The Relationship Between Perfectionism and Burnout in Coaches

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THE RELATIONSHIP BETWEEN PERFECTIONISM AND BURNOUT IN COACHES

By

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This thesis is dedicated to my parents, Myles and Diana Tashman.
Thank you for all that you have given me and for always supporting me in the pursuit of my goals.
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The purpose of this thesis was to examine the proposed model that perfectionism, perceived stress, and participation in coaching activities predicts burnout with coach status as a moderating variable. Male and female coaches (n=177) over the age of 18 participated in the study. They completed the Perfectionism Inventory (PI), the Maslach Burnout Inventory (MBI), the Perceived Stress Scale (PSS), and the Participation in Coaching Activities Questionnaire (PICA) that was developed by the researcher. Significant positive correlations were observed between perceived stress, dimensions of perfectionism, and coaching activities. Though significant, the magnitude of these relationships tended to be very low. Head coaches tended to be higher on the conscientious perfectionism dimension of planfulness, while assistant coaches tended to be higher on the self-evaluative perfectionism dimensions of concern over mistakes, and need for approval. It was also found that assistant coaches tended to engage in more game plan coaching activities than did head coaches. The hypothesized model exhibited a reasonable fit to the data after removal of the perfectionism dimension of organization from the analysis. The only significant predictors of burnout in the model, however, were self-evaluative perfectionism and perceived stress. The multi-sample analysis revealed that factor loadings for the perfectionism dimensions of planfulness and striving for excellence differed significantly for head and assistant coaches. Previous research examining the relationships between perfectionism, perceived stress, participation in activities, and burnout in coaches has been extremely limited, and this study was able to provide a basis for examining these variables in more detail.
INTRODUCTION

Burnout has become a serious concern and a widely researched topic in the area of sport. Athletic coaches have participated in these studies for the purposes of examining their experience of burnout (Caccesse & Mayerberg, 1984; Capel, Sisley, & Desertrain, 1987; Dale & Weinberg, 1989; Dale & Weinberg, 1990; Haggerty, 1982; Kelley, 1994; Kelley & Gill, 1993; Pease, Zapalac, & Lee; Vealey, Udry, Zimmerman, & Soliday, 1992) as well as how their coaching behaviors and burnout levels impact athlete burnout (Price & Weiss, 2000; Vealey et al., 1998). Athlete burnout has also been investigated in order to identify personal and situational variables associated with burnout in these individuals (Lu & Huang, 2002; Robinson & Carron, 1982), and to examine other variables that may be associated with the experience of burnout (Gould et al., 1996). One variable examined was perfectionism. Perfectionism has mostly been studied in student and clinical populations (Chang, 2000; Dunkley et al., 2000; Flett, Greene & Hewitt, 2004; Frost & Marten, 1990; Hewitt, Ediger, & Flett, 1996; Saboonchi & Lundh, 1997; Saboonchi & Lundh, 2003; Wyatt & Gilbert, 1998). However, a few studies have been conducted that attempt to link perfectionism with sport and exercise (Anshel & Seipel, in press; Dunn, Dunn, & Syrotuik, 2002; Frost & Henderson, 1991; Gotwals, Dunn, Wayment, 2002; Hall, Kerr, & Matthews, 1998; Koivula, Hassmen, & Fallby, 2002). Unfortunately, there have not been any studies conducted that attempt to directly link burnout and perfectionism in coaches.

The purpose of this thesis is to examine the relationship between burnout and perfectionism in coaches. Furthermore, a model was developed that includes perceived stress based on models of burnout that indicate that stress appraisal plays an integral role in the development of burnout (Smith, 1986; Tenenbaum, Jones, Kitsantas, Sacks, & Berwick, 2003). Participation in coaching activities has also been added as a component that may affect burnout based on prior research that indicates work overload may be a factor in the development of burnout (Maslach, Jackson, & Leiter, 1996). It was proposed that perfectionism, perceived stress, and participation in coaching activities will impact the coaches’ experiences with burnout. Furthermore, it was anticipated that the coach status would act as a moderating variable in the relationship between perfectionism and burnout. The results of the study provide a better understanding of the relationship
between perfectionism and burnout in coaches, which may prove to be helpful in reducing the experience of stress and burnout in coaches. Next, an overview of the relevant literature on perfectionism and burnout, and support for the purpose of the study, as well as for the thesis hypotheses, are provided.
The study of burnout began through an examination of the phenomenon in the mental health professions. Freudenberger (1980) defined burnout as “a state of fatigue or frustration brought about by devotion to a cause, way of life, or relationship that failed to produce the expected reward” (p.13). Maslach and Jackson (1984) stated that this phenomenon involves the specific psychological impairments of emotional exhaustion, depersonalization, and reduced personal accomplishment. Burnout has also been studied in organizational settings and has been defined as the result of an incongruity between an individual’s capability and the organizational demands (Farber, 1983).

While these definitions are broad and can be applied to a wide range of individuals experiencing burnout, researchers studying the phenomenon in sports have identified definitions specific to the experiences of those individuals involved in sport environments. Smith (1986) defined burnout as a reaction to chronic stress that involves withdrawal from an activity that was formerly considered enjoyable. He stated that the reaction involves physical, mental, and behavioral components that arise due to an inability to efficiently cope with stress over a prolonged period of time (Smith, 1986). The concept of burnout has also been refined to include physiological aspects and has been termed failure adaptation. Tenenbaum, Jones, Kitsantas, Sacks, and Berwick (2003) defined failure adaptation as a state in which an athlete fails to effectively recover from training stress in order to sustain peak performance.

Due to the fact that so many definitions have been provided for the concept of burnout, it has been difficult to identify and study it in different populations. However, some agreement exists upon a few basic components inherent in the experience of
burnout. Dale and Weinberg (1990) identified that burnout involves the presence of multiple forms of exhaustion, a negative change in an individual’s interactions with others, the presence of feelings of low personal accomplishment, and that burnout is a process that develops as a result of chronic stress and is unique to each individual.

Models of Burnout

Several models of burnout have been developed that have attempted to explain the occurrence of this experience. Smith (1986) developed the cognitive-affective model in which personal and situational variables interact to affect an individual’s cognitive appraisal of stressful situations that results in psychological, physiological, emotional, and behavioral responses. As the individual must deal with more stressors over a significant period of time, he/she begins to appraise these situations in a negative manner, which results in the experience of burnout (Smith, 1986). Thus, the individual perceives that his personal resources are insufficient to satisfy demands (Pargman, 1998). Kelley and Gill (1993) examined the relevance of this model with respect to coach burnout and found that the support was stronger for stress appraisal predicting burnout than for personal and situational variables predicting the appraisal of stress.

Schmidt and Stein (1991) developed an investment model of burnout in which an individual’s perceptions about the rewards, costs, satisfaction, alternatives, and investments associated with sport participation impact whether he or she will continue participation in sport, experience burnout, or withdraw from sport. Burnout will occur when the individual perceives low rewards, satisfaction, and attractive alternatives and perceives high costs and investments (Schmidt & Stein, 1991). Similarly, Raedeke (1997) developed a commitment model of burnout in which he proposed that the perception of high costs and investments, low rewards, and a lack of attractive alternatives will lead to sport entrapment in which an individual experiences burnout with continued participation in sport. Raedeke, Warren, and Granzyk (2002) tested this commitment model by examining current and former coaches. Their findings revealed that the presence of attractive alternatives and social constraints are not related to commitment. Also, determinants of commitment explained 65% of the variance, but are not an effective means of determining whether coaches maintain or discontinue involvement in sport.
Lastly, the failure adaptation model states that personal dispositions and states impact an individual’s appraisal and perception of various stressors. They then enact coping and defense strategies to deal with the stressors (Tenenbaum et al., 2003). If the individual can effectively cope with the stressors he or she experiences a positive state of adaptation and maintains peak performance. However, if the individual cannot effectively cope with the stressors he/she experiences a negative state of adaptation in the form of overtraining and burnout.

Sport-specific models of burnout have also been developed because it was believed that athlete burnout may not involve the same components as burnout that is experienced in the mental health and organizational settings. Silva (1990) developed the negative training stress model in which an individual’s ability to effectively recover from training stress leads to positive adaptation and continued participation in sport. However, an inability to effectively recover from training stress leads to negative adaptation and the experience of burnout. Coakley (1992) developed a model for understanding athlete burnout as it occurs in adolescents. He proposed that the organization of youth sport leads to the development of a unidimensional identity, a sense of powerlessness, and lack of control that lead to the experience of burnout.

A model has also been developed for burnout as it is experienced by coaches. Kelley, Eklund, and Ritter-Taylor (1999) proposed that personal and situational variables including hardiness, coaching issues, competitive level, gender, competition anxiety, and type of leadership style impact the perception of stress which affects the coaches’ burnout development. Personal and situational variables also directly affect the individuals’ experience of burnout.

**Burnout Signs and Symptoms**

Extensive research on burnout in sport has led to the identification of various signs and symptoms associated with the phenomenon (Cox, 1994; Fender, 1989; Henschen, 2001; Pargman, 1998; Tenenbaum et al., 2003). Many of these signs and symptoms are evidence for the purpose of the present study in which the relationship between perfectionism, perceived stress, participation in coaching activities, and burnout was investigated.
Physiological symptoms associated with burnout include increased basal heart rate and blood pressure, reductions and/or increases in body weight, and increased disruptions in sleep patterns (Cox, 1994; Henschen, 2001). Cox (1994) also identified increased chronic muscle soreness and fatigue, decreased maximal aerobic power, and decreases in libido and appetite as potential physiological problems that may arise from the development of burnout. Furthermore, increased colds, respiratory infections, gastrointestinal problems, headaches, and injuries are symptoms associated with burnout (Fender, 1989; Tenenbaum et al., 2003).

Psychological and cognitive symptoms associated with burnout are decrease in self-esteem, persistence of negative reactions to chronic stress, and increased perception of physical, mental, and emotional fatigue (Cox, 1994). Tenenbaum et al. (2003) also identified general negative cognitive reactions, increases in the use of defense mechanisms and coping strategies, and the development of learned helplessness. Henschen (2001) indicated that confusion and disruption of motivational processes are also integral to the development of burnout.

Emotional symptoms associated with burnout have also been identified and include increases in state anxiety, decreases in vigor, and the development of negative mood states and disturbances in mood (Cox, 1994; Tenenbaum et al., 2003). Behavioral symptoms include maladaptive rigid and avoidant behaviors (Tenenbaum et. al, 2003), reduction in the quality of interaction with others (Cox, 1994), and inconsistent, declining sport performance (Pargman, 1998). Fender (1989) also identified increased ease of development of frustration and anger, risk-taking, and overt behavioral expressions of emotions as being key identifying symptoms for the development of burnout.

**Burnout in Coaches**

Early research on coach burnout attempted to identify any differences in the prevalence and experience of burnout based on gender. Findings were equivocal. Caccese and Mayerberg (1984) found that female coaches scored higher on emotional exhaustion and lower on the personal accomplishment dimension, but did not find any differences in the scores of males and females on depersonalization. Haggerty (1982) examined Canadian coaches and found that females exhibited higher levels of perceived burnout than males. However, Dale and Weinberg (1989) found that male coaches had
higher levels of burnout than female coaches. Contradictory to all of these studies, Wilson, Haggerty, and Bird (cited by Dale & Weinberg, 1990) found no significant difference in the experience and prevalence of burnout in male and female coaches. Discrepancies in the findings of these studies may be attributed to sampling variance and the time of season in which these studies were conducted (Dale & Weinberg, 1990).

Research on coach burnout has also examined whether the prevalence and intensity of burnout is comparable to burnout experienced by individuals in the helping professions. It has been suggested that the experience of coach burnout is similar to the experience of those in the helping and organizational settings. Unfortunately, this research has also been inconclusive. Caccesse and Mayerberg (1984) found that levels of coach burnout were not higher than levels of burnout in the helping professions. In contrast, research has also shown that levels of coach burnout are higher than those in the helping professions (Kelley, 1994; Kelley & Gill, 1993; Vealey et al., 1992).

The effects of role ambiguity and role conflict on coaches’ burnout experience have also been examined. Role ambiguity refers to the lack of a clear understanding of job expectations while role conflict refers to the development of discord caused by different responsibilities (Pargman, 1998). Capel, Sisley, and Desertrain (1987) found that high role conflict and role ambiguity were associated with increases in the emotional exhaustion component of burnout and that role ambiguity is an effective predictor of the depersonalization component of burnout. Research on burnout experienced by coaches has also examined the effects of their leadership style. Dale and Weinberg (1989) examined high school and college coaches. They found that coaches with a consideration style of leadership (concerned with friendship and well-being of others and use a more group-oriented structure) scored higher on the emotional exhaustion component of burnout. However, coaches with an initiating style of leadership (more concerned with planning and achievement of goals).

Previous research has also identified various personal and situational variables associated with coach burnout. Pease, Zapalac, and Lee (2003) reported that personal health status and job satisfaction were associated with burnout while win/loss record, hours of work per week, and size of the school were not associated with burnout. Wilson and Bird (cited in Dale & Weinberg, 1990) found that full-time coaches having a losing
season and having a greater number of interactions with athletes experience higher levels of burnout. Research on collegiate baseball and softball coaches identified that coaching issues, hardiness, and stress appraisal were predictive of burnout in both male and female coaches (Kelley, 1994). Social support satisfaction was predictive of burnout in male coaches, but not female coaches (Kelley, 1994). Furthermore, a study examining high school and collegiate coaches found that trait anxiety, perceived rewards, perceived value of role, excitement, meaningful accomplishments, perceived overload, perceived control, perceived support, and perceived success were predictive of burnout in male coaches (Vealey, Udry, Zimmerman, & Soliday, 1992). However, all of the variables were predictive of burnout for female coaches except for meaningful accomplishments and perceived success (Vealey et al., 1992). Lastly, Kelley and Gill (1993) examined burnout in collegiate teacher-coaches and found that perceived stress, coaching issues, and coaching problems were positively associated with emotional exhaustion and depersonalization and negatively associated with personal accomplishment. They also found that only 11% of the burnout variance was accounted for by social support, gender, and level of experience. This indicates a need to examine other personal and situational variables that may play a role in the experience of coach burnout (Kelley & Gill, 1993).

**Burnout in Athletes**

Several studies examined the experience of burnout in athletes. Raedeke and Smith (2004) studied USA swimmers and found that internal coping resources, such as lifestyle management, exhibited a stronger association with perceived stress and burnout than did external coping resources, such as social support. Gould, Udry, Tuffy, and Loehr (1996) studied competitive junior tennis players and found that players experiencing burnout felt they had less input into the organization of training, were more likely to have played on high school teams, played in higher age divisions, and practiced fewer days. It was also found that burnout players felt more withdrawn from the sport, perceived high levels of criticism and expectations from parents, had higher needs for organization, experienced increased concern over mistakes, had lower personal standards for success, and were less likely to use planning strategies, positive reinterpretation, and growth coping skills (Gould et al., 1996). The qualitative portion of the study identified various mental symptoms, such as low motivation, feelings of isolation, and
concentration problems as well as physical symptoms, such as increased instances of illness and injury, and reduced energy (Gould et. al, 1996). Furthermore, players believed that factors causing burnout are time demands associated with competitive sport, concerns that arise due to the amount of travel required, decreases in performance, dissatisfaction in areas related to social interactions, negative parental influence, and the development of physical problems. Unfulfilled or unrealistic expectations, absence of enjoyment, decreased motivation, and a personality that is not advantageous for the competitive demands of elite tennis were also identified as factors associated with burnout (Gould et al., 1996).

Past research on athlete burnout has also identified various personal and situational variables that influence athletes’ experiences with burnout. Robinson and Carron (1982) found that the perception of the group climate, the attitudes toward competition, socialization factors, attributions made after athletic outcomes, and perceptions of the coach’s leadership style influence whether the athlete will dropout or maintain involvement in sport. Lu and Huang (2002) examined intercollegiate Taiwanese athletes and found that an ego orientation was positively associated with burnout while a task orientation was negatively associated with burnout. The results also indicated that normal levels of perfectionism were negatively related to burnout in the athletes while neurotic perfectionism was positively related to the development of athlete burnout. Lastly, this study discussed that athletic identity was negatively correlated with burnout, but indicated that this may be a product of the specific Taiwanese culture and may not be generalizable to athletes in other cultures.

Interaction of Coach and Athlete Burnout

There has been limited research on the effect of coach burnout on the development of athlete burnout. Vealey, Armstrong, Comar, and Greenleaf (1998) examined athlete’s perceptions of coach burnout and how this impacts the development of athlete anxiety and burnout. It was found that empathy and praise were the strongest predictors of avoiding athlete burnout while an autocratic style, emphasis on winning, and use of dispraise were the strongest predictors of the development of athlete burnout (Vealey et. al, 1998). Furthermore, coaches’ feelings of personal accomplishment were positively associated with the athletes’ perceptions of coaches’ use of praise, effective
communication, and empathy. Coaches’ feelings of personal accomplishment were negatively associated to the athletes’ perceptions of coaches’ use of dispraise and an autocratic coaching style (Vealey et al., 1998). Coaches’ feelings of emotional exhaustion and depersonalization were positively related to athletes’ perceptions of the use of dispraise and an autocratic coaching style while they were negatively related to athletes’ perceptions of coaches’ use of praise, empathy, and effective communication.

Price and Weiss (2000) also conducted a study examining the impact of coach burnout on athletes. They found that only the burnout dimension of emotional exhaustion exhibited a significant relationship with athletes’ perceptions of coaching behaviors. When coaches were experiencing emotional exhaustion, athletes perceived that they were making more democratic decisions and were giving less training, instruction, and social support. Increases in athlete anxiety and burnout and decreases in athlete enjoyment and perceived competence were associated with perceptions of coaches as making increased autocratic decisions and giving less training, instruction, social support, and positive feedback.

Coaches’ Perspectives of Athlete Burnout

Only one study has examined coaches’ perspectives of the factors associated with the development and prevention of athlete burnout. Raedeke, Lunney, and Venables (2002) conducted a qualitative study using USA swim coaches that attempted to identify coaches’ perceptions of burnout in their athletes. Coaches indicated that withdrawal from practice and teammates, decreased improvement and sense of accomplishment, devaluation of the sport, and exhaustion were defining aspects of athlete burnout. They also identified that external sources of pressure from parents, coaches, the need to win, overtraining and friends, internal sources of pressure from the individual and comparisons with peers, and entrapment from a lack of perceived control, identity and self-perception were the most important causes of athlete burnout (Raedeke, Lunney, & Venables, 2002). Coaches also indicated that the most effective prevention strategy for avoiding athlete burnout entailed efficient social support from coaches, teammates, and parents (Raedeke, Lunney, & Venables, 2002).
Perfectionism

Perfectionism was first broadly defined as the effect of overly critical evaluations and high personal standards on the setting of personal goals (Burns, 1980). Hamachek (1978) added that it “refers to the manner of behaving but also to a manner of thinking about the behavior” (p. 27). He distinguished between normal and neurotic perfectionism proposing that normal perfectionists enjoy their arduous pursuit of their goals while neurotic perfectionists continually strive for achievement of their unrealistic high standards without ever gaining a sense of satisfaction from their accomplishments. Cognitive-behavioral researchers have also studied perfectionism and defined it as the “overdependence of self-evaluation on the determined pursuit of personally demanding, self-imposed, standards in at least one highly salient domain despite adverse consequences” (Shafran, Cooper, & Fairburn, 2002, p. 778).

Perfectionism has also been conceptualized as a multidimensional construct that involves personal and interpersonal factors (Hall, in press). Researchers also believe that it can have both adaptive and maladaptive outcomes. However, research has not yet examined adaptive outcomes of perfectionism.

Characteristics of Perfectionism

Numerous characteristics are associated with perfectionism. Hamachek (1978) proposed that possible effects of perfectionism include the development of depression, a persistent focus of what should have been, feelings of shame and guilt, an inflexible and self-deprecating mindset, procrastination, and the enacting of face-saving behavior. Perfectionism can also involve the adoption of unattainable standards and the development of rigid behaviors, distorted interpretations of events, and an identity based on ability (Burns, 1980). Hall (in press) identified that perfectionism can result in negative outcomes such as the development of maladaptive affective responses and declines in the quality of athletic performance and physical health. This provides support for a relationship between perfectionism and burnout.

Shafran et al. (2002) proposed that perfectionism results in selective attention in which the individual only focuses on the setting and achieving of high standards. They also indicated that perfectionistic individuals also engage in overt and/or covert checking behaviors associated with these standards. Lastly, they identified that perfectionism is
maintained by the relentless pursuit to accomplish the high standards set, a motivation fueled by a fear of failure, the use of dichotomous thinking to set standards, persistent critical evaluations of achievement, a reinforcing social support structure, the need for self-control and simplification, failure to achieve the goals based on high standards, and often success in achieving those goals.

**Conceptualization of Perfectionism**

A problem associated with the conceptualization of perfectionism is that it has been based on measures of perfectionism that have been developed according to a wide variety of views on the construct. Terry-Short, Owens, Slade, and Dewey (1995) developed the Positive and Negative Perfectionism Scale (PANPS) to identify whether individuals are exhibiting positive or negative perfectionism. In contrast, Hewitt and Flett (1991) developed a multidimensional perfectionism scale (HMPS) that includes the factors of self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism. Self-oriented perfectionism is defined as the setting of goals based on high personal standards. Other-oriented perfectionism refers to the setting of goals based on high standards for others and socially prescribed perfectionism involves the setting of goals based on other individuals that have high standards for the individual. Both other-oriented and socially prescribed perfectionism are viewed as maladaptive while it has been suggested that self-oriented perfectionism can result in both adaptive and maladaptive outcomes.

Frost, Marten, Lahart, and Rosenblate (1990) also developed a multidimensional perfectionism scale (FMPS) that includes the factors of concern over mistakes, high personal standards, the perception of parental expectations, the perception of parental criticism, doubting of the quality of one’s actions, and the preference for order and organization. It has been suggested that all of the factors are associated with negative consequences except for high personal standards and a preference for order and organization. Anshel and Eom (2002) conceptualized perfectionism as it appears in athletes. They found that the factors associated with perfectionism were concerns about mistakes, personal standards, parental criticism, and coach criticism.

Lastly, Bieling, Israeli, and Antony (2004) identified that perfectionism involves maladaptive evaluative concern and positive striving. Maladaptive evaluative concern
includes the dimensions of socially prescribed perfectionism, concerns over mistakes, perception of parental expectations, perceptions of parental criticism, and doubts about actions. Positive striving includes the dimensions of self-oriented perfectionism, other-oriented perfectionism, personal standards, and organization.

Perfectionism Research

Several studies were aimed at investigating perfectionism. Wyatt and Gilbert (1998) examined the relationship between perfectionism and social rank and status in a sample of undergraduate students. Social rank and status were defined by shame, submissive behavior, social comparison, and defeat. The results indicated that only the dimension of socially prescribed perfectionism was associated with all four components of social rank and status while self-oriented perfectionism only negatively related to social comparison. Frost and Marten (1990) studied perfectionism and evaluative threat in a sample of female college students. They found that perfectionists and non-perfectionists did not differ with regard to their perception of task importance regardless of the level of evaluation. However, in high-evaluative tasks perfectionists exhibited higher levels of negative affect than non-perfectionists. Hewitt, Ediger, and Flett (1996) studied the relationship between perfectionism and depression vulnerability. They found that self-oriented perfectionism was related to the greatest vulnerability for depression while socially prescribed perfectionism was related to symptoms of depression, but not to a longitudinal vulnerability to depression.

Perfectionism has also been found to be related to anxiety. Saboonchi and Lundh (1997) investigated the relationship between perfectionism, self-consciousness, and anxiety in undergraduate students. They found that public self-consciousness was related to socially prescribed perfectionism, concern over mistakes, self-oriented perfectionism, and parental expectations. They also found that social anxiety was related to socially prescribed perfectionism, concern over mistakes, and doubts about action. Flett, Greene, and Hewitt (2004) examined the relationship between anxiety sensitivity and perfectionism in a sample of students. The results indicated that overall perfectionistic cognitions were associated primarily with the anxiety sensitivity dimension of cognitive dyscontrol. They also found that socially prescribed perfectionism and perfectionistic
self-presentation were primarily associated with the anxiety sensitivity dimension of fears of publicly observable anxiety.

Research has also linked individuals’ psychological outcomes with perfectionism. Chang (2000) examined if the influence of positive and negative perfectionism on various psychological outcomes was mediated by stress. They found that stress fully mediated the influence of perfectionism on life satisfaction while stress only partially mediated the influence of perfectionism on worry and negative affect.

Numerous other variables have been found to be related to perfectionism. Saboonchi and Lundh (2003) studied anger, somatic health, positive affect, and perfectionism in Swedish citizens. They found weak associations between anger and self-oriented perfectionism, and no relationship between other-oriented or socially prescribed perfectionism and anger. Also, somatic health exhibited weak associations with self-oriented and socially prescribed perfectionism, but showed no association with other-oriented perfectionism. Lastly, positive affect was negatively related to socially prescribed perfectionism and negative affect was positively related to socially prescribed perfectionism and self-oriented perfectionism and negatively related to other-oriented perfectionism. Dunkley, Blankstein, Halsall, Williams, and Winkworth (2000) examined whether hassles, coping, and perceived social support were mediators or moderators in the relationship between perfectionism and distress. Structural equation modeling identified that all three variables were mediators of the relationship between perfectionism and distress. The results also indicated that a combination of multiple stressors can result in maladaptive consequences for individuals high on the perfectionistic dimension of personal standards. Furthermore, both hassles and perceived social support may take the role of mediators and moderators for the relationship between distress and evaluative concerns perfectionism. This study provides further evidence for the need for investigation of the relationship between burnout and perfectionism because hassles, coping, and social support have also been related to burnout.

Perfectionism and Sport/Exercise

Research has also examined the relationship between perfectionism and various factors associated with sport and exercise. Anshel and Seipel (in press) used the Brief Frost Multidimensional Perfectionism Scale (Cox, Enns, & Clara, 2002) to examine the
relationship between perfectionism and exercise maintenance in a sample of undergraduate students. They found that the dimensions of organization and personal standards perfectionism were positively associated with the maintenance of exercise. Gotwals, Dunn, and Wayment (2002) studied the association between self-esteem and perfectionism in Division I athletes. They found that the dimensions of concern over mistakes and doubts about actions were associated with low self-esteem, satisfaction with performance, and perceived athletic competence. Koivula, Hassmen, and Fallby (2002) used the FMPS to examine perfectionism, self-esteem, competitive anxiety, and self-confidence in elite athletes. The results indicated that high personal standards perfectionism was related to high earning self-esteem, while low scores on the dimensions of concerns over mistakes and doubts about action were related to high basic self-esteem. The researchers also found that individuals who scored high on personal standards and low on concerns over mistakes and doubts about action exhibited increased self-confidence and decreased cognitive and somatic anxiety.

Frost and Henderson (1991) examined the relationship between perfectionism and reactions to competition in Division III athletes. They found that athletes who scored high on the dimension of concerns over mistakes indicated that they experienced higher levels of anxiety and lower levels of self-confidence. These athletes also exhibited a failure orientation and experienced increased negative thoughts one day prior to the competition. Also, these athletes and their coaches both indicated that the athletes reacted negatively to mistakes. Athletes who scored high on the dimension of personal standards exhibited a success orientation and indicated that they had more dreams associated with perfectionism prior to the competition.

Several studies examined the relationship between goal orientation and perfectionism. Dunn, Dunn, and Syrotuik (2002) studied goal orientations and perfectionism in male high school Canadian football players. They used the FMPS to measure perfectionism, but replaced the dimensions of doubts about actions and organization with coach expectations and coach criticism. They found that concerns over mistakes, personal standards, perceived parental pressure, and perceived coach pressure were the salient constructs in perfectionism. Ego orientation was associated positively with all four perfectionism constructs, while a task orientation was positively associated
with personal standards, but negatively associated with concern over mistakes, perceived parental pressure, and perceived coach pressure. Hall, Kerr, and Matthews (1998) found that overall perfectionism scores were consistent predictors of cognitive anxiety while concerns over mistakes, doubts about actions, and personal standards were consistent predictors of cognitive and somatic anxiety and confidence in athletes. Their findings failed to confirm the hypothesis that the strength of athletes’ ego orientations moderates the influence of perfectionism on cognitive anxiety.

Perfectionism and Burnout

It is believed that the relationship between perfectionism and burnout has not been directly studied in any population including sports. One study examined the relationship between perfectionism and fatigue in female nurses. Doubts about action were related to mental state fatigue and physical trait fatigue, and parental expectations were related to mental and physical trait fatigue (Magnusson, Nias, & White, 1996). Significant associations between total perfectionism or positive dimensions of perfectionism and fatigue did not emerge. Gould et al. (1996) examined burnout in junior tennis players and found that burnout athletes exhibited higher levels of neurotic perfectionism. More specifically, these athletes scored higher on the dimensions of concerns over mistakes, perceived parental criticism, and personal expectations. Clearly, there is a great need to further examine the relationship between perfectionism and burnout in sport populations.

Perceived Stress

Lazarus and Folkman (1984) identified that perception or appraisal plays an integral role in the development of stress. They proposed the perspective that a negative reaction to stress occurs when an individual appraises the stressor as threatening, and acknowledges that personal resources are insufficient to satisfy the demands of the stressful situation.

Perceived stress relates to the type of coping strategies used as well as with unhealthy lifestyle behaviors. Anshel and Kaissidis (1997) found that the incidence of higher perceived stress was associated with greater use of approach coping strategies, while lower perceived stress was associated with greater use of avoidance coping strategies. Ng and Jeffery (2003) found that perceived stress was positively related to fat intake and negatively related to participation in physical activity. They also found that
perceived stress was positively associated with time spent smoking in the past year, and was negatively associated with individuals’ confidence in their ability to quit smoking and resist the urge to smoke during stressful situations.

Perceived Stress and Burnout

Based on the definition and models of burnout that have been developed it seems apparent that perceived stress impacts an individual’s development of burnout. Smith (1986) incorporated it in a model of burnout that proposes an individual’s continual appraisal of stressors as threatening results in the experience of burnout. Tenenbaum et al. (2003) also indicated that the perception of stress affects the relationship between personal dispositions and the coping strategies that are enacted to deal with a stressor. Likewise, Kelley, Eklund, and Ritter-Taylor (1999) proposed that a coaches’ development of burnout is affected by personal and situational variables that impact his/her perception of stressors.

Research examining burnout has also found a link between the construct of burnout and perceived stress. Kelley and Gill (1993) studied coach burnout and found that perceived stress was positively associated with emotional exhaustion and depersonalization, but was negatively associated with personal accomplishment. Hendrix, Acevedo, and Hebert (2000) examined burnout in athletic trainers and confirmed that perceived stress was positively correlated with emotional exhaustion and depersonalization, but negatively correlated with personal accomplishment. Most recently, Raedeke and Smith (2004) examined a sample of USA team swimmers and found that perceived stress explained 65 to 67% of the burnout variance during three steps of moderation testing. They found that athletes with a high perception of stress reported being affected by more characteristics associated with the three dimensions of burnout than did athletes with a low perception of stress.

Perceived Stress and Perfectionism

Unfortunately, perceived stress has not yet been directly linked in research to perfectionism. However, Burns (1980) alluded to a link between these two constructs by stating that a characteristic inherent in the experience of perfectionism is a distorted interpretation of events. Thus, when an individual high in perfectionism encounters a
stressor it may be that he/she fails to effectively interpret the situation, and this may result in an increased, more threatening perception of stress.

Participation in Coaching Activities

To my knowledge, previous research has not yet investigated the relationship between the amount of time spent in athletic activities and burnout or perfectionism. However, a few studies have provided support for the association between the two variables.

Participation and Burnout

Various studies have examined the relationship between burnout and workload and time investment. For example, Maslach, Jackson, and Leiter (1996) identified that work overload is related to the development and persistence of burnout. Also, Sweeney and Summers (2002) found that accountants’ levels of burnout were directly related to workload (hours worked per week) during the “busy season,” whereas burnout and workload were not related prior to the start of the “busy season.” In the sport context, Raedeke (2004) found that coaches experiencing feelings of entrapment associated with their experience of burnout indicate that their coaching involved greater investment of time and energy. Thus, increased time spent engaging in athletic activities may result in higher levels of burnout.

Participation and Perfectionism

A link between time spent in activities and perfectionism can be seen in Hamachek’s (1978) definition of neurotic perfectionism as a continuous striving towards unachievable standards. Furthermore, Shafran et al. (2002) identified that perfectionism is maintained by a relentless pursuit of goals. Thus, it seems that individuals higher in perfectionism will spend more time engaging in activities associated with their goals. Figure 1 outlines the model that attempts to identify the relationships between perfectionism, perceived stress, participation in coaching activities, coach status, and burnout.
Figure 1. Proposed model describing the relationship between perfectionism (O= organization; SE= striving for excellence; P= planfulness; HS= high standards for others; CM= concerns over mistakes; NA= need for approval; R= rumination; PP= parental pressure), perceived stress, participation in coaching activities (TA= team-related activities; M/O= managerial/organizational activities), coach status (Head= collegiate head coach; Assistant= collegiate assistant coach), and burnout (EE= emotional exhaustion; DP= depersonalization; PA= personal accomplishment).
Purpose of Study

The purpose of this study was to examine the relationship between burnout and perfectionism, perceived stress, participation in coaching activities, and coach status in a sample of collegiate coaches. According to the proposed model (see Figure 1), perfectionism, perceived stress, and participation in coaching activities impact coaches’ development and experience of burnout. Furthermore, coaches’ status acts as a moderating variable in the relationship between perfectionism, perceived stress, participation in coaching activities, and burnout.

Previous research findings suggest that perfectionism is linked to fatigue and burnout in nonclinical populations and athletes (Magnusson, Nias, & White, 1996; Gould et al., 1996). Thus, the main purpose of this study is to confirm this relationship in a sample of coaches. It is also proposed that perceived stress is related to burnout as stress appraisal is an integral factor in the development of burnout (Kelley, Eklund, & Ritter-Taylor, 1999; Kelley & Gill, 1993; Hendrix, Acevedo, & Hebert, 2000; Raedeke & Smith, 2004). Smith (1986) developed a burnout model which posits that an individual’s continued maladaptive appraisal of stressful situations causes chronic stress, which then results in the development of burnout. Also, Tenenbaum et al. (2003) found that individuals who appraised situations as more stressful, failed to enact successful coping strategies. Thus, they entered a state of negative adaptation, which then resulted in overtraining and burnout. It was also proposed that participation in coaching activities relates to burnout. Maslach, Jackson, and Leiter (1996) identified that work overload is a predictive factor of burnout, and Raedeke (2004) found that coaches experiencing feelings of entrapment and burnout report investing greater amounts of time in their coaching responsibilities. Lastly, coach status was considered a moderating variable because it was assumed that the relationship between perfectionism, perceived stress, participation in coaching activities, and burnout would vary according to the difference in job requirements among collegiate head coaches versus collegiate assistant coaches.
Research Hypotheses

1. The dimensions of perfectionism, perceived stress, and coaching activities will be moderately correlated.

2. The levels of coach status will differ with respect to the dimensions of perfectionism, perceived stress, and coaching activities.

3. The dimensions of perfectionism, perceived stress, and coaching activities will significantly predict burnout.

4. The additive effect of the dimensions of perfectionism, perceived stress, and participation in coaching activities, and the moderator of coaching status will account for a substantial variance of burnout.

5. Coach status will be a strong moderator between perfectionism, perceived stress, participation in coaching activities, and burnout.
CHAPTER 2

METHODS

Participants

Purposeful sampling was used to select as many coaches possible in both of the coaching status categories, which represent as many sports as possible. Out of 491 coaches that were sent questionnaire packets a total of 177 coaches participated in the study representing a 36% response rate. Collegiate sport head and assistant coaches were asked to participate in the study in order to develop the coaching status categories. Of the 177 participants, 101 were head coaches and 76 were assistant coaches. There were 114 male coaches and 63 female coaches that participated in the study. Fifty-one coaches ranged in age from 18 to 30, 55 coaches ranged in age from 31 to 40, 48 coaches ranged in age from 41 to 50, 18 coaches ranged in age from 51 to 60, and 5 coaches were over the age of 60. The coaches were selected from the state of Florida. The sports represented in the study include men’s basketball (n=30), women’s basketball (n=35), baseball (n=31), softball (n=24), swimming (n=12), tennis (n=10), track/cross country (n=8), diving (n=2), sailing (n=2), rowing (n=7), golf (n=13), volleyball (n=2), and bowling (n=1). Of the 177 participants, 84 indicated that their coaching position was their only job, 70 had one job other than coaching, 19 had two jobs other than coaching, and four had three jobs other than their coaching position.

Measures

Coaches completed a packet of self-report inventories that included conformed consent, demographic information, burnout, perfectionism, perceived stress, and participation in coaching activities.
Informed consent (Appendix C). The purpose of the informed consent form was to obtain agreement from each participant that they understand the study and are willing to participate in the research. The form included a basic description of the researcher and study, the demands of the study on the participant, what participants can expect from the study, the risks and benefits associated with participation in the study, and the guarantee of confidentiality and anonymity. It also provided the researcher’s contact information and asserted that participants may choose to withdraw from participation in the study at any point without penalty.

Demographic information (Appendix E). The form eliciting demographic information included questions to identify the participants’ ages, genders, current sport(s) coached, coach status, and any other jobs or professions that they hold.

Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981; Appendix F). The MBI contains 22 items. All items are assessed on a seven point Likert-type scale ranging from 0 (never) to 6 (every day). The MBI consists of three subscales including emotional exhaustion, depersonalization, and personal accomplishment. The emotional exhaustion subscale consists of nine items, with higher scores on this dimension indicating higher levels of burnout. An item such as “I feel like I’m at the end of my rope” is typical to this dimension. Scores for the emotional exhaustion subscale are obtained by summing the scores of the nine items of the subscale, and range from 0 to 54. Higher scores indicate a higher degree of emotional exhaustion. The depersonalization subscale consists of five items, with higher scores on these items indicating higher levels of burnout. The scale consists of items such as, “I feel I treat some recipients as if they were impersonal objects.” Depersonalization subscale scores are obtained by summing the five items of the subscale; the scale ranges from 0 to 30. Higher scores indicate higher levels of depersonalization. The personal accomplishment subscale consists of eight items, with lower scores on this subscale reflecting higher levels of burnout. Items such as “I feel I’m positively influencing other people's lives through my work” represent this dimension. Scores for the personal accomplishment subscale are obtained by summing the eight items of the subscale and range from 0 to 48. Higher scores indicate a lower level of personal accomplishment. (Sample items from the Maslach Burnout Inventory - Human Services Survey by Christina Maslach and Susan E. Jackson. Copyright 1988 by CPP,
Maslach, Jackson, and Leiter (1996) reported reliability coefficients of .90 for the emotional exhaustion subscale, .79 for the depersonalization subscale, and .71 for the personal accomplishment subscale. In a sample of coaches, Vealey et al. (1992) reported internal consistency coefficients of .87 for the emotional exhaustion subscale, .73 for the depersonalization subscale, and .75 for the personal accomplishment subscale. In another study investigating coach burnout, Vealey et al. (1998) reported internal consistency for the MBI dimensions of .72 for emotional exhaustion, .75 for depersonalization, and .77 for personal accomplishment. Maslach, Jackson, and Leiter (1996) reported test-retest reliability of .82 for emotional exhaustion, .60 for depersonalization, and .80 for personal accomplishment for a period of 2-4 weeks in a sample of social work graduate students and health agency administrators.

Maslach and Jackson (1981) and Maslach, Jackson, and Leiter (1996) demonstrated convergent validity for the instrument by showing significant correlations between individual’s MBI scores and job characteristics associated with burnout in a sample of social service and mental health workers. Higher scores on the emotional exhaustion subscale correlated -.24 with “less feedback from the job” and .15 with “more dealing with others.” High scores on the depersonalization subscale correlated -.44 with “less feedback from the job.” Lastly, higher scores on the personal accomplishment subscale correlated .38 with “more feedback from the job” and .19 with “more task significance.” The researchers also found convergent validity in a sample of mental health workers for the MBI based on significant correlations between MBI scores and behavioral ratings by independent observers. Higher scores on the emotional exhaustion subscale correlated with peer ratings of .28 with “emotionally drained by the job” and .42 with “physically fatigued.” Also, higher scores on the depersonalization subscale correlated with peer ratings of .56 with “emotionally drained by the job,” .55 with “physically fatigued,” and .32 with “complaints about clients.” Lastly, they demonstrated
convergent validity by linking MBI scores with various consequences shown to be related to burnout. For example, satisfaction with opportunities for personal growth, lack of knowledge about job performance, and dissatisfaction with co-workers were negatively correlated with emotional exhaustion and depersonalization, but were positively correlated with personal accomplishment. Also, a belief that one’s work is meaningful was negatively correlated with depersonalization and positively correlated with personal accomplishment. Furthermore, higher emotional exhaustion subscale scores were positively correlated with feelings of anger at family, a need to be alone, insomnia, alcohol consumption, and the use of drugs. Higher depersonalization scores were positively related to feelings of anger at family, perception of emotionally distant children, being absent from family occasions, and fewer friends. Higher personal accomplishment scores were positively related to a perception that children are emotionally close, but were negatively related to a decreased use of tranquilizers and drugs. The researchers also provide evidence for discriminant validity of the measure by demonstrating that MBI scores negatively correlate with social desirability, general job satisfaction, depression, and occupational stress.

Perfectionism Inventory (PI; Hill et al., 2004; Appendix G). The PI was chosen for use in this study because it provides the broadest conceptualization in that perfectionism can have both adaptive and maladaptive consequences. It was developed by combining the most salient factors from the Hewitt and Flett Multidimensional Perfectionism Inventory (Hewitt & Flett, 1991) and the Frost et al. (1990) Multidimensional Perfectionism Inventory. The instrument contains 59 items grouped into eight subscales and items are rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The concern over mistakes subscale consists of eight items. An example of an item in this subscale is, “If I make mistakes, people might think less of me.” Scores for the concern over mistakes subscale are obtained by averaging the scores of the eight items of the subscale and range from 1 to 5. The high standards for others subscale consists of seven items. An example item is, “I usually let people know when their work isn’t up to my standards.” Scores for the high standards for others subscale are obtained by averaging the scores of the seven items of the subscale and range from 1 to 5. The
The need for approval subscale consists of eight items. An example item for this subscale is, “I am over-sensitive to the comments of others.” Scores for the need for approval subscale are obtained by averaging the scores of the eight items of the subscale and range from 1 to 5. The organization subscale consists of eight items and an example item is, “I am well-organized.” Scores for the organization subscale are obtained by averaging the scores of the eight items of the subscale and range from 1 to 5. The perceived parental pressure subscale consists of eight items, and an example item is, “I’ve always felt pressure from my parent(s) to be the best.” Scores for the perceived parental pressure subscale are obtained by averaging the scores of the eight items of the subscale and range from 1 to 5. The planfulness subscale consists of seven items. An example item for this subscale is, “I think through my options carefully before making a decision.” Scores for the planfulness subscale are obtained by averaging the scores of the seven items of the subscale and range from 1 to 5. The rumination subscale consists of seven items and an example question is, “If I make a mistake, my whole day is ruined.” Scores for the rumination subscale are obtained by averaging the seven items of the subscale and range from 1 to 5. Lastly, the striving for excellence subscale consists of six items. An example item for this subscale is, “All my energy is put into achieving a flawless result.” Scores for the striving for excellence subscale are obtained by averaging the scores of the six items of the subscale and range from 1 to 5.

The eight subscales are grouped into two higher order factors. The first factor is conscientious perfectionism, and includes organization, striving for excellence, planfulness, and high standards for others. Scores for the higher order factor of conscientious perfectionism are obtained by summing the four subscale scores and range from 4 to 20. The second factor is self-evaluative perfectionism, and includes concern over mistakes, need for approval, rumination, and parental pressure. Scores for the higher order factor of self-evaluative perfectionism are obtained by summing the four subscale scores and range from 4 to 20. Total perfectionism scores is obtained by summing the scores in all eight subscales and range from 8 to 40.

Hill et al. (2004) reported internal consistency values ranging from .83 - .91 and test-retest reliability coefficients ranging from .71 - .91 for a three to six week interval. They also provided evidence for convergent validity based on the measures association.
with dimensions of other inventories. More specifically, the PI conscientious perfectionism factor was strongly related to the HMPS self oriented perfectionism subscale ($r=.71$) and the FMPS personal standards ($r=.70$) and organization ($r=.76$) subscales. The PI factor of self-evaluative perfectionism was strongly related to the HMPS socially prescribed perfectionism dimension ($r=.74$) and the FMPS concern over makes ($r=.78$), doubts about action ($r=.67$), parental criticism ($r=.49$), and parental expectation ($r=.53$) dimensions. Furthermore, the PI conscientious perfectionism factor exhibited a low association with the psychological distress dimension ($r=.22$) of the Brief Symptom Inventory while the PI self-evaluative perfectionism factor exhibited a stronger association with the global severity dimension ($r=.59$) of the Brief Symptom Inventory. The researchers also demonstrated convergent validity for the instrument by finding that the PI self-evaluative perfectionism factor was more strongly correlated ($r=.73$) with the Fear of Negative Evaluation Scale than the PI conscientious perfectionism factor ($r=.34$). Lastly, support for convergent validity of the PI was demonstrated by strong correlations between the PI total perfectionism score and the scores for all scales of the HMPS, FMPS, Brief Symptom Inventory, Obsessive-Compulsive Inventory, and Fear of Negative Evaluation Scale ($r=.31-.73$).

**Perceived Stress Scale** (PSS; Cohen, Kamarck, & Mermelstein, 1983; Appendix H). The PSS was designed as a global, subjective measure of stress appraisal. It was chosen for use in the study because global, subjective measures of perceived stress are more effective at predicting health outcomes, being more sensitive to chronic stress, and providing a more direct assessment of individuals’ stress levels (Cohen, Kamarck, & Mermelstein, 1983). The PSS consists of 14 items that are assessed on a five point Likert scale ranging from 0 (never) to 4 (very much). For each of the 14 items, respondents are asked to indicate how often, in the past month, they have felt or thought a certain way. An example item on the instrument is, “In the last month, how often have you felt that you were unable to control the important things in your life?” The PSS is scored by reversing scores on seven items (4, 5, 6, 7, 9, 10, and 13) and then summing scores of the 14 items. Thus, the scores range from 14 to 56.

Psychometric properties for the PSS were tested in three samples: a college freshman sample, a sample of college students in an introductory psychology course, and
a sample of individuals in a smoking-cessation program. Cohen, Kamarck, and Mermelstein (1983) reported internal consistency (alphas) for the measure of .84 in the college freshman sample, .85 in the psychology student sample, and .86 in the smoking-cessation sample. The researchers also reported test-retest reliability for the measure for a two-week period of .85 for a sample of college students. They also reported a test-retest reliability for the measure for a six-week period of .55 for a sample of subjects in the smoking-cessation program. The researchers expected a lower reliability for the longer retest period because the PSS is considered a state measure of stress appraisal (Cohen, Kamarck, & Mermelstein, 1983).

Cohen et al. (1983) found support for concurrent validity of the instrument based on low to moderate correlations obtained between the PSS and the College-Student Life Event Scale. The PSS correlated .20 with the number of life events in the college freshman sample, .17 in the psychology course sample, and .39 at the end of treatment for the smoking-cessation sample. The researchers also reported predictive validity of the instrument based on results that indicate that the PSS is a better predictor of health outcomes than the number of life events indicated on the Life Events Scale. More specifically, for prediction of depressive symptoms, the PSS had a correlation of .76 in the college freshman sample and .65 in the psychology course sample whereas the number of life events correlated .18 in the college freshman sample and .14 in the psychology course sample. The researchers also provided evidence of predictive validity for the measure because the PSS significantly predicted visits to the health center in the sample of college freshman. Furthermore, the researchers found that the PSS was a more effective predictor than life events for social anxiety in the two student samples. For the college freshman sample, the PSS correlated .37 with social anxiety whereas there was a .13 correlation for life events. For the psychology course sample, the PSS correlated .48 with social anxiety whereas there was a .26 correlation for life events. Lastly, the PSS was a significant predictor of changes in the smoking rate of individuals in the smoking-cessation program. The researchers used a modified four item version of the PSS and found that the PSS had a .39 correlation with smoking rate three months after the end of the smoking-cessation program.
Participation in Coaching Activities Questionnaire (PICA; Appendix I). This instrument was developed by the researcher to assess coaching activities. Experts in the field were used to brainstorm coaching activities that collegiate coaches, irrespective of the sport coached, would commonly participate in throughout a season. It consists of 24 items that seek to identify the extent to which coaches participate in various coaching-related activities. All items are scored on a 7-point Likert-type scale ranging from 0 (never) to 6 (every day). The items are grouped into two categories: (a) team-related activities, and (b) managerial/organizational activities. The team-related activities category includes eight items and an example item is “one-on-one interactions with athletes.” The managerial/organizational activities category includes sixteen items and an example item is “developing plan for practice.” Scores for each category are obtained by summing the scores for each item in the category. The range of scores for the team-related activities category is 0 to 48, and the range of scores for the managerial/organizational activities category is 0 to 96. A total score on the instrument is obtained by summing the scores of both categories. Thus, the range of possible total scores is 0 to 144.

Procedure

First, permission was obtained from the Florida State University Human Subjects Committee. Then, the coaches were recruited by first contacting the athletic directors at these schools to ask for permission to conduct the study at the school, ask for verification of coaches’ contact information, and ask them to inform the coaches that they will be receiving questionnaires in the mail. Next, the coaches were contacted by email with a brief description of the study and notification that the questionnaire packets would be sent to them in the mail with stamped and addressed return envelopes for their convenience. The questionnaires were mailed to the collegiate coaches and follow-up procedures were carried out to ensure the highest response rate possible.

Each participant received a packet of questionnaires including the informed consent form (Appendix C), the demographic questionnaire (Appendix E), the Perceived Stress Scale (Appendix H), the Maslach Burnout Inventory (Appendix F), the Perfectionism Inventory (Appendix G), and the coaching activities questionnaire (Appendix I). Each packet was numbered for the purpose of data analysis and to ensure
confidentiality of the participants. Since the questionnaire packets were mailed to participants, there was an instructions page (Appendix D) included in the packet that outlined the procedure for participation in the study. The instructions page outlined the purpose of the study and instructed the participants to first read and sign the informed consent document. It then requested that participants mail the questionnaire packets back to the researcher and contact the researcher with any questions regarding the study. Envelopes and postage were included with the packets for participants’ convenience. Each coach who thoroughly completed all of the questionnaires in the packet was be considered a participant in the study.

Statistical Analyses

A Pearson Product Moment Correlation Coefficient (PPMC) was used for the first hypothesis to estimate the relationship between Perfectionism, as defined by the eight subscales of the PI (Organization, Striving for Excellence, Planfulness, High Standard for Others, Concern Over Mistakes, Need for Approval, Rumination, and Parental Pressure), Perceived Stress as measured by the PSS, and Participation in Coaching Activities, as defined by the two categories in the PICA (Team-Related Activities and Managerial/Organizational Activities).

A Multivariate Analysis of Variance (ANOVA) was used for the second hypothesis to examine the differences between the two levels of coach status (head versus assistant collegiate coaches) on participation in coaching activities, perfectionism, and perceived stress. A MANOVA was used to decrease Type I error.

The third, fourth, and fifth hypotheses stated that the proposed conceptual model would fit the data (e.g. perfectionism, perceived stress, and participation in coaching activities, moderated by coach status will predict burnout) and were examined using path model analysis. This statistical procedure was used to estimate the direct effects of perfectionism, perceived stress, and participation in coaching activities on burnout. A multi-sample analysis was then used to examine coach status as a moderating variable. The model is considered recursive, in that it has one direction of causal flow, with no causal feedback loops. Perfectionism, perceived stress, and participation in coaching activities are considered exogenous variables, since they are not accounted for by the other variables. Burnout was considered endogenous, or explained by the model. The
two higher order factors of perfectionism and burnout were considered latent variables because they are not directly observed but consist of multiple observed indicators, measured by the subscale item average composites, that represent the described variable. The two dimensions of participation in coaching activities and perceived stress were considered manifest variables because they were directly measured rather than consisting of multiple indicators. Perfectionism consists of eight subscale composites that were used as indicators of two latent variables. The latent variables of the PI include conscientious perfectionism (organization, striving for excellence, planfulness, high standards for others) and self-evaluative perfectionism (concern over mistakes, need for approval, rumination, and parental pressure). Participation in coaching activities consists of the two categories obtained after principal component factor analysis of the PICA: team organization and game plan activities. Coach status is assessed based on the two levels of coaches that will be used in the study: head collegiate coaches and assistant collegiate coaches. Lastly, burnout consists of the three subscales in the MBI: emotional exhaustion, depersonalization, and personal accomplishment. Perceived success is considered a manifest variable because it is observed directly with a single indicator.

Three stages were conducted in the path model analysis. First, confirmatory procedures were employed to evaluate the measurement model for the total sample, head coach subsample, and assistant coach subsample. Examination of the indicator loadings, standardized residuals, and modification indices suggested that minor modifications were warranted. Upon identification of an acceptable measurement model, the fits of the conceptual model to total sample, head coach sub-sample, and assistant coach sub-sample data were evaluated. The adequacy of the fit model was evaluated using the $\chi^2$ fit index, where a perfect fit to the data results in a value of zero. The model was also evaluated using the comparative fit index (CFI), which indicates the effectiveness of the model compared to an independent model. The CFI value ranges from 0 to 1, where a perfect fit is indicated by a value of one, and .95 is considered an acceptable value (Hu & Bentler, 1999). The root mean square error of approximation (RMSEA) was also used to evaluate the divergence per degree of freedom between the reproduced and observed covariances (Browne & Cudeck, 1993). Lastly, a multi-sample analysis was conducted to examine differences between head and assistant coaches.
CHAPTER 3
RESULTS

Preliminary Analyses

A principal components factor analysis (PCA) using oblimin rotation with a two factor solution was performed for the Participation in Coaching Activities scale. The analysis revealed two factors that accounted for 22% of the total variance. The 2-factor solution is presented in Table 1.

Table 1

Participation in Coaching Activities (PICA) 24-item Principal Component Analysis loadings using oblimin rotation

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1: Team Organization</th>
<th>Factor 2: Game Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>*17. Meetings with managers/ athletic directors</td>
<td>.76</td>
<td>-.03</td>
</tr>
<tr>
<td>*16. Organizational activities</td>
<td>.67</td>
<td>-.14</td>
</tr>
<tr>
<td>*15. Managerial duties</td>
<td>.58</td>
<td>.10</td>
</tr>
<tr>
<td>*4. Developing plan for practice</td>
<td>.54</td>
<td>.06</td>
</tr>
<tr>
<td>*1. Meeting with team</td>
<td>.54</td>
<td>.05</td>
</tr>
<tr>
<td>*24. Dealing with athlete injuries</td>
<td>.53</td>
<td>.08</td>
</tr>
<tr>
<td>*5. Developing plan for competition</td>
<td>.51</td>
<td>.20</td>
</tr>
<tr>
<td>*18. Meetings with team physician/athletic trainers</td>
<td>.51</td>
<td>.24</td>
</tr>
<tr>
<td>*19. Recruiting</td>
<td>.48</td>
<td>.05</td>
</tr>
<tr>
<td>*23. Running competitions</td>
<td>.46</td>
<td>.07</td>
</tr>
<tr>
<td>*22. With parents/family</td>
<td>.40</td>
<td>-.10</td>
</tr>
<tr>
<td>*13. At practice</td>
<td>.39</td>
<td>-.23</td>
</tr>
<tr>
<td>*14. At competitions</td>
<td>.38</td>
<td>.08</td>
</tr>
</tbody>
</table>
Table 1 - continued

<table>
<thead>
<tr>
<th>Item</th>
<th>Coefficient</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Fundraising</td>
<td>.27</td>
<td>.13</td>
</tr>
<tr>
<td>*7. Reviewing game/competition film</td>
<td>-.09</td>
<td>.81</td>
</tr>
<tr>
<td>*6. Reviewing practice film</td>
<td>-.13</td>
<td>.78</td>
</tr>
<tr>
<td>*8. Scouting opposing teams/athletes</td>
<td>-.00</td>
<td>.70</td>
</tr>
<tr>
<td>*11. Attending coach functions</td>
<td>-.03</td>
<td>.58</td>
</tr>
<tr>
<td>*10. Participating in coaching education</td>
<td>.07</td>
<td>.43</td>
</tr>
<tr>
<td>20. With the media</td>
<td>.36</td>
<td>.38</td>
</tr>
<tr>
<td>*12. Attending team functions</td>
<td>.15</td>
<td>.36</td>
</tr>
<tr>
<td>*9. Traveling for competitions</td>
<td>.27</td>
<td>.35</td>
</tr>
<tr>
<td>*2. Meetings with assistant coaches</td>
<td>.13</td>
<td>.31</td>
</tr>
<tr>
<td>*3. One-on-one interactions with athletes</td>
<td>.04</td>
<td>.30</td>
</tr>
</tbody>
</table>

Note: Asterisks next to numbers indicate items considered to load on a factor.

An item was considered to load on a factor if it had a magnitude of .30 or greater, and a cross-loading of .30 or lower. The items within each factor were examined for common themes. The resulting factors were: (a) team organization with 13 items, and (b) game plan with nine items. Internal consistency coefficients were examined for the variables used in the study. These values are presented in Table 2. The reliability coefficient for MBI - Emotional Exhaustion was strong and satisfactory, for MBI - Depersonalization was satisfactory, but not strong, and for MBI - Personal Accomplishment tolerable, but not strong. The reliability coefficients for the Concern over Mistakes, Need for Approval, Organization, Perceived Parental Pressure, Planfulness, and Rumination subscales of the Perfectionism Inventory (PI) were moderate to strong but satisfactory. The PI subscales of High Standards for Others and Striving for Excellence were satisfactory, but not particularly strong. Also, the reliability coefficients for the higher order factors of Conscientious Perfectionism and Self-Evaluative Perfectionism of the PI scale were strong and satisfactory. The reliability coefficient of the Perceived Stress Scale (PS) was strong and
satisfactory. The reliability coefficients of the PICA - Team Organization factor and the PICA - Game Plan factor were satisfactory.

Descriptive Statistics

Descriptive statistics (item means, item standard deviations, skewness, and kurtosis) were computed for the variables represented in the study to ensure that assumptions were met prior to testing the hypotheses. These statistics are presented in Table 2. Results illustrate moderate item mean values for each scale/subscale. All skewness values were between -2 to +2, indicating acceptance of the normality assumption.

Table 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>α</th>
<th>Item Range</th>
<th>Mean (item avgs.)</th>
<th>SD (item avgs.)</th>
<th>Skewness (Error)</th>
<th>Kurtosis (Error)</th>
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<tr>
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<td>.79</td>
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<td>-.62 (.36)</td>
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<td>1-5</td>
<td>3.56</td>
<td>.62</td>
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<td>-.28 (.36)</td>
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<td>2.84</td>
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<td>-.64 (.36)</td>
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<td>.02 (.36)</td>
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<td>.39 (.36)</td>
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<td>.47 (.36)</td>
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<td>Participation in Coaching</td>
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<td>Team Organization</td>
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<td>3.93</td>
<td>.75</td>
<td>-.26 (.18)</td>
<td>.15 (.36)</td>
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</table>
Coaches exhibited moderate levels of self-evaluative perfectionism as indicated by the item averages on the four subscales (concern over mistakes, need for approval, perceived parental pressure, and rumination). The coaches exhibited slightly higher levels of conscientious perfectionism as indicated by the item averages on the four subscales (high standards for others, organization, planfulness, and striving for excellence). The coaches also demonstrated moderate levels of perceived stress. Participation in coaching activities was also moderate for both the team organization and game plan dimensions. Lastly, the coaches were low on the emotional exhaustion and depersonalization dimensions of burnout, and high on the personal accomplishment dimension of burnout.

Relationships Among Manifest Variables

A preliminary examination was conducted to inspect the correlations among the manifestations of the latent variables. The correlations among these variables are presented in Table 3.
Table 3

Correlations among dimensions of perfectionism, perceived stress, burnout, and participation in coaching activities.

<table>
<thead>
<tr>
<th>Variables</th>
<th>CM</th>
<th>HSO</th>
<th>NA</th>
<th>O</th>
<th>PP</th>
<th>P</th>
<th>R</th>
<th>SE</th>
<th>EE</th>
<th>DP</th>
<th>PA</th>
<th>PS</th>
<th>CA.GP</th>
<th>CA.TO</th>
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<tr>
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<td>.05</td>
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<td>.08</td>
<td>.11</td>
<td>.13</td>
<td>.17</td>
<td>.42</td>
<td></td>
</tr>
</tbody>
</table>

Note: Correlations over .15 and .20 are significant at, respectively p < .05 and p < .01. The table includes the perfectionism dimensions of concern over mistakes (CM), high standards for others (HSO), need for approval (NA), organization (O), perceived parental pressure (PP), planfulness (P), rumination (R), and striving for excellence (SE); the burnout dimensions of emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA); perceived stress (PS); and game plan coaching activities (PICA.GP) and team organization coaching activities (PICA.TO).
The correlations among the manifest variables of self-evaluative perfectionism range from .37 to .80 indicating that concern over mistakes, need for approval, perceived parental pressure, and rumination exhibit moderate to strong positive relationships. The correlations among the manifest variables of conscientious perfectionism range from .13 to .45, indicating that high standards for others, organization, planfulness, and striving for excellence exhibit weak to moderate positive relationships. The correlations range from -.31 to .72 among the manifest variables of burnout. Emotional exhaustion and depersonalization are moderately and positively related. Emotional exhaustion and personal accomplishment exhibit a weak negative relationship, while depersonalization and personal accomplishment resulted in a weak positive relationship.

The relationships among perceived stress and the other latent variables range from -.05 to .27 indicating that perceived stress is weakly correlated with these variables. The perfectionism dimensions of organization and planfulness show the weakest correlations with perceived stress, and are not significantly related. The perfectionism dimensions of high standards for others and rumination, as well as the burnout dimension of emotional exhaustion, reveal the highest significant relationships with perceived stress.

The two dimensions of participation in coaching activities do not relate well to the other manifest variables. The correlations range from -.11 to .19 among game plan coaching activities and the other latent variables, indicating very weak positive relationships among the variables. The weakest relationship among these variables is between game plan coaching activities and the perfectionism dimension of planfulness (r = .01). The strongest relationships among these variables are between game plan coaching activities and the perfectionism dimension of striving for excellence (r = .19) and the burnout dimension of personal accomplishment (r = .19). The correlations range from -.11 to .24 among team organization coaching activities and the other latent variables, including perceived stress and the other dimensions of perfectionism, also indicating very weak relationships among the variables. The weakest relationship among the variables is between team organization coaching activities and the perfectionism dimensions of concern over mistakes (r = .03), high standards for others (r = .03), and rumination (r = .03) as well as with the burnout dimension of emotional exhaustion (r = .08). The strongest relationship among the variables is between team organization
coaching activities and striving for excellence \( (r = .24) \). There is a moderate positive relationship among team organization and game plan coaching activities.

*Relationship Among Perfectionism, Perceived Stress, and Coaching Activities*

The first hypothesis was that the dimensions of perfectionism, perceived stress, and coaching activities would be moderately correlated. Pearson product-moment correlations were computed to evaluate this relationship. Intercorrelations among the eight subscales of perfectionism, perceived stress, and the two subscales of coaching activities are presented in Table 3.

A relationship was found between perceived stress and self-evaluative perfectionism based on the significant positive correlations between perceived stress and the perfectionism subscales of concern over mistakes \( (r = .17) \), perceived parental pressure \( (r = .17) \), and rumination \( (r = .27) \). Although significant, the magnitude of association is low. Nonetheless, the results signify a relationship between negative forms of perfectionism and coaches’ perception of stress. There were also significant positive correlations between perceived stress and the perfectionism dimensions of high standards for others \( (r = .27) \) and striving for excellence \( (r = .15) \), indicating a relationship between a positive form of perfectionism and coaches’ perception of stress.

Significant but low positive correlations were found between game plan coaching activities and the perfectionism dimension of striving for excellence \( (r = .19) \), the burnout dimension of personal accomplishment \( (r = .19) \), and perceived stress \( (r = .16) \). Similarly, significant \((p < .05)\) positive correlations were found between team organization coaching activities and the perfectionism dimension of striving for excellence \( (r = .24) \) and perceived stress \( (r = .17) \). Though significant, these correlations were low.

The first hypothesis was only partially supported. There were several significant correlations found between the dimensions of perfectionism, perceived stress, and coaching activities. However, the magnitude of these correlations indicated weak associations among the variables.

*Effect of Coach Status*

The second hypothesis was that the levels of coach status would differ with respect to the dimensions of perfectionism, perceived stress, and coaching activities. A
multivariate analysis of variance (MANOVA) was performed to test this hypothesis. The analysis revealed a significant effect of coach status, Wilk’s $\lambda (11, 165) = 3.61, p = .000$. The univariate effects (ANOVA) of coach status on the dimensions of perfectionism and coaching activities are represented in Table 4.

Table 4

ANOVA effects for coaching status on the dimensions of perfectionism, perceived stress, and participation in coaching activities.

<table>
<thead>
<tr>
<th>Effect</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfectionism</td>
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</tr>
<tr>
<td>Concern over Mistakes</td>
<td>6.05</td>
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<td>.015</td>
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<td>High Standards for Others</td>
<td>.50</td>
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<td>.482</td>
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<td>Need for Approval</td>
<td>10.31</td>
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<td>Organization</td>
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<td>.223</td>
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<tr>
<td>Perceived Parental Pressure</td>
<td>1.64</td>
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<td>.202</td>
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<tr>
<td>Planfulness</td>
<td>6.50</td>
<td>1, 175</td>
<td>.012</td>
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<td>Rumination</td>
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<tr>
<td>Striving for Excellence</td>
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<tr>
<td>Team Organization</td>
<td>2.31</td>
<td>1, 175</td>
<td>.130</td>
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</table>

The results indicated a significant difference by coaching status on the perfectionism dimensions of concern over mistakes and need for approval. The effect size for concern over mistakes was moderate (.37), and for need for approval was large (.47). A difference approaching significance for rumination was found. The effect size for this dimension was moderate (.27). This suggests that there is a difference in coach status on self-evaluative perfectionism. Assistant coaches exhibited higher levels than head coaches in the perfectionism dimensions of concern over mistakes, need for approval, and rumination. The results indicated a significant ($p < .05$) difference in coaching status on the perfectionism dimension of planfulness with a moderate effect size (.38). This suggests a difference in coach status on conscientious perfectionism. Head
coaches exhibited higher levels of planfulness than assistant coaches. The head and assistant coach means for these significant dimensions of perfectionism are represented in Figure 2.

![Perfectionism Means](image)

**Figure 2.** Means for head and assistant coaches on the concern over mistakes (CM), need for approval (NA), planfulness (P), and rumination (R) subscales of perfectionism.

There was a significant (p < .05) difference between head and assistant coaches in game plan coaching activities. Assistant coaches (M = 10.26; SE = .59) engaged in more activities than did head coaches (M = 7.94; SE = .52). The effect size for this dimension was large (.43). The head and assistant coach means are represented in Figure 3.
The results did not indicate any significant coach status related differences in the other dimensions of perfectionism (high standards for others, organization, perceived parental pressure, and striving for excellence), perceived stress, or team organization coaching activities.

The second hypothesis was partially supported because there were observed differences between head and assistant coaches on some of the dimensions of perfectionism and participation in coaching activities. However, against expectations there were not any significant differences observed between head and assistant coaches on perceived stress or on the other dimensions of perfectionism and participation in coaching activities.

*Measurement Model*

Measurement models for the total sample, the head coach sub-sample, and the assistant coach sub-sample were tested. The original measurement models included the
latent variables of burnout (emotional exhaustion, depersonalization, and personal accomplishment), conscientious perfectionism (high standards for others, organization, planfulness, and striving for excellence), and self-evaluative perfectionism (concern over mistakes, need for approval, perceived parental pressure, and rumination) as well as the manifest variables of perceived stress, team organization coaching activities, and game plan coaching activities. A summary of fit statistics for the measurement models are presented in Table 5 including $\chi^2$, CFI, and RMSEA values. No problems were observed with multivariate kurtosis (total sample = 1.80; head coach sample = -.58; assistant coach sample = .81).

Table 5

*Measurement model Maximum Likelihood (ML) estimation of fit indices*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$ ML</th>
<th>df</th>
<th>CFI ML</th>
<th>RMSEA ML</th>
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<tr>
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<tr>
<td>Total Sample</td>
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<td>Head Coach Subsample</td>
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<td>.88</td>
<td>.10</td>
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<tr>
<td>Assistant Coach Subsample</td>
<td>98.87</td>
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<td>.91</td>
<td>.08</td>
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<tr>
<td><strong>Reduced Model</strong></td>
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<tr>
<td>Total Sample</td>
<td>88.85</td>
<td>53</td>
<td>.96</td>
<td>.06</td>
</tr>
<tr>
<td>Head Coach Subsample</td>
<td>98.23</td>
<td>53</td>
<td>.91</td>
<td>.09</td>
</tr>
<tr>
<td>Assistant Coach Subsample</td>
<td>70.49</td>
<td>53</td>
<td>.95</td>
<td>.07</td>
</tr>
</tbody>
</table>

The global fit of the full measurement model to the data was unsatisfactory (CFI ranging from .88 to .94). An examination of the item loadings, standardized residuals, and modification indices indicated difficulty with an indicator (i.e., “organization) of the conscientious perfectionism latent variable. The loading for this item in all sample analyses was poor (ranging from .18 to .19) and moreover, it was implicated in the
highest residual correlations. The remaining variable loading values ranged between -.39 and .92, all significant at p < .05. This organization subscale was removed and the fit of the resulting reduced model for the total, head coach, and assistant coach samples was found to be much more desirable (see Table 5). The reduced measurement model statistics are illustrated in Figure 4.
Figure 4. Path loadings of the reduced measurement model for the total (T), head coach (H), and assistant coach (A) samples. The model includes self-evaluative perfectionism (SEP) with the dimensions of concern over mistakes (CM), need for approval (NA), perceived parental pressure (PP), and rumination (R); conscientious perfectionism (CP) with the dimensions of high standards for others (HSO), planfulness (P), and striving for excellence (SE); perceived stress (PS); burnout with the dimensions of emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA); team organization coaching activities (CA.TO); and game plan coaching activities (CA.GP).
Testing of the Conceptual Model

The path model of relationships among study constructs was examined to test the fit of the reduced model to the data for the total sample, the assistant coach subsample, and the head coach reduced subsample. It was hypothesized that perfectionism, perceived stress, and participation in coaching activities would significantly predict burnout with coaching status as a moderating variable. A summary of fit statistics for the path models are presented in Table 6 including $\chi^2$, CFI, and RMSEA values. The path model for the total sample and assistant subsample are illustrated in Figure 5.

Table 6

<table>
<thead>
<tr>
<th>Path model Maximum Likelihood (ML) estimation of fit indices</th>
</tr>
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<tbody>
<tr>
<td>Model</td>
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<tr>
<td>-------------------------------</td>
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<td>Total Sample</td>
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<td>Assistant Coach Subsample</td>
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<tr>
<td>Head Coach Subsample</td>
</tr>
<tr>
<td>Head Coach Subsample (Coaching Activities Variables removed)</td>
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</table>
Figure 5. Path model for the total (T) and assistant coach (A) samples with 3 latent variables and 3 manifest variables. The model include self-evaluative perfectionism (SEP; conscientious perfectionism (CP); perceived stress (PS); burnout; team organization coaching activities (CA.TO); and game plan coaching activities (CA.GP).

Testing of the total reduced model proved to be satisfactory. The path from self-evaluative perfectionism to burnout was significant ($p < .05$) and in the expected direction. Thus, the higher the level of self-evaluative perfectionism in coaches, the more burnout they experience. The path from perceived stress to burnout was significant ($p < .05$) and in the expected direction. The higher coaches’ perception of stress the more burnout they experience. Against expectations, conscientious perfectionism, team organization coaching activities, and game plan coaching activities did not significantly predict burnout in coaches.

Testing of the assistant coach reduced model also proved to be satisfactory. The path from self-evaluative perfectionism to burnout was significant ($p < .05$) and in the expected direction. The higher assistant coaches’ level of self-evaluative perfectionism the more burnout they will experience. The path from perceived stress to burnout was also significant ($p < .05$) and in the expected direction. The higher assistant coaches’
perceptions of stress the more burnout they experience. Also against expectations, conscientious perfectionism, team organization coaching activities, and game plan coaching activities did not significantly predict burnout in assistant coaches.

The head coach reduced model could not be tested because the data would not converge. Analysis of the problem revealed that team organization and game plan coaching activities were the cause of the problem. These two latent variables do not appear to be well-correlated to any of the other latent variables nor to themselves (see Tables 3 and Figure 4). When the two coaching activity variables were removed the head coach reduced model converged successfully. This model is presented in Figure 6.

![Figure 6. Path model for the head coach subsample with 3 latent variables. The model include self-evaluative perfectionism (SEP); conscientious perfectionism (CP); perceived stress (PS); and burnout.](image-url)
Although the observed CFI value was tolerable, the observed RMSEA was clearly unsatisfactory. As such, the fit of the model to the head coach subsample was deemed unsatisfactory. Nonetheless, the path from self-evaluative perfectionism was significant (p < .05) and in the expected direction. Higher self-evaluative perfectionism was associated with more burnout among head coaches. The path from perceived stress was also significant (p < .05) and in the expected direction. More perceptions of stress were associated with more burnout among head coaches. As in the other samples, against expectations, conscientious perfectionism did not significantly predict burnout in head coaches.

**Multi-Sample Analysis to Test Coach Status**

To test whether coach status acts as a moderating variable in the proposed model, a multi-sample analysis was conducted. However, since the head coach reduced path model could not be performed, the head coach and assistant coach reduced measurement models were used in the analysis. A summary of the fit statistics for the analyses is presented in Table 7.

**Table 7**

*Multi-sample analysis Maximum Likelihood (ML) estimation of fit indices*

<table>
<thead>
<tr>
<th>Multi-Sample</th>
<th>$\chi^2$</th>
<th>df</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>No constraints</td>
<td>168.71</td>
<td>106</td>
<td>.93</td>
<td>.06</td>
</tr>
<tr>
<td>Factor loadings constrained</td>
<td>201.62</td>
<td>116</td>
<td>.90</td>
<td>.07</td>
</tr>
<tr>
<td>Factor loadings constrained (no P or SE)</td>
<td>176.10</td>
<td>114</td>
<td>.93</td>
<td>.06</td>
</tr>
<tr>
<td>Factor loadings and covariances constrained</td>
<td>184.37</td>
<td>129</td>
<td>.94</td>
<td>.05</td>
</tr>
</tbody>
</table>

The first multi-sample analysis was run without any constraints on the variables and revealed a moderate model fit for the data. The second multi-sample analysis was run with the manifest variable factor loadings constrained. This analysis revealed a poor fit of the model to the data. The results indicated that the conscientious perfectionism dimensions of planfulness ($\chi^2 = 14.49, p = .000$) and striving for excellence ($\chi^2 = 6.15, p$
= .013) were significantly different for the head and assistant coaches. Planfulness had a larger factor loading in the assistant coach subsample (r = .70) than in the head coach subsample (r = .04). Striving for excellence had a larger factor loading in the head coach subsample (r = .78) than in the assistant coach subsample (r = .48). The results also indicated that the emotional exhaustion dimension of burnout was approaching significance (χ² = 2.85, p = .091). A third multi-sample analysis with factor loadings constrained excluding planfulness and striving for excellence, revealed a more satisfactory fit of the data and no other significant differences in the variables. The fourth multi-sample analysis was run with the manifest variable factor loadings constrained (excluding planfulness and striving for excellence), and the covariances among the variables constrained. The results revealed a more satisfactory fit to the data and indicated that there were no significant differences in the factor loadings or among the covariances between the two samples.
The purpose of this study was to examine the relationship between burnout, perfectionism, perceived stress, and participation in coaching activities in collegiate level coaches. A secondary purpose was to determine if coach status (head versus assistant coaches) had a moderating effect on this relationship. Freudenberger (1980) first defined burnout as arising from unexpected outcomes produced by commitment to an activity that result in exhaustion and dissatisfaction. Kelley and Gill (1993) linked this idea of burnout to perceived stress and participation in coaching activities in collegiate coaches. They reported that perceived stress, coaching issues, and coaching problems were positively related to emotional exhaustion and depersonalization, and negatively related to personal accomplishment. In this study, participation in coaching activities consisted of two dimensions: team organization and game plan activities. The final variable included in this study was perfectionism, the setting of high personal standards and engagement in overly critical evaluations when striving to meet personal goals (Burns, 1980). In the current study it was separated into two classifications of self-evaluative and conscientious perfectionism. Self-evaluative perfectionism is regarded as a negative form of perfectionism while conscientious perfectionism is viewed as a more positive form of perfectionism.

In the present study coaches exhibited moderate levels of self-evaluative perfectionism and slightly higher levels of conscientious perfectionism. Most coaches scored close to the item means while a few coaches scored at the upper and lower ends of the item scales. The coaches also demonstrated moderate levels of perceived stress and team organization and game plan coaching activities. Again, most coaches scored near
the mean of the items while a few coaches scored at the upper and lower ends of the item ranges. Lastly, according to Maslach, Jackson, and Leiter (1996) the coaches showed evidence of low levels of emotional exhaustion and depersonalization, and high levels of personal accomplishment, indicating low levels of burnout among the coaches. The coaches’ mean scores were 16 on the emotional exhaustion subscale (0 to 16 is considered low), 6 on the depersonalization subscale (0 to 6 is considered low), and 39 on the personal accomplishment subscale (39 and over is considered high).

It was hypothesized that the dimensions of perfectionism, perceived stress, and coaching activities would be moderately correlated. While the results did indicate some significant correlations among these variables, the correlations were very weak ranging from .15 to .27. This suggests that perfectionism and participation in coaching activities only account for small portions of the variance in perceived stress, and that coaching activities also account for small portions of the variance in perfectionism.

The relationship between perfectionism and perceived stress was significant for three of the dimensions of self-evaluative perfectionism (concern over mistakes, perceived parental pressure, and rumination). This is consistent with previous research that found a strong relationship between maladaptive forms of perfectionism and stress (Beiling, Israeli, & Antony, 2004). There was also a significant relationship between perceived stress and two of the dimensions of conscientious perfectionism (high standards for others and striving for excellence). This is in contrast with previous study findings that positive or adaptive forms of perfectionism are not related to stress (Beiling, Israeli, & Antony, 2004). However, Hall (in press) proposed that positive perfectionism may, at first, result in positive outcomes, but if not properly dealt with will have maladaptive consequences.

The highest correlations between perceived stress and perfectionism occurred for the dimensions of high standards for others (r = .27) and rumination (r = .27). This suggests that high standards for others and rumination, each only account for 7% of the variance in coaches’ perception of stress, respectively. The lowest correlations for perceived stress occurred with the perfectionism dimensions of organization (r = .03) and planfulness (r = -.05). This suggests that both organization and planfulness account for less than 1% of the variance in coaches’ perceived stress, respectively.
Though these correlations were very low, indicating weak relationships, interestingly, the significant correlations between perceived stress and dimensions of both higher order factors of perfectionism were positive. This suggests that as both “good” and “bad” perfectionism increase, coaches’ perceptions of stress tend to increase accordingly. This is supported by Hall’s (in press) assertion that research in sport has consistently shown perfectionism to be related to negative outcomes.

The relationships between perceived stress and the two dimensions of participation in coaching activities were both significant. This is supported by Sweeney and Summers’ (2002) finding that workload is positively related to role stressors in the “busy season” of accounting. However, these relationships were very weak. Perceived stress and game plan coaching activities exhibited a correlation of .16, indicating that these activities only account for about 3% of the variance in perceived stress. Team organization coaching activities and perceived stress correlated at .17, indicating that these activities also only account for about 3% of the variance in coaches’ perception of stress. Thus, based on Sweeney and Summers’ (2002) findings that stress is related to workload in the “busy season,” but not prior to that time, it may be that perceived stress is only strongly related to participation in coaching activities during certain portions of the sport season. Further research needs to be conducted at varying times of the season to examine whether the time of season affects this relationship.

While only small portions of the variance in perceived stress were found to be accounted for by dimensions of perfectionism and coaching activities, support for this is provided by the failure adaptation model (Tenenbaum et al., 2003) that identifies numerous sources of stress and proposes that various personal dispositions and states impact the appraisal of stress. Therefore, it is assumed that other variables than the ones used in the current study may account for more sources and reasons for coaches’ perceptions of stress.

The relationship between game plan coaching activities was significant for the conscientious perfectionism dimension of striving for excellence. This may be explained using Murphy’s (2005) assertion that coaching is based on extreme dedication to a performance in which the coach is not the performer. Thus, intuitively it makes sense
that coaches will strive for excellence in their game planning in order to ensure that the performance is well-planned for their athletes.

A relationship was found between team organization coaching activities and the conscientious perfectionism dimension of striving for excellence. This striving for excellence that seems to be an important component in participation in coaching activities is supported by Pargman’s (1998) proposition that coaches’ success and job security is ensured by their production of winning teams. Therefore, it is intuitive that coaches are motivated to work hard in the organization of their team, as well as in many other areas, in order to secure their employment.

These results suggest that perfectionism varies positively with participation in game plan and team organization coaching activities. Therefore, as coaches’ participation in these types of activities increases, dimensions of conscientious perfectionism also increase. Because perfectionism is characterized by the maintenance of a relentless pursuit toward set goals (Shafran et al., 2002), it may be that coaches high in perfectionism spend more time engaging in activities associated with their goals of organizing the team and planning for game situations. However, though these variables are significantly related, game plan coaching activities only account for 4% of the variance in the conscientious perfectionism dimension of striving for excellence, and team organization coaching activities account for 6% percent of the variance in striving for excellence.

The second hypothesis examined whether the dimensions of participation in coaching activities, perfectionism, and perceived stress would be moderately to strongly positively related to coach status. There was a significant difference in coaching status on the self-evaluative perfectionism dimensions of concern over mistakes and need for approval, as well as a difference approaching significance on the dimension of rumination. Assistant coaches were higher in these dimensions of perfectionism than head coaches, suggesting that “bad” perfectionism is more prevalent in assistant coaches. Support for this is provided by Shafran et al.’s (2002) identification of characteristics associated with perfectionism. They identified that perfectionists tend to be motivated by a fear of failure and persistent critical evaluations of achievement. Therefore, it may be that these characteristics are inherent in the job of an assistant coach. Furthermore, the
effect sizes of these differences were moderate to large, suggesting that the difference in these perfectionism variables can be accounted for by coach status. Thus, these results appear to suggest that the roles delineated to assistant coaches elicit more negative perfectionistic behaviors. It may also be possible that the characteristics inherent in the personalities of assistant coaches are more related to the negative forms of perfectionism.

There was also a significant difference in coach status on the conscientious perfectionism dimension of planfulness, whereby head coaches reported higher levels of planfulness than did assistant coaches. The effect size for this variable was moderate, suggesting that the difference in planfulness among the coaches can be accounted for by the coaches’ status. This suggests that the roles delineated to head coaches foster more positive perfectionistic behaviors. However, it may also be possible that the personalities and characteristics of head coaches provide a basis for the development of more positive perfectionism. Hill et al.’s (2004) definition of planfulness as tending to deliberately prepare in advance provides support for the importance of this construct in head coaches since this intuitively seems like a fundamental aspect in their job description. Further research is needed to examine the characteristics and roles of head and assistant coaches that may contribute to the differences in perfectionism to uncover the reasons that assistant coaches appear to exhibit higher levels of self-evaluative perfectionism and head coaches appear to exhibit higher levels of conscientious perfectionism. It may also be possible that the results are a product of the specific sample of coaches examined, or the time of season that the coaches were sampled.

There was a significant difference in coach status in game plan coaching activities. Assistant coaches reported more participation in game plan activities than head coaches. The effect size for this variable was large, suggesting that the differences among coaches in participation in game planning activities can be explained by coach status. Although the results did not indicate a significant effect of coach status on the team organization dimension of participation in coaching activities, it is interesting that the means indicate that head coaches reported slightly higher participation in team organization activities than assistant coaches. Thus, it seems that assistant coaches are tasked with more activities associated more closely with the performance of the team related to planning for competitions, while head coaches are more responsible for the
higher level functioning of the team and its organization in general. Further research must identify differences in the characteristics and roles of head and assistant coaches that may account for these differences in their reporting of participation in team organization and game plan activities. Again, it may also be possible that the results are a product of the specific sample of coaches used in the current study or the time of season that the coaches were sampled.

The main aim of the current study was to test the proposed conceptual model which hypothesized that perfectionism, perceived stress, and participation in coaching activities predict burnout with coach status acting as a moderating variable. Various models of burnout have been developed that indicate that stress appraisal plays an important role in burnout (Smith, 1986; Tenenbaum et al., 2003). Furthermore, perfectionism has been linked to burnout in nurses (Magnusson, Nias, & White, 1996) and in athletes (Gould et al., 1996). While the relationship between participation in coaching activities and burnout has not been directly studied, previous research provides support for the association (Maslach, Jackson, & Leiter, 1996; Raedeke, 2004; Sweeney & Summers, 2002).

The model developed for the study examined whether perfectionism, perceived stress, and participation in coaching activities, would predict burnout in coaches. Also, it was proposed that this relationship would differ for head and assistant coaches. Measurement models were examined first to evaluate the fit of the model to the data. It was found that the organization dimension of conscientious perfectionism did not load significantly in the model. Thus, it was removed from the data and reduced measurement models were run for the samples. The use of organization as a perfectionism construct has been disputed, though some researchers have found support for its inclusion (Hawkins, Watt, & Sinclair, 2004). Models were examined for the total sample, the head coach subsample, and the assistant coach subsample.

Path models were then tested to examine the proposed conceptual model. The model was run for the total, head, and assistant coach data. The results revealed that the model for the total sample and assistant coach subsample were good fits to the data while the model for the head coach sample (that excluded coaching activities) was a poor fit to the data. The paths from self-evaluative perfectionism and perceived stress to burnout
were significant for all samples. This indicates that self-evaluative perfectionism and perceived stress predict coaches’ levels of burnout. Coaches high in self-evaluative perfectionism and perceived stress are also high in burnout, or vice versa. Thus, coaches who experience more concern over mistakes, need for approval, perceived parental pressure, and rumination, and make more negative evaluations of stress, experience higher levels of emotional exhaustion and depersonalization, and lower levels of personal accomplishment. These findings are supported by Magnusson, Nias, and White’s (1996) examination of female nurses where negative forms of perfectionism were related to mental and physical trait fatigue. There is also general support for the impact of perceived stress on burnout (Kelley, Eklund, & Ritter Taylor, 1999; Smith, 1986; Tenenbaum et al., 2003) as well as support for perceived stress predicting coach burnout (Kelley & Gill, 1993).

Interestingly, the path from conscientious perfectionism to burnout was not significant for any of the samples. Thus, coaches’ high standards for others, planfulness, and striving for excellence did not impact coaches’ development or experience of burnout. Since previous results in the current study identified significant associations among some of these dimensions and perceived stress, it may be that these dimensions of conscientious perfectionism impact coaches’ appraisals of stress, which then affects their levels of burnout. A possible explanation for this finding stems from Hamachek’s (1978) distinction between normal and neurotic perfectionism. He proposed that normal perfectionists react more pleasurably to the demands of stress and do not feel the need to be as stringent in their efforts to meet those demands. Therefore, it is possible that conscientious perfectionism is more “normal” resulting in less threatening perceptions of stress. Thus, this dimension of perfectionism will not predict burnout.

The paths from game plan and team organization coaching activities to burnout were not significant for either the total or assistant coach samples. Since these variables were also found to be positively related to perceived stress, it may be that participation in coaching activities affects coaches’ perceptions of stress, which then impacts their levels of burnout. Since the reduced model including the two types of coaching activities could not be tested for the head coach subsample, it may be that these variables are either not
related to the development of burnout in coaches, or were not effectively measured in the current study.

The measurement models were used in the multi-sample analyses to test the moderating variable of coach status since the head coach conceptual model was unable to be tested. When the manifest variable factor loadings were constrained, the results revealed that the conscientious perfectionism dimensions of planfulness and striving for excellence were statistically different for the head and assistant coaches.

Planfulness exhibited a stronger factor loading in the sample of assistant coaches than in the sample of head coaches. This suggests that while conscientious perfectionism does not significantly impact the development of burnout in assistant coaches, the specific dimension of planfulness is related to burnout in assistant coaches. However, for head coaches, planfulness is not an important part of the relationship among the variables that predict burnout. Bieling, Israeli, and Antony (2004) asserted that externally imposed standards result in more debilitative consequences than self-imposed standards. Therefore, it may be that the standards of assistant coaches tend to be set by others increasing the impact of planfulness on their development of burnout. However, since head coaches tend to set their own standards the effect of this variable is not related to their development of burnout.

Striving for excellence exhibited a stronger factor loading in the sample of head coaches than in the sample of assistant coaches. This suggests that while conscientious perfectionism does not significantly impact the development of burnout in head coaches, the specific dimension of striving for excellence is related to burnout in head coaches. Pargman (1998) identified that a coaches’ success and job security are dependent upon their win/loss record. Therefore, it may be that head coaches are motivated than assistant coaches to strive for greater excellence because they have to be more concerned with producing winning teams in order to sustain employment.

This is also supported by the results of the current study that found the conscientious perfectionism dimension of planfulness to be more prevalent in head coaches. Thus, it may be the case that head coaches can use this type of perfectionism more effectively avoiding the development of burnout while this dimension has a more debilitative effect on assistant coaches who have more experience with negative forms of
perfectionism, thus impacting their development of burnout. Similarly, though the effect of coach status on the striving for excellence dimension of perfectionism was not significant, the means indicate that assistant coaches were higher on this dimension. It may be the case that assistant coaches can use this type of perfectionism more effectively than head coaches. Thus, their development of burnout will not be affected by their striving for excellence. However, the development of burnout in head coaches will be affected by this dimension. This is supported by Hall’s (in press) assertion that positive perfectionism which is effectively managed may not result in negative outcomes, but rather may contribute to achievement behavior. Further research needs to be conducted to examine the characteristics and role differences that exist between head and assistant coaches in order to better understand how self-evaluative and conscientious perfectionism impact the coaches’ development of burnout.

When the covariances among the manifest variables were constrained, not including planfulness and striving for excellence, there were no significant differences found between the head and assistant coaches indicating that the associations among the variables are similar for head and assistant coaches. Thus, it can be concluded that for both head and assistant coaches, self-evaluative perfectionism, conscientious perfectionism, perceived stress, team organization activities, and game plan activities interact in the development of burnout. Support for this has been provided in previous research for the associations among these variables in general (Bieling, Israeli, & Antony, 2004; Burns, 1980; Chang, 2000; Hall, in press; Kelley & Gill, 1993; Smith, 1986; Sweeney & Summers, 2002; Tenenbaum et al., 2003). However, future research needs to uncover the sources that account for these differences in head and assistant coaches.

Potential Limitations and Future Research

One potential limitation of this study is related to the sample of coaches used in the study. First, a small sample size of coaches was obtained to examine the hypotheses. Since only 101 head coaches and 76 assistant coaches were used in the study, the results may have been adversely affected in that such a sample size may not have enough predictive power to effectively analyze the relationships among the variables. Though some differences were found between the two groups in their reporting of perfectionism, their participation in coaching activities, and in their relationships among the predictors.
of burnout, a larger sample size for each group may provide for a better examination of
the relationships among the variables included in the study. Also, the coaches were
obtained from colleges and universities located in Florida and ranged from community
colleges to Division I universities. Thus, the results may have been affected by the types
of schools used in the study. An additional limitation may be related to the types of
sports used in the study. Coaches were targeted for inclusion in the study provided that
their sport was currently in season at the time of data collection. Therefore, the results
may be a product of sport type or time of season. Further research needs to be conducted
on varying samples of collegiate coaches.

Another limitation involves the questionnaires utilized within the study,
particularly the Perfectionism Inventory (PI) and the Participation in Coaching Activities
Questionnaire (PICA). Upon examining the measurement models for the data it was
found that relationships exist across the two higher order factors of perfectionism among
the eight subscales of the PI. Thus, the conceptualization of perfectionism in the PI may
not be a satisfactory measurement of perfectionism for coaches.

Also, the PICA developed by the researcher that was used in the current study
may not have been an effective measure of participation in coaching activities. The
problem that occurred in testing the conceptual model for the head coach sample was
found to be due to the factors of participation in coaching activities. Neither of the two
factors was well correlated with any of the other manifest variables nor each other. A
better instrument to measure participation in coaching activities should be developed and
piloted in order to effectively analyze its relationship to perfectionism, perceived stress,
and burnout as well as to determine any differences that may exist among head and
assistant coaches. For example, it may be more appropriate to examine coaches’ daily
schedules, coaches’ perceptions of their time spent engaging in coaching activities, and
coaches’ family members perceptions of the time they spend engaging in coaching
activities.

A final potential limitation of the study was that the collegiate coaches examined
did not exhibit high levels of burnout. The coaches were low on emotional exhaustion
(M = 16.06, SD = 9.78) and depersonalization (M = 6.44, SD = 5.13), and were high on
personal accomplishment (M = 39.45, SD = 5.01). While this may not affect the
relationships among the variables analyzed in the study, it may be prudent to also look at the relationships among the variables in a sample of burnout coaches to assess whether the relationships between perfectionism, perceived stress, participation in coaching activities, and burnout differ between head and assistant coaches compared to a sample of coaches that are not exhibiting high levels of burnout.

The current study provides the first examination of the relationships among perfectionism, perceived stress, participation in coaching activities, and burnout in coaches. It facilitates the investigation of potential variables that impact collegiate coaches’ development and experience of burnout. Future research should examine the characteristics and roles of head and assistant coaches in order to better understand the impact of participation in coaching activities on perfectionism, perceived stress, and burnout. Furthermore, the occurrence of perfectionism in coaches also needs to be investigated further in order to better understand its impact. Research should also explore the relationships among the variables included in this study among other populations of coaches. It would be interesting to examine whether the relationships among the variables found in the current study are similar in high school and professional coaches. It would also be interesting to investigate whether similar relationships exist among team sport and individual sport coaches, and whether there are any differences in these relationships between these two types of coaches. Lastly, research should study if the relationships among perfectionism, perceived stress, participation in coaching activities, and burnout are impacted by the number of individuals on the coaching staff, the size of the team, or the gender of the coaches. The current study has provided a good basis for identifying variables that may be associated with collegiate coach burnout, but further research needs to be conducted with coaches in order to better understand the development of burnout in this population.
APPENDIX A

HUMAN SUBJECTS APPROVAL

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2783
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 1/28/2005

To:
Lauren Tashman
1303 Ocala Rd. Apt #157
Tallahassee, FL 32304

Dept.: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: John Tomkowiak, Chair

Re: Use of Human Subjects in Research
The relationship between perfectionism and burnout in coaches

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Exempt per 45 CFR § 46.101(b) 2 and has been approved by an accelerated review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If the project has not been completed by 1/27/2006 you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. Also, the principal investigator must promptly report, in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000446.

Cc: Gershon Tenenbaum
HSC No. 2005.051

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APPENDIX B

HUMAN SUBJECTS CHANGES APPROVAL

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2763
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM (for change in research protocol)

Date: 3/2/2005

To:
Lauren Tashman
1303 Ocala Rd. Apt #157
Tallahassee, FL 32304

Dept: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: Thomas L. Jacobson, Chair

Re: Use of Human subjects in Research
Project entitled: The relationship between perfectionism and burnout in coaches

The memorandum that you submitted to this office in regard to the requested change in your
research protocol for the above-referenced project have been reviewed and approved. Thank you for
informing the Committee of this change.

A reminder that if the project has not been completed by 1/27/2006, you must request renewed
approval for continuation of the project.

By copy of this memorandum, the chairman of your department and/or your major professor is
reminded that he/she is responsible for being informed concerning research projects involving
human subjects in the department, and should review protocols of such investigations as often as
needed to insure that the project is being conducted in compliance with our institution and with DHHS
regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The
Assurance Number is IRB00000446.

cc: Gershon Tenenbaum
APPLICATION NO. 2005.051
APPENDIX C

INFORMED CONSENT

I _________________________, freely, voluntarily, and without element of force or coercion, consent to be a participant in the research project entitled “The Relationship between Perfectionism and Coach Burnout.” This research project is being conducted by Lauren Tashman, who is a Master’s student in Sport Psychology at Florida State University. Her faculty advisor for the project is Dr. Gershon Tenenbaum, Ph.D, a faculty member in the Department of Educational Psychology and Learning Systems. I understand the purpose of this research is to better understand stress, participation in coaching activities, thoroughness and organization, and general stress-producing situations. I understand that my participation in this study involves completing paper and pencil questionnaires and that the time commitment will be about 30 to 45 minutes.

I understand that my participation in this study is completely voluntary and that I may stop participation at any time throughout the study. All my answers to the questions will be kept confidential to the extent allowed by the law and my answers will be identified by a subject code number. The researcher will store the data and will be the only individual that has access to the informed consent, questionnaires, and data files. I also understand that my name will not appear on any of the results and that no individual responses will be reported, but rather only group findings will be reported.

I understand that there are no personal risks involved in my participation in this research project. However, referrals for sport psychology and counseling services can be arranged if the need arises. I understand that participating in this research will bring me the benefit of helping to broaden sport psychology’s understanding of the experience of burnout in coaches.

I understand that this consent may be withdrawn at any time without prejudice, penalty or loss of benefits to which I am otherwise entitled. I have been given the right to ask questions concerning this study. Questions, if any, have been answered to my satisfaction.

I understand that I may contact Lauren Tashman, Florida State University, (850) 575-9687, or the FSU Human Subjects Committee, (850) 644-9694 for answers to questions about this research or my rights. Group results will be sent to me upon my request.

Participants must be at least 18 years of age to participate.

I have read and understand this consent form.

______________________________  ________________________
(Participant)      (Date)
APPENDIX D

INSTRUCTIONS

Dear Participant:

The purpose of this thesis research is to determine the relationship between stress, time commitment, organization, level of coaching, and stress outcomes in coaches. Your experiences are very valuable to the study of coaching. Thank you in advance for your participation in this study.

Please first read and sign the informed consent form attached to this packet. Contact the researcher if you have any questions you want answered prior to participation in the study.

After you have signed the informed consent form, please answer all of the questions in the packet. Upon completion of the questions, please mail the entire packet back to the researcher. Envelopes and postage have been supplied for your convenience.

Again thank you for your participation. If you have any questions after completion of the study or want to request study results, please feel free to contact the researcher.

Sincerely,

Lauren Tashman
Florida State University
APPENDIX E

DEMOGRAPHIC INFORMATION

1. Age (circle one): 18-30  31-40  41-50  51-60  61+

2. Gender: (circle one): Male  Female

3. Current sport(s) coached (presently in season): __________________________________
   ________________________________________________________________________
   ________________________________________________________________________

4. Coach status (circle one): Head Coach  Assistant Coach

5. Other jobs/professions held (examples: student; teacher): _________________________
   ________________________________________________________________________
APPENDIX F

SAMPLE ITEMS FOR THE MASLACH BURNOUT INVENTORY - HSS

by Christina Maslach and Susan E. Jackson

Directions:

Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write a "0" (zero) before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way.

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I. Depersonalization

5. I feel I treat some recipients as if they were impersonal objects.

II. Personal Accomplishment

9. I feel I'm positively influencing other people's lives through my work.

III. Emotional Exhaustion

20. I feel like I'm at the end of my rope.

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APPENDIX G

PERFECTIONISM INVENTORY

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<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree somewhat</th>
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1. _____ My work needs to be perfect, in order for me to be satisfied.
2. _____ I am over-sensitive to the comments of others.
3. _____ I usually let people know when their work isn’t up to my standards.
4. _____ I am well-organized.
5. _____ I think through my options carefully before making a decision.
6. _____ If I make mistakes, people might think less of me.
7. _____ I’ve always felt pressure from my parent(s) to be the best.
8. _____ If I do something less than perfectly, I have a hard time getting over it.
9. _____ All my energy is put into achieving a flawless result.
10. _____ I compare my work to others and often feel inadequate.
11. _____ I get upset when other people don’t maintain the same standards I do.
12. _____ I think things should be put away in their place.
13. _____ I find myself planning many of my decisions.
14. _____ I am particularly embarrassed by failure.
15. _____ My parents hold me to high standards.
16. _____ I spend a lot of time worrying about things I’ve done, or things I need to do.
17. _____ I can’t stand to do something halfway.
18. _____ I am sensitive to how others respond to my work.
19. _____ I’m not very patient with people’s excuses for poor work.
20. _____ I would characterize myself as an orderly person.
21. _____ Most of my decisions are made after I have had time to think about them.
22. _____ I over-react to making mistakes.
23. _____ My parent(s) are difficult to please.
24. _____ If I make a mistake, my whole day is ruined.
25. _____ I have to be the best in every assignment I do.
26. _____ I’m concerned with whether or not other people approve of my actions.
27. _____ I’m often critical of others.
28. _____ I like to always be organized and disciplined.
29. _____ I usually need to think things through before I know what I want.
30. _____ If someone points out a mistake I’ve made, I feel like I’ve lost that person’s respect in some way.
31. _____ My parent(s) have high expectations for achievement.
32. _____ If I say or do something dumb I tend to think about it for the rest of the day.
33. _____ I drive myself rigorously to achieve high standards.
34. _____ I often don’t say anything, because I’m scared I might say the wrong thing.
35. _____ I am frequently aggravated by the lazy or sloppy work of others.
36. _____ I clean my home often.
37. _____ I need time to think up a plan before I take action.
38. _____ If I mess up on one thing, people might start questioning everything I do.
39. _____ Growing up, I felt a lot of pressure to do everything right.
40. _____ When I make an error, I generally can’t stop thinking about it.
41. _____ I must achieve excellence in everything I do.
42. _____ I am self-conscious about what others think of me.
43. _____ I have little tolerance for other people’s careless mistakes.
44. _____ I make sure to put things away as soon as I’m done using them.
45. _____ I tend to deliberate before making up my mind.
46. _____ To me, a mistake equals failure.
47. _____ My parent(s) put a lot of pressure on me to succeed.
48. _____ I often obsess over some of the things I have done.
49. _____ I am often concerned that people will take what I say the wrong way.
50. _____ I often get frustrated over other people’s mistakes.
51. _____ My closet is neat and organized.
52. _____ I usually don’t make decisions on the spot.
53. _____ Making mistakes is a sign of stupidity.
54. _____ I always felt that my parent(s) wanted me to be perfect.
55. _____ After I turn a project in, I can’t stop thinking of how it could have been better.
56. _____ My workspace is generally organized.
57. _____ If I make a serious mistake, I feel like I’m less of a person.
58. _____ My parent(s) have expected nothing but my best.
59. _____ I spend a great deal of time worrying about other people’s opinion of me.
APPENDIX H

PERCEIVED STRESS SCALE

Answer the following questions as though you were currently involved in a typical athletic season. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don’t try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

0. never
1. almost never
2. sometimes
3. fairly often
4. very often

1. How often have you been upset because of something that happened unexpectedly?

2. How often have you felt that you were unable to control the important things in your life?

3. How often have you felt nervous and “stressed”?

4. How often have you dealt successfully with irritating life hassles?

5. How often have you felt that you were effectively coping with important changes that were occurring in your life?

6. How often have you felt confident about your ability to handle your personal problems?
7. How often have you felt that things were going your way?

8. How often have you found that you could not cope with all the things that you had to do?

9. How often have you been able to control irritations in your life?

10. How often have you felt that you were on top of things?

11. How often have you been angered because of things that happened that were outside of your control?

12. How often have you found yourself thinking about things that you have to accomplish?

13. How often have you been able to control the way you spend your time?

14. How often have you felt difficulties were piling up so high that you could not overcome them?
APPENDIX I

PARTICIPATION IN COACHING ACTIVITIES QUESTIONNAIRE

Circle the number that corresponds with how much time you spend doing each of the following activities during the course of a typical athletic season.

- Meeting with team:
  0 1 2 3 4 5 6
  Never a few once a a few times once a a few times every day
  times during month or in month week a week
  season less

- Meetings with assistant coaches:
  0 1 2 3 4 5 6
  Never a few once a a few times once a a few times every day
  times during month or in month week a week
  season less

- One-on-one interactions with athletes:
  0 1 2 3 4 5 6
  Never a few once a a few times once a a few times every day
  times during month or in month week a week
  season less

- Developing plan for practice:
  0 1 2 3 4 5 6
  Never a few once a a few times once a a few times every day
  times during month or in month week a week
  season less

- Developing plan for competitions:
  0 1 2 3 4 5 6
  Never a few once a a few times once a a few times every day
  times during month or in month week a week
  season less

- Reviewing practice film:
  0 1 2 3 4 5 6
  Never a few once a a few times once a a few times every day
  times during month or in month week a week
  season less
- **Reviewing game/competition film:**

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- **Scouting opposing teams/athletes:**

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- **Traveling for competitions**

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- **Participating in coaching education activities:**

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- **Attending coaching functions (ex: conferences, ceremonies, etc.):**

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- **Attending team functions (ex: team outings, ceremonies, etc.):**

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- **At practice:**

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- **At competitions:**
  - Never
  - A few times during season or less
  - Once a month or less
  - Once a week
  - A few times a week
  - Every day

- **Managerial duties (ex: hiring team managers):**
  - Never
  - A few times during season or less
  - Once a month or less
  - Once a week
  - A few times a week
  - Every day

- **Organizational activities (ex: making monthly calendar):**
  - Never
  - A few times during season or less
  - Once a month or less
  - Once a week
  - A few times a week
  - Every day

- **Meetings with managers/athletic directors:**
  - Never
  - A few times during season or less
  - Once a month or less
  - Once a week
  - A few times a week
  - Every day

- **Meetings with team physician/athletic trainers:**
  - Never
  - A few times during season or less
  - Once a month or less
  - Once a week
  - A few times a week
  - Every day

- **Recruiting**
  - Never
  - A few times during season or less
  - Once a month or less
  - Once a week
  - A few times a week
  - Every day

- **With the media**
  - Never
  - A few times during season or less
  - Once a month or less
  - Once a week
  - A few times a week
  - Every day

- **Fundraising**
  - Never
  - A few times during season or less
  - Once a month or less
  - Once a week
  - A few times a week
  - Every day
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<td><strong>Running competitions</strong></td>
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<td><strong>Dealing with athlete injuries</strong></td>
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APPENDIX J

THESIS DEFENSE ANNOUNCEMENT

FLORIDA STATE UNIVERSITY
OFFICE OF GRADUATE STUDIES

DEFENSE ANNOUNCEMENT FORM

Defense announcements should be submitted to 408 Westcott two weeks prior to the scheduled defense. Please type or print legibly. Announcements can be emailed to clearance@mailer.fsu.edu or faxed to (850) 644-2969.

DISsertation TREATISE THESIS (Please check one)

NAME: Lauren Tashman

PHONE #: 850-575-9687 EMAIL ADDRESS: lst03@garnet.acns.fsu.edu

DEPARTMENT: Educational Psychology and Learning Systems

MAJOR PROFESSOR: Dr. Gershon Tenenbaum

DEFENSE DAY Wednesday DATE October 19, 2005 TIME 9:00 am

LOCATION (room & building) Room 310, Stone Building

TITLE: The Relationship between Perfectionism and Burnout in Coaches

August 02
APPENDIX K

MASLACH BURNOUT INVENTORY MODIFICATION AGREEMENT

Lauren Tashman
Florida State University
Tallahassee, FL 32304

PERMISSION AGREEMENT FOR MODIFICATION & REPRODUCTION
Agreement Issued: March 15, 2005
Customer Number: 15344
Product Code: 340361
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By ________________________________ By ________________________________
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Date 5/26/05 Date 3/28/05
APPENDIX L

MASLACH BURNOUT INVENTORY SAMPLE ITEM AGREEMENT

Lauren Tashman  
Florida State University  
Tallahassee, FL 32304

PERMISSION AGREEMENT TO INCLUDE  
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Date 9/10/05

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By __________________________

Lauren Tashman

Date 9/10/05
REFERENCES


BIOGRAPHICAL SKETCH

Lauren Tashman was born on October 19, 1980 in Long Island, New York. She grew up in New Jersey where she graduated from Hopewell Valley Central High School. She rode horses for 13 years, participating in elite level showjumping competitions. Lauren attended The College of New Jersey where she received her Bachelor’s degree in Psychology in 2002. While completing her Master’s degree at Florida State she worked as a graduate assistant in the College of Social Sciences and in the Learning Systems Institute’s Human Performance Laboratory. She was also an active member in the Applied Sport Psychology program. After completing her Master’s degree in Fall 2005, Lauren will continue her education in Florida State University’s doctoral program in Sport Psychology.