates, and factors related to each topic.

Burnout

Burnout has been defined in many ways throughout the years. Herbert Freudenberger (1974) is credited with being the first to study burnout in the workplace setting by studying staff burnout among volunteer workers at a drug rehabilitation clinic in New York (Eklund & DeFreese, 2015; Goodger, Gorely, Lavellee, & Hardwood, 2007). Freudenberger's (1974) initial study on staff burnout aimed to find answers to the causes of burnout. More specifically, he examined if certain personalities were more prone to burnout compared to others, whether burnout be prevented, and how can one overcome burnout. He concluded that workers had become worn out and exhausted due to excessive demands of energy, strength, or resources which manifest itself both physically and behaviorally among the workers. Subsequently, Maslach (1982) began expanding the research on burnout in human services and the helping professions. Her findings led her to determine that burnout was a multidimensional syndrome and the result of job-related stress. Eventually, Maslach and Jackson's (1984, p. 134) research led to a widely accepted definition of burnout that they defined as "a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who work with people in some capacity."

According to Raedeke (1997), Maslach and Jackson's (1984) definition of burnout could not be applied to the sporting world due to the focus of depersonalization in persons throughout the workplace setting. Raedeke (1997) contended that depersonalization represents a detached and negative attitude towards clients in human services and proposed that depersonalization does not represent athletes but instead, devaluation of sport is more suitable. Raedeke (1997) proposed that sport devaluation occurs when an athlete stops caring about their sport and the quality of their performance. Raedeke suggested that burnout should be defined as "a syndrome of physical/emotional exhaustion, sport devaluation and reduced athletic accomplishment" (Raedeke, 1997, p. 398).

Raedeke's definition of burnout has become a widely used conceptualization of athlete burnout (Eklund & DeFreese, 2015). Many researchers have agreed that Raedeke's definition of athlete burnout is acceptable because it is multidimensional, incorporates the signs and symptoms of burnout, serves as the foundation for scale development, and differentiates athlete's reasons for discontinuation of sport (Goodger et al., 2007; Raedeke & Smith, 2001). However, Gould and Whitley (2009) suggested that there is no unanimous definition of athletic burnout but rather, burnout involves fundamentals from all definitions and is a process that unravels over time.

Research results concerning burnout vary in prevalence and reasons for athletic burnout. Raedeke (1997) suggests an estimated 3% of athletes experienced burnout, while Gustafsson et al. (2007) propose that between 1 and 9% of female athletes and 2-6% of male athletes experience high levels of burnout. When they examined severe burnout, their results suggested that 1-2% of athletes fell into this category. Cresswell and Eklund (2007) showed that burnout was experienced by 6-11% of athletes. Even though the prevalence of athletic burnout may

differ, it is important to recognize that there has been occurrence of burnout in athletics of all ages and levels.

In a qualitative approach studying adolescent athletes, Gustafsson and colleagues (2007) conducted in-depth interviews with athletes with the highest burnout scores from the Athletic Burnout Questionnaire. Ten Swedish athletes, ages 22-26, who had discontinued sport due to burnout were interviewed by the researchers. The researchers hoped that by interviewing the athletes, they could gain different perspectives as to the initial causes of burnout. Consistent with Raedeke's (1997) definition of burnout, the athletes attributed lack of accomplishment, exhaustion and sport devaluation as significant reasons for burnout. Other factors that contributed to high levels of burnout included: psychological stressors, training factors, personality, self-identity, and feelings of entrapment (Gustafsson et al., 2007).

Cresswell and Eklund (2005a) used a longitudinal study approach to observe changes in athlete burnout and motivation over the course of twelve weeks. The athletes were tested at three different time points (pre, mid, and post league) over the 12 weeks. Cresswell and Eklund's (2005a) findings suggested that levels of burnout vary over time due to changes in situational and environmental demands, injury, and in player perception of the team environment. Cresswell and Eklund's (2005a) study is consistent with suggestions that burnout is a multidimensional syndrome that occurs over time due to the different contributing factors to athletic burnout (Gould & Whitley, 2009). These findings regarding burnout are important because they suggest there are different reasons and factors that contribute to athletic burnout. There is also difficulty in determining possible athletic burnout differences between males and females.

Raedeke and Smith (2009) proposed that males and females may not differ on the rates of burnout, but rather, they may differ on the different scoring subscales of athletic burnout. For

example, research regarding gender differences and athletic burnout has suggested that there are no significant differences in burnout among males and females (Lai and Wiggins, 2003). The research findings of Lai and Wiggins (2003) revealed that there was a tendency for males to score higher on burnout measures compared to females, but no statistical significance was found.

In addition, athletic burnout may be affected by extrinsic factors such as scholarships in collegiate athletes. Judge, Bell, Theodore, Simon, and Bellar (2012) examined the relationship of athletic burnout and scholarship status in collegiate athletes. The findings of Judge et al. (2012) revealed that there were significant differences in gender and in levels of athletic burnout based on scholarship. Specifically, men with no scholarship report the lowest burnout levels, whereas women with no scholarship reported the highest levels of burnout. Further research on gender differences and factors of athletic burnout is needed to further the explanations of burnout and gender, especially among collegiate club athletes that do not receive athletic scholarships.

Researchers have suggested that measuring the occurrence of athletic burnout should be done with caution (Gould & Whitley, 2009, Raedeke & Smith, 2009). There is no diagnostic threshold for diagnosing athletic burnout and that determining burnout depends on the magnitude of the symptoms (Raedeke & Smith, 2009). This could possibly help explain why some researchers may determine burnout differently than others. Gould and Whitley (2009) contended that in order to determine a criterion for burnout, experimental research may need to be done but such research may be detrimental to the well-being of athletes. Gould and Whitley (2009) explain that purposefully burning out athletes is unethical and dangerous because some athletes may not recover from athletic burnout for weeks, months, and years.

Causes of athletic burnout have been theorized in many ways. Early research on athletic burnout was studied from a stress perspective (Smith, 1986). Researchers believed that athletes

experienced burnout due to chronic stress. Smith's (1986) cognitive-affective stress model of burnout suggested that burnout comes from chronic stress and follows the stress process. Smith (1986) suggested that burnout is a process that involves four different stages of situational demands, cognitive appraisal of personal and situation interactions, physiological responses, and behavioral responses. The process starts when an athlete experiences situational demands such as intense training or high expectations for success. The second stage of the process involves the individual's cognitive appraisal of the situational demands. If the appraisal of the situation outweighs the resources of the athlete, they will experience physiological responses such as fatigue and anxiety. The final stage of the process consists of the behavioral responses of the athlete. Smith suggests that in this stage, the behavioral responses of the athlete may lead to different task behaviors and coping responses such as a decrease in performance and withdrawal from activity participation.

In relation to the stress-burnout relationship, Silva (1990) hypothesized that athletes experienced a negative-training stress response that affected athletes both physically and psychologically. Silva theorized that burnout was the result of a negative adaptation of physical training where an athlete moved along a continuum from staleness, to overtraining, and lastly to burnout. Silva's model suggested that burnout is the result of physical training that has been adapted negatively by the athlete. Contrary to both Silva's (1990) and Smith's (1986) burnout models, Coakley (1992) contended that stress was not the cause of burnout but rather, stress was just a symptom. He suggested that athletic burnout occurs because of the way that sports are structured in society. Coakley also proposed that the structure of sport minimized personal control, constricted development of normal identities, focused only on sport success and

diminished the athlete's decision-making ability. Another theory that has examined athletic burnout and motivation is Self-Determination Theory.

Motivation: Self-Determination Theory

Researchers have examined Self-Determination Theory as it relates to sport burnout to determine if there is a significant relationship between motivation and burnout (Cresswell & Eklund, 2005a; Cresswell & Eklund, 2005b; Perreault, Gaudreau, Lapointe & Lacroix, 2007; Lemyre et al., 2007). Self-Determination Theory proposes that individuals have three psychological needs that consist of autonomy, competence and relatedness (Deci & Ryan, 1985). When these needs are met, an individual experiences optimal motivation and psychological well-being. Deci and Ryan (1985) explain that autonomy can be defined as choice or the sense that one's action come from within oneself. Their research suggests that autonomy support is linked to higher levels of intrinsic motivation, greater interest, less pressure and tension, more creativity, and better physical and psychological health. Deci and Ryan (1985) explain that competence refers to the sense of success and being effective in one's environment, while relatedness is the social connection to others and the feelings of acceptance and belonging. They also theorized that when these psychological needs are met, athletes may experience self-determined motivation.

The different forms of motivation vary along the continuum and include amotivation, extrinsic motivation and intrinsic motivation with four differing levels of extrinsic motivation (Deci & Ryan, 1985). Amotivation is defined as the absence of motivation and the least self-determined form along the continuum. Athletes who experience amotivation have no sense of personal control and are no longer sure why they continue participation (Duda & Treasures, 2015). Extrinsic motivation is participation for external reasons, such as athletic scholarship,

social standing or parental approval (Holmber & Sheridan, 2013). Extrinsic motivation has four differing levels of motivation within its context. These categories are placed along the continuum based on their relationship of self-determination.

The least self-determined form of extrinsic motivation is external regulation. This motivation occurs when an individual participates to gain a reward, avoid punishment, or satisfy an external demand (Deci & Ryan, 1985). An example of external regulation may occur when an athlete participates to receive a medal or trophy. Next along the continuum is introjected regulation which occurs when individuals participate to avoid guilt or shame. An athlete may feel obligated to participate in sports to avoid guilt from their parents, coaches, or teammates. Moving towards more intrinsic motivation along the continuum, identified regulation exists when an individual places value on an objective. This may occur when an athlete values fitness and participates in sport to become more physically fit. The most self-determined form of extrinsic motivation is integrated regulation which occurs when an individual has a sense of self with the activity. An athlete may participate in sports because it is a part of who they are. Intrinsic motivation is the most self-determined form of motivation and exists when an individual participates because of enjoyment (Deci & Ryan, 1985). Intrinsically motivated athletes may participate in sport because they enjoy the activity itself and the feelings associated with it. Recent research has focused on examining the relationship between the motivation and athletic burnout, based on the framework of Self-Determination Theory.

Results from various studies have suggested that there is a relationship between athletic burnout and self-determined motivation (Gould et al., 1996; Raedeke & Smith, 2001; Cresswell & Eklund, 2005a; Gustafsson et al., 2007). In Raedeke's (1997) initial study on sport commitment, he reported that swimmers who were more intrinsically motivated had lower

burnout scores compared to swimmers who were extrinsically motivated. Prior to Raedeke's study, Gould et al. (1996) found that athletes with external pressure to participate in sports were more likely to experience sport burnout. The findings suggest that internal and external motivation may be key contributors in determining burnout. Raedeke and Smith (2001) also suggested that there is a relationship between athletic burnout and self-determined types of motivation. In their study, they reported a negative correlation between intrinsic motivation and burnout as well as a positive correlation between amotivation and burnout.

Gustafsson and colleague's (2007) proposed that athletes who were once highly motivated experienced a decrease in intrinsic motivation over time. Athletes that were interviewed discontinued their sport participation due to athletic burnout. Interviews conducted by the researchers showed that athletes experienced a shift from intrinsic motivation to amotivation over time. This finding is important because it provides evidence of the relationship between burnout and the different forms of motivation over time. Prior to Gustafsson and colleague's (2007) study, Cresswell and Eklund (2005a) studied burnout and motivation over a 12-week rugby league. Cresswell and Eklund (2005a) measured motivation and burnout levels at three different time points throughout this league. The results of their research suggested that intrinsic motivation was not associated with burnout, but amotivation was associated with burnout. This study is consistent with results from other studies that have found that motivation levels and burnout may be affected over time.

Gender

Researchers have suggested that gender differences may be a factor in motivation. In studying collegiate students exercise motivation, Egli, Bland, Melton, and Czech (2011) suggested there are significant differences in extrinsic and intrinsic motivational factors in

comparing males and females. For example, Egli et al. (2011) found that males were more motivated by intrinsic motivational factors, such as positive health, strength, and enjoyment, whereas females were more motivated by extrinsic factors, such as weight management and appearance. These findings were consistent with previous research that there are significant gender differences in exercise motivation (Kilpatrick, Hebert, & Bartholomew, 2005; Maltby & Day, 2001). Research regarding sport motivation along with intrinsic and extrinsic motivational factors is needed to further the knowledge of literature regarding gender differences in sport motivation.

Fear of Failure

Another factor that may help explain the correlation between burnout and motivation is fear of failure. Fear of failure has been viewed as a multidimensional construct that conceptualizes fear of failure as the tendency to appraise threat to the achievement of meaningful goals when one fails in performance (Conroy, Willow, & Metzler, 2002). Individuals who have learned to associate failure with unpleasant consequences will perceive failure as threatening and experience fear and anxiety in evaluative situations. Research has shown that fear of failure is associated with negative physical and psychological effects such as: anxiety, depression, stress, worry, eating disorders, self-perception, motivation, and potentially athletic burnout (Conroy et al., 2002; Sagar, Lavalley, & Spray, 2009). In studying the association of fear of failure, psychological stress, and burnout, Gustafsson, Sagar and Stenling (2017) found that fear of failure may be associated with high risk of athletic burnout. This conclusion supported prior findings of Sagar et al. (2009), suggesting that athletes who experience high levels of fear of failure have similar symptoms to athletic burnout. Researchers have also suggested that fear of

failure may be a reason that individuals engage in self-handicapping strategies (Higgins, Snyder, & Berglas, 2013; Ntoumanis, Taylor, & Standage, 2010; Snyder & Smith, 1982).

Self-Handicapping

Self-handicapping has been defined by Berglas and Jones (1978) as “any action or choice of performance setting that enhances the opportunity to externalize (or excise) failure and to internalize (reasonably accept credit for) success” (Berglas & Jones, 1978, p. 406). For example, an individual may engage in self-handicapping by attributing a future negative performance to an illness, while attributing a future positive performance to the individual’s ability even with the illness being present. Individuals who engage in these self-handicapping strategies essentially create a scenario where the individual cannot lose (Jones & Berglas 1978). Leary and Shepperd (1986) suggest that there are different ways in which individuals self-handicap that involve behavioral and claimed (self-reported) tactics. Claimed strategies of self-handicapping are the self-reported reasons given for failure or success while behavioral strategies are the actions that individuals engage in that affect their performance.

Unlike attributions that are made after participation, self-handicapping occurs before the activity (Berglas & Jones, 1978). Leary and Shepperd (1986) suggest that there are different types of self-handicapping that involve behavioral and claimed (self-reported) strategies. Claimed strategies of self-handicapping are the self-reported reasons given for failure or success while behavioral strategies are the actions that individuals engage in that affect their performance. Leary and Shepperd (1986) explain that reports of self-handicapping may be similar to Hewitt and Stoke’s (1975) concept of disclaimers. Disclaimers are explanations to avoid doubt and negative assumptions about upcoming behavior (Hewitt & Stokes, 1975). Disclaimers differ from self-handicaps in that individuals who use disclaimers accept

responsibility for their behavior whereas self-handicapping individuals reject personal responsibility and place blame on a prior impediment.

Individuals may choose to engage in self-handicapping for many different reasons. Self (1990) contends that self-handicapping strategies are used in social contexts when there are potential threats to self-esteem. Individuals promote self-handicapping when there is uncertainty about success, outcome evaluations, and if failure will threaten one's self-esteem (Self, 1990). Many researchers have suggested that self-protection (Jones & Berglas, 1978), self-preservation, or a combination of both (Kolditz & Arkin, 1982) are the most prevalent reasons for individuals to self-handicap. Fear of failure, self-esteem, image protection, precompetitive cognitive state-anxiety, social anxiety, and emotional coping strategies are also factors linked to self-handicapping (Prapavessis, Grove, & Eklund, 2004; Prapavessis, Grove, Maddison, & Zillman, 2003; Rhodewalt, 1990; Stube 1986). Coudeyville et al. (2011) examined male and female competitive athletes on the relationship of self-confidence, anxiety, self-esteem, and self-handicapping. The researchers found that self-esteem was a negative predictor of self-handicapping and that the negative relationship between self-esteem and self-handicapping was mediated by self-confidence. This finding suggests that self-confidence is the most direct cause of self-handicapping (Coudeyville et al., 2011).

Fear of failure is another cause of individuals participating in self-handicapping tendencies. When researching self-protection strategies in physical education classrooms, Ntoumanis, Taylor, and Standage (2010) examined self-handicapping and defensive pessimism (fear of failure, self-concept, perceived competence) in male and female youth. Their results suggest that fear of failure positively predicts self-handicapping. In addition, athletes who were low on fear of failure were more focused on the task compared to athletes who were high on

fearing failure and emphasized protecting their self-worth. This finding is important because it suggested that avoidance motivation may be a crucial antecedent in self-handicapping.

Though many researchers focus on the negative outcomes (coping, performance, adjustment) and reasons for using self-handicapping strategies, some researchers have suggested that there are potential benefits of self-handicapping (Zuckerman, Kieffer, & Knee, 1998; Bailis, 2001). Potential benefits may include anxiety reduction, self-esteem protection, and enhancing internal motivation (Deppe & Harackiewicz, 1996; Rhodewalt, Morf, Hazlett, & Fairfield, 1991; Tice, 1991). In examining positive and negative outcomes in self-handicapping, Bailis (2001) suggests that self-handicapping was positively associated with state self-confidence before important events, unambiguous feedback, enjoyment, and action-awareness. Bailis (2001) also determined that there was no consistent evidence of negative consequences but there was reliable evidence of positive outcomes. The benefits associated with self-handicapping in this study seemed to offset the costs of self-handicapping and support the notion that an individual who engages in self-handicapping tendencies creates a scenario where they cannot fail (Bailis, 2001; Jones & Berglas, 1978).

To measure self-handicapping tendencies, Jones and Rhodewalt (1982) developed the Self-Handicapping Scale (SHS). This assessment consists of a 25-item questionnaire that asks respondents to indicate on a 6-point scale how much they agree with the self-descriptive statements. This scale measures self-handicapping tendencies such as illness, lack of effort, procrastination, achievement, and emotional upsetting in conjunction with evaluative performances. In furthering the research on self-handicapping, Strube (1986) examined the psychometric properties of the SHS. Results from this study suggest that a shorter and more internally consistent measure of self-handicapping is valid and provides an efficient

measurement procedure (Strube, 1986). Additional research and the results of Strube's (1986) study prompted Rhodewalt (1990) to abridge the SHS from a 25-item questionnaire to a 14-item assessment. Reliability of the abridged SHS is comparable to the full 25-item SHS.

In relation to the SHS and sports, Martin and Brawley (1999) suggested that the Self-Handicapping Scale's educational and academic validity and reliability are not a reliable measure for identifying self-handicapping in sports. They suggest that the SHS is not sport specific and has not been assessed across sport domains. Martin and Brawley (1999) suggest that further research as well as domain and sport-specific scales may need to be developed to better assess self-handicapping in sports. In response to this claim, it is important to recognize that the Self-Handicapping Scale was designed to measure an individual's tendency to make excuses and self-handicap across many different situations (Jones & Rhodewalt, 1982).

In using the Self-Handicapping Scale in athletics, Rhodewalt, Saltzman, and Wittmer (1984) examined individual self-handicapping differences in competitive athletes (swimmers and golfers) prior to competition. Participants were categorized as high or low self-handicappers based on a median split of their SHS scores with SHS scores ranging from 0-70 (low self-handicappers: scores < 35, high self-handicappers: scores > 35). The researchers observed that there were significant differences in high and low self-handicappers in the amount of practice effort. Athletes high in self-handicapping withheld practice effort before important performances compared to low self-handicappers. Findings also included that high self-handicapping athletes tended to report more physical problems, visit the doctor more frequently, and view performance conditions as less than optimal compared low self-handicapping athletes. There are many explanations why individuals choose to self-handicap and more research is needed to clarify these reasons.

Gender also may help explain differences in self-handicapping. Researchers have suggested that women are more likely to claim self-handicaps and that men may be more prone to behavioral self-handicapping (Hirt, McCrea, & Boris, 2003). The results of Hirt et al. (2003) suggested that women placed more value on effort compared to men and provided an explanation of why males and females may differ in self-handicapping. Consistent with this finding, McCrea, Hirt, Hendrix, Milner, and Steele (2008) reported that men scored higher on the behavioral subscale of the SHS compared to women. Additionally, women scored higher on the claimed subscale of the SHS than men did. McCrea and colleagues (2008) proposed that the differences in self-handicapping could be due to the value placed on effort, which was consistent in previous studies (Hirt et al., 2003). Further research on why individuals engage in self-handicapping strategies is needed to further examine the gender differences in self-handicapping.

The researchers of this study hypothesize that there will be no significant gender or sport differences for the variables of burnout, motivation, and self-handicapping. It is also hypothesized that athletic burnout will be positively associated with self-handicapping. Additionally, it is hypothesized that athletic burnout will be positively associated with amotivation and extrinsic motivation, and negatively associated with intrinsic motivation. Research questions have been established as part of this study due to insufficient research on the relationships between burnout, motivation, and self-handicapping. Does a relationship exist between amotivation, extrinsic, and intrinsic motivation and self-handicapping? Is burnout and motivation a significant predictor of trait self-handicapping? This study hopes to examine the hypotheses and research questions to gain more understanding of the relationships of burnout, motivation, and self-handicapping in collegiate club athletes.

Method

Participants

The participants in this study were collegiate club student athletes from a University in the Midwest. The club athletes came from separate men's and women's club sports. These sports consisted of Men's volleyball ($n = 12$), Women's volleyball ($n = 15$), Men's rugby ($n = 28$), and Women's rugby ($n = 12$). Descriptive statistics for the participants included the total number of participants ($n = 67$), as well as means and standard deviations for age ($M = 20.78$, $SD = 1.68$), years on club team ($M = 2.18$, $SD = 1.17$), and years playing sport ($M = 6.15$, $SD = 3.71$). See Table 1 for complete descriptive statistics information.

Table 1: Descriptive statistics of the study sample

Variables	<i>n</i>	Age		Years on Club Team		Years Playing Sport	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Men's Volleyball	12	20.58	1.16	1.92	1.08	6.75	2.42
Men's Rugby	28	20.75	1.35	2.54	1.29	4.86	2.77
Total	40	20.7	1.29	2.35	1.25	5.43	2.78
Women's Volleyball	15	20.4	1.24	1.87	0.99	10.73	2.19
Women's Rugby	12	21.5	2.88	2	1.04	2.83	2.55
Total	27	20.89	2.15	1.93	0.99	7.22	4.62
Sport							
Volleyball (M+W)	27	20.48	1.19	1.89	1.01	8.96	3.02
Rugby (M+W)	40	20.98	1.93	2.38	1.23	4.25	2.84
Total (M+W)	67	20.78	1.68	2.18	1.17	6.15	3.71

Frequency data for the participants year in school consisted of 13 freshman, 15 sophomores, 19 juniors, 17 seniors, and 3 graduate students. See Table 2 for complete frequency data. Volleyball and rugby club athletes and programs were selected because of the time in season of the study, convenience, and the similar number of participants per team. The club participants were studied during the spring semester of the sport season. Participants in the study

were must be over the age of 18 to participate. The ages of these students ranged from 18-29 years of age. The club athletes were comprised of both undergraduates and graduate students and were expected to be in good health both mentally and physically. These participants were selected to test the hypotheses that there is a relationship between athletic burnout, motivation and self-handicapping strategies in collegiate club athletes.

Table 2: Year in school frequency data

Variables	Year in School				
	Freshman	Sophomore	Junior	Senior	Grad Student
Men's Volleyball	3	2	2	5	
Men's Rugby	7	5	10	6	
Total	10	7	12	11	
Women's Volleyball	2	5	4	2	2
Women's Rugby	1	3	3	4	1
Total	3	8	7	6	3
Sport					
Volleyball (M+W)	5	7	6	7	2
Rugby (M+W)	8	8	13	10	1
Total (M+W)	13	15	19	17	3

Instruments

Demographic Data Sheet. A demographics data sheet was included in the questionnaires to identify the participant's gender, age, sport, year in school (e.g. freshman, sophomore, etc.), number of years playing their sport, and number of years on their club team (See Appendix B). For confidentiality purposes, the names of the athletes were not required on this sheet. Athlete's names were only used on an informed consent form which were coded to identify them and protect confidentiality. The athletes' names were coded by using the first three letters of their mother's maiden name along with the last four digits of their student identification number (ID). See Appendix B for a copy of the demographic data.

Athlete Burnout Questionnaire. The Athlete Burnout Questionnaire (ABQ) is a 15-item questionnaire that contains three subscales of measurement (Raedeke & Smith, 2009). The three subscales of the ABQ include emotional/physical exhaustion (“I feel overly tired from my participation”), reduced sense of accomplishment (“I am not achieving much in [sport]”), and sport devaluation (“The effort I spend in [sport] would be better spend doing other things”). Each sub-scale is comprised of five questions. This questionnaire assesses emotional/physical exhaustion, reduced sense of accomplishment, and sport devaluation in an individual’s current sport participation. Scoring for the subscales of the ABQ can be attained by summing the item scores for the subscale questions and then dividing by the total number of questions for that subscale (5 for each subscale). The ABQ is rated on a five-point Likert scale from 1 (Almost Never), 2 (Rarely), 3 (Sometimes), 4 (Frequently), and 5 (Almost Always). Mean scores greater than 3 on each subscale score may reflect the strongest experience of burnout (Raedeke & Smith, 2009).

Reliability measures for the ABQ ranged from .84 to .91 across burnout dimensions (i.e. $\alpha = .88/.91$ for emotional/physical exhaustion, $.84/.85$ for reduced sense of accomplishment, and $.87/.90$ for devaluation in sport; Raedeke & Smith, 2001). Test-retest values showed good reliability values for all three subscales: emotional/physical exhaustion ($R = .92$), reduced sense of accomplishment ($R = .86$), and sport devaluation ($R = .92$; Raedeke & Smith, 2001).

Cronbach’s alpha was used to determine the internal consistency and reliability of the Athlete Burnout Questionnaire in this study. Reliability measures of emotional/physical exhaustion were calculated using Cronbach’s α and exhibited good internal consistency ($\alpha = .863$). Reliability measures of reduced sense of accomplishment were calculated using Cronbach’s α and showed acceptable internal consistency ($\alpha = .709$). Cronbach’s α was

calculated to measure the reliability of sport devaluation and displayed acceptable internal consistency ($\alpha = .712$). Reliability measures of the global burnout index were performed using Cronbach's α and exhibited good internal consistency ($\alpha = .826$). This questionnaire took approximately 2-3 minutes to complete. See Appendix C for a copy of the questionnaire.

Sport Motivation Scale – II. The Sport Motivation Scale – II (SMS-II; Pelletier, Rocchi, Vallerand, Deci, & Ryan, 2013) is an 18-item questionnaire that assesses sport motivation under the theoretical framework of Self-Determination Theory. This scale measures the regulatory style components of the self-determination continuum. Participants are asked to answer the question “why do you play your sport” with answers ranging on a seven-point scale from 1 (Not at all true) to 7 (Very true). Examples of the regulatory components include: intrinsic (“Because it is very interesting to learn how I can improve”), integrated (“Because participating in sport is an integral part of my life”), identified (“Because I have chosen this sport as a way to develop myself”), introjected (“Because I would not feel worthwhile if I did not”), external (“Because people around me reward me when I do”), and amotivated (“I used to have good reasons for doing sports, but now I am asking myself if I should continue”) types of motivation.

Reliability measures of the SMS-II subscales were calculated using Cronbach's α and results indicated that the SMS-II was above the acceptable cut-off. Alpha results ranged from 0.73 to 0.86 (Pelletier et al., 2013). Cronbach's alpha was used to determine the internal consistency and reliability of the Sport Motivation Scale-II in this study. Reliability measures of intrinsic motivation were calculated using Cronbach's α and showed acceptable internal consistency ($\alpha = .753$). Reliability measures of integrated motivation were calculated using Cronbach's α and exhibited acceptable internal consistency ($\alpha = .783$). Cronbach's α was calculated to measure the reliability of identified motivation and displayed acceptable internal

consistency ($\alpha = .794$). Reliability measures of introjected motivation were performed using Cronbach's α and showed unacceptable internal consistency ($\alpha = .493$). Reliability measures of external regulation were calculated using Cronbach's α and showed questionable internal consistency ($\alpha = .613$). Cronbach's α was calculated to measure the reliability of amotivation and showed questionable internal consistency ($\alpha = .656$). Reliability measures of the Sport Motivation Scale-2 were performed using Cronbach's α and showed acceptable internal consistency ($\alpha = .780$). This scale took the participants approximately 2-3 minutes to complete. See Appendix D for a copy of this scale.

Self-Handicapping Scale. The Self-Handicapping Scale (SHS; Jones & Rhodewalt, 1982; as cited in Rhodewalt, 1990) is a 14-item questionnaire that measures an individual's claimed self-handicapping tendencies. Participants were asked to indicate (by writing a number in the blank of each item) the degree to which they agreed with the statements as a description of the kind of person they think they are most of the time. Sample questions include: "I tend to put things off to the last moment", "I always try to do my best, no matter what", and "I would do a lot better if I tried harder." Participants answered from the scale of 0 (Disagree very much) to 5 (Agree very much). Scoring can range from 0 to 70 with the median score being 35.

Reliability measures of the self-handicapping scale were calculated using Cronbach's α and exhibited acceptable internal consistency ($\alpha = .79$). Test-retest reliability at one month showed results of $r = .74$ (Jones & Rhodewalt, 1982; as cited in Rhodewalt, 1990). Cronbach's alpha was used to determine the internal consistency and reliability of the self-handicapping scale in this study. Reliability measures of the self-handicapping scale were performed using Cronbach's α and showed acceptable internal consistency ($\alpha = .773$). The SHS scale took approximately 2-3 minutes to complete. For a copy of the SHS, see Appendix E.

Procedure

The protocol of this study was submitted to the Institutional Review Board (IRB) for review. Upon approval, the procedure for this study was to administer the assessments in the Spring 2018 academic semester to four Midwest collegiate sport clubs. Club sport athletes were academically full or part-time students depending on the amount of credits they were enrolled in. Part-time students were cleared to participate in club sports with university approval. Club sports of similar size, gender, and time of season were recruited to participate in this study.

To recruit participants, the primary researcher contacted the club president and faculty advisors from four sport clubs (Men's volleyball, Women's volleyball, Men's rugby, Women's rugby) via email to discuss the study. In the email, the primary researcher described the purpose and the procedure of the study to the different club presidents. The benefits of the study were explained to the presidents, and the primary researcher informed them that there were no risks and the results of the study would be available to the club participants upon request. The club presidents were also informed that participation in this study was completely voluntary and that everyone had the option to decline participation. For a copy of the club president recruitment email, please see Appendix G.

Upon receiving permission from each of the club presidents and faculty advisors, the primary researcher attended a designated practice or arranged for a meeting at an alternate location (i.e., Exercise and Sport Psychology Lab) to recruit and test participants. Coaches were asked to not be in attendance during the recruitment and testing of the athletes to prevent the athletes from feeling coerced to participate. At the beginning of each arranged meeting, the primary researcher recruited club athletes to participate in the research study (See Appendix H for a copy of the face-to-face recruitment script). The researcher introduced and explained the

procedures of the study. Upon completion of recruiting participants from each team, the primary researcher administered and collected the informed consent documents before administering the other questionnaires of the study. The informed consent document further explained the study and the procedures, voluntary nature of the study, confidentiality, risks, benefits, and contact information of the researchers.

Confidentiality was also explained in depth to the participants. The primary researcher explained that all information would be stored in a locked file cabinet inside the faculty advisor's locked office. Computer data would be stored on a password protected computer. It was explained that the names of the participants would be coded to identify them and protect confidentiality. Athletes were instructed to provide a confidentiality code by using the first three letters of their mother's maiden name, along with the last four digits of their identification number (ID) associated with their university. Confidentiality codes were placed in a designated location at the top of each questionnaire in a provided space. Any questions regarding the study and questionnaires were addressed and answered by the primary researcher.

Informed consent documents were completed and returned to the primary researcher. Once the informed consent documents were obtained, directions for completing the additional questionnaires were explained by the primary researcher. Any participant questions were answered prior and during the assessment if needed. The assessment was administered as battery of questionnaires and were administered after the informed consent documents were obtained. Each participant was given an individualized folder which contained all of the questionnaires. Questionnaires included a demographics questionnaire, the Athlete Burnout Questionnaire, Sport Motivation Scale -2, Self-Handicapping Scale, and the Big Five Inventory-2-S. The Big Five

Inventory-2-S was not included as a factor in this study but was included for future research purposes.

Completion of the questionnaire took approximately 15-20 minutes. After completing the questionnaires, participants submitted their assessments to the researcher who then placed them in a secure storage container. Informed consent documents and questionnaires were placed in separate sections inside the container. Informed consent documents were placed in a folder inside the storage container and the participant questionnaires were kept in the individual participant folders that were administered. After gathering all informed consent documents and participant folders, the researcher left the team practice to store the files in a locked cabinet inside the locked office of the faculty advisor's office. These files would later be used for the data analysis and initial results, discussion, and conclusion of the study. Assessments were separated by teams in the locked file cabinet to aid in organization and data input.

Data Analysis

Descriptive statistics of the means, standard deviations, and frequencies were used to analyze the demographic variables of the study. Furthermore, Cronbach's alpha was used to determine the internal consistency and reliability of the burnout, motivation, and self-handicapping measures. All analysis of the data collected from the questionnaires was done using two-tailed non-directional tests with an alpha level of .05. For the first hypothesis of the study, gender and sport differences regarding the variables of burnout, motivation, and self-handicapping were examined by using independent *t*-tests and one-way ANOVAs. No significant gender or sport differences were found. The data from both genders and sport teams was collapsed into a single sample. Quantitative data was analyzed using the Statistical Package for the Social Science (SPSS) version 24 computer program.

For the second hypothesis, the researchers of this study hypothesized that athletic burnout would be positively associated with trait self-handicapping tendencies. Bivariate correlations were performed to examine the relationship of the variables in the second hypothesis. In the third hypothesis of this study, the researchers hypothesized that athletic burnout would be positively associated with amotivation and extrinsic motivation and negatively associated with intrinsic motivation. Bivariate correlations were used to analyze the relationship between the variables of athletic burnout, amotivation, extrinsic, and intrinsic motivation.

The lack of research on the relationships between self-handicapping, motivation, and burnout has led this research study to explore different research questions regarding these topics. Is there a relationship between amotivation, extrinsic, and intrinsic motivation and self-handicapping? Bivariate correlations were used to examine the relationship of the variables in the first research question. Additionally, is burnout and motivation a significant predictor of trait self-handicapping? Stepwise multiple regression analysis was used in analyzing the variables of the second research question. The subscales of athletic burnout and motivation were used as the predictor variables with trait self-handicapping being the criterion variable.

Results

Initial Analysis/Descriptive Statistics

A series of independent *t*-tests and one-way ANOVAs were used to determine if there were significant gender or sport differences in burnout, motivation, and self-handicapping. The results from the independent *t*-tests and one-way ANOVAs showed that there were no significant differences between gender, sport, and the variables of burnout, motivation, and self-handicapping. See Appendix I for the results of the independent *t*-tests and Appendix J for the results of the one-way ANOVAs. Descriptive statistics for the dependent variables, stratified by sport and gender, are provided in Table 3. Based on the results of the independent *t*-tests and one-way ANOVAs, the data from both genders and sport teams were then collapsed into a single sample for further data analysis. Descriptive statistics for the dependent variables of the entire sample are provided in Table 4.

Table 3: Descriptive statistics for dependent variables and sport groups

	Men's Volleyball <i>n</i> =12		Women's Volleyball <i>n</i> =15		Men's Rugby <i>n</i> =28		Women's Rugby <i>n</i> =12	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Emotional/Physical Exhaustion	1.87	0.63	1.68	0.58	2.01	0.72	2.12	0.48
Reduced Sense of Accomplishment	2.08	0.70	1.80	0.58	1.83	0.50	1.85	0.46
Sport Devaluation	2.02	0.76	1.56	0.55	1.51	0.39	1.57	0.46
Global Burnout Index	1.99	0.44	1.68	0.46	1.78	0.42	1.84	0.41
Intrinsic	44.50	15.48	51.20	7.86	52.61	9.47	52.50	7.89
Integrated	29.33	9.67	33.87	6.79	33.86	5.71	31.83	8.77
Identified	15.00	4.36	17.07	2.79	17.14	3.78	16.42	2.96
Introjected	-12.33	3.42	-12.33	2.52	-13.93	3.90	-14.00	4.04

External Regulation	-13.67	5.71	-12.27	4.43	-16.57	7.67	-15.83	4.93
Amotivation	-20.50	6.46	-13.80	6.08	-20.89	10.59	-18.00	8.49
Self-Handicapping	31.83	13.30	25.20	9.66	28.04	9.50	26.08	8.03

Table 4: Descriptive statistics of Burnout, Motivation, and Self-Handicapping

	α	Mean	SD	Median	Range
Emotional/Physical Exhaustion	.863	1.93	.66	2	1-3.4
Reduced Sense of Accomplishment	.709	1.87	.57	1.8	1-3.2
Sport Devaluation	.712	1.62	.56	1.6	1-4.2
Global Burnout Index	.826	1.81	.44	1.8	1.1-2.7
Intrinsic	.753	5.65	1.2	6	2-7
Integrated	.783	5.45	1.27	6	1.3-7
Identified	.794	5.54	1.23	6	3-7
Introjected	.493	4.33	1.23	5	1-7
External Regulation	.613	2.49	1.09	2	1-5.7
Amotivation	.656	1.81	1.25	1	1-6
Self-Handicapping Scale	.773	27.73	10.41	29	8-46

Bivariate Correlations

Bivariate correlations were calculated for burnout, motivation, and self-handicapping to examine the relationship between each variable. Significant correlations ($p < .05$) are reported below. All other bivariate correlations are provided in Appendix K.

Burnout and self-handicapping. For the second hypothesis, the researchers hypothesized that athletic burnout would be positively associated with trait self-handicapping tendencies. Bivariate correlations were performed to examine the relationship between burnout and self-handicapping.

There was a positive correlation between trait self-handicapping and reduced sense of accomplishment ($r = .379, p < .01$). Athletes with higher trait self-handicapping reported a greater reduction in feelings of accomplishment in their sport. Additionally, there was a positive correlation between trait self-handicapping and global burnout index ($r = .303, p < .05$). Athletes with higher trait self-handicapping reported higher global burnout index levels.

Burnout and motivation. For the third hypothesis of this study, the researchers hypothesized that athletic burnout would be positively associated with amotivation and extrinsic motivation and negatively associated with intrinsic motivation. Bivariate correlations were used to analyze the relationship between the variables of athletic burnout, amotivation, extrinsic, and intrinsic motivation.

There was a positive correlation between emotional/physical exhaustion and amotivation ($r = .357, p < .01$). Emotional/physical exhaustion was also negatively correlated with integrated motivation ($r = -.352, p < .01$).

Reduced sense of accomplishment was found to be positively correlated with amotivation ($r = .349, p < .01$). Reduced sense of accomplishment was also found to be negatively correlated with integrated motivation ($r = -.308, p < .05$).

Sport devaluation was found to be positively correlated with amotivation ($r = .410, p < .01$). Sport devaluation was also found to be positively correlated with integrated motivation ($r = .497, p < .01$). Sport devaluation was found to be negatively correlated with intrinsic motivation

($r = -.464$, $p < .01$). Sport devaluation was also found to be negatively correlated with identified motivation ($r = -.269$, $p < .05$). Additionally, sport devaluation was found to be negatively correlated with introjected motivation ($r = -.314$, $p < .01$).

Global burnout index was found to be positively correlated with amotivation ($r = .497$, $p < .01$). There was a negative correlation between global burnout index and intrinsic motivation ($r = -.410$, $p < .01$). Additionally, global burnout index was also found to be negatively correlated with integrated motivation ($r = -.513$, $p < .01$).

Motivation and self-handicapping. The first research question of the study examined if there is a relationship between amotivation, extrinsic, and intrinsic motivation and self-handicapping? Bivariate correlations were used to examine the relationship between the subscales of motivation and self-handicapping.

There was a positive correlation between introjected motivation and self-handicapping ($r = .276$, $p < .05$). Additionally, external regulation was positively correlated with self-handicapping ($r = .256$, $p < .05$).

Stepwise Multiple Regression

The second research question of this study examined whether burnout and motivation are significant predictors of trait-self handicapping. A stepwise multiple regression analysis was performed using burnout and motivation as the predictor variables and trait self-handicapping as the criterion variable. Results of the regression analysis were used to predict participant's self-handicapping scores based on their reduced sense of accomplishment and introjected motivation scores. A significant regression model was found, $R^2 = .238$, $R^2_{adj} = .214$, $F(2,64) = 9.98$, $p < .001$, that included reduced sense of accomplishment and introjected motivation as the only predictors of trait self-handicapping. A summary of regression model is presented in Table 5.

Table 5: Summary of regression

	B	β	<i>t</i>	<i>p</i>
Constant	2.306		.391	.697
Reduced Sense of Accomplishment	7.417	.404	3.685	< .001
Introjected Motivation	2.604	.308	2.812	< .007

Discussion

The purpose of this study was to examine the relationship of self-handicapping, motivation, and burnout in collegiate club athletes. It was hypothesized that there would be no significant gender or sport differences for the variables of burnout, motivation, and self-handicapping. It was hypothesized that athletic burnout would be positively associated with trait self-handicapping. Additionally, it also was hypothesized that athletic burnout will be positively associated with amotivation and extrinsic motivation, and negatively associated with intrinsic motivation. Insufficient research on the relationships between self-handicapping, motivation, and burnout led the researchers of this study to explore two research questions regarding these variables. Is there a relationship between amotivation, extrinsic, and intrinsic motivation and self-handicapping? Is burnout and motivation a significant predictor of trait self-handicapping?

Potential gender and sport differences were examined for the dependent variables of interest. Independent sample *t*-tests and one-way ANOVAs showed that there were no significant differences between men, women, and sport for the variables of athletic burnout, motivation, and self-handicapping. It is possible that the male and female club athletes in this study did not differ on the variables due to similarities in training, practice location, amount of tournaments/competitions, and time spent participating in the sport. This study was cross-sectional with data collected near the end of the competitive season. Longitudinal studies measuring these variables across a season in club athletes are an area for future research as there is evidence with varsity athletes that athletic burnout and motivation may change over the length of a season (Cresswell & Eklund, 2005a; Lemyre et al., 2007; Lonsdale et al., 2009).

Bivariate correlation results supported the second hypothesis that athletic burnout is positively associated with trait self-handicapping. Positive correlations were found between

factors of athletic burnout and trait-self handicapping. Reduced sense of accomplishment and the global burnout index were positively correlated with trait self-handicapping. This finding shows that individuals who are higher in trait self-handicapping, are more likely to experience higher levels of athletic burnout. This finding is consistent with the results of Akin (2012) who suggested that self-handicapping is positively associated with the factors of athletic burnout. Athletic burnout may be related to self-handicapping due to accomplishment and self-esteem protection strategies. Athletes may use self-handicapping impediments to manage their feelings of a reduced sense of accomplishment and to protect their self-esteem. Athletes who engage in these strategies may have a reason for an unsuccessful performance and attribute successful performances due to skill, further protecting themselves. These strategies create a scenario where athletes protect their self-esteem and the perceived image that other individuals have of the athlete. Athletes may choose to use self-handicapping strategies to avoid feelings of failure from themselves and others, while creating a scenario where they always win. In depth analysis using qualitative interviews and measures may be effective for understanding the reasoning behind why an individual chooses to self-handicap. Further research is needed to more fully understand the relationship between athletic burnout and self-handicapping.

In the third hypothesis, the researchers of this study hypothesized that athletic burnout would be positively associated with amotivation and extrinsic motivation, and negatively associated with intrinsic motivation. Bivariate correlation results supported this hypothesis with results showing positive correlations between athletic burnout and amotivation, and negative correlations between athletic burnout and intrinsic motivation. The results of this study are consistent with previous research studies (Cresswell & Eklund, 2005b; Cresswell & Eklund, 2005c; Holmberg & Sheridan, 2013; Lonsdale, Hodge, & Rose, 2009, Raedeke & Smith, 2001).

The findings of this research study suggest that athletes who are more intrinsically motivated are less likely to experience burnout. Additionally, athletes who experience amotivation are more likely to experience high levels of athletic burnout.

Results from previous studies involving athletic burnout and the different factors of motivation have been inconsistent. For example, Cresswell and Eklund (2005b, 2005c) found no significant relationship between athletic burnout and external regulation while Holmberg and Sheridan (2013) found a positive correlation between athletic burnout and external regulation. This present study found no significant relationship between burnout and external regulation. This study may differ from other research studies because of the focus on collegiate club athletes. Athletic burnout and external regulation may not be significant in this study because there are few external rewards and contingencies in collegiate club athletics. There may be a relationship between burnout and external regulation if the club athletes were on scholarship but due to the nature of club athletics, athlete expenses are paid by the athletes who participate. The varying results suggest that there may be no consistent correlation between athletic burnout and extrinsic motivation. Further research is necessary to determine the cause of this inconsistency.

The researchers of this study examined if there was a relationship between amotivation, extrinsic, and intrinsic motivation and self-handicapping. Bivariate correlations indicated that there was a positive correlation between introjected motivation, external regulation, and self-handicapping. There were no significant correlations between self-handicapping and the variables of amotivation, and intrinsic motivation. Individuals who are intrinsically motivated and amotivated may have no need to engage in self-handicapping behaviors. Since intrinsic motivation and amotivation are on the opposite ends of the self-determination continuum, individuals may have no need to self-handicap or simply do not care to do so. Individuals who

exhibit higher extrinsic motivation may choose to self-handicap for more external reasons instead of internal reasons or lack of motivation. These results suggest that individuals who are more extrinsically motivated are higher in trait self-handicapping. These correlations also suggest that Self-Determination Theory may be a theoretical framework that can be used to further study the topics of motivation and self-handicapping.

Self-Determination Theory may be useful in studying motivation and self-handicapping to determine if different types of motivation may influence self-handicapping tendencies (Berger & Tobar, in press). Using Self-Determination Theory as the framework for a longitudinal study may help determine in what motivational stage an individual is more likely to use self-handicapping strategies. This may also be useful in determining why an individual may be motivated to use self-handicapping strategies. For example, if the psychological needs of an athlete are not being met (i.e., autonomy, competence, relatedness), then there is evidence that this will affect motivation (Gagne, Ryan & Bargman, 2003; Hodge, Lonsdale, & Ng, 2008) which may promote the use of self-handicapping strategies. Further research may include measuring psychological needs, motivation, and self-handicapping throughout different time points in a season. This information could follow an individual and gain knowledge of when and why self-handicapping may occur.

In the second research questions, the researchers desired to know if burnout and motivation were significant predictors of trait self-handicapping. A stepwise multiple regression was used to determine if burnout and motivation were significant predictors of trait self-handicapping. Results from the regression analysis showed that both reduced sense of accomplishment (a factor of burnout) and introjected motivation (a form of extrinsic motivation) were significant predictors of self-handicapping scores. These findings suggest that individual

self-handicapping scores may be calculated from a regression equation that includes the reduced sense of accomplishment and introjected motivation scores of that individual. Reduced sense of accomplishment may predict self-handicapping because of the similarities that they share in sport performance and ability. Athletes high in reduced sense of accomplishment may use self-handicapping strategies to protect their self-image from others as well as protecting their self-esteem. Additionally, introjected motivation may predict self-handicapping due to the similarities in protection from anxiety and guilt from external pressures (i.e. parents, coaches, teammates). An athlete who experiences high introjected motivation may self-handicap to satisfy the external pressure they feel from guilt or anxiety from other individuals, while also enhancing their self-worth by protecting their self-esteem and image. Further research on burnout, motivation, and self-handicapping may replicate the findings of this study which may determine why factors of burnout and motivation may lead to self-handicapping tendencies.

Limitations and Future Research

Limitations of this study may include the timing of the data collection, which may have influenced the responses of the athletes. The data was collected near the end of the competitive season for both men's and women's rugby and volleyball. Future research should consider collecting data at different time points throughout the seasons such as at the beginning, middle, and the end of the season to determine the longitudinal relationship of the variables over time. Measures of motivation and trait self-handicapping could also have been collected at the same time points as burnout (beginning, middle, or end of season) or at different time points over the season. Future research should take into account the timing of data collection and consider multiple time points. Furthermore, a longitudinal study may be the next step in researching burnout, motivation, and self-handicapping. Additional claimed and behavioral self-

handicapping measures may be included in future research to monitor self-handicapping strategies over the length of a season. These measures may provide more insight into the types of self-handicaps that are being exhibited as well as other claimed reasons for performance.

Additional limitations of this study include the reliability measures of introjected motivation. It should be noted that measures of introjected motivation were performed using Cronbach's α and showed poor internal consistency ($\alpha = .493$). Previous research studies have determined the Sport Motivation Scale-II to show acceptable internal consistency with Cronbach's α ranging from 0.73 to 0.86. Caution may be necessary in future research using the introjected motivation subscale of the SMS-II.

Participants in this convenience sample may limit the generalizability of the results of the study. The study took place at a Midwestern University, and the sample was homogenous in ethnic and cultural composition. The results of this study may not apply to other club sport teams. To increase the generalizability of future research, researchers may include additional club sports and universities throughout diverse regions of the United States. This may help generalize the results to the entire population and not limit the findings to one region.

Additionally, some club sports teams may lack consistency in practice attendance, travel participation, and coach training which may be problematic. These factors may influence the results of future research. Other factors such as training levels and perhaps other non-sport issues (e.g., academics) should also be considered in future research with regard to burnout and self-handicapping.

Conclusion

The results of this current study have suggested that athletic burnout is positively correlated with trait-self handicapping. This study also supports that athletic burnout is positively

correlated with amotivation, and negatively correlated with intrinsic motivation. Additionally, introjected and external motivation are associated with trait self-handicapping. There was no evidence of significant correlations between self-handicapping and amotivation and intrinsic motivation. Results of this study suggest that factors of burnout and motivation may be predictors of self-handicapping. This research study has shown that significant relationships occur between the factors of athletic burnout, motivation, and self-handicapping in collegiate club athletics. Future researchers may use Self-Determination Theory to examine the factors of athletic burnout, motivation, and self-handicapping. This may provide more knowledge and insight to the causes, changes, and sources of athletic burnout, motivation and self-handicapping.

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Appendix A

Informed Consent Form

Project Title: Burnout, Self-Handicapping, and Motivation in Collegiate Club Athletes
Researchers: Jordan Allen, Graduate Student, School of HMSLS
David Tobar, Associate Professor, School of HMSLS
Bonnie Berger, Professor, School of HMSLS

Introduction: My name is Jordan Allen and I am a graduate student in the Kinesiology program at Bowling Green State University. I am currently working on my master's research project with my advisor, Dr. David Tobar. This study focuses on different factors of sport participation. You are being asked to participate in this study because of your involvement in club sports at Bowling Green State University.

Purpose: The purpose of this study is to provide information on factors related to sport participation in sport club athletes. The results from this study may be used in future research studies. This study may further our knowledge on topics related to sport. Participants may increase their awareness of attitudes and behaviors in sports. There are no direct benefits (e.g. money, course credit, etc.) to the participants.

Procedure: Upon completion of the informed consent document, you will be asked to fill out five questionnaires. The questionnaires include topics of motivation, behavior, personality, and emotions involved with sport participation. The first questionnaire is for demographic information. The second questionnaire measures how individuals feel while participating in sports. The third questionnaire measures athletic motivation. The fourth questionnaire measures behavioral tendencies. The fifth questionnaire measures personality. Each questionnaire will have a different scoring measure along with instructions on how to complete each questionnaire. The data collection of this study will be done at one time-point. Completion of the questionnaires will take approximately 15 minutes.

Voluntary nature: Your participation is completely voluntary. You are free to withdraw at any time. You may decide to skip questions or discontinue participation at any time without penalty. Deciding to participate or not will not affect your relationship with Bowling Green State University.

Confidentiality: All information will be stored in a locked file cabinet inside the faculty advisor's locked office. Computer data will be stored on a password protected computer. Only Jordan Allen and Dr. David Tobar will have access to the information. Research data will be kept for a period of five years after the final submission of the project. Athlete's names will be coded to identify them and protect confidentiality. Athletes will provide a confidentiality code by using the first three letters of their mother's maiden name, along with the last four digits of their identification number (ID) associated with this university. Confidentiality codes will be placed in a designated location at the top of each questionnaire.

Risks: Risk of participation is no greater than that experienced in daily life.

Contact Information: If you have any questions about this research or your participation in this study, you may contact Jordan Allen, 435-881-1016, jordall@bgsu.edu or Dr. Tobar, 419-372-6914, dtobar@bgsu.edu. You may also contact the Chair, Institutional Review Board at 419-372-7716 or orc@bgsu.edu, if you have any questions about your rights as a participant in this research. Thank you for your time.

I have been informed of the purposes, procedures, risks and benefits of this study. I have had the opportunity to have all my questions answered and I have been informed that my participation is completely voluntary. I agree to participate in this research.

Signature

Printed Name

Date

Confidentiality Code

Appendix B

Demographics Questionnaire

Gender:

Sport:

Age:

Year in school (e.g. Freshman, Sophomore, etc.):

Years on club team:

Years playing sport:

Appendix C

Athlete Burnout Questionnaire

Please read each statement carefully and decide if you ever feel this way about your current sport participation. Your current sport participation includes all training you have completed during this season. Please indicate how often you have had this feeling or thought this season by circling a number 1 to 5, where 1 means “I almost never feel this way” and 5 means “I feel that way most of the time.” There are no right or wrong answers, so please answer each question as honestly as you can. Please make sure to answer all items. If you have any questions, feel free to ask.

<i>How often do you feel this way?</i>	Almost Never	Rarely	Some- times	Frequen- tly	Almost Always
1. I’m accomplishing many worthwhile things in [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 [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 [sport]	1	2	3	4	5
6. I don’t care as much about my [sport]	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 [sport]	1	2	3	4	5
9. I’m not into [sport] like I used to be	1	2	3	4	5
10. I feel physically worn out from [sport]	1	2	3	4	5
11. I feel less concerned about being successful in [sport] than I used to	1	2	3	4	5
12. I am exhausted by the mental and physical demands of [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 [sport]	1	2	3	4	5
15. I have negative feelings toward [sport]	1	2	3	4	5

Note: the specific sport of the respondent is inserted where [sport] appears above. For example, in a swimming-specific study item one would read “I’m accomplishing many worthwhile things in swimming”.

Appendix D

Sport Motivation Scale - II

Why do you play your sport?

Write the most accurate answer from the 7-point scale for each statement.

1 2 3 4 5 6 7

(Not at all true) (Somewhat true) (Very true)

1. ____ Because people around me reward me when I do.
2. ____ Because it gives me pleasure to learn more about my sport.
3. ____ Because I would feel bad about myself if I did not take the time to do it.
4. ____ Because practicing sports reflects the essence of whom I am.
5. ____ Because through sport, I am living in line with my deepest principles.
6. ____ Because I think others would disapprove of me if I did not.
7. ____ Because it is very interesting to learn how I can improve.
8. ____ So that others will praise me for what I do.
9. ____ Because I have chosen this sport as a way to develop myself.
10. ____ It is not clear to me anymore; I don't really think my place is in sport.
11. ____ Because it is one of the best ways I have chosen to develop other aspects of myself.
12. ____ Because I feel better about myself when I do.
13. ____ Because I find it enjoyable to discover new performance strategies.
14. ____ Because I would not feel worthwhile if I did not.
15. ____ Because participating in sport is an integral part of my life.
16. ____ Because people I care about would be upset with me if I didn't.
17. ____ Because I found it is a good way to develop aspects of myself that I value.
18. ____ I used to have good reasons for doing sports, but now I am asking myself if I should continue.

Appendix E

Self-Handicapping Scale

Please indicate (by writing a number in the blank for each item) the degree to which you agree with each of the following statements as a description of the kind of person you think you are **most of the time**.

Use the following scale:

0 = disagree very much

1 = disagree pretty much

2 = disagree a little

3 = agree a little

4 = agree pretty much

5 = agree very much

- _____ 1. When I do something wrong, my first impulse is to blame circumstances.
- _____ 2. I tend to put things off until the last moment.
- _____ 3. I suppose I feel “under the weather” more often than most people.
- _____ 4. I always try to do my best, no matter what.
- _____ 5. I am easily distracted by noises or my own creative thoughts when I try to read.
- _____ 6. I try not to get too intensely involved in competitive activities so it won't hurt too much if I lose or do poorly.
- _____ 7. I would do a lot better if I tried harder.
- _____ 8. Someday I might “get it all together.”
- _____ 9. I sometimes enjoy being mildly ill for a day or two because it takes off the pressure.
- _____ 10. I would do much better if I did not let my emotions get in the way.
- _____ 11. I admit that I am tempted to rationalize when I don't live up to other's expectations.
- _____ 12. I often think I have more than my share of bad luck in sports, card games, and other measures of talent.
- _____ 13. I overindulge in food and drink more often than I should.
- _____ 14. Sometimes I get so depressed that even easy tasks become difficult.

Appendix F

Big Five Inventory – 2-S

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1	2	3	4	5
Strongly Disagree	Disagree a little	Neutral; No opinion	Agree a little	Agree Strongly

I am someone who...

1. ____ Tends to be quiet
 2. ____ Is compassionate, has a soft heart.
 3. ____ Tends to be disorganized.
 4. ____ Worries a lot.
 5. ____ Is fascinated by art, music, or literature.
 6. ____ Is dominant, acts as a leader.
 7. ____ Is sometimes rude to others.
 8. ____ Has difficulty getting started on tasks.
 9. ____ Tends to feel depressed, blue.
 10. ____ Has little interest in abstract ideas.
 11. ____ Is full of energy.
 12. ____ Assumes the best about people.
 13. ____ Is reliable, can always be counted on.
 14. ____ Is emotionally stable, not easily upset.
 15. ____ Is original, comes up with new ideas.
 16. ____ Is outgoing, sociable.
 17. ____ Can be cold and uncaring.
 18. ____ Keeps things neat and tidy.
 19. ____ Is relaxed handles stress well.
 20. ____ Has few artistic interests.
 21. ____ Prefers to have others take charge.
 22. ____ Is respectful, treats others with respect.
 23. ____ Is persistent, works until the task is finished.
 24. ____ Feels secure, comfortable with self.
 25. ____ Is complex, a deep thinker.
 26. ____ Is less active than other people.
 27. ____ Tends to find fault with others.
 28. ____ Can be somewhat careless.
 29. ____ Is temperamental, gets emotional easily.
 30. ____ Has little creativity.
-

Appendix G

Club Presidents Recruitment Email

Hello,

My name is Jordan Allen and I am a second-year graduate student working on my research project here at Bowling Green State University. I am conducting a master's project research study about athlete's perception towards sports under the supervision of Dr. David Tobar. I am emailing you to see if your team would be willing to take a 15-minute survey on burnout, motivation, and self-handicapping in collegiate club athletes. Recruitment and data collection of participants would be done at the practice facility prior to a team practice or meeting with no type of coach present. Participants who are unable to attend a team practice or meeting and participate in the research study will have the opportunity to meet at an alternate time to be part of the research study. The meeting place of this alternate research time will be in the Exercise and Sport Psychology Lab, inside the Gertude M. Eppler Complex.

Participation is completely voluntary, and all answers will be anonymous. Everyone who chooses to participate must be over the age of 18. All data and information will be confidential. Athletes will be able to provide a confidentiality code to protect their identity and results. There are no risks associated with this research project. This study hopes to gain insight to collegiate club athletes' attitudes, feelings, and behaviors associated with their sport participation.

If you have any questions and are interested in participating, please contact me at jordall@bgsu.edu or at 435-881-1016. This study has been reviewed and approved by the Institutional Review Board. If you have any questions about your right as a participant, please feel free to contact the Institutional Review Board at Bowling Green State University 419-372-7716 or email orc@bgsu.edu.

Thank you for your time,

Jordan Allen

Bowling Green State University

Appendix H

Participant Recruitment Script

Hello,

My name is Jordan Allen and I am a second-year graduate student working on my research project here at Bowling Green State University. I am conducting a master's research project regarding different factors of sport under the supervision of Dr. David Tobar. I have received permission from your club president to see if you would be willing to take a 15-minute survey on different factors of sport. Please know that your participation is completely voluntary and any information that you provide will be anonymous. Participation in this study will help to increase our knowledge of club sport athletes. Participants may also benefit by increasing their awareness of attitudes and behaviors in sport which in turn may have psychological and physical benefits. Risk of participation is no greater than that experienced in daily life.

To participate in this study, you will need to read and sign the informed consent form that I will hand out. This form provides information about this study and it explains your rights as a participant and that this study has been approved by the Institutional Review Board. Your data will be kept confidential. You will be able to provide a confidentiality code to protect your identity and data results. This will be explained further in the informed consent form. If you have any questions about your right as a participant, please feel free to contact the Institutional Review Board at Bowling Green State University 419-372-7716 or email orc@bgsu.edu.

By participating, you agree that: you are volunteering and your decision to participate will not impact your relationship with Bowling Green State University, you over the age of 18, you may withdraw consent and terminate participation at any time, and upon request, a copy of the informed consent document and a summary of the research findings will be available to you. The information that you provide will be kept confidential and any information linked to you will be coded for confidentiality purposes.

If you have any questions about completing the survey, please feel free to contact me at jordall@bgsu.edu or 435-881-1016.

Thank you for your time,

Jordan Allen

Bowling Green State University

APPENDIX I

Independent-Samples *t*-Tests

Gender and Emotional/Physical Exhaustion

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = .551, p > .05$).

Gender and Reduced Sense of Accomplishment

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = .584, p > .05$).

Gender and Sport Devaluation

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = .694, p > .05$).

Gender and Global Burnout Index

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = .812, p > .05$).

Gender and Intrinsic Motivation

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = .594, p > .05$).

Gender and Integrated Motivation

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = .242, p > .05$).

Gender and Identified Motivation

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = -.301, p > .05$).

Gender and Introjected Motivation

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = .406, p > .05$).

Gender and External Regulation

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = 1.14, p > .05$).

Gender and Amotivaiton

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = 1.56, p > .05$).

Gender and Self-Handicapping

An independent-samples *t*-test was calculated comparing gender and the mean scores of the emotional/physical exhaustion subscale of burnout. No significant differences were found ($t(65) = 1.39, p > .05$).

Appendix J

Factorial ANOVA

Overall, a series of factorial ANOVAS were performed in a 2 (sport) x 2 (gender) between-subjects design for the dependent variables of burnout, motivation, and self-handicapping. Dependent variables included each subscale of burnout: emotional/physical exhaustion, reduced sense of accomplishment, sport devaluation, and the global burnout index; motivation: intrinsic, integrated, identified, introjected, external regulation, and amotivation; and self-handicapping. Fixed factors for the analysis were sport and gender. The results of the factorial ANOVAs are reported below.

Burnout: Emotional/Physical Exhaustion

A 2 (sport) × 2 (gender) between-subjects factorial ANOVA was calculated comparing the emotional/physical exhaustion subscale scores of gender and sport. The main effect for gender was not significant $F(1,63) = .051, p > .05$. The main effect for sport was also not significant $F(1,63) = 2.86, p > .05$. Finally, the interaction was not significant $F(1,63) = .757, p > .05$. Thus, it appears that neither gender or sport has any significant effect on emotional/physical exhaustion.

Burnout: Reduced Sense of Accomplishment

A 2 (sport) × 2 (gender) between-subjects factorial ANOVA was calculated comparing the reduced sense of accomplishment subscale scores of gender and sport. The main effect for gender was not significant $F(1,63) = .783, p > .05$. The main effect for sport was also not significant $F(1,63) = .479, p > .05$. Finally, the interaction was not significant $F(1,63) = 1.06, p > .05$. Thus, it appears that neither gender or sport has any significant effect on reduced sense of accomplishment.

Burnout: Sport Devaluation

A 2 (sport) × 2 (gender) between-subjects factorial ANOVA was calculated comparing the sport devaluation subscale scores of gender and sport. The main effect for gender was not significant $F(1,63) = 2.02, p > .05$. The main effect for sport was also not significant $F(1,63) = 3.23, p > .05$. Finally, the interaction was not significant $F(1,63) = 3.41, p > .05$. Thus, it appears that neither gender or sport has any significant effect on sport devaluation.

Burnout: Global Burnout Index

A 2 (sport) \times 2 (gender) between-subjects factorial ANOVA was calculated comparing the total global burnout index scores for gender and sport. The main effect for gender was not significant $F(1,63) = 1.14, p > .05$. The main effect for sport was also not significant $F(1,63) = .036, p > .05$. Finally, the interaction was not significant $F(1,63) = 2.62, p > .05$. Thus, it appears that neither gender or sport has any significant effect on the global burnout index.

Motivation: Intrinsic

A 2 (sport) \times 2 (gender) between-subjects factorial ANOVA was calculated comparing the intrinsic motivation subscale scores for gender and sport. The main effect for gender was not significant $F(1,63) = 1.44, p > .05$. The main effect for sport was also not significant $F(1,63) = 2.94, p > .05$. Finally, the interaction was not significant $F(1,63) = 1.54, p > .05$. Thus, it appears that neither gender or sport has any significant effect on intrinsic motivation.

Motivation: Integrated

A 2 (sport) \times 2 (gender) between-subjects factorial ANOVA was calculated comparing the integrated motivation subscale scores for gender and sport. The main effect for gender was not significant $F(1,63) = .404, p > .05$. The main effect for sport was also not significant $F(1,63) = .398, p > .05$. Finally, the interaction was not significant $F(1,63) = 2.76, p > .05$. Thus, it appears that neither gender or sport has any significant effect on integrated motivation.

Motivation: Identified

A 2 (sport) \times 2 (gender) between-subjects factorial ANOVA was calculated comparing the identified motivation subscale scores for gender and sport. The main effect for gender was not significant $F(1,63) = .495, p > .05$. The main effect for sport was also not significant $F(1,63) = .614, p > .05$. Finally, the interaction was not significant $F(1,63) = 2.15, p > .05$. Thus, it appears that neither gender or sport has any significant effect on identified motivation.

Motivation: Introjected

A 2 (sport) \times 2 (gender) between-subjects factorial ANOVA was calculated comparing the introjected motivation subscale scores for gender and sport. The main effect for gender was not significant $F(1,63) = .001$, $p > .05$. The main effect for sport was also not significant $F(1,63) = 2.90$, $p > .05$. Finally, the interaction was not significant $F(1,63) = .001$, $p > .05$. Thus, it appears that neither gender or sport has any significant effect on introjected motivation.

Motivation: External Regulation

A 2 (sport) \times 2 (gender) between-subjects factorial ANOVA was calculated comparing the external regulation motivation subscale scores for gender and sport. The main effect for gender was not significant $F(1,63) = .408$, $p > .05$. The main effect for sport was also not significant $F(1,63) = 3.74$, $p > .05$. Finally, the interaction was not significant $F(1,63) = .039$, $p > .05$. Thus, it appears that neither gender or sport has any significant effect on external regulation.

Motivation: Amotivation

A 2 (sport) \times 2 (gender) between-subjects factorial ANOVA was calculated comparing the amotivation motivation subscale scores for gender and sport. The main effect for gender was not significant $F(1,63) = 2.13$, $p > .05$. The main effect for sport was also not significant $F(1,63) = .188$, $p > .05$. Finally, the interaction was not significant $F(1,63) = .381$, $p > .05$. Thus, it appears that neither gender or sport has any significant effect on amotivation.

Self-Handicapping

A 2 (sport) \times 2 (gender) between-subjects factorial ANOVA was calculated comparing the self-handicapping scores for gender and sport. The main effect for gender was not significant $F(1,63) = 2.53$, $p > .05$. The main effect for sport was also not significant $F(1,63) = .292$, $p > .05$. Finally, the interaction was not significant $F(1,63) = .752$, $p > .05$. Thus, it appears that neither gender or sport has any significant effect on self-handicapping.

APPENDIX K

Correlation Matrix for Burnout and Self-Handicapping

	Emotional/Physical Exhaustion	Reduced Sense of Accomplishment	Sport Devaluation	Global Burnout Index	Self-Handicapping Scale
Emotional/Physical Exhaustion	1	-	-	-	-
Reduced Sense of Accomplishment	.264*	1	-	-	-
Sport Devaluation	.438**	.303*	1	-	-
Global Burnout Index	.790**	.682**	.764**	1	-
Self-Handicapping Scale Total	.223	.379**	.077	.303*	1

*denotes $p < .05$

**denotes $p < .01$

Correlation Matrix for Burnout and Motivation

	Emotional/Physical Exhaustion	Reduced Sense of Accomplishment	Sport Devaluation	Global Burnout Index	Intrinsic	Integrated	Identified	Introjected	External	Amotivation
Emotional/Physical Exhaustion	1	-	-	-	-	-	-	-	-	-
Reduced Sense of Accomplishment	.264*	1	-	-	-	-	-	-	-	-
Sport Devaluation	.438**	.303*	1	-	-	-	-	-	-	-
Global Burnout Index	.790**	.682**	.764**	1	-	-	-	-	-	-
Intrinsic	-.231	-.239	-.464**	-.410**	1	-	-	-	-	-
Integrated	-.352**	-.308*	.497**	-.513**	.591**	1	-	-	-	-
Identified	-.239	-.138	-.269*	-.289	.721**	.648**	1	-	-	-
Introjected	-.117	-.080	-.314**	-.223	.387**	.475**	.313**	1	-	-
External Regulation	.235	.001	-.049	.096	.035	.070	.068	.407**	1	-
Amotivation	.357**	.349**	.410**	.497**	-.196	-.326**	-.025	-.281*	-.001	1

*denotes $p < .05$

**denotes $p < .01$

Correlation Matrix for Motivation and Self-Handicapping

	Intrinsic	Integrated	Identified	Introjected	External Regulation	Amotivation	Self-Handicapping
Intrinsic	1	-	-	-	-	-	-
Integrated	.591**	1	-	-	-	-	-
Identified	.721**	.648**	1	-	-	-	-
Introjected	.387*	.475**	.313**	1	-	-	-
External Regulation	.035	.070	.068	.407**	1	-	-
Amotivation	-.196	-.326**	-.025	-.281*	-.001	1	-
Self-Handicapping	-.099	.031	-.120	.276*	.256*	.200	1

*denotes $p < .05$

**denotes $p < .01$