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An examination of a model of burnout in dual-role teacher-coaches

Kelley, Betty Carolina, Ph.D.

The University of North Carolina at Greensboro, 1990

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AN EXAMINATION OF A MODEL OF BURNOUT IN DUAL-ROLE TEACHER-COACHES

by

Betty Carolina Kelley

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

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1990

Approved by

Diane L. Gill

Dissertation Advisor

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

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This study developed and tested a model of stress and burnout in dual-role teacher-coaches. Following Smith's (1986) cognitive-affective model of stress and burnout in athletics, this investigation examined: (a) the contribution of the stress appraisal components of perceived stress, coaching issues (teacher-coach stress), and coaching problems (teacher-coach role conflict) to the prediction of burnout (emotional exhaustion, depersonalization, and personal accomplishment), (b) the contribution of environmental/situational variables (social support, gender, and years of experience) to the prediction of stress appraisal, and (c) the direct contribution of the environmental/situational variables to the prediction of burnout.

The sample of male (n = 99) and female (n = 115) teacher-head basketball coaches from NCAA Division III and NAIA colleges completed established measures of burnout, perceived stress, and social support, and a measure of coaching stress developed for this study during the month of February. Regression analyses supported the model, with stress appraisal predicting burnout and environmental/situational variables predicting stress appraisal. More, specifically, perceived stress predicted all components of burnout, with coaching issues adding slightly to the prediction of emotional exhaustion and coaching problems to the prediction of depersonalization. Social support satisfaction predicted all three stress appraisal components, with gender entering as a predictor for perceived stress and coaching issues. Generally, greater perceived stress led to greater burnout, and

greater satisfaction with social support led to less perceived stress. Also, females had slightly higher perceived stress than did males. Contrary to previous studies, these teacher-coaches reported high levels of burnout.

Further exploratory analyses suggested that coaching issues fit into the model better as an environmental/situational variable than as a stress appraisal measure. Path analyses revealed that coaching issues, social support, and gender predicted perceived stress, and perceived stress predicted all components of burnout, having the greatest influence on emotional exhaustion. The results supported the key components of the model, although the modified model provided a better fit for the data. Coaching issues, social support, and gender influenced the teacher-coaches' perception of stress, which, in turn, influenced their levels of burnout.

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Finally, to all the people at The University of North Carolina at Greensboro who have helped to make this "Northerner" feel at home in the South, God bless you always.

DEDICATION

This dissertation is dedicated to the many teacher-coaches who participated in the study and who strive to help their students and athletes be the best they can be. Hang in there, you do make a difference, and young peoples' lives have been changed and are richer because of the job you do.

E. E. Hale said it best:

I am only one,
But still I am one.
I cannot do everything,
But still I can do something;
And because I cannot do everything,
I will not refuse to do the
something I can do.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

I've got the burnout blues, everything is tense,
Feel too many stressors beating on my sense.
Watch my mind, its racing, back and forth it goes,
Damn its hard to tapdance minus half your toes.
This endless flow of clients drowns me in their needs,
Hope, compassion, love are gone as ire wounds my deeds.
Nights are just not restful, days are nightmare bent,
Everything is dragging here as energy is pent.
Success has been relentless pushing past kin,
All those expectations have just done me in.
Policies, procedures weight my desk and life,
As bosses sit there screeching through me like a knife.
The people I do work with, friends once in the past,
Now ambush me in corners. How long can this last?
Heart it keeps on pounding, empty guts aflame,
Cigarettes, coffee, booze and pills must keep me in the game.
Once I knew my passage running with the light,
Today I creep in darkness, pausing, trapped in fright.
Most of life's a shambles, work is but a joke,
Constantly I'm pushing, time goes up in smoke.
At home, a spouse is waiting, amazing they're still here,
One more crisis with this job and they'll be gone I fear.
Influenza stalks me, despair I seek and find,
Sick days spare my body, mental health days heal my mind.
Everything's a jumble, values are askew,
No one's got the answer, this empty soul is new.
Got the burnout blues, so I just sit and stare,
Feel too many stressors and no one seems to care.
(Paine, W., 1982, Prologue).

The preceding poem describes one form of burnout that results from job stress. Burnout primarily afflicts individuals with careers in the helping professions (e.g., counselors, social service workers, nurses, teachers, coaches). These careers typically require prolonged, stressful, and often emotionally charged interpersonal interactions as a basic component of the occupation. Burnout is characterized by feelings of emotional exhaustion, a need to psychologically distance oneself from those people seeking help, and a sense of meaninglessness and lack of personal accomplishment about one's work (Maslach & Jackson, 1981). Burnout can result in a wide variety of negative consequences for the helping professional (i.e., absenteeism, substance abuse, psychosomatic illness, insomnia, fatigue, aggressive feelings, passive feelings, negative self-concept, poor work performance). Those consequences can then influence the quality and extent of service provided. Regrettably, individuals most prone to burnout are those who are among the most competent and committed, those who strongly value what they are doing and strive for excellence, and those who give more of themselves than they receive in return (Melendez & deGuzman, 1983; Pines, Aronson, & Kafry, 1981). Burnout is a critical problem for individuals pursuing careers in a helping profession.

The education literature reveals a growing and international concern with the problems of job-related stress and the increasing incidence of burnout among teachers. Although no data exist to confirm how many teachers are afflicted, professionals commonly acknowledge that burnout affects teachers from all subject areas, including physical education (Bardo, 1979; Mancini, Wuest, Vantine, & Clark, 1984; McGuire, 1979;

Needle, Griffin, Svendsen, & Berney, 1980); and thousands of teachers leave the profession each year (Mancini, Wuest, Vantine, & Clark, 1984). Thousands of others are burned-out but remain in their role, functioning at less than optimal levels, depleted of the energy and enthusiasm they once brought to their jobs (Dworkin, 1985).

Most of the research examining teacher burnout focuses on the experiences of secondary teachers. Results reveal a high prevalence of teacher burnout at that level (Kyriacou, 1987). Studies of burnout in higher education are few in spite of the fact that academicians may be no less susceptible than their other teaching counterparts (Seller & Pearson, 1984-1985). Studies that have examined faculty stress in higher education consistently reveal that a large percentage of faculty perceive their work environment as uniquely stressful, resulting in a high probability of burning-out (e.g., Margarrel, 1982; Melendez & deGuzman, 1983).

The belief that coaching is a highly stressful profession involving a number of pressures is widely accepted (Lackey, 1986). Stressors unique to the coaching role include: continuous and often emotionally volatile interpersonal interactions with players; the pressure of producing a winning team while at the same time handling defeat; long hours spent recruiting key personnel; hassles with scholarships and eligibility of athletes; pressure from media coverage; and stress in dealing with parental and booster club expectations for the program (Caccese & Mayerberg, 1984; Hunt, 1984; Lackey, 1986; Neal, 1977). Despite the high level of stress in coaching, the limited empirical research indicates that coaches as a whole

are less burned out than other health and human service workers (Caccese, 1983; Caccese & Mayerberg, 1984; Hunt, 1984).

Teaching is a demanding occupation in and of itself, however, some college educators also serve in the role of coach, another high stress position. Teacher-coaches may be at a particularly high risk for becoming burned-out. The dual-role of teacher and coach may compound stressors that are common to both roles, and stressors that are unique to each role (e.g., role conflict, role strain, and time contraints). Teacher-coaches are usually hired as bonafida faculty members, however, their occupational roles, job descriptions, and actual job responsibilies are often quite different than those of other faculty members (Massengale, 1977). Teacher-coaches are typically under similar tenure requirements as other faculty members (e.g., quality teaching, continuing education toward a terminal degree, and committee assignments), however, they often have the added expectation to build and maintain a quality athletic program and consistently produce a winning team. This compounding of roles and responsibilities may initiate the development of burnout, or exacerbate existing levels of burnout. The role conflict and role ambiguity inherent in the dual-role requirements of teacher-coach may be intensified. These factors have been shown to consistently influence burnout in other helping professionals (e.g., Maher, 1983; Schwab & Iwaniki, 1982). In spite of this, research in sport psychology or related sport areas examining burnout in teacher-coaches is virtually nonexistent. The literature that is available is descriptive and speculative at best with no theoretical foundation (e.g., Massengale, 1977; Segrave, 1980).

Previous research on stress and burnout among teachers in higher education and in coaches has been directed toward the following areas: (1) recognizing stressors within the educational setting (e.g., workloads, requirements of promotion and tenure, budget), (2) recognizing stressors within the athletic setting (e.g., demographic variables, leadership style, individual stressful situations), (3) identifying levels of burnout within the professions, (4) designing intervention programs aimed at preventing burnout. This approach provides a starting point for studying stress and burnout, however, developing a theoretical model for how stressors lead to burnout among teacher-coaches might provide a framework for a systematic line of research examining these issues.

The health psychology area has theory driven research and theoretical models that explain the relationship between stress and its consequences for health. These theoretical models place central importance on the cognitive appraisal process and the interaction between the person and his or her environment. The major assumption of the models proposed is that burnout results from repeated cognitive appraisals that there are mismatches between the demands of a situation and the individual's resources available to meet those demands (Cohen & Wills, 1985; Lazarus & Folkman, 1984, 1986). Perceptions of this mismatch between demands and resources can result in appraisals of threat or negative stress, which, in turn, activate any number of coping responses to deal with the perceived stress. If the coping responses are adaptive, the stress is reduced or eliminated. If the coping responses are maladaptive, then the stress and the potential to develop burnout remain.

Smith (1986) has developed a general model of stress and burnout that applies to the sport environment. Examining this model and the variables that seem most appropriate to teacher-coaches in particular, might provide a better understanding of the causes, progression, and, ultimately, the prevention of burnout.within this vulnerable population

Given the assumption and critical link that burnout is a function of perceived stress, it therefore makes sense to examine the variables that might influence the perception of stress. Although a number of variables influencing stress have been examined (e.g., hardiness, locus of control, type A behavior patterns, coping responses), the one that appears to have the strongest influence is social support. Numerous studies have provided evidence of the positive relationship between social support and general well-being among a variety of populations and contexts (e.g., Chisholm, Kasl, & Mueller, 1986; Cooper, 1881; Goplerud, 1980; Sarason, Levine, Basham, & Sarason, 1983). Social support is defined as the existence and/or availability of people we can count on in time of need, and who let us know that we are cared for, valued, and loved (Sarason, Levine, Basham, & Sarason, 1983). Both the amount of social support available and the overall satisfaction with that support function as important moderators of stress appraisal and consequently burnout (Cohen & Wills, 1985).

Other factors that have limited empirical support, but are nonetheless likely to influence perceived stress and burnout, are gender and the extent of teacher-coach experience. Studies examining burnout in coaches found females more susceptible to higher levels of burnout than males (Caccese & Mayerberg, 1983; Hunt, 1984). Also, the overall percentage of females in

major sport coaching positions as compared to males, has dramatically declined over the past decade (Acosta & Carpenter, 1987). Possible reasons given for the decline include the changing philosophy of women's sports after the dissolution of the A.I.A.W., inequities in budget allotments for men's versus women's programs, and on-the-job discrimination (Hasbrook, 1988); all of which might heighten the stress and burnout levels of the teacher-coaches remaining in the profession. Teacher-coach experience also influenced burnout with moderate experience (6-10 years) related to greater emotional exhaustion (Caccese, 1983) and more experience related to elevated feelings of personal accomplishment (Caccese, 1983; Capel, Sisley, & Desertain, 1987).

Statement of the Problem

The focus of this study was to develop and test a model of stress and burnout in dual-role teacher-coaches. The first purpose is to examine the contribution of stress appraisal to the prediction of burnout. The second purpose is to examine the relative contributions of social support, gender and experience to the prediction of stress appraisal. Finally, the third purpose is to examine the contribution of social support, gender, and experience to the prediction of burnout relative to the contribution of stress appraisal. Established measures of social support, perceived stress, coaching problems, and burnout, and a measure of perceived stress within the athletic environment developed for this study were used to investigate the aforementioned relationships.

Significance of the Study

Limited research findings in the area of coach burnout are inconsistent due to a number of factors. First, investigations of burnout in the athletic environment have not been theory driven; therefore, examination of variables has not been logical or systematic. Second, global measures of perceived stress used in previous investigations may not accurately measure stress and burnout in the athletic environment. Third, measures of burnout have not been taken at the same time in seasons across sports or studies. Furthermore, burnout in dual-role teacher-coaches has not been empirically addressed.

This study attempts to bridge the gap between isolated research efforts, experiential observation, and intuition, by building a theoretical model of stress and burnout in dual-role teacher-coaches. The proposed investigation will further address shortcomings of previous research by collecting data from head basketball coaches only, at the same specified period of time (the month of February) in the season, and by using role-specific measures to assess stress.

The general schematic representation, or path diagram, of the proposed model of burnout in dual-role teacher-coaches is presented in Figure 1. In this model, social support, gender, and teacher-coach experience are exogenous variables assumed to be determined by variables outside the model. Stress appraisal and burnout are considered endogenous or caused by variables that will be assessed in the model. The hypothesized model is derived from Smith's (1986) theoretical model in the area of athletic burnout which uses a stress buffering model (Cohen & Wills, 1985) as the

underlying theoretical framework. Within the hypothesized model, perceived stress directly leads to burnout, and social support, gender, and experience all influence stress appraisal and thus, indirectly, influence the levels of burnout.

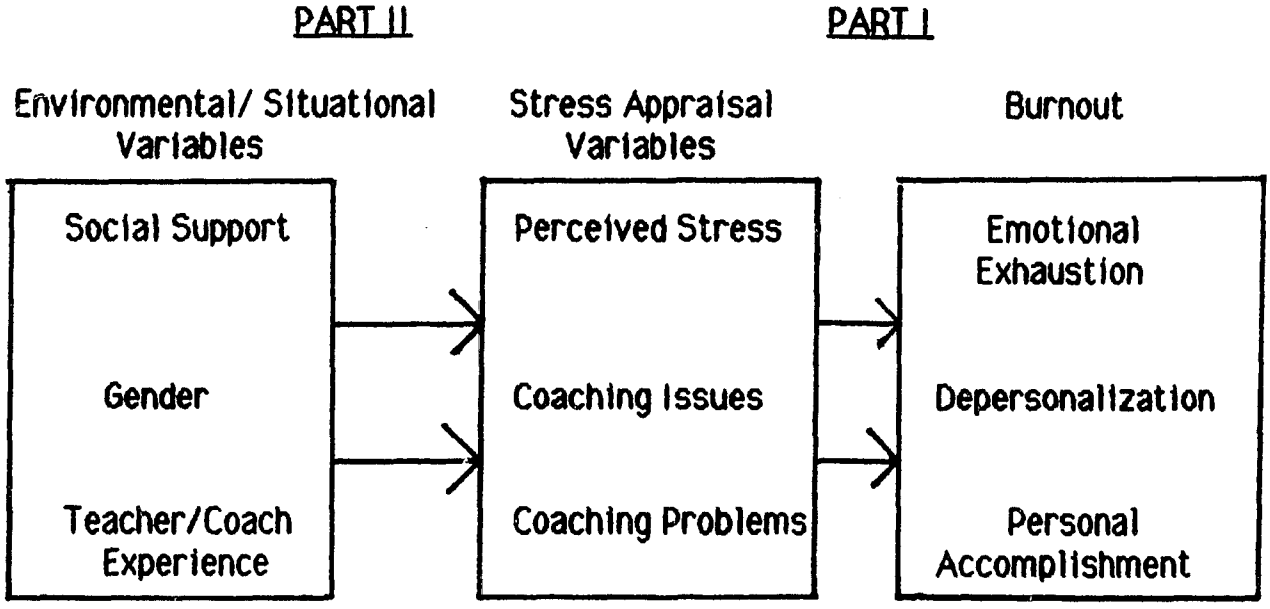


Figure 1. The Hypothesized Model

Hypothesized Relationships

The proposed model focuses on the variables of social support, gender, and experience which can influence the appraisal of stress and thus influence the development of burnout. These three variables appear particularly appropriate for influencing stress in dual-role teacher-coaches and have yet to be investigated in relation to burnout in this population.

Hypothesis One

It was hypothesized that stress appraisal directly predicts burnout; the greater the appraisal of stress, the higher the level of burnout. The three components of stress appraisal (perceived stress, coaching issues, and coaching problems) are all assessing the construct, stress, and thus, were not divided into individual hypotheses.

Research linking stressful life events, daily hassles, and generalized global stress to psychological distress and physical symptomology has consistently focused on stress appraisal as an integral component in the process (e.g., Gentry & Kobasa, 1985; Johnson & Sarason, 1979; Perlin et. al, 1981; Suls & Mullen, 1981). Investigators have argued that the causal or stressful event is the cognitively mediated emotional response to the objective event, not the objective event itself (e.g., Cohen, Karmarck, & Mermelstein, 1983; Lazarus, 1977; Mason, 1971). In addition, Smith's (1986) model of burnout in athletics emphasizes the role of cognitive appraisal or perceived stress in the development of burnout.

Hypothesis Two

It was hypothesized that social support directly predicts stress appraisal and indirectly affects burnout. The larger the social network and the greater perceived support from these relationships, the lower the appraisal of stress and burnout.

Although results are mixed in relation to social support and the buffering effect on stress, several investigations have demonstrated main effects for support on perceived psychological and, to a limited extent, physical stress,

and significant stress by support interactions (e.g., Cohen & Wills, 1985; Schaefer, Coyne & Lazarus, 1981; Eaton, 1978; Gore, 1978). These findings provide support for the social support-stress and the social support-burnout relationships, in that individuals with higher levels of perceived social support and satisfaction with that support are likely to be in better physical and mental health (Thoits, 1982). Thus, social support may short circuit the effects of stress within the appraisal stage and mitigate against manifestation of high levels of burnout.

Hypothesis Three

It was hypothesized that gender directly predicts stress appraisal and indirectly predicts burnout. Females would report higher appraised stress than males and experience higher levels of burnout as a result.

Although several studies have led to somewhat equivocal results in relation to gender differences and levels of burnout, it is believed that the dual-role females in this study will experience higher levels of burnout. Female coaches scored higher on both the intensity and frequency of emotional exhaustion (Caccese, 1983; Hunt, 1984) and lower on personal accomplishment than males (Caccese, 1983). The hypothesized model assumes that it is stress appraisal that leads to burnout and if females had higher levels of burnout, they would have higher levels of stress appraisal.

Hypothesis Four

It was hypothesized that coaching-teaching experience directly predicts stress appraisal and indirectly predict burnout. The fewer the years of teaching-coaching experience, the greater the perceived stress and the higher the burnout.

Studies found teacher-coach experience influenced burnout with moderate experience (6-10 years) related to increased feelings of emotional exhaustion (Caccese, 1983) and greater experience related to a greater sense of personal accomplishment (Caccese, 1983; Capel, Sisley, & Desertain, 1987).

These hypotheses were generated from empirical evidence, theoretical foundations, pilot interviews with dual-role teacher-coaches, and the investigators' logic and intuition. In addition to the hypothesized relationships, other relationships not depicted in the model may occur. For example, gender may relate to years of experience, but the literature is too inconclusive to make a definite hypothesis. The investigator attempted to remain open to these possibilities throughout this research study.

CHAPTER II

REVIEW OF LITERATURE

This literature review focuses on relevant research in the specific area of burnout. Burnout will be examined in relation to the: a) definition, b) syndrome, and c) etiology. Stress and its relationship to burnout will be discussed, and in addition, a model for understanding how the appraisal of stress may lead to the development of burnout will be presented.

This study examines burnout in teacher-coaches employed at the collegiate level. Therefore, the limited literature available on burnout in higher education will be addressed, as well as the scarce findings related to the profession of coaching and the dual-role of teacher-coaches. The model of stress and burnout in sport that was used as the prototype for the proposed model of burnout developed for this study will be reviewed and explained. Finally, the review will summarize relevant information pertaining to mediators of stress and burnout and, in particular, social support as it relates to burnout. By the end of this review of literature, the reader will have a better understanding of the definition of burnout, how burnout differs from stress, how burnout has been researched in higher education, coaching, and dual-role teacher-coaching, how social support works as a mediator to stress and burnout, and what models are most appropriate to begin a systematic line of research to better understand the burnout phenomenon in dual-role teacher-coaches at the college level.

Burnout

Definition

Freudenberger (1974) is credited with first using the term burnout as it is used in this study. Drawing on observations made while working intensely in the free clinic movement, he described the burnout victim as "someone in a state of fatigue or frustration brought about by devotion to a cause, way of life, or a relationship that failed to produce the expected reward" (p. 13). Burnout begins slowly but is a chronic condition evidenced by physical and behavioral signs, such as "a feeling of exhaustion and fatigue; a feeling of pressure and being overburdened; rigid, stubborn and inflexible thinking; depression; and working longer hours while accomplishing less and less" (1974, p. 160-161). Individuals most prone to burnout are those who are idealistic, committed, and seeking to respond to the needs of people.

Freudenberger's original definition and conceptualization was the impetus for tremendous volumes of research and writing about burnout, particularly during the period from 1974 to 1982. Interest and research into the burnout phenomenon has continued to increase. Nevertheless, little additional progress has been made in advancing beyond the formulations provided in the literature produced during that early time period.

Early studies on burnout were primarily descriptive or narrative, relying on single or multiple case studies, interview methodologies, or the author's personal experiences. Numerous categories of helping professionals were examined, including: social service workers (Armstrong, 1977); pastoral counselors (Collins, 1977); public sector professionals (Cherniss, 1980);

free clinic workers, alternative institution staffs, child-care workers (Freudenberger, 1974, 1975, 1977); health professionals, human service providers, helpings professionals, human services providers in institutions (Maslach, 1976, 1977, 1978a, 1978b, 1979); legal services attorneys and policemen (Maslach & Jackson, 1978, 1979); mental-health professionals (Pines & Maslach, 1978) ; and teachers (McGuire, 1979) (Perlman & Hartman; 1979).

Studies by the Berkeley Planning Associates (1977), which examined burnout in child abuse workers, and the work of Maslach and Jackson (1981) in their development of the Maslach Burnout Inventory, were the first to empirically explore the underlying dimensions of burnout and to provide data beyond the descriptive level (Perlman & Hartman, 1982). Although different methodological perspectives were used in those early and more recent studies of burnout, the findings were "mutually corroborative and provided a wealth of data and insights into the phenomenon of burnout" (Farber, 1983, p. 3).

In spite of the attention burnout has received, there is no current consensual definition. Proposed definitions of burnout have been based on symptoms (e.g., Freudenberger, 1974; Hendrickson, 1979; Maslach, 1976; Watkins, 1983), stress (e.g., Daley, 1979; Kamis, 1980; Perlman & Hartman, 1982), and both symptoms and stress (Cherniss, 1980; Maslach, 1978b). Maslach (1982b), one of the premier researchers in the area, has lamented that

> not only do the definitions of burnout vary from each other to greater or lesser degrees but different terms are sometimes used for similar

> concepts; some definitions are limited, while others are wide ranging; some are precise, while others are global; some refer to purely psychological conditions, while others are actually behaviors; some describe a state or syndrome, while others talk about a process; and some make references to causes, others to effects (p. 31).

For example, Welch, Medeiros, and Tate (1982) proposed a complex process that affects at least five major areas of functioning : (a) physical, the energy one brings to whatever one needs or wants to do; (b) intellectual, the sharpness with which one thinks and solves problems; (c) emotional, the general positiveness or negativeness of one's emotional life; (d) social, feelings of isolation versus feelings of involvement; and (e) spiritual, the degree of meaning one feels in one's life.

Meanwhile, Pines and colleagues (Pines & Aronson, 1981; Pines, Aronson & Kafry, 1981) describe burnout as a state of mind that frequently affects individuals who work with other people, especially in the helping professions, who give much more to their clients, supervisors, and colleagues than they receive, and who were at one time among the most idealistic and enthusiastic. Physical depletion, feelings of helplessness and hopelessness, emotional drain, psychological fatigue, negative self-concept, and little enthusiasm about work and life in general are all characteristics of burnout. In a similar vein, Edelwich and Brodsky (1980) describe burnout as a "progressive loss of idealism, energy, purpose, and concern as a result of conditions of work" (p. 14).

A systematic line of research by Maslach (1976, 1978a, 1978b, ,1982, 1982a, 1982b) and colleagues (Jackson & Maslach, 1982a, 1982b; Maslach & Pines, 1977; Maslach & Jackson, 1979, 1981, 1982; Pines & Maslach, 1978,

1980) has greatly facilitated the understanding of burnout. Their extensive body of work has provided not only a more fully developed conceptualization of burnout, but also a psychometrically sound instrument to measure burnout. The Maslach Burnout Inventory (Maslach & Jackson, 1981, 1986) is the most widely used research instrument for measuring burnout. Its development has tremendously advanced empirical study of the phenomenon in addition to providing an operational definition of burnout.

Maslach and colleagues, drawing on common core elements from their work and the work of others, define burnout as a

> syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do people work of some kind. It is a response to the chronic emotional strain of dealing extensively with other human beings, particularly when they are troubled or having problems. Thus, it can be considered one type of job stress. Although it has some of the same deleterious effects as other stress responses, what is unique about burnout is that the stress arises from the social interaction between helper and recipient (Maslach, 1982, p. 3).

The three components of burnout described in the preceding definition are emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion is characterized by feeling exhausted by one's work, feeling as if one's emotional resources are depleted, feeling overwhelmed by the emotional demands imposed by other people and feeling helpless, hopeless, and trapped (Maslach, 1982; Maslach & Jackson, 1981, 1986; Pines & Aronson, 1988). Features of depersonalization include a negative shift in responses to others, development of dehumanizing attitudes toward the recipients of one's services, and a psychological and sometimes physical

distancing of oneself from those being served (Maslach, 1982; Pines & Aronson, 1988). Reduced personal accomplishment refers to "the tendency to evaluate oneself negatively, particularly with regard to one's work with clients. Workers may feel unhappy about themselves and dissatisfied with their accomplishments on the job (Maslach & Jackson, 1986, pg. 1).

Stress experienced within and/or as a result of one's occupation is commonly referred to as job stress. Job stress and burnout are terms which have meanings with considerable overlap; however, the terms are not synonymous, nor are they the same conceptually. Burnout is a unique form of job stress that results from extended periods of work involving often emotionally charged interpersonal interactions. Individuals within the helping and human service professions are most prone to burnout because their jobs are often characterized by such interactions.

Although there is still a lack of consensus about the exact definition of burnout, the definition proposed by Maslach (1976, 1978a, 1978b, 1981,1986) and colleagues (Jackson & Maslach, 1982; Maslach & Pines, 1977; Maslach & Jackson, 1979, 1981, 1982; Pines & Maslach, 1978, 1980), is the operational definition that will be used for the present investigation.

Symptoms of burnout

Symptoms and negative consequences of burnout have received considerable attention. Maher (1983) provides a comprehensive, composite description of the symptoms of burnout derived from a review of fourteen sources. Those symptoms include: exhaustion, fatigue, psychosomatic illness, insomnia, negative attitudes toward clients, negative attitudes

toward work, poor work performance, absenteeism, increased dependence and use of chemical agents (alcohol, tobacco, drugs, coffee), loss of appetite or overeating, negative self-concept; aggressive feelings (irritability, restlessness, tension, anger, paranoia), passive feelings (cynicism, pessimism, hopelessness, apathy, depression, boredom, meaninglessness), and guilt. Interestingly, the distribution of the symptoms across studies indicates that "no single symptom was mentioned by all authors, even when similar symptoms were grouped to allow for differences in terminology. The largest common area, negative attitudes toward work, is found in only six of the sources" (p. 390). The diversity of symptoms suggests that a definitive set of burnout symptoms has not yet been identified, that burnout needs to be examined on a population by population basis, and that considerable variability likely exists.

Etiology

Much of the empirical research has attempted to identify factors related to the development of burnout (e.g., Berkeley Planning Associates, 1977; Gann, 1979; Metz, 1979; Maslach, 1981a, 1981b, 1982, 1982b; Westerhouse, 1979). Perlman and Hartman (1982) extensively reviewed 48 articles, dissertations, and/or books on burnout and summarized the variables discovered to be significantly related to the development of burnout. Figure 2 represents that summary.

Organization characteristics	Perceptions of organization	Perceptions of role	Individual characteristics	Outcome
Caseload	Leadership	Autonomy	Family/ Friends	Satisfaction
Formalization	Communication	Job involvement	Sex	Turnover
Turnover rate	Staff support	Being supervised	Age	
Staff size	Peers	Work pressure	Tenure	
	Clarity	Feedback	Ego level	
	Innovation	Meaningfulness		
	Administrative support			

Figure 2. Variables Significantly Related to Burnout (Perlman & Hartman, 1982, p. 294).

Similarly, Maher (1983) identified and classified factors that were reported to cause burnout. Those factors included: an excessively large or difficult client load (with "client" referring generically to all the various recipients of service-students, patients, social service cases, legal clients,etc.); long hours, overall long period of time without adequate time-off; ambiguous role demands and/or expansion of the role to include too many secondary duties, especially administrative duties; lack of felt control over outcomes; monotony; isolation or poor relationships with colleagues, superiors, or clients; lack of preparation for dealing with job stress; and personality changes, especially unrealistic expectations and guilt (p. 391). Role difficulties were the dominant conditions in the production of burnout (Maher, 1983). Greater role ambiguity and additional secondary role responsibilities influenced role satisfaction, which, in turn, influenced burnout. A lack of control over outcomes and the accompanying feeling of powerlessness were also common factors leading to burnout.

Stress

One area that does not appear under dispute is the underlying precursor of burnout. Burnout is a syndrome that results from prolonged exposure to experiences perceived as stressful. Simply stated, stress, over time can lead to burnout.

However, stress, like burnout, is a term that lacks clarity and a single accepted definition. The definition of stress has moved from being thought of as something within the environment, to a more interactional view in which events within the environment are neutral, and the individual's interpretation or perception of those events determine whether it is or is not stress.

Selye (1956), the pioneer of stress research, examined stress in relation to biological and disease processes within the body.and defined stress as "the rate of wear and tear on the body" (Selye, 1976, p. 1), and "the nonspecific response of the body to any demand" (Selye, 1979, p. 12). Selye's (1956) investigations of the effects of unpleasant or noxious stimuli on animals revealed that a relatively consistent set of physiological responses were emitted in the presence of unpleasant situations. Selye referred to these unpleasant situations as stressors. He labeled the entire nonspecific response the "general adaptation syndrome" and proposed that the syndrome evolves over time through three stages: alarm reaction, resistance, and exhaustion (1976). Selye (1976) suggested that individuals are born with a certain amount of adaptation energy with which to meet the demands placed upon the body by stressors and that once depleted, the body's ability to cope and react will be inhibited.

More recently, researchers have attempted to translate Selye's stress response paradigm into social psychological terms, reinforcing the notion that stress has both psychological and physiological dimensions (Dohrenwend, 1986). Spielberger (1981) noted that "stress refers to both the situations and circumstances that place physical or psychological demands upon the individual and the emotional reactions that are experienced in these situations" (p. 65).

Conceptualization of stress in the social sciences has increasingly moved toward the position that stress is multivariate in nature, and cannot be viewed as a unidimensional variable or event that interacts with the individual. Lazarus (1966) viewed stress as a transaction between a person and his or her environment. More recently, Lazarus and Folkman (1986) suggested that

> stress is just a handy term to refer to the operation of many variables and processes where demands tax or exceed the person's resources and the person appraises the encounter as relevant to well-being, engages in coping processes, and responds cognitively, affectively, and behaviorally to feedback about what is happening (p. 51).

Despite how stress is approached, the important role of interpreting and appraising events in defining stress is supported (King, Stanley, Burrows, 1987; Lazarus & Folkman, 1984; Meichenbaum, 1986; Ray, Lindop, & Gibson, 1982; Spielberger, 1986). The stress process can be summarized in the following manner:

> Stress transactions are initiated by any situation or stimulus that is perceived as potentially harmful, dangerous, or frustrating (stressor)...If

> the stressor is interpreted as threatening, an emotional reaction will be evoked. Thus, threat refers to an individual's perception or appraisal of particular circumstances as potentially dangerous or frustrating. Whenever a situation is seen as threatening, irrespective of whether the danger is real or imagined, the sense of threat will lead to an unpleasant emotional reaction. Thus, stress may be defined as a process that involves the following temporal sequence of events:
> Stressor -------*Perception of threat*-------Emotional reaction (Spielberger, 1986, p. 67, italics added).

It is important to note that stress, in and of itself, is neither inherently bad nor good. Katkin (1986) advances, "there are no inherently stressful stimuli" (p. 47) and suggests that

> the essential ingredient of the psychological stress response is distress. This distress may be expressed behaviorally, as in the disruption or degradation of a task performance. It may be expressed phenomenologically, as in the subjective experience of anxiety or dysphoria. And finally, the distress may be expressed physiologically, as distressing autonomic activity (p. 46).

Important to this position is the view that stress is assessed in terms of its relevance to the demands of the situation, and thus generates a response which may be either maladaptive, in which case the stress would not be eliminated, or reduced, or adaptive and facilitative, resulting in the reduction or elimination of stress.

The symptoms of stress are many and far too numerous to mention, but some general physiological and psychological reactions have been forwarded. Common psychological symptoms of stress include "a general feeling of uneasiness, irritability, inability to have a good laugh, a sense of despair, feelings of isolation, and lowered concentration" (Griffin, 1989).

Common physiological symptoms of stress include: "increased blood pressure, sudden weight gain or loss, inability to sleep, feeling of constant fatigue, headaches, muscle spasms, shortness of breath, and, nervous energy" (Griffin, 1989). There are considerable similarities between the symptoms of stress and burnout. However, it should be noted that the symptoms of stress are precursors to the burnout syndrome, in that prolonged perceived negative stress leads to the development of burnout.

Although it appears that stress has many negative consequences, Griffin (1989) notes that stress is a natural part of living and can be conceived as anything that requires us to adapt. Without some stress, the opportunity to cope successfully and gain strength from experience as well as find challenge and meaning in life, might not be available (Katkin, 1986). Thus stress may not always have negative consequences and it is vital that stress be examined from the vantage point of whether or not the stress is distressing and producing a negative adaptation response within the individual.

Stress can thus be understood as a discrepancy between the perceived demands of a situation and the perceived abilities to cope with and adapt to those demands. The greater the discrepancy between the situational demands and individual's resources, the greater the distress and resulting psychological, physiological, or emotional response. Once the available adaptation energy is depleted, negative consequences and maladaptive coping responses may occur, producing some of the psychological and/or physiological symptoms mentioned previously.

A model from health psychology, that parallels stress theory, may be helpful in understanding the role of the perception of stress and the resulting consequences. One such model is the stress buffering model proposed by Cohen and Wills (1985).

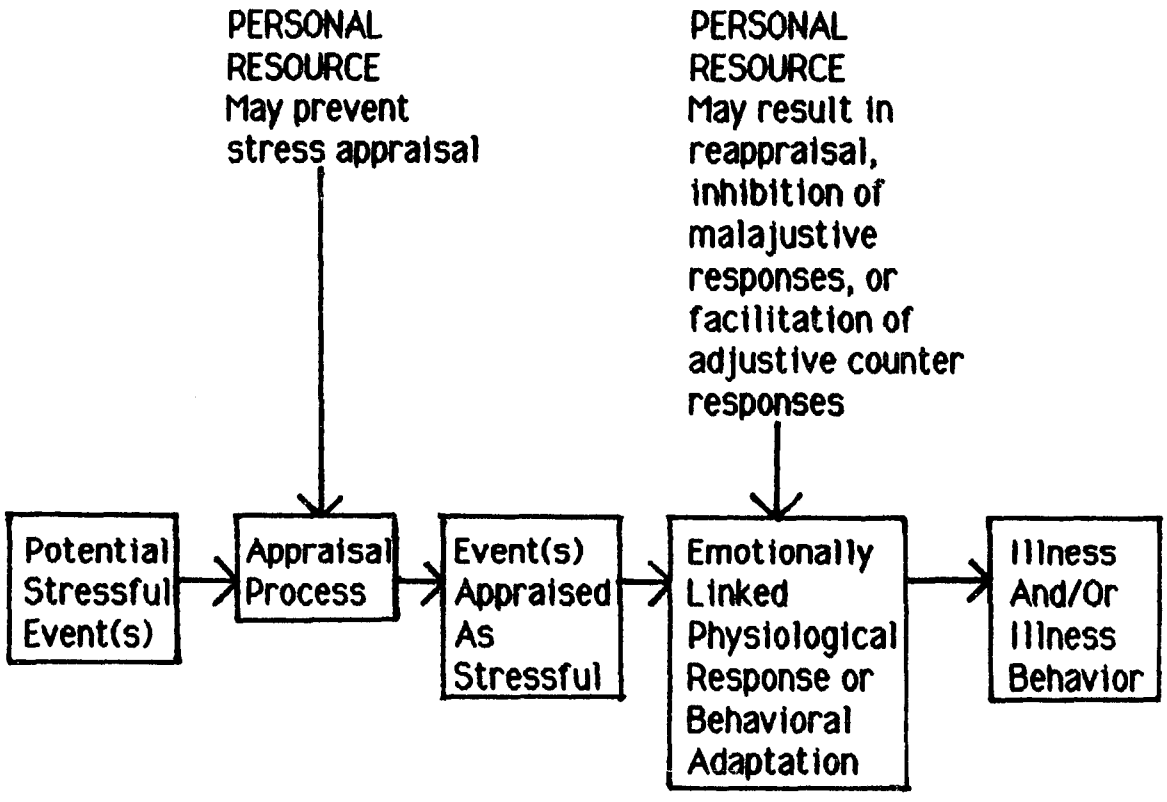


Figure 3. Stress Buffering Model (adapted from Cohen & Wills, 1985, in Cohen & Edwards, 1989, p. 238).

According to this model (see Figure 3), the negative consequences of illness and/or illness behavior are influenced at two major points by personal resources (moderator variables). First, moderator variables can intervene between stressful events (or event expectations) and a stress reaction

through mediation in the appraisal process, thus preventing an attribution of stress. The perception that personal resources are adequate to meet the demands of the stressful events would lead to an appraisal that could increase coping efficacy, thereby redefining the events as nonthreatening. An opposite perception would lead to an appraisal of the events as highly stressful.

Second, personal resources can intervene between the stress reaction and development of illness and/or behavior by influencing coping ability and affect. This influence can result in a reappraisal of the situation, inhibition of maladjusted responses, or facilitation of adjustive or appropriate counter responses. In summary, personal resources may intervene to prevent the appraisal of threat or to facilitate coping.

The transactions within the model are dynamic, in that many common stressful events are chronic and repetitious. Thus, over the course of the stressful event or series of events, it is likely that the stress buffering effects of some resources may vary and that different coping resources may be more or less appropriate at different phases of the stressful event or series of events. Furthermore, the probability of stress buffering effects is increased when there is a reasonable match between the demands of the stressful events and the available resources. The model is unidirectional and depicts the process whereby potential stressful events are related to stress-induced pathology via the appraisal mechanism, which is mediated by personal resources at two separate stages.

Summary

In summary, burnout is viewed as the result of prolonged stress. Stress is viewed as an ongoing interactive process in which the person interacts with the environment and must determine whether he or she perceives a mismatch between the demands of the task and the resources that are available in that situation. Moderator variables (e.g., personal resources) can intervene between stressful events and the appraisal of stress or between the stress reaction and the development of negative responses to stress (e.g., illness). A major focus of this study was to further explore the relationship between the appraisal of stress and burnout among individuals employed as dual-role teacher coaches at the collegiate level.

Burnout in Education

As with other helping professions, studies of teacher stress and burnout came into prominence in the decade following the original work done by Freudenberger in 1974. International concern over this issue is evidenced by the proliferation of research and commentary in this country and around the world (i.e., UK, Kyriacou & Pratt,. 1985; Israel, Kremer & Hoffman, 1985; Australia, Laughlin, 1984; Sweden, Tellenback, 1982; in Kyriacou, 1987). However, this research effort has been focused primarily at the elementary and secondary level. Educators in higher education have been virtually ignored in the search to identify and remediate dysfunctional stress that can later manifest itself as burnout.

It is unlikely that the sources of teacher stress for the university faculty member are equivalent to those of the primary or secondary school teacher. There is, of course, some overlap in the precursors of stress at all levels of teaching, but there also is likely to be considerable disparity in the demands and resources inherent in these two different environments. This review focuses on stress and burnout research in the realm of higher education.

The precursors of burnout in higher education have been identified as increased job demands, conflicting and/or overloaded roles, and a general feeling that one is losing control over one's life (Melendez & deGuzman, 1983). The educators most at risk are those who are most competent and committed, those who strongly value what they are doing and strive for excellence, and those who give more of themselves than they receive in return (Melendez & deGuzman, 1983; Pines et al., 1981).

Burnout in education is an enigma that remains misunderstood and misinterpreted. It can easily and somewhat mistakenly be viewed as a common condition in which job dissatisfaction influences job performance (Armour, Caffarella, Fuhrmann, & Wergin, 1987). Teacher burnout, however, is a syndrome arising from prolonged teacher stress, primarily characterized by physical, emotional, and attitudinal exhaustion, which can be viewed on a continuum moving from lesser to greater levels of perceived and experienced burnout (Kyriacou, 1987; Melendez & deGuzman, 1983).

Work-related stress that leads to burnout is present among college faculty. Melendez and deGuzman (1983) surveyed 1,957 faculty members and administrators at 17 two- and four- year colleges. Approximately 19%

or one fifth of those surveyed were experiencing severe stress in their work positions while an additional 43% indicated they experienced moderate levels of stress. Conversely, only 11% reported never feeling stress from their work.

Sources of faculty stress were categorized as those related to colleagues, students, and administration. Overall, faculty apathy, student apathy, and excessive work loads were identified as the primary stressors. Teamwork and lack of respect for colleagues were additional significant sources of stress. Student related stressors, over and above apathy, included students' expectation for high grades and a general decline in academic skill among entry-level students. Workload was followed closely by budget constraints and lack of faculty participation in decision-making involving administrative concerns (Melendez & deGuzman, 1983). Taken together, these job-related situations cover a broad spectrum of stressors that bombard faculty and administrators on a daily basis and place them at risk for experiencing burnout.

Similar results are reported by other researchers (Armour, Caffarella, Fuhrmann, & Wergin, 1987; Johnson, 1987; Margarrel, 1982; Peters & Mayfield, 1982) who also found faculty perceiving high levels of stress.

Seldin (1987) proposed the following reasons for the attenuated stress levels present on college campuses today:

1. Requirements for promotion and tenure are so stringent today as to be unrealizable for many in academics.
2. Academic retrenchment, jobless faculty, inflation, and the changing composition of student bodies are altering the academic environment.

3. Professors are more aware today of the wide discrepancy between their hopes and expectations and the actual rewards offered by their profession.
4. Fewer job-change opportunities are available, and many faculty members see themselves as imprisoned in their jobs with little chance to ascend the academic latter.
5. Many full-time faculty members perceive part-time faculty members, who are growing in numbers, as a potential job threat (p. 14).

Johnson (1987) investigated burnout and morale at Evergreen Community College. 105 faculty completed the MBI to assess frequency and intensity of experienced burnout. Results indicated that as a whole, the EVC faculty was experiencing moderate levels of emotional exhaustion and depersonalization and low levels of personal accomplishment, indicating the presence of burnout. The analysis confirmed that burnout was a significant problem among faculty members at this community college, with approximately one-fifth of the faculty experiencing some phase of burnout.

Claggett (1980) examined burnout in a sample of community college teachers in an attempt to identify the sources of stress for this population and the strategies underlying the reduction of such stress. Sixteen faculty small groups were formed to discuss the issue of burnout and stress and to formulate action plans for coping. The six primary stressors that were collectively identified by the vast majority of the discussion groups were: administrative-related (e.g., lack of participation in decision-making, emphasis on the quantity of students rather than the quality, the large number of nonteaching assignments); student-related (e.g., decline in student preparedness, lack of student motivation); peer-related (e.g., apathy among fellow faculty members, lack of faculty interaction); financial-

related (e.g., salaries fail to keep up with inflation, pay ceilings); working conditions (e.g., too many classes taught with multiple preparations, lack of privacy to concentrate); and personal (e.g., striving to satisfy needs for both professional and private lives, lack of intellectual outlets).

An interesting contrast can be made between the concerns of the community college faculty members, where teaching is the focus, and those of four-year doctoral degree granting institutions, where an emphasis on research for tenure is prevalent. Gmelch (1987) administered the Faculty Stress Index (FSI) to 1,920 faculty members from 40 public and 40 private doctoral granting universities in the U.S. and discovered that 60% of the total stress in the faculty members' lives was attributed to factors at work. The 10 most prominent stressors were: excessively high expectations for oneself; obtaining financial backing for research; not having enough time to remain current in one's field; low pay; pressure to perform research and produce publications; demands of work interfering with private lives; stagnation in one's career; too many interruptions during the day; and required attendance at a number of meetings. Of the three areas of teaching, research, and service, teaching was perceived to be most stressful, irrespective of discipline. This may result from the knowledge that faculty are "supposed" to devote time and energy toward being a quality teacher, and yet they are rewarded primarily for their research accomplishments.

The 40-item FSI was examined by use of a principal components, varimax solution factor analysis. Five factors were generated and interpreted as: faculty reward and recognition; time constraints; building and maintaining a

professional identity; interactions with students; and departmental influence (particularly in relation to the chair) (Gmelch, 1987). Faculty perceived significant amounts of stress in a work situation in which there was a lack of rewards and recognition, insufficient time for responsibilities, ambiguous goals, confrontational interactions with students, and a lack of involvement in departmental decision making. The preceding factors led the faculty to a sense of low accomplishment and lack of control.

In a similar attempt to identify those factors that promote faculty stress, Seller and Pearson (1984-85) measured four sets of variables in a sample of 336 professors. Following conceptualizations of burnout proposed by Maslach (1976, 1978a; Pines & Maslach, 1980) and Freudenberger and Richardson (1980), levels of work environment satisfaction, personality characteristics, and coping techniques were treated as independent variables while level of stress as evidenced by changes in attitude was the dependent variable.

Factor analyses followed by discriminant analyses yielded a final function which correctly identified high stress versus low stress groups at a level of 91%. The factors that entered into the final function included: environmental factors of overall teaching load and summer financial support; personality factors of goal-oriented, high achiever, and self-confident; and the coping techniques of developing camaraderie and taking time for recreational activities (Seller & Pearson, 1984-85). The composite teacher experiencing lower stress levels had a lower overall teaching load, received summer funding, was self-confident and high in goal

and achievement orientation, received social support through camaraderie with others, and took time out for recreational pursuits.

In summary, there is a potential for the development of burnout among faculty in higher education. However, current writings may not accurately reflect the problem of burnout among college faculty because of the paucity of empirical investigations. The work that has been done indicates that environmental variables (e.g., lack of decision making by faculty, excessive workloads, budget constraints, the pressure experienced by tenure and promotion process, and student apathy) lead faculty to feel a lack of control; the most pervasive precursor to burnout.

Coaching Burnout

Coaching is a highly stressful profession. There appears to be no dispute over that fact in the literature, among administrators or, most importantly, among the coaches themselves. In spite of this fact, research into the area of stress and burnout among coaches is rather limited. The majority of work that is available is anecdotal and descriptive rather than empirically based.

Early evidence of the stress involved in coaching comes from examining heartrates of coaches prior to, during, and following competition. Results revealed significant increases in stress levels (indicated by elevated HR) after the start of competition which persisted throughout the contest (Gazes, Sovell, & Dellastatious, 1969; McCaffert, Gliner, & Horvath, 1978). Individual coach differences and situational factors (e.g.,importance of the

contest, type of sport, specific actions within the contest) appeared to interact in determining the stress levels experienced by coaches. However, several researchers (Gazes, Sovell, & Dellastatious, 1969; McCaffert, Gliner, & Horvath, 1978).believed these stress reactions are often unexpressed externally and the coach may appear relaxed, calm, and in complete control from an observers point of view. It is probable that this facade may add additional stress to an already tense situation.

The pressure dimension of coaching was examined by Lackey in 1975, 1982, and again in1986. He surveyed private and public high school principals in Nebraska. Principals were asked to identify the origin of pressure on coaches, in what sports the pressure was most salient, and what the consequences of such pressure might be. Findings were quite consistent across all three studies, with the exception of the emphasis placed on winning and losing. A distinct shift in the emphasis placed on winning and losing was observed between the two data collections. The focal reasons for dismissal changed from poor relations with players and students in 1975 to wining and losing in 1982. This shift serves to highlight the societal view of athletics in all spheres, from low organizational, semi-competitive to highly competitive professional athletics; society wants a winner (Lackey, 1986). Coaches also realize this desire, which may compound the pressure they experience.

The principals surveyed felt the coaches experienced at least moderate degrees of pressure to meet some externally imposed standard of excellence. Boosters, patrons, and fans were identified as the most significant source of pressure for the coaches. This source was closely

followed by pressure exerted by parents and the pressure coaches place on themselves. Sports that carried the greatest pressure were basketball and football for boys and basketball and volleyball for girls (Lackey, 1986). In other words, the high visibility team sports produced the most pressure.

Lackey (1986) found the consequences of pressure can be felt in a number of areas of coach functioning. Approximately half (47%) of the principals believed this pressure was severe enough to lead to dismissal and, in fact, approximately one-fourth of the coaches were removed from their positions over a two-year period. Reasons provided for the dismissals fell under five categories: poor human relations, inadequate win-loss percentage, poor coaching performance due to a lack of organizational and technical skills and knowledge, inappropriate personal conduct on the part of the coach, and various miscellaneous reasons (e.g., inability to be an effective teacher, breaking a player confidence).

In a related study, Kroll and Gundersheim (1982-83) investigated stress among 93 male high school coaches in a wide range of sports. Survey and interview procedures were employed to examine the circumstances that caused "concern, apprehension, worry, and emotional turmoil for these coaches" (p. 47). The study focused on day-to-day stressors involved in coaching rather than stress during competition. All 93 coaches believed that coaching was a stressful profession and that the degree of emotional stress experienced was largely a result of the many diverse situations encountered. Furthermore, all coaches said they experienced anxiety to varying degrees prior to the start of competitive contests. Lack of respect from players was the most often cited source of stress, followed closely by

feeling unappreciated by players, administrators, and the public in general. In addition, concerns relevant to not being able to reach players, use of incorrect strategies, and being out-coached all produced heightened stress (Kroll & Gundersheim, 1982-83).

In summary, early investigations examining stress and pressure in coaching support the position that coaching is a highly stressful and pressure-filled career. Coaching is stressful on both physiological and psychological levels. The pressure placed upon coaches comes from within their own programs with additional pressure to perform well and win coming from the community.

The previously discussed studies, although informative, are limited. They are limited primarily because they are purely descriptive in nature, are only about high school coaches, and offer little generalizable evidence as to the relationships between stress, the factors that exacerbate the stress, and the pressure experienced by both male and female coaches. Caccese (1983), Caccese and Mayerberg (1984), Hunt (1984) and Dale and Weinberg (1989) conducted investigations that went beyond these methodologies to research prolonged stress in the form of burnout among college coaches.

Caccese (1983) investigated burnout in coaching with 231 N.C.A.A. and A.I.A.W. head coaches who completed the MBI (Maslach & Jackson, 1981) and a demographic information questionnaire. The six burnout factors of emotional exhaustion, depersonalization, and personal accomplishment (both frequency and intensity) were treated as dependent variables. The emotional exhaustion subscale characterizes feeling emotionally depleted. The depersonalization subscale characterizes the need to distance oneself

from those one works with and personal accomplishment is characterized by feeling one's job has little meaning (Maslach & Jackson, 1981). Seven demographic variables of age, sex, marital status, total years coaching, years in present coaching position, coaching success, and type of sport coached, were considered independent variables.

Results of the MANOVA analyses indicated the following:

1. Coaches 30-34 years old exhibited higher levels of burnout than coaches of all other ages.
2. Female coaches scored consistently higher than males in both the frequency and intensity of perceived emotional exhaustion.
3. Single coaches reported stronger feelings of emotional exhaustion than either married or divorced coaches. Additionally, single and divorced coaches perceived reduced personal accomplishments as compared to married coaches.
4. Coaches with 6-10 years of experience perceived greater emotional exhaustion and reduced personal accomplishment than more or less experienced coaches. Furthermore, more experienced coaches (7-15 yrs.) felt stronger and more numerous feelings of personal accomplishment than the less experienced coaches.
5. Those coaches with a winning percentage of 41 to 60 % reported the greatest feelings of emotional exhaustion.
6. Individual sport coaches reported more emotional exhaustion and less personal accomplishment than did team sport coaches.
7. Years in present position had no relationship to scores on the MBI.

8. The overall burnout levels of the coaches were relatively low in comparison with established norms for the MBI (Caccese, 1983).

Although differences appeared to exist in relation to gender, marital status, experience and win-loss record, these coaches were not overly burned out.

In a follow-up study (Caccese & Mayerberg, 1984), the gender differences found within the previous sample were elaborated. Female coaches reported more burnout than male coaches; but neither group was excessively burned out when compared to the norms of other human service professionals. However, the gender difference was noted on the frequency dimension of the personal accomplishment subscale of the MBI. The mean for the norm group on this subscale was 1.48, whereas the mean for the female coaches was 2.74, suggesting that female coaches experience feelings of personal accomplishment less often than do females in other health and service professions.

Closer comparison of the demographic characteristics of males and females coaches in this sample also revealed differences, but the significance of these findings is questionable. The female coaches were much younger (M=33.33) than the male coaches (M=41.61), had considerably less coaching experience (M=9.59) versus (M=17.33), had been in their present position fewer years (M=5.33) versus (M=6.84), were more often single (65% versus 83%), and viewed their success rate to be greater than 60% less often (59%) versus (80%). Although demographic discrepancies between male and female coaches were evident, these differences did not seem to affect perceived burnout (Caccese & Mayerberg, 1984).

Differential burnout levels reported by male and female coaches may be a result of a number of possible factors. Relevant factors that may promote higher burnout levels in female coaches include: trying harder out of a need to prove themselves and their teams, being less well prepared for the profession than male coaches, being less ready to face the rigors of competition, and being more willing to admit burnout, frustration, and fatigue than their male counterparts (Caccese & Mayerberg, 1984). Another possibility not mentioned by these researchers is that during this time of this study, the A.I.A.W. was in a transition phase in its movement toward merger with the N.C.A.A.. Thus, a far greater number of females than males in the sample were required to be full-time teachers in addition to coaching duties. This added professional dimension would likely add to the already stressful situation presented by the coaching environment.

Hunt (1984) set out to measure the frequency and intensity of perceived burnout among basketball and tennis coaches in Division I and III athletic programs. Additionally, she examined the relationship between individual stressful situations and burnout rates.

Her findings indicated that the coaches (N=915) were lower in perceived burnout than the established norms for the MBI. Contrary to Caccese (1983), there were no significant differences in burnout between profit and nonprofit sport coaches. Division I basketball coaches were higher than Division III coaches on frequency of depersonalization, and on intensity of both emotional exhaustion and depersonalization. Basketball and tennis coaches in general, were not significantly different in frequency of burnout, but basketball coaches experienced burnout more intensely. Once again,

female coaches experienced greater burnout than the male coaches, with increased frequency of emotional exhaustion being the most noticeable difference. In addition, full-time coaches scored higher on the intensity dimension of emotional exhaustion and depersonalization subscales of the MBI, while part-time coaches experienced lower levels of personal accomplishment (Hunt, 1984).

Hunt (1984) employed a 60-item sport-specific assessment instrument designed to tap into 14 different stressor categories: interpersonal relations, psychological pregame pressure, pressure to win originating from outside the college/university, pressure to win originating from administration of the college/university, internal pressure to win, career development, game management, rewards, locus of control, factors affecting the game, intra-role conflict, budget, recruiting, and support. Information gathered by this instrument was not factor analyzed, thus, the only indication of the validity of these factors lies in the face validity established during pilot work. In spite of this, correlations between burnout scores and all labeled categories were positive. Correlations were highest for the categories of intra-role conflict, interpersonal relations, career development, team management, and reward (Hunt, 1984). The findings suggest that stressors within the athletic environment, in addition to self-imposed stress by the coaches in this study, were related to the development of varying degrees of burnout.

Once again, in a study that examined a personal style variable, the relationship between leadership style and burnout among high school and college coaches, it was found that coaches were not excessively burned out

(Dale & Weinberg, 1989). The sample of 302 high school coaches from Texas and Division I coaches from the southeast and southwest conferences completed the MBI (using both the frequency and intensity dimensions), the Leadership Behavior Description Questionnaire, and the Crowne-Marlowe Social Desirability Scale.

Oneway ANOVA results indicated significant gender, marital status, and leadership differences. Male coaches scored higher in both the frequency and intensity of depersonalization. Married coaches were higher in personal accomplishment than were single coaches. Finally, those coaches employing a "consideration style" of leadership behavior scored higher in emotional exhaustion and depersonalization than did coaches using an "initiating-structure leadership style" (Dale & Weinberg, 1989).

The researchers (Dale & Weinberg, 1989) suggested that a consideration style of leadership is comparable to an "other oriented" approach. This approach might make these coaches more vulnerable to burnout because they may give more of themselves to others and are concerned with the overall well being and feelings of others.

In summary, these empirical investigations add considerably to our understanding of burnout in the coaching profession. The most striking finding is that the coaches in these studies were below average for helping professionals in their levels of burnout. Although females tended to score higher than males in emotional exhaustion and lower in personal accomplishment, they were still not excessively burned out. It may not be surprising that at the time of the Caccese and Hunt studies, females were lower in personal accomplishment because women's athletics were going

through dramatic changes and, in addition, the role of the female coach was being redefined and changed. Dale and Weinberg advanced the study of burnout by looking beyond demographic and situational variables to examine the personal variable of leadership style. Burnout was evident in coaches aged 30-34, coaches with 6-10 years of experience, and coaches with winning percentages of 41-60 percent. Burnout appeared to strike Division I coaches more intensely than Division III coaches, with basketball coaches experiencing burnout more intensely than tennis coaches. Hunt (1984) found tentative evidence that stressful situational variables within the coaching environment and role may facilitate the development of burnout.

Several limitations are evident in all of these research efforts. Common methodological constraints of these studies include: (1) the inconsistency in both the type and level of coaches sampled, the variability with respect to time in the season each coach completed the survey, (2) the lack of information available relevant to additional responsibilities of the coaches beyond coaching (e.g., teaching, advising students), (3) the continued use of the original MBI (with both the frequency and intensity dimensions) when a more valid version (Iwanicki & Schwab, 1981) of the instrument exists that is geared to the educational setting of which all of these coaches are a part, (4) examining differences between groups rather than trying to establish predictive ability through the use of regression designs, and (5) the lack of an underlying theoretical framework from which to generate hypotheses and speculation about the appropriate variables which may interact to promote or impede burnout.

Teacher-Coach Burnout

Many of the coaches in the previously cited burnout studies also filled the role of teacher. The dual-role of teacher-coach may create role conflict and role ambiguity for the individuals involved. Role conflict is a general term used to describe problem situations resulting from multiple role obligations or, in this case, incompatibility in attempting to fulfill the two roles of teacher and coach (Massengale, 1981). Inter-role conflicts can occur when a person occupies multiple roles that demand incompatible behaviors, whereas intra-role conflicts occur when a person occupies one role for which different incompatible behaviors are expected (Locke & Massengale, 1978). Role conflict and role ambiguity have consistently been related to and have been identified as significant predictors of burnout for teachers (Schwab & Iwanicki, 1982), athletic trainers (Capel, 1986), and coaches (Hunt, 1984). The issues raised by simultaneously occupying both the role of teacher and coach are a concern at both the secondary level (e.g., Chu, 1980; Davis, 1981; Massengale, 1977; Templin, 1980) and in higher education (e.g., Felshin, 1980; Massengale, 1980;. Segrave, 1980).

Concern over the conflict inherent in the dual role of physical education teacher and coach has been widely discussed and, to a much more limited extent, addressed in the literature. Unfortunately, the work in this area has been anecdotal, experiential, and descriptive in nature. To date, only one published empirical investigation was located that has examined the relationship between role conflict and ambiguity resulting from the teacher-coach combination and burnout. The teacher-coach role conflict is of particular interest in the examination of burnout because of the

additional stress that may be engendered as a result of this combination. The underlying assumption is that role conflicts experienced by teacher-coaches cause considerable stress (Davis, 1981; Earls, 1981; Hunderford, 1981; Kohlmaier, 1981; Litty, 1981; Sisley, Capel, & Desertrain, 1987; Templin & Washburn, 1981); this stress, and that over time, this stress can lead to the manifestation of the burnout syndrome.

Locke and Massengale (1978) provided the impetus for examining role conflict in dual-role teacher-coaches with the development of the Coaching Problems Survey. This instrument is designed to assess perceived and experienced role conflict in the areas of workload, values, teacher-coach, self and others, and status conflict among coaches working at the secondary and college/university level. In this study, 201 teacher-coaches completed the inventory twice, once in terms of conflicts perceived to be present in the coaching profession in general and once in terms of actually experienced role conflicts.

Several interesting results emerged from this study. These teacher-coaches, who most often were working without the compensation of appropriate release time and additional pay, scored high in both perceived and experienced workload. Those with high levels of career aspirations experienced and perceived higher workloads than those with low aspirations. A large number of respondents scored high in both perceived and experienced teacher-coach conflicts, pointing particularly to the issue of inadequate abilities and interests to be effective teachers even though possessing adequate competencies in coaching. Female teacher/coaches perceived occupational role conflict as a serious problem for their male

counterparts but not necessarily for themselves, and yet both male and female scores were equivalent for experienced conflict. Female teacher/coaches who were also classroom teachers perceived greater total conflict while males experienced greater conflict in relation to values. Surprisingly, college coaches scored significantly lower than other levels of coaching in experienced conflict, indicating role conflict is most pronounced among junior and senior high school teacher-coaches. Finally, physical education teacher-coaches scored higher than academic teacher-coaches in teacher-coach conflict and females did not perceive the noncoaching aspect of their assignment to be an issue related to role conflict (Locke & Massengale. 1978). These findings support the conclusion that the teacher-coach role combination is both perceived and experienced as creating conflict for the individuals who occupy these positions at the secondary educational level, but the implications for college and university teacher-coaches are less clear. This lack of clarity may in part be a function of having only 29 teacher-coaches at the college/university level included in this sample.

Only one investigation has examined role conflict and ambiguity and their relationship to burnout, and that used a high school sample (Capel, Sisley, & Desertrain, 1987). Because the concerns of the teacher-coach at the high school level may overlap and exemplify those of the teacher-coach at the college/university level, to some extent, it seems appropriate to include this study in this review.

The relationship of role conflict and role ambiguity to burnout in male and female high school basketball coaches was recently investigated (Capel,

Sisley, & Desertrain, 1987). The respondents (N=235) completed the MBI (both frequency and intensity, Maslach & Jackson, 1981), a Role Questionnaire, which assesses role conflict and role ambiguity, and a demographic information sheet. Although the sample was not restricted to teacher-coaches, 98% were certified teachers and 95% were currently teacher-coaches.

Descriptive analyses revealed moderate levels of role conflict and role ambiguity overall. The majority of coaches reported experiencing low to medium levels of burnout with the majority of scores for total burnout, emotional exhaustion, and personal accomplishment falling in the medium range but within the low range for depersonalization (Capel, Sisley, & Desertrain, 1987).

Multiple regression analyses demonstrated that role conflict was the only variable that significantly predicted total burnout ($R=.33$, $p<.001$). Elevated levels of role conflict were associated with greater frequency and intensity of burnout. Role conflict was also the strongest predictor of emotional exhaustion, with greater role conflict associated with higher feelings of being emotionally depleted or worn out. Role ambiguity was the best predictor of depersonalization, whereas years of head coach experience best predicted personal accomplishment. Increased role ambiguity was related to greater detachment and more head coaching experience related to elevated feelings of personal accomplishment. Although these variables were significant predictors of burnout, it is important to note that even the strongest predictor (role conflict) accounted for only 14% of the variability in perceived burnout scores (Capel, Sisley, & Desertrain, 1987). These

findings lead to the speculation that role issues are one of a host of potential factors that influence levels of burnout among dual-role teacher-coaches.

In summary, role conflict and role ambiguity are part of the working life of the dual-role teacher-coach. However, the practical significance of these role issues are questionable. Role conflict and role ambiguity predicted certain components of burnout but accounted for little variability in burnout scores. Once again, as a population, teacher-coaches did not appear to be burned out, scoring in the low and moderate ranges on the MBI. The dual-role of teacher-coach needs to be examined in greater depth at the college level to see whether parallels between the perceived and experienced role conflict that have been found at the secondary levels are present at the college level.

Model of Burnout in Athletics

A theoretical approach must be undertaken to establish a systematic line of inquiry into burnout among teacher-coaches. Smith (1986) has provided a conceptual model of stress and burnout within the athletic environment (Figure 4) that shows the hypothesized relationships among situational, cognitive, physiological, and behavioral components. In turn, each of these components is influenced by motivational and personality variables. The central importance of cognitive appraisal, which is the individual's interpretation of an event or situation, follows the social cognitive approach exemplified in the theoretical work of other areas of

psychology, such as in studies of attributions (Kelly, 1973), personality (Cantor, 1990), social learning (Mischel, 1973), and, most importantly for this study, psychological stress (Lazarus & Folkman, 1984, 1986). Smith's model is most directly derived from the stress buffering model (Cohen & Wills, 1985) presented earlier and attempts to illustrate how the stress and burnout processes interact.

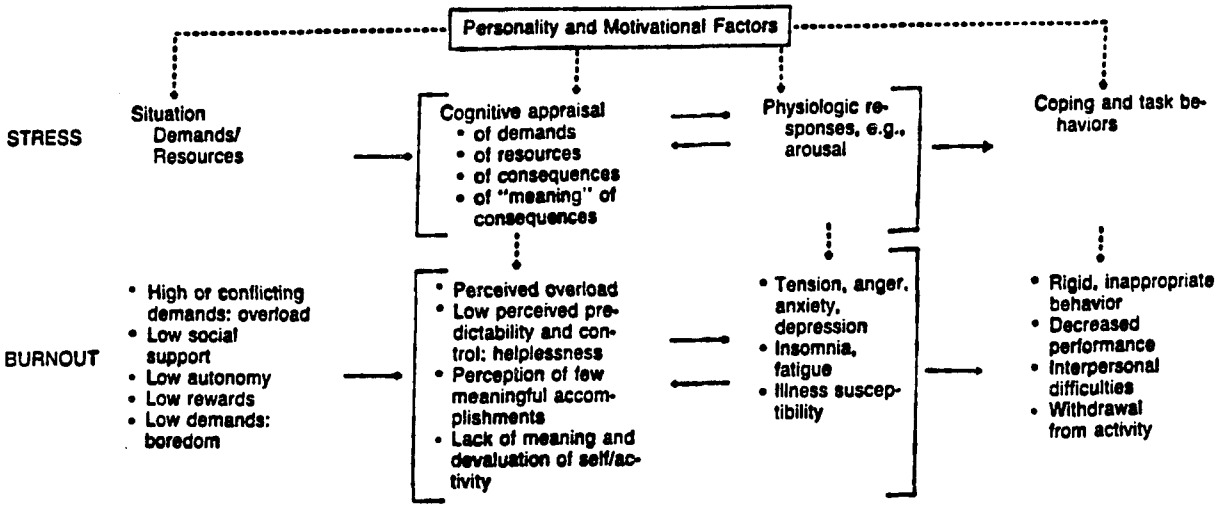


Figure 4. Smith's (1986, p. 40) Cognitive-Affective Model for Stress and Burnout in Sport

The first component in the model, the situation, involves the interaction between the environmental demands and personal and environmental resources. It is proposed that stress results when the demands of a situation exceed the available resources. If this imbalance is minimal, the situation may be perceived as challenging rather than stressful. If, on the other hand, the resources greatly exceed the demands, then boredom and stagnation are the likely result. Demands can be generated externally or can have internal origins. Smith (1986) identified a number of situational factors that may influence the development of burnout coaches, such as : "high or conflicting demands; overload, low social support; low autonomy; low rewards; low demands; and boredom " (p. 40).

The coaches' perception of stress is mediated by the second component in the model, the cognitive appraisal process, which focuses on the demands, resources, consequences, and meaning of the consequences in any given situation. In the case of burnout, the appraisal may be one of perceived overload, lack of perceived control and predictability (helplessness), perception of reduced number of meaningful accomplishments, and/or a lack of meaning and devaluation of self and/or activity. These appraisals then interact with physiological responses or third model component, to possibly increase or create tension, anger, or depression; produce insomnia and fatigue; and increase susceptibility to illness. The physiological reactions can, in turn, feed back and accentuate and reaffirm the appraisal of stress in the situation. The fourth component comprises the resulting consequences that exhibit themselves as coping and task behaviors. These coping attempts might include rigid and inappropriate behavior, decreased

job performance, development of interpersonal difficulties, and, at the extreme, withdrawal from the activity or job (Smith, 1986).

Motivational and personality variables are considered to have their greatest influence at the level of cognitive appraisal. These variables include predispositions of the individual to "seek out certain situations and goals and to perceive, think, and respond emotionally and behaviorally in certain ways"(p. 42). Such factors as self-concept, locus of control, and repression-sensitization (Smith, 1986) may mediate the appraisal process and the perception of stress, which could ultimately lead to burnout.

The preceding model has yet to be tested or even drawn upon in the examination of burnout in coaching. This study attempted to test Smith's model in abbreviated form in that the situation component was restricted to those variables that appeared most salient to the teacher-coach population. In the hypothesized model, the situation component was restricted to three variables (social support, gender, and experience), the cognitive appraisal component consisted of three measures of stress appraisal, and the only end result was burnout, measured using an adapted version of the MBI. Smith's model, grounded in theoretical research emphasizing the role of cognitive appraisal and the person-environment interaction, provides a framework from which to design a systematic line of inquiry into the precursors, moderators, and consequences of burnout within the teacher-coach profession.

Mediators of Stress and Burnout

The study of psychological stress and its effects on psychological and physical well-being and functioning has mushroomed over the past 20 years (Neufeld, 1989). Considerable evidence links stressful life events with various psychological and physical disorders such as depression, cancer, and infectious diseases. However, research in this area has consistently found only moderate correlations between recent stressful life event scores and measures of health or well-being, with life events accounting for a maximum of 9% of the variability in reported illness (Cohen & Edwards, 1989).

Recently, investigators have proposed that the relationship between stress and negative health consequences may be mediated, moderated, or buffered by a variety of personal and social resources. Examples of personal resources or personality characteristics that have been examined include: hardiness (e.g., Kobasa, 1979; Kobasa, Maddi, & Kahn, 1982); type A behavior patterns (e.g., Caplan & Jones, 1975; Suls, Gastorf, & Witenberg, 1979); locus of control and perceived control (e.g., Johnson & Sarason, 1978; LeCourt, Miller, Ware, & Sherk, 1981; Litt, 1988); coping style (Cronkite & Moos, 1984; Pearlin, Lieberman, Menagan, & Mullan, 1981); and sensation seeking (Smith, Johnson, & Sarason, 1978). Examples of social resources include: social support (e.g., Sarason, Levine, Basham, & Sarason, 1983; Schaefer, Coyne, & Lazarus, 1981); social skills (e.g., Cohen, Sherrod & Clark, 1986); and social interests (Crandall, 1975). Studies have also examined the interaction and additive effects of various mediators, such as: social support and social skills (Sarason, Sarason, Hacker, & Basham, 1985);

hardiness and social support (Kobasa & Puccetti, 1983); coping responses and social support (Billings & Moos, 1981); hardiness and coping style (Nowack, 1988); and, hardiness and exercise (coping strategy) (Kobasa, Maddi & Puccetti, 1982).

In spite of the interest in examining the relationship of these variables to stress and its consequences, the same approach has not been applied to better understand burnout. Thus, for the most part, the link between these variables and burnout must be inferred from the general stress literature. Social support has received the most attention and has the greatest support as an influence on the development of negative health consequences and burnout. Therefore, this limited review focuses on social support.

Social Support

Recently, interest has shifted away from viewing the social environment as a source of stress toward a view of the social environment as a resource with the potential to mediate the relationship between stress and health (Schaefer, Coyne, & Lazarus, 1981). Researchers have consistently discovered that persons who have high levels of social support have better physical and mental health (Thoits, 1982).

However, in spite of extensive research efforts involving social support, a lack of conceptual consensus still prevails. Weiss (1974) conceived social support as comprising six dimensions of intimacy, social integration, nurturance, worth, alliance, and guidance. However, Cohen and Wills (1985) proposed that social support be conceptualized in relation to its four

functions: emotional support, informational support, social companionship, and instrumental support. Tardy (1983) suggested clarification of issues surrounding the concept of social support be directed toward an integration of several aspects of support, including direction, disposition, description and evaluation, content, and network.

Irrespective of how social support is ultimately conceptualized, there appear to be two basic elements involved (Sarason, Levine, Basham, & Sarason, 1983): (a) the perception that there are sufficient numbers of people available one can turn to in time of need, and (b) the degree of satisfaction with the available support. Social support can be defined as the "existence and/or availability of people on whom we can rely, people who let us know that they care about, value, and love us" (Sarason, Levine, Basham, & Sarason, 1983, p. 127).

Numerous studies have provided evidence of the positive relationship between social support and general well-being within a variety of populations including: survivors of the Three Mile Island Accident (Chisholm, Stanislav, & Mueller, 1986), administrative workers (Cooper, 1981), graduate students (Goplerud, 1980), police officers (Graf, 1986), Navy enlisted personnel (LaRocco & Jones, 1978), family practice residents (Mazie, 1985), and smoking cessation program participants (Westman, Eden, & Shirom, 1985). Research findings such as these have led to the hypotheses that social support can contribute to the positive adjustment and personal development of the person as well as provide a buffer against the effects of stress (Sarason, Levine, Basham, & Sarason, 1983). In short,

social support is a "main effect" for positive adjustment and personal development and a "stress buffer" when necessary (Cohen & Wills, 1985).

Two models of the relationship between social support and well-being are posed by Cohen and Wills (1985). The buffering model (refer back to Figure 3) posits that social support is only or primarily related to well-being for individuals under stress; the buffering of stress protects these individuals from the negative influences of stressful events. Support may influence the causal link between stress and illness by attenuating or preventing a stress appraisal response, or by reducing or eliminating a stress reaction either psychologically or physically.

The main effect model proposes that social support can have a beneficial effect on individuals regardless of whether they are under stress. Existence of adequate social networks potentially provide persons with positive affect, a sense of predictability and stability in one's life situation, and a recognition of self worth through regular positive experiences and an established, socially rewarded role in the community (Cohen and Wills, 1985).

Research examining the relationship of social support as a main effect is limited, and examinations of the buffering effects on burnout are almost nonexistent. Only the results relevant to burnout and the role of social support are reported in this section. It is noted that of the following eight studies presented, seven support the positive relationship between social support and lower levels of burnout.

The majority of the studies investigating burnout and social support were conducted with nursing or nursing-related populations. Constable and

Russell (1986) examined the effects of various aspects of a hospital work environment and social support on burnout among nurses. One of the major determinants of increased burnout was a lack of supervisor social support. Cronin-Stubbs and Rooks (1985) explored burnout and social support among critical care, psychiatric, operating room, and medical nurses. Social support in the form of affirmation, affect, and aid was negatively associated with burnout; nurses with stronger social support scored lower on indices of burnout. Fong (1984) studied the effects of role overload and social support on burnout among nursing educators. Findings indicated support from the chairperson or peers had the positive effect of preventing the development of burnout, but no buffer effects against job overload could be demonstrated. Kimmel (1981) investigated the effects of a combination of social and psychological variables on dimensions of burnout among nursing personnel. No effects for social support were evident.

Female child welfare workers employed in a state department of social services were the focus in a study examining the effects of social support from fellow workers and spouses (Davis-Sacks, 1985). Social support, particularly that from supervisors and spouses, was associated with low levels of burnout resulting from job stress.

Dignam, Barrera, and West (1986) tested three models of the role of workplace social support in improving the effect of occupational stress on burnout symptoms with correctional officers. Path analysis showed no support for either the direct or the buffering models of social support. The data, however, were consistent with the indirect model of social support in

the workplace, implying that social support works with other factors to influence burnout.

Eitzion (1984) discovered that the relationship between work stress and burnout was moderated by social support in life for women and by support in work for men. However, the relationship of life stress and burnout was not moderated by any source of social support for either men or women. Interestingly, men and women attached different meanings to social support, with women identifying more strongly in life situations and men identifying more strongly in the work environment.

Psychologists with varying amounts of experience constituted the sample for Kahill's (1986) investigation of professional expectations, social support, and burnout. Burnout did not relate to experience in the profession, to any other demographic variables, or to professional social support. Burnout was, however,significantly related to social support from family and friends.

Finally, experienced job stress and social support among doctoral-level staff in a counseling center was examined (Ross, Altmaier, & Russell,1989). Social support provided was assessed by the network members themselves as well as by the staff member. After controlling for the effects of counselor and setting characteristics on burnout, analyses indicated social support from network members explained from 3.5% to 11.4% of the variance in burnout scores. Counselors who received social support from their supervisors reported lower levels of emotional exhaustion and depersonalization and high levels of personal accomplishment.

It would appear that social support has a strong potential to affect experienced burnout in a wide range of populations. The results demonstrate a consistent relationship between social support and lower burnout levels. More research is needed to examine the buffering effects of social support on stress and its eventual influence on burnout.

Summary

This review of literature revealed several important factors. First, although there is a lack of consensus, burnout is a multidimensional syndrome which is the result of prolonged stress that affects those working in the helping professions. Burnout is manifested in feelings of emotional exhaustion, depersonalization, and a lowered sense of personal accomplishment. Secondly, little empirical research has been conducted in the area of higher education. However, studies that have been completed suggest that burnout is a growing problem among higher educators. Third, in spite of the consensus that coaching is a highly stressful occupation, limited examination of burnout has occurred. The research on coaches and burnout shows that this population they report that they suffer from relatively low levels of burnout and fall below the levels of other helping professionals. Fourth, burnout studies in dual-role teacher coaches at the college level are nonexistent. Fifth, social support is one of a number of variables that has been examined in the area of health psychology that has been shown to have a positive effect on health and well being, both in times of low and high stress. Finally, the stress buffering model (Cohen & Wills,

1985) and the cognitive-affective model (Smith, 1986) provide the underlying framework for developing the model of burnout in dual-role-teacher coaches to be used in this investigation.

CHAPTER III

METHOD

A hypothesized model of burnout in dual-role teacher coaches was examined in this study. The study was grounded in theory, but exploratory in nature. The hypothesized relationships between the stress appraisal (perceived stress, coaching issues, and coaching problems) as the predictor variable and the dependent variable burnout were first evaluated. Secondly, the relationships between the predictor variables of social support, gender, experience, and the dependent variables in stress appraisal were examined. In addition, certain relationships not specified a priori were examined based on the data in an attempt to clarify relationships and develop a better goodness of fit with the model.

Sample Characteristics

The participants in this study were 214 male (n=99) and female (n=115) NCAA Division III and N.A.I.A. dual-role teacher-head basketball coaches recruited from the United States. Participants had head coach responsibility for conducting the basketball program in addition to responsibility for teaching courses in the service program within the physical education department, majors' courses in physical education, or teaching in another department the same institution.

Measures

The variables in this study were measured by standardized assessment instruments and by one instrument specifically developed and pilot tested for this study. The primary dependent variable of burnout was assessed via the Maslach Burnout Instrument, Form Ed (Maslach & Jackson, 1981, 1986). Stress appraisal functioned as both a dependent and a predictor variable and was measured with three separate instruments. The global stress dimension was assessed with the Perceived Stress Scale (PSS, Cohen, Kamarck, & Mermelstein, 1983); perceived role conflict within the dual-role as teacher-coach was measured through use of the Coaching Problem Survey (CPS, Locke & Massengale, 1978), and specific stressors within the athletic coaching environment were assessed with the Coaching Issue Survey (CIS), which was specifically designed for this study. The short-form Social Support Questionnaire (Sarason, Sarason, Shearlin, & Pierce, 1986) was used to assess the variable of social support, and information on gender and experience was gathered through questions on the Teacher/Coaches Survey demographic data sheet.

Burnout

Maslach Burnout Inventory (Teacher/Coaches Survey). The Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981, 1986) is the most widely accepted and used instrument in the study of burnout across various populations within the global framework of the helping professions. This study used an adaptation of this instrument, the MBI Form Ed (Maslach, Jackson, & Schwab, 1986), developed for application to educator

populations. This version differed from the original in that the word "recipients" has been changed to "students," and that only the frequency dimension is rated, given the high intercorrelations discovered between the frequency and intensity dimensions among educator populations (Iwanicki & Schwab, 1981). For this study, permission was obtained from the publishers (see Appendix J) to augment the word "students" by adding the word "athletes." ("students/athletes") in the hope of further increasing the validity of the instrument for the teacher-coach sample used in this research. It was anticipated that his word change should not alter the psychometric properties of the instrument. This assumption was verified through examination of internal consistency with the current data.

The MBI Form Ed (Maslach, Jackson, & Schwab, 1986) is a 22-item instrument that assesses the frequency of experienced feelings on a 7-point likert scale from "never" (0) to "every day" (6). The questionnaire provides information on three subscales of emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). The 9-item EE scale describes a respondent's feelings of being emotionally overextended and exhausted by work. DP is a 5-item scale that characterizes an unfeeling and impersonal response toward those served. The PA scale consists of 8 items that describe feelings of accomplishment and a sense of competence about one's job.

Maslach and Jackson (1986) reported Cronbach Alpha estimates for reliability ranging from .88 to .90 for EE; .74 to .76 for DP; and .72 to .76 for PA, all of which parallel the original MBI. The only test-retest information available comes from work with the original MBI. For a test-retest interval

of two to four weeks using a sample of graduate students in social work and administrators in a health agency, reliability coefficients of .82 for Emotional Exhaustion; .60 for Depersonalization; and .80 for personal Accomplishment ($p<.001$) were found. In a sample of teachers with test-retest separated by a one year period, results were still fairly strong: .60 for EE; .54 for DP; and .57 for PA (Jackson, Schwab & Schuller, 1987).

Convergent and discriminant validity of the MBI are well established (see Maslach & Jackson, 1981, 1986). Construct validity for the MBI with teachers was derived from a study of 469 Massachusetts teachers in which principal factor analysis with iterations and varimax rotation were used to examine factor structures. The emotional exhaustion and personal accomplishment subscales paralleled the MBI; however, depersonalization separated into job and student concerns (Iwaniki & Schwab, 1981). The shared variance between the frequency and intensity dimensions were discovered to be considerably higher in teachers (76%) as compared with other helping professionals (31%). As a result, Iwaniki and Schwab (1981) recommended using only the frequency dimension in future research with educators. For this study, the subscale frquency scores were used and there was no attempt to generate an overall burnout score.

Schwab and colleagues (Schwab & Iwanicki, 1982; Schwab, Jackson & Schuler, 1986) used the MBI Form Ed ; with samples of 469 Massachusetts teachers and 339 teachers who were also members of the NEA. Results verified the three subscale structure of the MBI and demonstrated validity for this instrument in the assessment of burnout in relation to such factors

as leaving teaching, absenteeism, having personal lives affected, having a negative effect on co-workers, and the tendency to exert less effort.

Stress Appraisal

Perceived Stress Scale. The Perceived Stress Scale (PSS; Cohen et al., 1983) is a 14-item instrument designed to measure (a) the degree to which situations in one's life are appraised as stressful, (b) the degree to which respondents find their lives unpredictable, uncontrollable, and overloaded, and (c) current levels of experienced stress. It is most accurately viewed as a measure of acute rather than chronic stress because it asks questions about stress relative to the last month rather than a more extended time period. Respondents use a likert scale to estimate *how often* they felt or thought a certain way during the last month (0 - never to 4 - very often).

Reliability and validity were demonstrated through data gathered from three samples; two college student samples and one heterogeneous group from a smoking-cessation program. The coefficient alpha reliabilities for the PSS for the three samples were .84, .85, and .86. Two test-retest intervals, two days and six weeks, yielded correlations of .85 and .55 respectively (Cohen et al., 1983).

Concurrent and predictive validity were demonstrated in several ways. The relationships (correlations) between the PSS and Life-Event scores were positive, with a stronger relationship for the younger participants (.65) versus the older participants (.19). Examining the PSS (.65 to .76 depressive, .52 to .70 physical) versus Life Events (.14 to .18 depressive, .23 to .51 physical) as predictors of symptomology, the PSS was found to be the

better predictor. The PSS was a better predictor of social anxiety (.37 to .48 versus -.13 to -.26, for the Life Events scale) and also moderately predicted smoking-reduction maintenance (.26 to .34) (Cohen et al., 1983).

Coaching Problems Survey. The Coaching Problem Survey (CPS, Locke & Massengale, 1978) assesses inter-role conflict in the role of teacher-coach. The CPS is a 10-item inventory in which respondents address each statement twice; once from a perceived conflict perspective (0 -"not a problem at all" to 4 - "a problem of very great extent") and once from an experienced conflict perspective ranging from "not at all" (0) to "a very great extent." The CPS covers the five conflict areas of load, values, status, teacher/coach, and self/others. Only the experience perspective was used because it appeared to be more relevant for the teacher-coach role conflict examined in this study.

Evidence for internal consistency includes: (a) significant correlations between all items and the total score, (b) item members in each dyad (perceived item and experienced item) correlated more highly with each other than with any other items, and (c) item members of each dyad correlated with each other within the range of .30 to .60 showing a positive relationship between perceived and experienced role conflict within each item. Stability of the measure was demonstrated for a 6-day test-retest interval in which Pearson coefficients for the 10 items ranged from .41 to .72 on perceived conflict, from .21 to .84 on experienced conflict, and .71 to .72 for total conflict scores (Locke & Massengale, 1978).

No more than 3% of the subjects selected 0 or "not a problem at all" for any item from a perceived conflict perspective and under 15% from an experienced conflict perspective providing evidence for construct validity. Use of this scale has been restricted because empirical research on dual-role teacher-coaches is limited. In spite of this, the questionnaire seemed especially appropriate for use in this study with the sample characteristics as specified earlier. The narrow 5-point range for responding to each item might depress correlations somewhat, and several items may have questionable reliability. Although the reliability for the total conflict scores is lower than preferred, this is the only measurement tool that directly addresses the dual-role conflict for the teacher-coach. Because of the possible limitations in reliability and questionable psychometric properties of this instrument, a Cronbach's alpha of .80 or higher was set as a criterion for including the scale in this study.

Coaching Issues Survey. The Coaching Issues Survey (CIS) is a 32-item instrument based on the 60-item Degree of Stress instrument developed by Hunt (1983). Respondents rate the degree of stress attributed to each coaching issue described. Ratings on a 5-point likert scale range from "no stress" (0) to "extreme stress" (5).

Fourteen dual-role teacher-coaches from colleges in the upper Midwest completed the 60-item survey and participated in an in-depth interview on coaching stress to develop this measure (see Appendix A for details of the pilot study). The original 60-item Degree of Stress survey administered in the first pilot study showed strong reliability (.91), but this could have been

inflated due to the consistently low stress levels reported for several items not applicable to this sample.

Initial construct validity was extracted from the combination of survey and interview data collected during the first pilot study. Respondents' survey and interview responses converged on the issue of "what causes stress for themselves within the sport-specific environment of coaching." Respondents also identified issues that they felt "did not belong or were out of place" in relation to the other issues. Items were discarded if less than half of the respondents perceived any stress at all and items were added based on open-ended responses and interview data. Coaches consistently expressed the opinion that the items included in the final survey were relevant to the general coaching situation and were, for the most part, highly characteristic of their own situations.

The revised 32-item CIS was pilot tested for this study on NCAA Division III coaches (n=52). Internal consistency was again demonstrated with an alpha coefficient of .89. No items were eliminated based on consistent no or low stress responses demonstrating initial validity for the revised survey.

This preliminary work suggests that the CIS is a useful measure of stress for teacher-coaches in the athletic environment. No standardized measures tap into this unique occupational setting, and thus the CIS is a valuable addition for this study. Further psychometric examination was conducted with the data collected in the present study, and an alpha coefficient of .80 or higher was set as the criterion for including the scale in the analyses.

Social Support

Social support was assessed via the 6-item short form of the Social Support Questionnaire (SSQ6; Sarason, Sarason, Shearlin, & Pierce, 1986), which has been tested on over 2500 subjects. The SSQ6 measures both the number of perceived social support network members and the degree of satisfaction with the perceived social support available for the situation. Tardy (1985) suggested that the original SSQ might best be used as a measure of emotional support (e.g., who can I turn to for comfort?) rather than instrumental support (e.g., who will pick up the kids from school?). This same suggestion seems appropriate for the SSQ6, whose items are drawn directly from the SSQ, and the SSQ6 will be considered a measure of emotional support in this study.

On the SSQ6, respondents list up to 9 available supports for each of six items, their relationship with the support listed (e.g., mother, friend, supervisor), and indicate satisfaction with the overall available support for each item on a 6-point scale (6 - "very satisfied" to 1 - "very dissatisfied"). Internal reliability coefficients for the number and satisfaction dimensions range from .90 to .93 for each. Test-retest reliabilities after 3 to 4 weeks were .80 for the number of supports dimension and .84 for the satisfaction dimension (Sarason et al., 1986).

Construct validation for the two scales was accomplished by comparison of the SSQ6 to several measures of related constructs, including: the Social Network List (Stokes, 1983); Inventory of Socially Supportive Behaviors (Barrea, et al., 1981); Family Environment Scale (Moos & Moos, 1981); and

the SSQ long form. Positive relationships were evident with each of these measures.

Demographic data

The Teacher/Coach Survey sheet assessed the participants' sex, marital status, highest educational degree, job responsibilities, years and seasons of teaching and of coaching, number of students and athletes directly responsible for, and how long he or she expected to continue to teach and to coach.

Procedures

The sample of dual-role teacher-basketball coaches was identified via the National Association of College Coaches Directory (1989-1990). Survey packets were mailed to 300 male and 300 female head basketball coaches in a the United States. A number of marketing strategies were used to make the survey packet appear attractive and professionally done in an attempt to increase the return rate. These marketing strategies included: a professionally designed detachable cover poster in three-toned color that the participant was encouraged to keep; white 8.5" by 11" mailing envelopes with blue pre-printed return address and colored address labels; overlaying each page of the inside survey packet on a basketball picture in the background; printing each questionnaire in the packet on different colored paper; providing a pre-addressed, stamped return envelope; and finally, three post-card reminder follow-ups. The cover letter was written to

attract the attention of participants by emphasizing: the investigator's understanding of the teacher-basketball coach position and time constraints in February based on her experiences as a former teacher-coach; reasons why the study might be of personal interest; the practical significance of the results for teaching and coaching education; and finally, the opportunity to receive a summary of the results and implications. The combination of those strategies helped to produce the 49% (292 out of 600) return rate for the packet. However, not all returned questionnaires met the criteria for inclusion (12 were head basketball coaches only, 48 were head basketball coaches with additional responsibilities other than teaching, 7 were not returned prior to March 1st, and 11 had too much missing data), dropping the sample size down to 214, leaving a final "useable" return rate of 37%.

Assessment Procedures

Permission from the Human Subjects Committee at the University of North Carolina at Greensboro was obtained prior to data collection. Ten full survey packets were piloted on area teacher-coaches in January to check for confusing wording and to determine the length of time it would take to complete the questionnaires. The pilot teacher-coaches completed the packets in 17 to 32 minutes, averaging 24 minutes and indicated no problems with the wording of the questionnaires.

The 600 questionnaire packets for the study were mailed during the first part of February. Coaches were asked to fill out the packet sometime during the two weeks following receipt of the packet. Pilot information indicated that this time period (month of February) coincided with the most stressful

portion of the competitive season. February is just prior to post season tournaments, but allowing two weeks to complete and return the survey still afforded respondents enough flexibility to find time to complete the packet. A post card was mailed so that it was received during the time the questionnaire packet needed to be filled out, as a reminder and statement of appreciation. A second post-card was sent to all those not returning packets by mid-February to account for irregularities in the bulk mailing that had become apparent and to extend the deadline for returning packets to the end of February (see Appendix K).

Questionnaire packets included the following:

1. Detachable Poster Cover (Appendix B).
2. Cover-letter (Appendix C).
3. Demographic Data Sheet, entitled Teacher/Coaches Survey (1 page long)- (Appendix D).
4. Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983), entitled Perceived Stress - (Appendix E).
5. Coaching Problems Survey (CPS; Locke & Massengale, 1978), entitled Coaching Problems - (Appendix F).
6. Coaching Issues Survey (CIS), entitled Coaching Issues (Appendix G).
7. Social Support Questionnaire (SSQ6; Sarason, Sarason, Shearlin, & Pierce, 1986), entitled Social Support (Appendix H).

8. Maslach Burnout Inventory, Form Ed (MBI Form Ed; Maslach, Jackson & Schwab, 1986), entitled Teacher/Coaches Survey - (Appendix I).

The surveys were mailed in white 8.5" by 11" envelopes and the questionnaire packets were color-coded with a cover poster with basketball graphics on the front. Each questionnaire packet had the cover-letter first and the Teacher/Coach Survey sheet second followed by the five remaining surveys in randomized order. A stamped, pre-addressed return envelope was provided.

Data Analyses

The purpose of this study was to examine the hypothesized model of burnout in dual-role teacher-coaches. The data were analyzed using the Statistical Analysis System (SAS Institute, Inc., 1985) and the Statistical Packages for the Social Sciences - X (SPSS Inc., 1983). A priori .05 significance levels were established for all analyses. In the 19 cases in which different participants were missing a single item of data on a scale, the mean value for that particular scale was substituted.

The first analyses provided general descriptive information on the sample characteristics and the scales used in the model. The second analyses examined the internal consistencies, using Cronbach alpha (Cronbach, 1951), corrected item-to-total correlations, and other descriptive indicators for all the scales used in this study.

The interrelationships among burnout, stress appraisal, and environmental/situational variables were examined with Pearson

correlation coefficients. The intercorrelations between the various possible burnout indices, Teacher/Coaches Survey, years to continue teaching, years to continue coaching, and the question at the end of the T/C Survey which asks participants "are you suffering from burnout" were also examined.

Canonical correlation analyses examined the relationship between sets of predictor and criterion variables for both parts of the model. The first analyses examined part I of the model or the relationships between the set of dependent burnout variables (emotional exhaustion, depersonalization, and personal accomplishment) and the predictor set of perceived stress variables (perceived stress, coaching issues, and coaching problems). The second analyses examined part II of the model or the set of dependent perceived stress variables and the set of predictor environmental/situational variables (social support satisfaction, gender, and years of experience).

Canonical correlation analyses indicate a general relationship between the sets of predictor and criterion variables in each part of the model, whereas multiple regression analysis followed by stepwise regression analyses were used to further examine the contribution of perceived stress to the prediction of burnout, and the relative contributions of social support, gender, and experience to the prediction of perceived stress (Pedhazur, 1982). Hierarchical regression analyses were used to determine whether gender, experience, or social support contributed to the prediction of burnout beyond the influence of perceived stress. The full hypothesized model was then tested via path analysis. The predicted score generated

from Part II of the model to test the paths in Part I of the model from perceived stress to burnout (Pedhazur, 1982). Due to the exploratory nature of this study an alternative causal path was also examined.

CHAPTER IV

RESULTS

Several different analyses were used to examine the hypothesized model of burnout in dual-role teacher-head basketball coaches. Part I of the model included the stress appraisal set of variables, perceived stress, coaching issues, and coaching problems as predictors of the three dimensions of burnout, emotional exhaustion, depersonalization, and personal accomplishment. Part II of the model examined the influence of social support, gender and years of teacher-coach experience in predicting the set of stress appraisal components. In this chapter, results of the following analyses are presented: (a) descriptive analyses of the sample; (b) internal consistency analyses on all scales; (c) intercorrelations among the various indices of burnout and among all variables in the hypothesized model; (d) canonical correlation analyses between the set of predictor variables and the dependent variables for Part I and Part II of the model; (e) multiple regression analyses followed by stepwise regression analyses of Part I and Part II of the model; (f) hierarchical regression analyses examining the contribution of social support satisfaction, gender, and years of experience to the prediction of burnout beyond stress appraisal; (g) and, finally, exploratory path analysis testing the hypothesized model and alternate reduced models derived from previous analyses.

Canonical correlation analyses provided an indication of whether there was a relationship between the set of predictor and the set of criterion

variables in each part of the model. Stepwise multiple regression more precisely identified the strength of the predictor variables in each part of the model. Finally, path analyses allowed the model to be examined as a whole, using the scores generated by the environmental/situational variables in the prediction of stress appraisal to then be used to predict burnout in Part I of the model.

Descriptive Analyses

Demographic Variables

The sample of 214 total participants included slightly more females (115) than males (99),and slightly more married (108) than single (94) respondents. The majority of participants held a Masters degree (164) or higher, most had been in their present teaching (125) and coaching (118) positions for less than five years, and most held only the basketball head coach position (139), although a large number had more than one coaching responsibility as well as other responsibilities (e.g., intramural director, athletic director, facilities coordinator, etc.). These results can be seen in more detail in Table 1.

Table 1

Frequency and Percent for Demographic Characteristics (n=214)

Variable		Frequency	Percent
Age	25 to 29	38	17.8
	30 to 34	59	27.6
	35 to 39	46	22.0
	40 to 44	19	8.9
	45 to 49	22	10.2
	50 to 64	29	13.6
Gender			
	Female	115	53.7
	Male	99	46.3
Highest Educational Degree			
	Bachelors	16	7.5
	Masters	164	76.6
	Masters plus 30	28	13.0
	Doctorate	6	2.8
Marital Status			
	Single	94	43.9
	Married	108	50.5
	Divorced	8	3.7
	Widowed	1	0.5
	Other	3	1.4
Sport in which Head Coach			
	Basketball Only	139	65.0
	BB + Volleyball	23	10.7
	BB + Softball	15	7.0
	BB + Tennis	13	6.1
	BB + Golf	12	5.6
	BB + Baseball	3	1.4
	BB + Soccer	3	1.4
	BB + Field Hockey	2	1.0

Table 1 Continued - Frequency and Percent for Demographic Characteristics

Sport in which Head Coach continued		
BB + Cross Country	1	0.5
BB + Softball + Golf	1	0.5
BB + Softball + Volleyball	1	0.5
BB + Tennis + Field Hockey	1	0.5
Sport in which Assistant Coach		
Tennis	2	1.0
Baseball	2	1.0
Volleyball	2	1.0
Track	1	0.5
LaCrosse	1	0.5
Field Hockey	1	0.5
Cross Country	1	0.5
Those with Other responsibilities	59	27.6
Years in present Teaching Position		
Less than 5	125	58.4
6 to 10	45	21.0
11 to 15	17	8.0
16 to 20	8	3.7
More than 20	19	8.9
Years in present Coaching Position		
Less than 5	118	55.1
6 to 10	49	22.9
11 to 15	22	10.3
16 to 20	7	3.3
More than 20	18	8.4

The general profile of this sample, presented in Table 2, indicates that they were approximately 38 years old, spent more time in their coaching (58%) responsibilities than their teaching (34%), had been in their current positions about 7 years with a total of 14 years as teacher-coaches, and expected to continue to teach (14 years) slightly longer than they planned to continue to coach (13.6 years). However, the standard deviations and ranges also suggest considerable variability among individuals within the sample.

Table 2

Profile of Sample Characteristics: means, standard deviations and range (n=214)

Variable	Mean	SD	Low	High
Age	37.7	8.9	25	64
Percent of time spent teaching	34.0	19.0	2	75
Percent of time spent coaching	57.6	18.1	16	98
Years in current teaching assignment	7.3	7.0	.6	30
Years in current coaching assignment	7.4	7.0	.8	33
Total years in teaching	14.0	9.5	.6	43
Total years in coaching	14.0	8.6	2	43
Total seasons coached	17.3	11.9	1	85
Years expected to continue to teach	14.0	8.7	0	35
Years expected to continue to coach	13.6	8.5	0	50

TABLE 3

Profile of Psychological and Environmental variables: means, standard deviations and range

Variable	Mean	SD	Low	High	Total Possible
Burnout:					
Emotional Exhaustion (EE)	22.5	11.2	0	51	56
Depersonalization (DP)	8.1	5.6	0	25	30
Personal Accomplishment (PA)	37.4	6.9	13	48	48
Stress Appraisal:					
Perceived Stress (PS)	26.5	7.3	5	45	56
Coaching Issues (CI)	93.7	19.5	34	153	160
Coaching Problems (CP)	16.7	6.3	1	32	40
Social Support:					
Number (SSQN)	22.4 / 3.7	13.2	0	54	56 / 9
Satisfaction (SSQS)	5.2	.85	2.3	6	6
Experience:					
Total years in teaching	14.0	9.5	0.6	43	
Total years in coaching	14.0	8.6	2	43	

Table 3 presents the sample profile of both the psychological and environmental/situational variables (except gender) incorporated in the hypothesized model. The psychological variables were: burnout (emotional exhaustion, depersonalization, and personal accomplishment subscales) and

stress appraisal (perceived stress, coaching issues, and coaching problems scales), whereas social support (number and satisfaction), gender, and total years of teaching and coaching were considered environmental or situational. It is interesting to note that the respondents in this study reported few members in their social support networks (Mean=22.4 total and 3.7/item) as compared to other studies using this scale (Sarason et al., 1987), but their satisfaction with that support was quite high (5.2 out of a possible 6).

The only scales that have established norms are the burnout scales. Table 4 gives the percentage of teacher-coaches scoring within the low, moderate, and high category for each subscale according to the norms established for those working in higher education (Maslach & Jackson, 1986). It should be noted that the greatest percentage of teacher-coaches in this study are categorized as suffering from moderate to high burnout.

Table 4

Percent of Teacher-Coaches Experiencing High, Medium, and Low Burnout on the Subscales of Emotional Exhaustion, Depersonalization, and Personal Accomplishment Relative to Established Norms (N = 214).

Variable	Low	Moderate	High
Emotional Exhaustion	25%	29%	46%
Depersonalization	17%	38%	45%
Personal Accomplishment	26%	40%	34%

Internal Consistencies

The reliability of each multi-item scale used in this study was examined by means of Cronbach's alpha (Cronbach, 1951). Alpha coefficients and other descriptive indices were determined for the Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA) subscales of the Maslach Burnout Inventory (Maslach & Jackson, 1981,1986), the Perceived Stress Scale (PSS; Cohen et al., 1983); the new Coaching Issues Survey (CIS), the Coaching Problems Survey (CPS; Locke & Massengale, 1978), and the Social Support Questionnaire Satisfaction and Number dimensions (SSQ6; Sarason et al., 1986). Internal consistency reliability estimates ranged from .76 to .93, and corrected item-to-total correlations ranged from .32 to .84, (see Table 5).

Table 5

Internal Consistency Reliability Estimates for Multi-item Scales

Scale	N	Alpha	Corrected Item-Total R Range
Emotional Exhaustion	209	.91	.54 - .76
Depersonalization	208	.76	.42 - .67
Personal Accomplishment	208	.83	.47 - .64
Perceived Stress	203	.84	.32 - .66
Coaching Issues	209	.92	.36 - .64
Coaching Problems	211	.82	.47 - .61
Social Support Satisfaction	205	.88	.46 - .80
Social Support Number	205	.93	.76 - .84

Intercorrelations Among Different Measures of Burnout

As well as completing the Maslach Burnout Inventory with the emotional exhaustion, depersonalization, and personal accomplishment subscales (Maslach & Jackson, 1986), respondents indicated the number of years they would likely continue to teach and to coach, whether they felt they "may be suffering from job-related burnout?", and, if yes to the previous question, was their burnout slight, moderate, or severe. These various forms of assessing burnout were compared with the revised version of the MBI used in this study to determine consistency across responses.

Table 6 illustrates the pairwise correlations among the different burnout measurements. Emotional exhaustion was positively correlated with depersonalization; however, contrary to previously published results, emotional exhaustion was also strongly positively correlated with personal accomplishment. Thus, the higher the emotional exhaustion score the higher the depersonalization score, and the higher the sense of personal accomplishment. Depersonalization and personal accomplishment were negatively correlated as anticipated.

The number of years expected to continue to teach was positively correlated with the years expected to continue to coach. However, only years to continue coaching was significantly related to the MBI subscales of emotional exhaustion and personal accomplishment. Expecting to continue to coach a greater number of years was moderately related to lower emotional exhaustion and higher personal accomplishments scores.

The teacher-coaches' ratings of feeling burned out correlated with each MBI subscale in the expected directions. Additional evidence was provided

when a Multivariate test examining the difference between participants who indicated they "were" (n = 105) or "were not" (n = 109) burned out on emotional exhaustion, depersonalization, and personal accomplishment was significant, $F(3,199) = 43.23$, $p < .001$. Respondents who indicated they were burned out had significantly higher levels of emotional exhaustion (M=29.7 vs 15.8),and depersonalization (M= 10.6 vs 5.7), and lower personal accomplishment scores (M=35.4 vs 39.1). Also those answering yes to feeling burned out planned to coach for a shorter length of time.

Level of burnout was strongly negatively correlated with emotional exhaustion and only slightly positively related to depersonalization. Those scoring higher on emotional exhaustion reported lower levels of burnout, whereas those scoring higher in depersonalization expressed higher levels of burnout.

Table 6

Intercorrelations Among Various Burnout Indices

	EE	DP	PA	YRSCONT	YRSCONC	BO	Amount BO
EE	1.00	0.37	0.68	-0.06 ns	- 0.18*	- 0.63	- 0.39
DP		1.00	- 0.39	-0.06 ns	-0.11 ns	- 0.44	0.20*
PA			1.00	-0.01 ns	0.20*	0.27	-0.12 ns
YRSCONT				1.00	0.51	0.02 ns	-0.02 ns
YRSCONC					1.00	0.27	-0.14 ns
Burned out						1.00	1.00
Amount BO							1.00

* $p < .05$. All others are significant at the $p < .001$ level unless indicated by ns (nonsignificant).

The pairwise correlations between the variables included in the hypothesized model are presented in Table 7.

Table 7

Pairwise Correlations of Variables in Model

	EE	DP	PA	PS	CI
EE	1.00				
DP	.37	1.00			
PA	.68	-.39	1.00		
PS	.72	.53	-.45	1.00	
CI	.64	.42	-.27	.63	1.00
CP	.47	.47	-.16*	.44	.61
SSQN	-.12 ns	-.14*	.12 ns	-.14*	-.07 ns
SSQS	-.39	-.35	.28	-.37	-.25
Gender	.21**	.08 ns	-.15*	.21	.21
YRSEXP	-.10 ns	-.11 ns	.22**	-.20**	-.15*

	CP	SSQN	SSQS	Gender	YRSEXP
CP	1.00	-.11 ns	-.25	.05 ns	-.05 ns
SSQN		1.00	.35	.04 ns	-.02 ns
SSQS			1.00	-.02 ns	.12 ns
Gender				1.00	-.42
YRSEXP					1.00

** $p < .01$, * $p < .05$. All others are significant at the $p < .001$ level unless indicated by ns (nonsignificant).

Social support numbers correlated only slightly with depersonalization and perceived stress, and quite strongly with social support satisfaction. Because of the lack of relationship between social support numbers and the majority of the variables in the model, it was decided to drop social support numbers from the remaining analyses in an attempt to reduce the number of variables in the model. Sarason and colleagues (1987) suggested that number, satisfaction, or number of family supports were all appropriate measures of social support and that all could be used or one or more indicators can be used instead; depending on whichever best serve the need of the investigation. It should be noted that years of teaching and years of coaching experience were highly correlated (r=.99) and a mean score for years of experience was determined and used in all analyses.

Canonical Correlation Analyses

Two canonical correlation analyses were used to explore the relationship between Part I of the model that included the set of burnout variables (EE, DP, PA) and the set of stress appraisal variables (PSS, CIS, CPS) and Part II which included the set of environmental variables (SSQS, Gender, YRSEXP) and the perceived stress variables.

Part I of Model

The first canonical analysis was conducted on Part I of the model using perceived stress, coaching issues, and coaching problems as the predictor variables and the three burnout scales of emotional exhaustion,

depersonalization, and personal accomplishment as the criterion variables. A significant multivariate effect was obtained, Wilk's Lambda = .36, F (9, 470) = 27.45, $p < .001$. Two canonical functions were significant for Part I of the model with the first function accounting for approximately 62% of the total variance and the second function accounting for only about 4% of the variance. Pedhazur (1982) suggests that a proportion that is greater than or equal to 10% is considered significant, and thus only the first function represented a significant and meaningful amount of shared variance between the predictor variables and the burnout variables. The standardized canonical coefficients provide a measure of the relative importance of each of the three predictor variables to the three criterion variables. A coefficient greater than or equal to .30 is considered to be significant (Pedhazur, 1982); therefore, the predictor variables of perceived stress and coaching issues and the criterion variable of emotional exhaustion were considered significant in the first function. Perceived stress and coaching issues were both positively weighted with emotional exhaustion, indicating that higher perceived stress and greater coaching issues corresponds to higher levels of emotional exhaustion. In the second function, perceived stress, coaching issues, and coaching problems predicted personal accomplishment and emotional exhaustion. Perceived stress was negatively weighted with personal accomplishment and emotional exhaustion, which indicates that as more stress is perceived, the sense of personal accomplishment and emotional exhaustion decrease. However, this function did not account for much variance and the results may be spurious (see Table 8).

Table 8

Standardized Regression Coefficients: Part I of Model

Standardized Canonical Coefficients for Stress Appraisal		
	V1	V2
Perceived stress	0.730	- 1.009
Coaching Issues	0.301	0.681
Coaching Problems	0.088	0.679
Standardized Canonical Coefficients for Perceived Burnout		
Emotional Exhaustion	0.907	0.496
Depersonalization	- 0.028	0.113
Personal Accomplishment	- 0.260	1.041
Canonical R	0.788	0.206
Redundancy Canonical R2	0.622	0.043
F	27.45	2.79
df	9 / 470	4 / 388
$p > F$	0.001	0.026

Part II of Model

The second canonical analysis examined Part II of the model using social support satisfaction, gender, and experience as the predictor variables and perceived stress, coaching issues, and coaching problems as the criterion variables. A significant multivariate effect was once again obtained, Wilk's Lambda = .79, $F(9, 460) = 5.21$, $p < .001$. However, only the first function was significant and accounted for approximately 19% of the variability in the criterion variables. Standardized canonical coefficients indicated that the less the satisfaction with social support the greater the perceived stress, and that the female teacher-coaches experienced higher stress levels than did their male counterparts (see Table 9).

In summary, a significant proportion of the variability in the criterion variables was accounted for by the predictor variables in both parts of the model. For Part I of the model, canonical loadings indicated that perceived stress made the greatest contribution to the prediction of emotional exhaustion. In Part II of the model, although social support satisfaction and gender both predicted perceived stress, social support was clearly the stronger predictor. Although the canonical regression results supported both parts of the model, support was much stronger for Part I with stress predicting burnout (67%), than for Part II, with environmental variables predicting stress (19%).

Table 9

Standardized Regression Coefficients: Part II of Model

Standardized Canonical Coefficients for Environmental Variables	
	V1
Social Support Satisfaction	- 0.822
Gender	0.395
Years of Experience	- 0.222
Standardized Canonical Coefficients for Stress Appraisal	
Perceived Stress	0.892
Coaching Issues	0.096
Coaching Problems	0.091
Canonical R	0.431
Redundancy Canonical R2	0.186
E	5.211
df	9 / 460
$p > F$	0.001

Multiple Regression Analyses

Part I of Model

Part I of the model was examined with stepwise multiple regression analyses by entering perceived stress, coaching issues, and coaching problems for each of the three dimensions of burnout. Stepwise regression analyses (see Table 10) indicated that the combination of perceived stress and coaching issues significantly predicted emotional exhaustion ($R2 = .58$, $p < .001$). Perceived stress entered the prediction equation first and accounted for most of the variability in emotional exhaustion, followed by coaching issues. Higher perceived stress and greater coaching issues were associated with higher emotional exhaustion scores.

Table 10

Stepwise Regression Part I of Model: Emotional Exhaustion

	Predictors	Partial R2	Final Beta	F	p
Step 1	Perceived Stress	.52	0.82	81.42	.001
Step 2	Coaching Issues	.06	0.18	27.61	.001

$R2 = .58, (2,199), F = 138.74, p > .001$

The strongest predictor of the burnout dimension of depersonalization was perceived stress, followed by coaching problems. These variables accounted for approximately 31% of the variability in depersonalization.

Once again, those higher in perceived stress tended to score higher in depersonalization. However, more coaching problems also contributed slightly to higher depersonalization scores (see Table 11).

Table 11

Stepwise Regression Part I of Model: Depersonalization

	Predictors	Partial R2	Final Beta	F	p
Step 1	Perceived Stress	.29	0.36	49.39	.001
Step 2	Coaching Problems	.02	0.14	5.86	.016

R2 = .31, (2,199), F = 44.63, $p > .001$

For the personal accomplishment dimension of burnout, perceived stress entered as the only significant predictor (R2 = .21, $p < .001$). Those teacher-coaches who experienced higher overall perceived stress scored lower in their sense of personal accomplishments (see Table 12).

Table 12

Stepwise Regression Part I of Model: Personal Accomplishment

	Predictors	Partial R2	Final Beta	F	p
Step 1	Perceived Stress	.21	-0.43	51.16	.001

R2 = .21, (1,197), F = 51.16, p> .001

In summary, the global measure of perceived stress was the strongest predictor of all three dimensions of burnout. Although coaching issues entered into the equation for emotional exhaustion and coaching problems for depersonalization, their contributions were minimal.

Part II of Model

Stepwise multiple regression analyses examined Part II of the model, by entering the predictor variables of social support satisfaction, gender, and years of teaching-coaching experience for each of the three dimensions of burnout. Stepwise regression analyses (see Table 13) indicated that the combination of social support satisfaction and gender significantly predicted perceived stress (R2 = .17, p< .001). Those teacher-coaches who expressed greater satisfaction with their social support scored lower in perceived stress, and to a lesser degree, females tended to perceive greater stress than their male counterparts.

Table 13

Stepwise Regression Part II of Model: Perceived Stress

	Predictors	Partial R2	Final Beta	F	p
Step 1	SS Satisfaction	.13	-3.04	29.61	.001
Step 2	Gender	.04	2.18	4.48	.036

R2 = .17, (2,198), F = 20.35, p> .001

Stepwise regression analyses entered social support satisfaction and gender in that order in the prediction of coaching issues (R2 = .09, p< .001). Although accounting for a limited amount of the variability in coaching issues scores, those respondents who were more satisfied with their social support scored lower in coaching issues, and once again, females scored higher than males (see Table 14).

Satisfaction with social support was the only significant predictor of coaching problems, accounting for approximately 6% of the variability in teacher-coach perceptions of coaching problems. The less the satisfaction with social support, the higher the scores on the coaching problems survey (see Table 15).

Table 14

Stepwise Regression Part II of Model: Coaching Issues

	Predictors	Partial R2	Final Beta	F	p
Step 1	SS Satisfaction	.06	-5.60	13.32	.001
Step 2	Gender	.03	6.56	6.37	.012

R2 = .09, (2,197), F = 10.10, p> .001

Table 15

Stepwise Regression Part II of Model: Coaching Problems

	Predictors	Partial R2	Final Beta	F	p
Step 1	SS Satisfaction	.06	-1.83	13.18	.001

R2 = .06, (1,200), F = 13.18, p> .001

In summary, satisfaction with social support was the strongest predictor for each of the perceived stress components and the only predictor for coaching problems. Gender entered as a significant predictor for perceived stress and coaching issues, although its contribution was considerably less than social support satisfaction. Years of teacher-coach

experience did not enter as a significant predictor in any of the stepwise regression analysis.

Hierarchical Regression Analyses Controlling for Stress Appraisal

Emotional Exhaustion

To further test the hypothesized model that the three components to burnout, emotional exhaustion, depersonalization, and personal accomplishment are a result of a combination of perceived stress, coaching issues, and coaching problems only, and that social support satisfaction, gender, and years of experience do not directly predict burnout, three separate hierarchical regression analyses were conducted. These analyses controlled for the effect of the perceived stress portion of the model by entering those variables, as a set, into the regression equation first and then examining whether social support, gender, or experience added to the prediction of each burnout component, over and above the already entered stress component.

For emotional exhaustion and depersonalization, social support satisfaction contributed slightly beyond the perceived stress set of predictors. Social support added approximately 1% to the variance accounted for in emotional exhaustion (see Table 16) and approximately 2% in the case of depersonalization. With both these components of burnout, less satisfaction with social support related to higher levels of emotional exhaustion and depersonalization.

Table 16

Hierarchical Regression Controlling for Stress Appraisal: Emotional Exhaustion

	Predictors	R2	Unstandardized Beta	F	p
Step 0	Perceived Stress	.58	0.75	62.71	.001
	Coaching Issues	.58	0.14	13.59	.001
	Coaching Problems	.58	0.15	2.07	.152
Step 1	SS Satisfaction	.59	-1.54	5.47	.020

R2 = .59, (4,189), F = 68.55, p> .001

Table 17

Hierarchical Regression Controlling for Stress Appraisal: Depersonalization

	Predictors	R2	Unstandardized Beta	F	p
Step 0	Perceived Stress	.33	0.30	23.44	.001
	Coaching Issues	.33	0.03	1.20	.275
	Coaching Problems	.33	0.12	2.92	.090
Step 1	SS Satisfaction	.35	-0.99	5.44	.021

R2 = .35, (4,189), F = 25.12, p> .001

Years of experience as a teacher-coach contributed slightly beyond perceived stress (see Table 18). More years of experience was related to a greater sense of personal accomplishment and thus less burnout.

Table 18

Hierarchical Regression Controlling for Stress Appraisal: Personal Accomplishment

	Predictors	R2	Unstandardized Beta	F	*p*
Step 0	Perceived Stress	.21	-0.46	33.40	.001
	Coaching Issues	.21	0.02	0.35	.555
	Coaching Problems	.21	0.07	0.55	.460
Step 1	Years of Experience	.23	0.12	5.03	.026

R2 = .23, (4,186), F = 14.08, $p > .001$

In summary, the environmental variables indirectly predict burnout through the perceived set of predictors, but this analysis also suggests a slight direct path social support satisfaction to emotional exhaustion and depersonalization and from years of experience to personal accomplishment.

Exploratory Stepwise Regression Analyses

In all reported analyses scores on the perceived stress scale predicted burnout and environmental variables predicted scores on perceived stress. However, similar relationships were not found with the other measures of perceived stress suggesting that the Coaching Issues Survey and the Coaching Problems Scale may not be measures of perceived stress but might more appropriately be viewed as indicators of situational stressors in the work environment of these teacher-coaches (e.g., time restraints for CIS and role conflict for CPS). If these scales measure the presence or absence of situational stressors, such as time restraints or role conflict, then they should be included with social support, gender, and years of experience in Part II of the model. Exploratory regression analyses were conducted to test this assumption.

Results of these exploratory analyses indicated that the combination of predictors of coaching issues, social support satisfaction, gender, coaching problems, and years of experience significantly predicted overall perceived stress ($R2 = .46$, $p < .001$). Stepwise regression analyses entered coaching issues first, followed by social support and gender (see Table 19). The greater the coaching issues the higher the perceived stress. The less satisfaction with social support, the higher the perceived stress. Females scored higher than males in overall perceived stress. Neither coaching problems, which measured role conflict, nor experience entered the prediction equation.

Table 19

Exploratory Stepwise Regression Part II of Model: Perceived Stress Only

	Predictors	Partial R2	Final Beta	F	*p*
Step 1	Coaching Issues	.38	0.21	122.42	.001
Step 2	SS Satisfaction	.04	-1.90	14.84	.001
Step 3	Gender	.02	1.90	5.61	.02

R2 = .45, (3,191), F = 51.72, *p*> .001

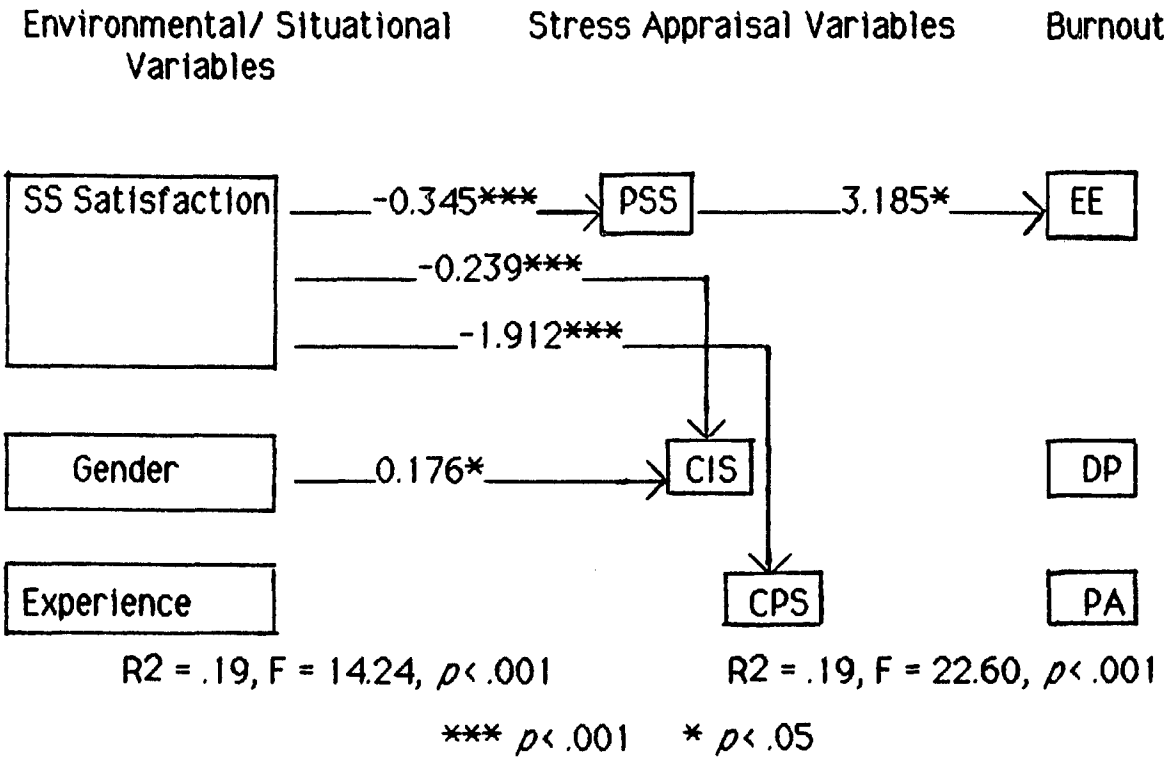
Exploratory Path Analyses

Path analyses were used to examine the hypothesized model as well as an alternate model. The path analytic procedure inputs the situational or environmental variables first and then generates a new predicted value for perceived stress, which in turn is used to predict burnout.

When the full original model was tested (see Table 20), the results indicated that social support satisfaction significantly predicted perceived stress, coaching issues, and coaching problems, whereas gender significantly predicted only perceived stress. The years of experience path was nonsignificant. With the new predicted scores generated for the perceived stress set of variables, only the global perceived stress path was significant, and only for emotional exhaustion.

Table 20

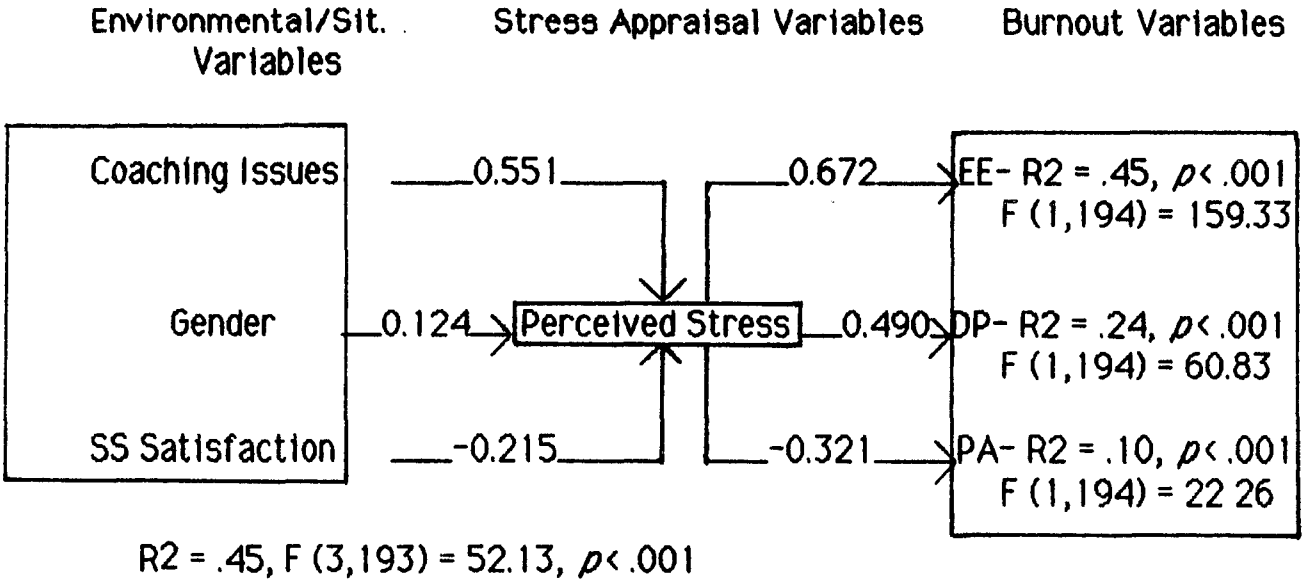
Path Analysis of Full Model



Based on the exploratory stepwise regression analysis and path analysis of the full hypothesized model, a reduced alternative model was proposed and tested. This model included the environmental variables of coaching issues, social support satisfaction, and gender predicting only the strongest stress appraisal variable of perceived stress. Perceived stress would then predict the three dimensions of burnout, emotional exhaustion, depersonalization, and personal accomplishment. This new model was highly predictive of emotional exhaustion and moderately predictive of depersonalization and slightly predictive of personal accomplishment.

Table 21

Path Analysis of Alternative Reduced Model



Summary

The results of this study can be summarized as follows:

1. All of the multi-item scales used in this study seemed to be reliable measures, with good internal consistencies.

2. The majority of this sample of dual-role teacher-coaches were suffering from moderate to high burnout, based on the norms established for those working in higher education (Maslach & Jackson, 1986).

3. Stress appraisal was a significant predictor of levels of all burnout dimensions. The greatest variance accounted for was with emotional exhaustion, followed by depersonalization and personal accomplishment. Perceived stress was the strongest stress appraisal variable in predicting burnout. Coaching issues added slightly to the prediction of emotional exhaustion and coaching problems to depersonalization.

4. Social support was the strongest environmental/situational variable predicting all three stress appraisal components. Gender was a significant predictor for perceived stress and coaching issues but not coaching problems. Years of experience failed to enter as a predictor for stress appraisal.

5. Social support and years of experience were slight predictors of burnout over and above the contribution of stress appraisal. Social support was a slight direct predictor of emotional exhaustion and depersonalization, whereas years of experience was a slight direct predictor of personal accomplishment.

6. Path analysis revealed social support significantly predicted all components of stress appraisal and gender was a slight predictor of perceived stress. Perceived stress was the only significant predictor of burnout, with a significant path to emotional exhaustion.

7.. A reduced alternative model that placed coaching issues, social support, and gender as environmental/situational variables predicting burnout through perceived stress was highly predictive. Coaching issues, social support, and, to a limited extent, gender, predicted levels of perceived stress which in turn predicted levels of emotional exhaustion, depersonalization, and personal accomplishment.

CHAPTER V
DISCUSSION

A proposed model of burnout in dual-role teacher-coaches working at the college level was examined in this study. The existing literature suggested several important considerations that were incorporated in the current research. First, burnout is viewed as a multidimensional syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that is the result of prolonged stress that affects those working in the helping professions. Secondly, for burnout to develop, the individual must perceive a mismatch between the demands of the task and the resources available to meet those demands, or, in other words, appraise the situation as stressful. Third, studies suggest that burnout is a growing problem among higher educators. Fourth, in spite of the consensus that coaching is a highly stressful occupation, the research on coaches and burnout shows that coaches suffer from relatively low levels of burnout and fall below the levels of other helping professionals. Finally, research efforts into burnout among teachers and coaches in higher education to this point have not used a theoretical underlying model.

Smith's (1986) cognitive-affective model of burnout in sport provides that theoretical base for developing and testing a model of burnout in dual-role teacher-coaches at the college level. Smith's model parallels the work of other social cognitive theorists (e.g., Lazarus & Folkman, 1984, 1986; Mischel, 1973) in that "situations exert their effects through the

intervening influence of thought" (Smith, 1986, p. 41). It is the individual's interpretation or appraisal of the situation that leads to the perception of stress, which, in turn, can lead to any number of negative health consequences; one of which is burnout.

The model proposed by Smith (1986) is designed to be specific to the athletic environment. However, the model is quite general in that it incorporates environmental/situational variables, an interaction between cognitive appraisals and physiological responses, and consequences that may be salient to a number of sport populations (e.g., athletes, coaches, athletic directors, trainers). This study, while retaining the theoretical emphasis on cognitive appraisal, reduced Smith's model to two key parts and used the most salient variables to investigate burnout in dual-role teacher-coaches at the college level. Part I of the hypothesized model proposed that the stress appraisal variables of perceived stress, coaching issues, and coaching problems predict the levels of burnout in emotional exhaustion, depersonalization, and personal accomplishment. Part II of the model proposed that the environmental/situational variables of social support, gender, and years of experience predict stress appraisal. The results confirmed that stress appraisal significantly predicted burnout and also that the environmental/situational variables significantly predicted stress appraisal. Although the hypothesized model was supported, an alternative model with some modifications more effectively predicted burnout.

This discussion is divided into four sections. The first section discusses the results in light of the hypotheses. The second section presents discussion of the results from exploratory stepwise regression and path

analyses. Thirdly, general observations about levels of burnout in this sample are discussed. Finally, implications of this study and suggested directions for future research are presented.

Hypotheses

Hypothesis One

The first hypothesis that stress appraisal directly predicts burnout was clearly supported; the higher the levels of stress appraisal, the higher the levels of burnout. Of the three variables within stress appraisal, perceived stress was definitely the strongest predictor for the burnout components of emotional exhaustion, depersonalization, and personal accomplishment. The greater the global perceived stress in these teacher-coaches, the higher the levels of burnout, with emotional exhaustion being the most pronounced. Coaching issues entered as a predictor for emotional exhaustion and coaching problems entered as a predictor for depersonalization, however, their contributions were limited compared to perceived stress. The more coaching issues and the greater the coaching problems, the higher the specific levels of burnout.

It appears that the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) is a good measure of stress appraisal in teacher-coaches. The sport-specific measure of Coaching Issues added little beyond the measure of perceived stress. The CIS may more appropriately be viewed as assessing environmental or situational conditions within the teacher-

coach position rather than as a assessment of how much stress those conditions produce.

The Coaching Problems Survey (Locke & Massengale, 1978), which supposedly measured stress arising from the dual-role position of teacher-coach, also was ineffective as a measure of stress. It may be that the teacher-coaches in this study do not perceive a great amount of stress from the dual-role aspect of their positions. They may actually find the dual-role a challenge and enjoy the unique requirements of both, the role of teacher and the role of coach. It is also possible that the teacher-coaches in this sample have found a healthy balance between the requirements of the two separate, but overlapping roles. As with the CIS, the CPS may not be measuring the stress involved with the role-conflict, but measuring whether role-conflict is a part of the teacher-coach position. If this is the case, the CPS more appropriately belongs in the environmental/situational variable portion of the model.

Hypothesis Two

The second hypothesis that social support directly predicts stress appraisal and indirectly predicts burnout was also clearly supported; the greater the satisfaction with the social support, the lower the stress appraisal. Social support satisfaction was the strongest predictor for perceived stress, coaching issues, and coaching problems. More satisfaction predicted less global perceived stress, less stress from coaching issues, and less stress from coaching problems. These results support previous

research within health psychology that found social support to be a moderator of burnout (e.g., Constable & Russell, 1986; Eitzion, 1984).

Social support satisfaction also influenced burnout directly. Although the contribution was minimal, greater satisfaction with social support predicted lower levels of emotional exhaustion and depersonalization. In spite of the appraisal of stress, satisfaction with social support may help to reduce levels of emotional exhaustion and depersonalization.

Hypothesis Three

The third hypothesis that gender directly predicts stress appraisal and indirectly predicts burnout was partially supported. Gender predicted both perceived stress and coaching issues with males scoring lower than females on those areas of stress appraisal. Gender did not influence coaching problems. Although females were slightly higher in perceived stress and coaching issues, the practical significance may be minimal and may be due to females answering more honestly than their male counterparts. Contrary to previous studies (Acosta & Carpenter, 1987; Hasbrook, 1988), it appears that the males and females in this sample may face the same stressors in their dual roles as teachers and head basketball coaches. It is also possible that the females most prone to the stresses involved in coaching have already left the profession, as the declining percentages of females in head basketball coaching positions might indicate (Acosta & Carpenter, 1987).

Hypothesis Four

The fourth hypothesis that years of teacher-coach experience directly predict stress appraisal and indirectly predict burnout was not supported. Teacher-coach experience had no significant influence on perceived stress, coaching issues, or coaching problems. Findings did, however, reveal that years of experience had a slight direct influence on burnout. The more years of experience, the higher the sense of personal accomplishment for these teacher-coaches.

Overall, the variables in the environmental/situational portion of the model were weak predictors of stress appraisal. Social support was the strongest variable but even that predicted 13% of the variability in perceived stress and only 6% of the variability in coaching issues and coaching problems. Gender and years of experience did not provide much information relative to the the appraisal of stress. It is important to identify other environmental/situational or personal variables that may influence how the individual perceives the demands and resources available in the teacher-coach role. One possibility is to examine sport-specific measures of conditions within the environment or situation of the dual-role teacher-coach (e.g., travel demands, budget limitations, release time for coaching). Factors that were not addressed in this study, but would seem likely to influence the stress experienced by teacher-coaches are the won-loss record, expectations for having a successful competitive basketball program, and how much success in their coaching positions might influence their tenure, irrespective of their effectiveness or lack thereof in their teaching roles.

Exploratory Analyses

Stepwise Regression Analyses

Exploratory analyses examined whether coaching issues and coaching problems were indeed stress appraisal variables or whether they were more appropriately viewed as environmental/situational variables. Tentatively, the coaching issues survey is better viewed as a measure of particular stressful situations that exist in the environment of the teacher-coach. Coaching issues clearly predicted overall perceived stress accounting for 38% of the variance, whereas social support and gender added only another 6% to the prediction of perceived stress. Coaching problems, however, which may indicate situational role conflict and thus an environmental variable did not enter as a significant predictor for perceived stress.

Path Analyses

Path analyses were used to examine the hypothesized model as well as an alternative model. Part II of the hypothesized model, which proposes that social support, gender and years of experience predict the stress appraisal variables of perceived stress, coaching issues, and coaching problems, was partially supported. Social support satisfaction predicted all variables in stress appraisal; however gender only weakly predicted perceived stress, and years of experience did not predict stress appraisal at all. Overall, the combination of environmental/situational variables predicted only 19% of the variability in stress appraisal.

Part I of the hypothesized model, which proposes that the stress appraisal scores generated from Part II would then predict burnout, was

only partially supported. The only significant path led from perceived stress to emotional exhaustion, with perceived stress accounting for approximately 19% of the variability in levels of emotional exhaustion in this sample. Although a good starting point, the hypothesized model did not have the predictive capabilities desired, and an alternative model was considered.

Based on the exploratory stepwise multiple regression analyses, a parsimonious model was proposed that included only the strongest predictors in each part. As a result, Part II of the alternate model includes coaching issues, social support satisfaction, and gender as the environmental/situational variables predicting the strongest stress appraisal variable, perceived stress. Part I of the alternate model contains only perceived stress as a predictor of burnout.

The alternative model was supported by the path analysis. The coaching issues, social support satisfaction, and gender paths were significant and accounted for approximately 45% of the variability in the stress appraisal variable of perceived stress. Perceived stress had significant paths to all three components of burnout. The predicted value for perceived stress based on the input of coaching issues and social support accounted for approximately 45% of the variability in levels of emotional exhaustion, 24% for depersonalization, and only 10% for personal accomplishment.

The alternate model appeared to fit best for emotional exhaustion, followed by depersonalization, and finally, personal accomplishment. One reason the model may have fit best for emotional exhaustion is that the symptoms of stress and emotional exhaustion share more overlap than do

stress and depersonalization or personal accomplishment. Both stress and emotional exhaustion are characterized by the individual feeling a sense of despair, feeling isolated, feeling overwhelmed, and feeling exhausted by one's work, whereas the symptoms of the burnout dimensions of depersonalization (distancing oneself from students and athletes) and personal accomplishment (the sense of meaning about one's work) seem to have a weaker or less direct connection with the symptoms of stress.

Burnout Levels

To test a model of stress and burnout, the sample must experience burnout. Previous studies may have failed to find relationships because samples typically had uniformly low burnout levels. An important finding that is contrary to previous studies examining coaches (Caccese, 1983; Hunt, 1984) is that the majority of teacher-coaches in this study were suffering from moderate to high levels of burnout. There are no established norms for coaches, but using the established norms for teachers in higher education (Maslach & Jackson, 1981, 1986), 46% of the teacher-basketball coaches in this study were suffering from high levels of emotional exhaustion, 45% were high in depersonalization, and 34% had a lowered sense of personal accomplishment indicative of the burnout syndrome.

These findings may more accurately reflect the actual levels of burnout among coaches, and in this case teacher-coaches, than previous studies. The levels of burnout may have been higher but also more accurate because participants were all head basketball coaches with similar responsibilities

within their respective programs, they all had additional teaching responsibilities at their institution, they were all sampled within the same one month in February that is the most stressful time of the year or season for many teacher-coaches, and they completed a version of the Maslach Burnout Inventory written for teachers and adapted for the teacher-coaches.

However, it is impossible to ascertain whether burnout, as conceptualized in previous research with other helping professionals as a condition that results from prolonged stress over time and is viewed as rather stable or enduring once it occurs, is an appropriate construct for this population. Teacher-coaches, unlike many other helping professionals, have times during the year that are highly stressful (e.g., toward the end of a season, during grading periods), but they also have times when stress is likely to be very low (e.g., during the off-season, summers). The stress teacher-coaches face would seem to be most pronounced during certain time frames and not an ongoing or continuous situation. In one sense, this study lends support to the proposal that high stress levels are a precursor to burnout. In another sense, the elevated burnout levels in the teacher-coaches in this sample may have been a reflection of a temporarily stressful period of time and not a reflection of an enduring syndrome.

In addition, with only a 36% "useable" return rate, it is difficult to assess whether the teacher-coaches who participated in this study were representative of the general teacher-coach population. Interestingly, two survey packets were returned without being filled out with the attached comment that they "did not have time to complete the packet because of the tremendous stress they were under at that time of year". It is impossible to

estimate how many other survey packets were simply not returned because the teacher-coaches felt too stressed out to take the time to complete them. However, it may also be the case that those who took the time to return the survey packet were those experiencing the most stress and the study served as a vehicle for them to express those feelings.

Implications and Future Directions

This study appears to indicate that there is a problem with occupational burnout among teacher-basketball coaches at the college level. A large number of these teacher-coaches felt that their emotional resources were depleted, that they needed to distance themselves from their students and/or athletes, and that they had a reduced sense of personal accomplishment and meaning in their work. These feelings could spill over and affect their health and their effectiveness at performing their multiple roles as teachers and coaches.

This study tested a model of burnout in dual-role teacher-coaches and may set a precedent for future research in this area. Findings were consistent with previous conceptualizations of burnout, in that burnout results from the perception of stress. Teacher-coaches in this study were in a high stress time of their work and steps may be needed to relieve this stress so that it doesn't manifest itself as burnout. Consistent with previous research, females reported slightly higher stress levels than their male counterparts, however the difference was minimal. In spite of the differences being minimal, and given the reported decline in the percentages

of females remaining in head basketball positions over the past decade, special attention needs to be directed toward helping female teacher-coaches relieve the stress they are experiencing so that the end result is not burnout and possibly, drop out.

Working from the proposed model, this study also found that the higher the level of satisfaction with the social support available, the lower the perceived stress and thus the lower the burnout. Teacher-coaches may need to be reminded by athletic directors, department chairpersons, sport consultants, or through workshop presentations, to draw on their social support or seek out the satisfying support during the times of high stress. This may involve the above mentioned individuals helping teacher-coaches develop satisfying social networks during times of low stress when the demands on their time and their energy are not so great. The teacher-coaches themselves can also become more self-aware of the importance of social support through discussions and reading studies such as this one published in their own teaching and coaching journals. As stated in the results section, for the most part these teacher-coaches had relatively small but highly satisfying social support networks. Due to the time demands of their multiple roles, practice, and travel, teacher-coaches may not have the same opportunities as their colleagues in other areas to establish larger social support networks. However, for this sample, the size of the network did not seem to be a problem.

The coaching issues survey appeared to be a measure of issues within the coaching environment rather than a pure measure of stress related to those issues. Further research should explore the psychometric properties of this

instrument with other samples of teacher-coaches to better understand exactly what it is assessing. The coaching issues survey is the only sport-specific assessment instrument of issues and stressors.in the coaching environment and has potential to be a valuable research tool.

Along the same theme, it is important that burnout be measured with an appropriate instrument. This study used the Educators version of the MBI, rather than the regular version geared toward general helping professionals, and further adapted the Educators version to the teacher-coach population. This adaptation retained the internal consistency and psychometric properties of the original scale, while at the same time making items more relevant to this population.

Research in the area of teacher-coach burnout should be theory-driven and models must be tested and improved. This approach will allow researchers to add systematically to the limited body of knowledge on this topic. Working from a model also helps give future direction to research efforts. For example, this study indicated: (a) only a weak contribution of gender and no contribution of years of experience within the proposed model, (b) the need to examine other environmental/situational or personal variables that might influence the appraisal of stress, (c) a general stress appraisal measure such as the Perceived Stress Scale provided a good assessment of the stress these teacher-coaches were experiencing, and (d) teacher-coaches manifested the greatest burnout in emotional exhaustion and depersonalization, but this might not be the case if they were sampled at a different time in the season. Thus, the model should be tested with other samples, sports, and times of year or season.

This study pointed toward the need to examine alternate environmental/situational such as won-loss record, expectations for program success, and the weight of both teaching and coaching in the decision for job retention. Personal dispositions or factors might also influence perceived stress. One example of such a person variable is hardiness. Hardiness is a personality construct composed of the dimensions of challenge, commitment, and control that has gained wide support as a stress buffer through mediation of the perception of potential stress (e.g., Kobasa, Maddi, & Kahn, 1982). By virtue of the nature of the position of teacher-coach, an individual may seek out challenge through winning and losing, working with young people as students and players, and by being proficient in two separate occupationally demanding areas of teaching and coaching. The teacher-coach is also likely to be highly committed to their work given the long hours, multiple responsibilities, self-imposed and externally imposed pressure they experience, and their dedication to their students and players as developing young adults. Teacher-coaches may be caught in the position of having a great deal of control within their situation in that they can decide their exact teaching content, practice content, and sometimes course schedules and coaching schedules. On the other hand, teacher-coaches give up much of their control of winning and losing when their players take the floor; it is ultimately the athletes who decide the winners and losers. These possible conditions make the hardiness construct ripe for research with teacher-coaches and burnout.

Another area with great potential is the role of coping responses, either as a mediator of the appraisal of stress or as a buffer between a stressful

appraisal and burnout. There is a growing consensus that coping strategies play an important role in the effectiveness of an individual's response to stressors (e.g., Billings & Moos, 1981). The pilot interviews undertaken in conjunction with this study indicated that those teacher-coaches used a wide variety of coping strategies and styles to handle stress on a daily basis. Some of those strategies included relaxation techniques, goal-setting strategies, prioritizing responsibilities, drawing on their social network, getting regular physical exercise, getting away, using positive self-talk and drawing on faith and religious beliefs. In relation to the proposed model, coping strategies might enter into the environmental/situational/ or personal component of the model, in that if an individual knows he or she will be able to cope with an event, then it is unlikely that stress will develop. Or, coping strategies might fit into the model as in the stress buffering model of Cohen and Wills (1985), in that having coping strategies available and using them may negate the negative consequences of the stress such as the development of burnout.

Future research should follow teacher-coaches across a school-year or at least across an entire season of competition. Some of the previous research may have found low levels of burnout because they were not sampling participants during particularly stressful times of the year or season. If burnout is present during stressful times and absent or lower during times of lower stress, then burnout may be transitory rather than an end state. Pilot interviews for this study indicated that burnout is often temporary and that once the season or year is completed and there is time to step away, the burnout recedes. Questionnaire and in-depth interviews

over an extended period of time might help shed some light on this issue. Interviewing teacher-coaches who have left the profession might be another way to get at the same issue. Finding out how these former teacher-coaches experienced stress and burnout on a season to season, day to day basis could provide greater insight into whether there is a burnout cycle. It is also important to shed light on the antecedents and consequences of burnout. Such retrospective reports might be useful in understanding the antecedent conditions leading up to burnout and the physical and psychological consequences of burnout.

At this time, the research into burnout and teacher-coaches, coaches, and sport participants in general does not point to specific intervention strategies and programs. The existing information on antecedent conditions in the sport environment, stress appraisal, and the burnout process is too limited to help establish such programs. This study highlighted the significance of social support satisfaction as a moderator of stress and the possible implications were discussed previously.

However, it is the view of this investigator and previous teacher-coach, and the coaches in the pilot study for this investigation, that burnout is an increasingly severe problem and that something must be done to keep good coaches from leaving the profession because of too much stress leading to burnout. Research on stress intervention or burnout recovery might be drawn from the health psychology literature and applied to these sport populations. However, these interventions should be well documented and the effectiveness of such programs assessed in an empirical and systematic manner.

In conclusion, this study examined a model of burnout in dual-role teacher-coaches. The data supported the basic structure and key components of the model, although some modifications and trimming produced an alternate model that better fit the data collected. Coaching issues, social support satisfaction, and gender influenced the teacher-coaches perception of stress which in turn influenced their levels of emotional exhaustion, depersonalization, and personal accomplishment. Contrary to previous studies, this investigation found the level of burnout in these teacher-coaches to be quite high. Burnout appears to be a problem for teacher-coaches and further studies that build on the model developed in this investigation could establish a base of knowledge to work from in developing appropriate and effective intervention strategies.

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APPENDIX A

Pilot Study Summary

Pilot study

A pilot study was conducted to explore stress and burnout perceptions among selected college teacher-coaches (N=14) across various competitive levels (see Table 22). The dual-role teacher-head coaches (see Table 23) were from 6 different colleges from the upper Midwest. Coaches were contacted by telephone in early August, given a brief description of the study and its purpose, and asked to participate. The investigator personally met with each of the participants in mid-August. The teacher-coaches completed a survey packet just prior to a structured in-depth personal interview with the investigator. The survey packet, which took approximately 20 minutes to complete, contained four basic questionnaires (see end of Appendix A for copy of the survey packet) that included; (1) basic demographic and personal characteristics, (2) burnout (Maslach Burnout Inventory, Ed Form (Maslach, Jackson, & Schwab, 1986)), (3) symptoms of burnout (questions derived from work by Smith, 1986), and (4) the perception of stress within the coaching environment (Degrees of Stress, derived from dissertation by Hunt, 1984). The questionnaires were set up to ask the participants to answer retrospectively, thinking back to the end of their last coaching season; first from the perspective of a teacher, and second, from the perspective of a coach. The structured interviews lasted 25 to 65 minutes, addressed issues of stress and burnout, and provided feedback on the questionnaires.

This sample was clearly not suffering from burnout at the time they completed the two perspectives (teaching and coaching) for the Maslach Burnout Inventory (see Table 24). These teacher-coaches had few feelings of emotional exhaustion, lacked a tendency to distance themselves from students or players, and all had a high sense of personal accomplishment. It is important to remember that these coaches were asked to answer the surveys retrospectively, but were actually sampled in August, prior to the start of the school year and the start of even the earliest seasons, volleyball and football. Thus it is likely these teacher-coaches were experiencing minimal stress during this time. These coaches may not have suffered from burnout at the end of their last coaching season, or more likely, they were unable to accurately reflect back to that time period and remember how they really felt.

Interview data in combination with questionnaire responses indicated five primary stressors that these teacher-coaches experienced. These stressors included: (a) placing pressure on myself to win, (b) time restraints (e.g., not having enough time to devote to both teaching and coaching, not having enough time to devote to my family, not having enough time for myself), (c) role strain, (d) recruiting, and (e) budget and facility hassles. It was important to incorporate these stressors into the assessment instrument that was being developed for future dissertation research use.

From the pilot information, the Coaching Issues Survey was developed from the Degrees of stress portion of the survey and the wording of the MBI Ed Form was modified. This step was important for the present study

because no standardized instrument that specifically examines stress in the athletic environment exists. Sport-specific measures have consistently been demonstrated to be more valid for an athletic population (e.g., SOQ, Gill & Deeter, 1988; SCAT, Martens, 1977; CSAI-2, Martens, et al., 1990). Measures developed and tested with a sport-specific sample should also allow more accurate and valid perception of the stresses in the athletic coaching situation.

The Degrees of Stress instrument was reduced from 60 to 32 items for the Coaching Issues Survey, because certain items were consistently not an issue for the coaches who participated in this pilot study. The mean values for each item of the Degrees of stress portion of the survey were calculated (see Table 25) and if the mean value for an item was below 2.5, indicating slightly less than moderate stress, the item was eliminated. The 2.5 mean was selected based on the indication that the sample was under low stress at the time they completed the survey and their answers indicated low degrees of stress overall. Several new items were constructed based on the open-ended sections of the questionnaire and interviews with the pilot subjects. The removal of 34 original items and the addition of 4 new items yielded a new 32-item scale.

Athletic directors from 6 NCAA Division III level colleges in the south were contacted by phone and asked to distribute the new 32-item scale to the teacher-head coaches (N=60) in their programs. 52 of the 60 mailed Coaching Issues Scales were returned. The Cronbach alpha coefficient of .89 indicated that the scale demonstrated good internal consistency. The teacher-coaches were given the opportunity to suggest other issues they

found stressful in an open-ended section at the end of the survey; however, no consistent responses were provided, and thus no new items were developed.

The final survey packet used in the present study was piloted on 10 teacher-coaches to determine the amount of time it would take to complete the packet and to obtain feedback on the overall presentation of the material. Six completed packets were returned and the time for completion ranged form 17 to 32 minutes, averaging 24 minutes. The teacher-coaches indicated no problems with the wording of the questionnaires and provided positive input on the survey packet design and lay-out. Several respondents suggested keeping the pictures that were in the background of the surveys quite faint, so as not to interfere with the visual reading of the questionnaires or become distracting.

This pilot study provided information relative to how teacher-coaches perceive stress and burnout within their working environments. Almost unanimously, the participants indicated that they had experienced burnout at one time or another during their careers. Interestingly, not one coach spoke of burnout in relation to their teaching, but rather in relation to coaching. Also of interest, burnout was viewed as transitory rather than a condition that one got into and couldn't get out of or which led to leaving the profession. Most coaches felt they experienced burnout to some degree toward the end of most coaching seasons, when stress is often highest and the teacher-coach is most vulnerable to fatigue.

These teacher-coaches did not believe they learned coping strategies to handle stress through their teacher or coach preparation programs, but

rather, developed their own over time and through experience. The variety of coping strategies they developed are presented in Table 26. These teacher-coaches expressed a desire to acquire other effective coping strategies such as basic stress management, time management, organizational skills, control of negative thoughts, letting go, mental practice skills, and communication skills.

Overwhelmingly, participants in this pilot study believed stress and burnout were becoming increasingly problematic for teacher-coaches. All but one coach in this sample planned to discontinue coaching before teaching. The combination of survey and interview methods used in this study provided valuable information relative to the perceptions of stress and burnout for these teacher-coaches. Stress and burnout were important issues for this sample but they did not appear to become problems, largely due to the development of effective coping strategies.

Table 22

Competitive Level, Gender, and Total Seasons Coached

Present Head Sport	Gender	Total Seasons
NCAA Division II and/or NAIA		
Women's Basketball	Female	36
Women's Volleyball	Female	33
Women's Gymnastics	Male	15
Men's Baseball	Male	30
NCAA Division III		
Women's Basketball	Female	11
Women's Softball	Female	24
Women's Tennis	Female	15
Men's Baseball	Male	75
Men's Basketball	Male	14
Men's Basketball	Male	15
NJCAA		
Women's Volleyball/Tennis	Female	15
Women's Volleyball	Female	9
Men's Soccer	Male	7
Men's Basketball	Male	38

Table 23

Frequency and Percent of Demographic Characteristics (n = 14)

Variable		Frequency	Percent
Age	25 to 29	0	0
	30 to 34	3	21
	35 to 39	3	21
	40 to 44	5	36
	45 to 49	1	7
	50 to 64	2	14
Gender			
	Female	7	50
	Male	7	50
Highest Educational Degree			
	Bachelors	1	7
	Masters	5	36
	Masters plus 30	4	29
	Doctorate	4	29
Marital Status			
	Single	5	36
	Married	8	57
	Divorced	1	7
	Widowed	0	0
	Other	0	0
Sport in which Head Coach			
	Basketball Only	5	36
	Volleyball Only	2	14
	Tennis Only	1	7
	Soccer Only	1	7
	Gymnastics Only	1	7
	Baseball Only	2	14
	Softball Only	1	7
	Volleyball/Tennis	1	7

Frequency and Percent of Demographic Characteristics Continued

Sport in which Assistant Coach		
Baseball	1	7
Football	1	7
Major Job Responsibilities		
Teach in PE Major Curriculum	14	100
Teach in PE Service Program	14	100
Those with Other Job Responsibilities	9	64
Years in present Teaching Position		
Less than 5	4	29
6 to 10	3	21
11 to 15	3	21
16 to 20	2	14
More than 20	2	14
Years in present Coaching Position		
Less than 5	4	29
6 to 10	3	21
11 to 15	4	29
16 to 20	2	14
More than 20	1	7

Table 24

Percent of Teacher-Coaches Experiencing High, Medium, and Low Burnout on the Subscales of Emotional Exhaustion, Depersonalization, and Personal Accomplishment Relative to Established Norms (N = 14).

Variable	Low	Medium	High
TEACHING			
Emotional Exhaustion	71%	29%	0%
Depersonalization	86%	14%	0%
Personal Accomplishment	100%	0%	0%
COACHING			
Emotional Exhaustion	57%	43%	0%
Depersonalization	93%	7%	0%
Personal Accomplishment	100%	0%	0%

Table 25

Degrees of Stress Scale Item Means

	Mean Score	Statements
1.	1.6	Making decisions which are not popular with the fans.
2.	3.6	Understanding my athletes' emotional responses and motivations and being a source to help them.
3.	1.3	College/university central administration's pressure to win.
4.	3.9	Not having enough time to devote to my coaching responsibilities.
5.	3.7	Budget limitations hampering recruiting.
6.	2.9	Negative media coverage.
7.	1.4	Not having the skills to adequately motivate my players for key contests.
8.	2.8	Other sports or campus events conflicting with my team's use of facilities.
9.	3.2	Personality conflicts with my players.
10.	1.2	My athletic administrator's pressure to win.
11.	4.2	Not successfully fulfilling my responsibilities outside of my coaching duties (teaching, speaking engagements, etc.)
12.	.5	Inadequate scholarship monies to build a competitive team.
13.	1.1	Alumni pressure to win.
14.	.8	Not knowing the techniques and strategies of my sport as well as the coaches of opposing teams.
15.	3.8	Not being able to hire adequate assistant coaches and support staff.
16.	1.1	Personality conflicts with my coaching staff.
17.	.4	The potential of being fired for failing to win.
18.	4.2	Not having time for myself.

Degrees of Stress Scale Item Means Continued

19.	3.1	Inadequate travel budget for contests with highly competitive teams.
20.	1.2	Fans' pressure to win.
21.	1.3	Needing to incorporate new strategies, technologies, and rules into my coaching system in order to remain competitive.
22.	3.5	Making decisions which are not popular with my players.
23.	1.1	Conflicting requests from my immediate supervisor, assistant coaches, and athletes.
24.	.7	The expectation that my team be competitive nationally.
25.	3.9	My career as a coach interfering with family and/or social life.
26.	.7	The threat of insufficient funds leading to the elimination of my sport and my job.
27.	.0	Major financial contributors not being satisfied unless my team win the majority of its contests.
28.	3.3	Not reaching my coaching goals.
29.	.9	My athletic administrator's conflict with my major decisions.
30.	3.7	Not knowing the criteria by which I will be judged.
31.	2.9	The expectation to win a contest in which my team is predicted to win by a close score.
32.	3.9	Injury to one of my starters or top players.
33.	2.0	Players influencing my job retention and/or promotion by determining my win-loss record.
34.	4.7	Placing pressure on myself to win.
35.	1.0	The public not financially supporting our program.
36.	3.4	Being unable to recruit the key personnel that my team needs to be successful.
37.	1.3	Not being appreciated by my players.

Degrees of Stress Scale Item Means Continued

38.	3.1	The expectation to win a contest in which my team is predicted to win by a large margin.
39.	4.1	Players' inconsistency in executing the fundamental skills or game plan.
40.	1.5	The public judging my ability to coach by the performance of my players.
41.	.2	Fearing that I will be caught for rule violations.
42.	.9	Not being emotionally supported by the administration.
43.	4.1	The traveling required to recruit quality athletes.
44.	1.0	My hard work not being appreciated by my immediate supervisor.
45.	3.2	The expectation to win a contest in which my team is predicted to lose by a close score.
46.	2.8	Being concerned that my players might not return to school for the next term.
47.	3.4	Inconsistent judgement calls during a contest.
48.	1.1	Fearing that my team will perform poorly on regional or national television.
49.	.8	The administrator's concern about the number of athletes who do not earn degrees.
50.	1.2	My coaching success being dependent upon the decisions of young adults to attend or not attend my institution.
51.	.9	The public not appreciating my effort with the team.
52.	2.7	The expectation to win a contest in which my team is predicted to lose by a large margin.
53.	3.3	Momentum turning against my team in a contest.
54.	1.2	Having little or no control over which officials are assigned to call my contests.
55.	3.2	Handling defeat.

Degrees of Stress Scale Item Means Continued

56.	1.0	The expectation that my sport will be profit-producing.
57.	2.6	Recruiting against coaches who violate recruiting rules.
58.	1.6	Not building personal financial security.
59.	1.5	The expectation to win a contest in which my team and the opposing teams are evenly matched.
60.	1.2	Being concerned that my athletes will not be academically eligible.

Table 26

Coping Skills and Strategies Developed

Relaxation Techniques	Goal-setting Strategies
Prioritizing Responsibilities	Escape Strategies
Drawing on Social Support Network	Positive Self-Talk
Setting Realistic Expectations	Getting Away
Drawing on Faith and Religious Beliefs	Regular Physical Exercise

Appendix A

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
DEPARTMENT OF PHYSICAL EDUCATION

PARTICIPANT INFORMED CONSENT FORM

I understand that the purpose of this research is to examine stress in dual-role teacher-coaches.

I confirm that my participation is entirely voluntary.

I understand that I may withdraw my consent and terminate my participation at any time during the project.

I have been informed of the procedures that will be used in the study.

I understand that all my responses will remain completely anonymous.

Signature_____ Date_____

Demographic Data Sheet

Your sex: _____ (1) male _____ (2) female

Your age: _____ years

Are you? (check only one group)

_____ (1) Asian, Asian American
_____ (2) Black
_____ (3) Latino, Hispanic, Mexican American
_____ (4) Native American
_____ (5) White
_____ (6) Other (please specify _____)

What is your religion?

_____ (1) Protestant (specify denomination _____)
_____ (2) Roman Catholic
_____ (3) Jewish
_____ (4) Other (please specify _____)
_____ (5) None, no religion

How religious do you consider yourself to be? (Circle the appropriate number.)

1	2	3	4	5	6	7
Very Religious						Not at all Religious

Marital status:

_____ (1) single
_____ (2) married
_____ (3) divorced
_____ (4) widowed
_____ (5) other (please specify _____)

If married, for how long have you been married to your current spouse? _____ years

If you have children, how many of them are now living with you?

_____ children live with me _____ I have no children

Please indicate the **highest** degree level you have achieved:

_____ (1) Bachelor's
_____ (2) Master's
_____ (3) Master's plus 30
_____ (4) Doctorate

What are your primary assignments?

_____ (1) Physical Education lecturer (teach within the Major curriculum)
_____ (2) Physical Education activities instructor
_____ (3) Head coach (please specify sport(s) _____)
_____ (4) Assistant coach (please specify sport(s) _____)
_____ (5) Athletic Director
_____ (6) Athletic Trainer
_____ (7) Department Chairperson
_____ (8) Regular classroom teacher
_____ (9) Other (specify _____)

What are your primary grade level(s) assignment(s)?

_____ High School (specify grades _____) _____ College/university

How many students are you directly responsible for? _____ students _____ players

How many years have you been in your current assignment? _____ years

How many years have you been in teaching? _____ years

How many years have you been in coaching? _____ years

How many total seasons have you coached? _____ seasons

How many more years do you expect to continue to teach? _____ years

How many more years do you expect to continue to coach? _____ years

Coaching and Physical Educators Survey *(Adapted from : Maslach, C., Jackson , S.E., and Schwab, R. (1986). Educators Survey. Consulting Psychologist Press: Palo Alto, CA*

The purpose of this survey is to discover how teachers and coaches view their job and the people with whom they work closely.

PART 1

On the following pages there are two survey sections which ask you to answer in relation to your responsibilities as a teacher only and as a coach only. **Respond to all items as you think you would have at the end of your last or most recent coaching season.** Please read the directions at the start of each section carefully and answer only from the perspective requested. For sections 1 and 2, read each statement carefully and decide if you ever feel this way *about your job or in relation to your job* (either teaching or coaching). If you have never had this feeling, write a "0" (zero) in the space 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. An example is shown below.

Example:

HOW OFTEN	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day

HOW OFTEN 0 - 6	**Statement:**
1._____	I feel depressed at work.

If you *never* feel depressed at work, you would write the number "0" (zero) under the heading "HOW OFTEN". If you *rarely* feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week, but not daily) you would write a "5."

Please respond to ALL items.

Please rate the **DEGREE** to which each issue described below causes you or produces stress in your **COACHING** situation.

DEGREE	1 NO Stress	2 LOW Stress	3 MODERATE Stress	4 HIGH Stress	5 EXTREME Stress

DEGREE 0 - 5	Statements
1. _____	Making decisions which are not popular with the fans.
2. _____	Understanding my athletes' emotional responses and motivations and being a source to help them.
3. _____	College/university central administration's pressure to win.
4. _____	Not having enough time to devote to my coaching responsibilities.
5. _____	Budget limitations hampering recruiting.
6. _____	Negative media coverage.
7. _____	Not having the skills to adequately motivate my players for key contests.
8. _____	Other sports or campus events conflicting with my team's use of facilities.
9. _____	Personality conflicts with my players.
10. _____	My athletic administrator's pressure to win.
11. _____	Not successfully fulfilling my responsibilities outside of my coaching duties (teaching, speaking engagements, etc.)
12. _____	Inadequate scholarship monies to build a competitive team.
13. _____	Alumni pressure to win.
14. _____	Not knowing the techniques and strategies of my sport as well as the coaches of opposing teams.
15. _____	Not being able to hire adequate assistant coaches and support staff.
16. _____	Personality conflicts with my coaching staff.
17. _____	The potential of being fired for failing to win.
18. _____	Not having time for myself.
19. _____	Inadequate travel budget for contests with highly competitive teams.
20. _____	Fans' pressure to win.
21. _____	Needing to incorporate new strategies, technologies, and rules into my coaching system in order to remain competitive.
22. _____	Making decisions which are not popular with my players.

23. _____ Conflicting requests from my immediate supervisor, assistant coaches, and athletes.
24. _____ The expectation that my team be competitive nationally.
25. _____ My career as a coach interfering with family and/or social life.
26. _____ The threat of insufficient funds leading to the elimination of my sport and my job.
27. _____ Major financial contributors not being satisfied unless my team win the majority of its contests.
28. _____ Not reaching my coaching goals.
29. _____ My athletic administrator's conflict with my major decisions.
30. _____ Not knowing the criteria by which I will be judged.
31. _____ The expectation to win a contest in which my team is predicted to win by a close score.
32. _____ Injury to one of my starters or top players.
33. _____ Players influencing my job retention and/or promotion by determining my win-loss record.
34. _____ Placing pressure on myself to win.
35. _____ The public not financially supporting our program.
36. _____ Being unable to recruit the key personnel that my team needs to be successful.
37. _____ Not being appreciated by my players.
38. _____ The expectation to win a contest in which my team is predicted to win by a large margin.
39. _____ Players' inconsistency in executing the fundamental skills or game plan.
40. _____ The public judging my ability to coach by the performance of my players.
41. _____ Fearing that I will be caught for rule violations.
42. _____ Not being emotionally supported by the administration.
43. _____ The traveling required to recruit quality athletes.
44. _____ My hard work not being appreciated by my immediate supervisor.
45. _____ The expectation to win a contest in which my team is predicted to lose by a close score.
46. _____ Being concerned that my players might not return to school for the next term.
47. _____ Inconsistent judgement calls during a contest.
48. _____ Fearing that my team will perform poorly on regional or national television.

49. _____ The administrator's concern about the number of athletes who do not earn degrees.

50. _____ My coaching success being dependent upon the decisions of young adults to attend or not attend my institution.

51. _____ The public not appreciating my effort with the team.

52. _____ The expectation to win a contest in which my team is predicted to lose by a large margin.

53. _____ Momentum turning against my team in a contest.

54. _____ Having little or no control over which officials are assigned to call my contests.

55. _____ Handling defeat.

56. _____ The expectation that my sport will be profit-producing.

57. _____ Recruiting against coaches who violate recruiting rules.

58. _____ Not building personal financial security.

59. _____ The expectation to win a contest in which my team and the opposing team are evenly matched.

60. _____ Being concerned that my athletes will not be academically eligible.

Please think back over the issues which you just responded to and see if there are any issues which you find stressful that were **not** included or you did **not** mention at the start of part 2. List and briefly descibe these issues below.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

(Please continue on back if you need more room)

THANK YOU for your time and perserverence in completing this survey. Your input is very valuable and greatly appreciated.

APPENDIX B

Detachable Poster Cover

Teacher/Coach

APPENDIX C

Cover-letter

THE UNIVERSITY OF NORTH CAROLINA
AT GREENSBORO

School of Health, Physical Education, Recreation, and Dance

Dear Coach,

I'm a former coach who spent 9 years at institutions similar to yours. For 6 of those years, a large part of my responsibilities were as the Head Women's Basketball Coach. When I was coaching, it was frustrating and unfortunate that some of the best people in coaching got burned out and left. Now that I want to make a career in the field of Sport Psychology, I'm concerned about helping coaches deal with stress and avoid burnout. To do this I need your help.

This survey is part of a research project I'm doing examining stress and different issues in dual-role teacher-basketball coaches such as yourself. I believe this is an important and up to this point, neglected topic. As you can appreciate, the more we learn about the issues you face, the better we can plan programs that will meet your needs in this area.

I know how busy you are at this point in your season, but that is the reason I am contacting you now, to gather data and find out what its like for you during this time. I urge you to complete this survey sometime between February 4th and February 18th. We know so little about the concerns of dual-role coaches, that I've asked a lot of questions. Consequently, the survey will take you between 25-30 minutes to complete. The questions attempt to get at what you know. You have a lot of good information to share! Coaches who filled out similar surveys for the pilot study said they found them "interesting and insightful to complete," and I hope you will too.

Your answers are completely confidential. All questionnaires ask for your opinions or perceptions; there are no right or wrong answers. Please read each question carefully and answer as you honestly feel because this will provide the most valuable information. At the end of each section there are two blank lines for you to add any comments you might have as you move through the packet. For example, if you feel something else might have been asked, or if you had trouble answering a certain question, please write this down.

A summary of the results of this study will be available to you. This information may be helpful in understanding the issues you and others face in your role as a teacher/coach. If you would like a copy sent to you when it is available, please fill in your name and address below and return this sheet with your packet.

Name _____
Address _____
_____

We want to keep good people in coaching!!! Taking the time and energy to fill out this survey can be a positive step in that direction. When completed, return the packet in the enclosed self-addressed envelope as soon as possible. I really appreciate your help!! Give it your best shot!!

Thanks,

Betty C. Kelley
Dept of Exercise and Sport Science
University of North Carolina at Greensboro
Greensboro, NC 27412
(919) 275-8040

P.S. Remove the cover page before mailing back the completed survey. The cover page is yours to keep.

APPENDIX D

Demographic Data Sheet

Teacher/Coaches Survey

Your sex: _____ male _____ female

Your age: _____ years

Marital status:

_____ single
_____ married
_____ divorced
_____ widowed
_____ other (please specify _____)

Please indicate the **highest** degree level you have achieved:

_____ Bachelor's _____ Masters plus 30
_____ Master's _____ Doctorate

Give the **PERCENTAGE (%)** of your assignment each of the following accounts for:

_____ (1) Physical Education lecturer (teach within the Major curriculum)
_____ (2) Physical Education activities instructor
_____ (3) Head coach (please specify sport(s) _____)
_____ (4) Assistant coach (please specify sport(s) _____)
_____ (5) Athletic Director
_____ (6) Athletic Trainer
_____ (7) Department Chairperson
_____ (8) Other (specify _____)

How many **students** _____, **athletes** _____ are you directly responsible for?

How many years have you been in your current **teaching** assignment? _____

How many years have you been in your current **coaching** assignment? _____

How many years have you been in **teaching**? _____ , **coaching**? _____

How many total **seasons** have you coached? _____

How many more **years** do you expect to continue to **teach**?_____, **coach**? _____

Do you participate in a regular exercise program or routine? _____ yes _____ no
Do you exercise to help reduce or manage stress? _____yes _____no

APPENDIX E

Perceived Stress Scale

Perceived Stress

The questions in this scale ask you about feelings and thoughts during the last month. 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 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. _____ In the last month, how often have you been upset because of something that happened unexpectedly?
2. _____ In the last month, how often have you felt that you were unable to control important things in your life?
3. _____ In the last month, how often have you felt nervous and "stressed"?
4. _____ In the last month, how often have you dealt successfully with irritating life hassles?
5. _____ In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?
6. _____ In the last month, how often have you felt confident about your ability to handle personal problems?
7. _____ In the last month, how often have you felt things were going your way?
8. _____ In the last month, how often have you found you could not cope with all the things that you had to do?
9. _____ In the last month, how often were you able to control irritations in your life?
10. _____ In the last month, how often have you felt on top of things?
11. _____ In the last month, how often have you been angered because of things that were outside of your control?
12. _____ In the last month, how often have you found yourself thinking about things that you have to accomplish?
13. _____ In the last month, how often have you been able to control the way you spend your time?
14. _____ In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Additional comments:

1. _____

2. _____

APPENDIX F

Coaching Problems Survey

Coaching Problems

The following statements refer to possible problems that are involved in the coach's work. Please indicate the extent to which any of these problems has caused you personal concern (i.e., that you have felt this problem yourself and have to some extent been troubled by it).

I have personally felt this as a problem:

0. not at all
1. to a small extent
2. to a moderate extent
3. to a great extent
4. to a very great extent

1. _____ The coach is expected to maintain traditional values and standards in the behavior of players (respect for authority, proper appearance, moral standards) yet at the same time society in general often ignores these values and standards.

2. _____ In a society which is becoming more cynical and permissive, it is increasingly difficult for coaches to maintain traditional values and standards for the behavior of their players.

3. _____ Coaches frequently are confronted by people who have a variety of ideas (often conflicting) as to how the professional work of coaching should be performed.

4. _____ Coaches are trained professionals and members of the educational community, but despite this sometimes are treated as if they were not.

5. _____ Even though they are expected to produce teams with winning records, coaches often are expected to put considerations of individual student (player) needs first, whether or not coaching actions based on those considerations would contribute to a winning season.

6. _____ For coaches, career advancement (getting a better coaching job) depends heavily on the ability to produce winning teams, yet coaches often do not want to do all the things to players that may be required to produce the largest number of wins.

7. _____ Coaching depends on a large investment of time, energy, and creative ability, yet colleagues, students, and administrators often expect the coach simultaneously to invest equal resources in teaching.

8. _____ With so many heavy demands on the coach's time, it often is difficult or impossible to do a good job of teaching (in physical education activity courses or in the classroom).

Additional comments:

1. _____
2. _____

APPENDIX G

Coaching Issues Survey

Coaching Issues

Please rate the DEGREE to which each issue described below causes you or produces stress in your coaching situation.

DEGREE	1 NO Stress	2 LOW Stress	3 MODERATE Stress	4 HIGH Stress	5 EXTREME Stress

DEGREE 1 - 5	Issues:
1. _____	Understanding my athletes' emotional responses and motivations.
2. _____	Not having enough time to devote to my coaching responsibilities.
3. _____	Budget limitations hampering recruiting.
4. _____	Negative media coverage.
5. _____	Other sports or campus events conflicting with my team's use of facilities.
6. _____	Personality conflicts with my players.
7. _____	Not successfully fulfilling my responsibilities outside of my coaching duties (teaching).
8. _____	Not being able to hire adequate assistant coaches and support staff.
9. _____	Not having time for myself.
10. _____	Inadequate travel budget for contests with highly competitive teams.
11. _____	Making decisions which are not popular with my players.
12. _____	My career as a coach interfering with family and/or social life.
13. _____	Not reaching my coaching goals.
14. _____	Not knowing the criteria by which I will be judged.
15. _____	The expectation to win a contest in which my team is predicted to win by a close score.
16. _____	Injury to one of my starters or top players.

DEGREE	1 NO Stress	2 LOW Stress	3 MODERATE Stress	4 HIGH Stress	5 EXTREME Stress

17. _____ Placing pressure on myself to win.

18. _____ Being unable to recruit the key personnel that my team needs to be successful.

19. _____ The expectation to win a contest in which my team is predicted to win by a large margin.

20. _____ Players' inconsistency in executing the fundamental skills or game plan.

21. _____ The traveling required to recruit quality athletes.

22. _____ The expectation to win a contest in which my team is predicted to lose by a close score.

23. _____ Being concerned that my players might not return to school for the next term.

24. _____ Inconsistent judgement calls during a contest.

25. _____ Momentum turning against my team in a contest.

26. _____ Handling defeat.

27. _____ Recruiting against coaches who violate recruiting rules.

28. _____ The expectation to win a contest in which my team and the opposing team are evenly matched.

29. _____ Not having enough time for recruiting.

30. _____ Substantial number of hours spent working in a day.

31. _____ Not successfully fulfilling my responsibilities outside of my coaching duties (e.g. speaking engagements, committee assignments, etc.)

32. _____ Being a source of help to my athletes.

Additional comments:

1. _____
2. _____

APPENDIX H

Social Support Questionnaire

Social Support

The following questions ask about people in your environment who provide you with help or support. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the manner described. Give the persons' initials and their relationship to you (see example). Do not list more than one person next to each of the numbers beneath each question.

For the second part, circle ***how satisfied*** you are with the overall support you have.

If you have no support for a question, check the words "No one," but still rate your level of satisfaction. Do not list more than nine persons per question.

EXAMPLE

Who do you know whom you can trust with information that could get you in trouble?

__ No one	1) T.N. (brother)	4) T.N. (father)	7) D.N. (friend at work)
	2) L.M. (friend)	5) L.M. (employer)	8) G.T. (supervisor)
	3) R.S. (friend)	6) K.L. (friend at work)	9)

How satisfied?

6-very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied

---

1. Whom can you really count on to be dependable when you need help?

__ No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

1a. How satisfied?

6-very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied

2. Whom can you really count on to help you feel more relaxed when you are under pressure or tense?

__ No one	1)	4)	7)
	2)	5)	8)
	3)	6)	9)

2a. How satisfied?

6-very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied

3. Who accepts you totally, including both your worst and your best points?

__ No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

3a. How satisfied?

6-very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied

4. Whom can you really count on to care about you, regardless of what is happening to you?

__ No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

4a. How satisfied?

6-very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied

5. Whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps?

__ No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

5a. How satisfied?

6-very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied

6. Whom can you count on to console you when you are very upset?

__ No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

6a. How satisfied?

6-very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied

Are there ways these people help that were not included in the above questions?

1. _____
2. _____

APPENDIX I

Maslach Burnout Inventory, Form Ed

Christina Maslach Susan E. Jackson Richard L. Schwab

Teacher/Coaches Survey

The purpose of this final section is to discover how teacher/coaches view their current job and the people with whom they work closely.

Directions:

On the following page there are 22 statements of job-related feelings. 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) in the space 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. An example is shown below.

Example:

HOW OFTEN:	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day

HOW OFTEN 0 - 6	Statement:
1._____	I feel depressed at work.

If you *never* feel depressed at work, you would write the number "0" (zero) under the heading "HOW OFTEN". If you *rarely* feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week, but not daily) you would write a "5."

APPENDIX J

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Betty C. Kelley
The Unviersity of North Carolina at Greensboro
Exercise and Sport Science Department
Greensboro, NC 27421-5001

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By Eric Kaufman Date 4/20/90
Eric Kaufman Permissions Department

APPENDIX K

Follow-up Postcards and the Last Page of the Survey Packet

Dear Coach,

You should have received a survey packet on issues related to your role as a teacher/coach. You have important information to share. Your participation could also make or break this study. Please let me hear from you!

If you have already completed and returned the packet-THANKS!!! If not, its not too late. Please complete the survey before FEB. 18th and mail it back in the self-addressed, postage-paid envelope included in the packet. Thanks for your help! I'm counting on you!

Good luck with the remainder of your season!!!

Betty C. Kelley-UNCG

P.S. If you misplaced or never received your packet, please call me at (919) 275-8040 (call collect) and I will gladly send you another one.

Dear Coach,

I'm frantic! It has come to my attention that the survey packet on issues related to your role as a teacher/coach or coach that was sent to you on Feb. 1st may have gotten delayed in the mail or not arrived. If this happened to your packet or if you just haven't had a chance to fill it out yet, I am extending the completion deadline a week. Because your input is so crucial and valuable, please feel free to take until February 25th to complete the survey and then mail it back to me in the self-addressed, postage-paid envelope included in the packet. If you misplaced or never received your packet, please call me at (919) 275-8040 (call collect) and I will gladly send you another one.

Your time and effort is really appreciated and the information you provide will be very useful in better understanding the issues you face.

Thanks again for you help!!!

Betty C. Kelley-UNCG

Do you have any other comments about stress and/or issues in your teaching and coaching? _____

_____

_____

_____

_____

(Please continue on back if you need more space)

I may be doing follow-up personal or telephone interviews at a later date to obtain more in-depth information. Would you be willing to be interviewed?

_____ Yes _____ No _____Maybe, contact me later to find out.

DATE SURVEY COMPLETED _____

Please take a minute and look back through the survey and make sure you have answered every question.

YOU ARE THE BEST!!!

THANKS FOR YOUR HELP!!!

Good Luck with the remainder of the season. May your team "SHOOT with a HOT HAND" and play "TENACIOUS DEFENSE." Best wishes always,

APPENDIX L

Raw Data

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