

Is Athlete Burnout More Than Just Stress? A Sport Commitment Perspective

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This study examined athlete burnout from a commitment perspective, which suggests that athletes can be involved in sport for a combination of reasons related to sport attraction (*want* to be involved) and sport entrapment (*have* to be involved). According to this framework, athletes are likely to experience burnout if they are involved in sport primarily for entrapment-related reasons. Female and male age-group swimmers ($N = 236$) completed a questionnaire that assessed theoretical determinants of commitment and burnout (emotional/physical exhaustion, swim devaluation, and reduced swim accomplishment). Cluster analysis was used to partition swimmers into profiles based on the theoretical determinants of commitment. Subsequent analyses of variance compared emergent cluster groups on burnout. Results revealed that athletes who exhibited characteristics reflecting sport entrapment generally demonstrated higher burnout scores than athletes who were primarily involved in sport for attraction-related reasons. These results provided support for a commitment perspective as a viable framework for understanding athlete burnout.

Key words: cluster analysis, athlete burnout, sport commitment

Burnout is a buzzword in the athletic community that has raised considerable concern among coaches and athletes. Numerous anecdotal accounts exist of athletes who became fed up with sport participation and stopped competing at what should have been the top of their careers. Although most popular accounts focus on the elite athletes, sport psychology researchers have also suggested that burnout occurs in youth athletes who are extensively involved in sport (Gould, 1993). The growing recognition of burnout, coupled with its negative ramifications, has prompted sport psychology researchers to provide conceptual discussions of burnout, as well as intervention strategies to prevent its occurrence and alleviate its impact (Dale & Weinberg, 1990; Fender, 1989; Henschen, 1990; Rotella, Hanson, & Coop, 1991; Yukelson, 1990). Despite the publicity given to athlete burnout, the base of empirical data on this issue is sparse. In consequence, although athlete burnout is often discussed, it is not well understood.

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Most discussions of athlete burnout stem from a stress perspective, which highlights that burnout is a response to chronic stress. Researchers also have developed alternative perspectives suggesting that burnout is more than just a reaction to chronic stress. For example, Schmidt and Stein (1991) discuss athlete burnout from a commitment perspective, while Coakley (1992) linked burnout in adolescent athletes to the social organization of sport from a sociological viewpoint. Collectively these researchers suggest that athletes are likely to experience burnout if they are entrapped by sport. This occurs when athletes do not really *want* to participate in sport but feel they *have* to maintain their involvement for a variety of reasons. To date, minimal research has examined these alternative viewpoints and tested whether a relationship exists between entrapment and burnout.

Not only is there a dearth of research on athlete burnout, but a clear understanding of what is meant by the term *burnout* is difficult to pinpoint because of its widespread use and because it is charged with many different meanings. The term is popular undoubtedly because it enables most individuals to conjure an image of what is meant by the word *burnout*. Even though the term is intuitively appealing, a precise operational definition that delineates what athlete burnout is, and what it is not, has been difficult to formulate.

Within the general burnout literature, the most widely accepted definition is multidimensional and delineates the parameters underlying burnout (Maslach & Jackson, 1984). Based on their empirical research, Maslach and Jackson defined burnout as "a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity" (p. 134). Emotional exhaustion is characterized by feelings of extreme fatigue; the other two dimensions reflect negative attitudes toward core aspects of a person's job. Depersonalization represents negative reactions and feelings toward clients and is characterized by an impersonal, detached, and uncaring response toward clients. Whereas depersonalization represents negative attitudes toward clients, reduced personal accomplishment reflects negative evaluations of oneself, particularly regarding one's ability to work successfully with clients.

Although Maslach and Jackson's (1984) definition is widely accepted, they limit their definition to occupations where the provider-recipient relationship is central to the profession. In applying the multidimensional definition to other domains, Maslach and Schaufeli (1993) state that researchers should critically assess the core elements of a particular domain (i.e., the central purposes or responsibilities involved in that domain) and customize the burnout dimensions to align with those core elements. Applied to athlete burnout, Maslach and Jackson's definition needs modification to adjust for contextual differences between the role of an athlete and that of a provider in the human services. Although the coach-athlete relationship is characterized by a provider-recipient relationship, athletes are on the receiving end of that relationship. The provider-recipient relationship consequently does not define the most central aspect of sport for athletes.

For athletes, the core element of sport is their performance. As such, the burnout dimensions should be defined in relation to *sport performance*. Athletes may be emotionally and physically exhausted from the psychological and physiological demands associated with training and competing. Moreover, athlete burnout may be associated with a reduced sense of personal accomplishment in terms of sport abilities and achievements. Of the three burnout dimensions, depersonal-

ization appears on the surface to be least applicable to athletes. This apparent incompatibility disappears, however, when contextual differences between sport and human services are considered. Given that depersonalization represents *devaluation and detachment* from what is important in a particular domain, depersonalization for athletes may be represented by the development of negative attitudes toward sport and their involvement in it. For example, athletes who burn out may stop caring about sport and the quality of their performances. Applying Maslach and Jackson's definition to the sport domain thus suggests that athlete burnout can be defined as a syndrome of physical/emotional exhaustion, sport devaluation, and reduced athletic accomplishment. This definition is attractive because it attempts to identify the dimensions underlying athlete burnout and should enable research to differentiate athletes who discontinue sport participation because of burnout from those who withdraw for reasons unrelated to burnout.

Within the sport psychology literature, the most widely acknowledged description of athlete burnout stems from Smith's (1986) theoretical discussion. Smith incorporated burnout within a cognitive-affective model of stress that suggests burnout is one potential consequence of chronic stress. Sport psychologists examining burnout in athletes (Cohn, 1990; Eades, 1990; Gould, Tuffey, Udry, & Loehr, 1996; Gould, Udry, Tuffey, & Loehr, 1996; Silva, 1990), coaches (B. Kelley, 1994; B. Kelley & Gill, 1993; Vealey, Udry, Zimmerman, & Soliday, 1992), and officials (Taylor, Daniel, Leith, & Burke, 1990) have based their research, at least in part, on a stress perspective. The logic behind these studies is that burnout, particularly emotional exhaustion, is related to stress. Therefore, variables associated with stress may also be linked to burnout via the relationship between stress and burnout. These studies have, in fact, supported this notion.

Most researchers, including those who study burnout in human service settings, currently agree that burnout is related to stress (e.g., Cordes & Dougherty, 1993; Shirom, 1989). However, some burnout researchers have criticized a stress perspective as providing a limited understanding of this issue. They suggest that if burnout can be understood exclusively from a stress perspective, then burnout is a concept of limited value; it is the same old wine, but with a newer label and fancier bottle. Rather, these researchers suggest that research is needed that captures the uniqueness of burnout because burnout is more than a simple reaction to chronic stress (e.g., Jackson, Schwab, & Schuler, 1986; Schaufeli, Maslach, & Marek, 1993). Everyone can experience stress, but not everyone who experiences stress burns out.

Schmidt and Stein (1991) highlighted that burnout is more than just a simple reaction to stress, and in doing so delineated a commitment perspective on athlete burnout based on H. Kelley's theoretical discussion (1983) and Rusbult's (1983) empirical research. Within the commitment literature, the construct of commitment is examined to gain an understanding of why individuals maintain involvement or persist in a given course of action. In general, researchers have depicted two faces of commitment: Individuals can be involved in some endeavor, such as sport, because they *want to be* involved and/or because they feel they *have to be* involved (e.g., Brickman, Dunkel-Schetter, & Abbey, 1987). Applied to sport, this perspective suggests that athletes can be committed to sport for a combination of reasons related to sport attraction (want to) and entrapment (have to).

Theoretically, athletes who experience burnout are committed to sport for reasons that are different from those of athletes who do not burn out. Based on Rusbult's investment model (see Rusbult, 1988, for an overview), Schmidt and

Stein suggested that three primary determinants influence athlete commitment: satisfaction based on the rewards and costs associated with sport, attractiveness of alternative options, and resources athletes have invested in sport. Athletes are likely burnout candidates if they are committed to sport exclusively for entrapment-related reasons. This occurs when athletes do not really enjoy sport because of high costs and low rewards, yet maintain their involvement because they have too much invested to quit (i.e., high investments such as time and effort into sport), and perceive a lack of attractive alternatives. Schmidt and Stein also contrasted the entrapment profile to one representing athletes who are attracted to sport and to another depicting athletes who are likely to drop out.

Individuals who are attracted to sport enjoy their participation and experience high rewards and low costs associated with sport. Moreover, because they enjoy sport, it is likely they will invest substantial time and energy into their sport participation and feel that sport is more attractive than other activities. Given their favorable sport experiences, these athletes are not likely candidates to experience burnout. In comparison, the dropout profile consists of athletes who are not committed to sport. They are not really attracted to sport, nor are they entrapped (i.e., low investments and attractive alternatives) by it. These athletes are unlikely candidates for burnout because they are likely to discontinue sport participation before burning out.

Although research has not empirically examined athlete burnout from a commitment perspective, Scanlan and colleagues (Carpenter, 1992; Carpenter, Scanlan, Simons, & Lobel, 1993; Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993; Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993) developed a sport commitment model to examine athletes' continued motivation and persistence in sport. Based largely on Rusbult's (1988) investment model, Scanlan and colleagues contended that sport commitment is influenced by sport enjoyment (comparable to satisfaction in Rusbult's model), alternative options, and personal investments. Moreover, Scanlan and colleagues also suggested that social constraints (i.e., social expectations that create feelings of obligation to maintain sport participation) and involvement opportunities (i.e., unique benefits accrued through sport) are additional determinants of commitment. Although they originally predicted that social constraints and commitment would be positively related, the social constraints construct has shown either no relationship or a weak negative relationship with commitment. Involvement opportunities have been positively related to commitment. Of these two variables, social constraints appear particularly relevant to burnout (Gould, Tuffey, Udry, & Loehr, 1996).

Although Schmidt and Stein (1991) did not discuss social constraints, this factor may relate to burnout via its relationship with sport commitment. Social constraints may serve as a determinant of entrapment-based commitment and keep athletes involved in sport, even if they are not attracted to sport. Burnout-prone athletes may perceive high social constraints because they feel obligated to others (e.g., parents, teammates, coaches) who expect them to continue their sport involvement.

Coakley's (1992) discussion of athlete burnout from a sociological perspective further echoes the notion that athletes entrapped by sport are likely to burn out. Based on informal interviews with high-level adolescent athletes who burned out of sport, Coakley contended that burnout is directly related to the social organization of intensive sport participation. Specifically, he stated that

burnout is related to control and identity issues—issues that entrap athletes into sport.

The social organization of sport may prevent adolescent athletes from developing meaningful control over their lives. Although they initially might have chosen to participate in sport, their subsequent participation is controlled by others (e.g., coaches and parents). As a result, sport participation may prevent the development of a sense of personal control during a time period when it becomes increasingly important to the adolescents to develop a sense of autonomy and independence.

During adolescence, youths typically develop multifaceted identities by exploring various roles. Coakley (1992), however, contended that intensive sport participation may prevent athletes from pursuing roles outside of sport and thus result in identity foreclosure. As a consequence, athletes may develop unidimensional identities where they define themselves solely as athletes. A unidimensional identity further “traps” or constrains sport participants into the role of an athlete because their senses of self are based exclusively on being athletes.

Lack of control and a unidimensional identity do not necessarily result in burnout in and of themselves. Rather, they contribute to burnout if athletes question and doubt the value of sport and feel that they are trapped, stifled, and wasting time in sport. According to Coakley (1992), athletes prone to burnout question whether sport success is worth the costs and sacrifices in terms of missed opportunities and chances to participate in things their peers are experiencing. Although these athletes would like to pursue those other opportunities, they cannot because of control and identity issues. Not only might burnout-prone athletes begin to realize that sport success is not as meaningful as they once thought, the athletes might also believe that sport success ultimately is not possible because skill improvements are inevitably linked to increased expectations and standards. As a result, they may realize that they can never be good enough and that they are chasing an impossible goal. Athletes who do not perceive sport negatively will not experience burnout, even if they have minimal control and a unidimensional identity.

Coakley's (1992) sociological perspective of burnout can be integrated with Schmidt and Stein's (1991) commitment perspective of burnout. Athletes prone to burnout initially may participate in sport for attraction-related reasons (i.e., they enjoy the benefits and opportunities associated with sport). A shift may occur prior to burning out, however. Sport is no longer as attractive as it once was because of high costs (e.g., sacrificing too much for sport) and insufficient benefits (e.g., diminished meaning of sport success) associated with being an athlete. Nevertheless, these athletes continue to participate because they are entrapped by a lack of personal control and a unidimensional identity. A lack of control and a unidimensional identity also make it likely that athletes will perceive high social constraints and invest a great deal in sport.

Although Coakley's (1992) discussion of burnout aligns well with the commitment model on most points, his discussion differs on the role of alternative attractiveness. Rather than considering a lack of attractive alternatives to be an antecedent of burnout, as suggested by Schmidt and Stein (1991), Coakley contended that athletes prone to burnout perceive other activities as attractive. They cannot pursue those activities like their peers, however, because of the social structure of sport.

The conceptual discussions proffered by Coakley (1992) and Schmidt and Stein (1991) on sport commitment and burnout provide a strong conceptual basis

Table 1 Hypothesized Profiles Based on the Theoretical Determinants of Commitment

	Sport attraction	Sport entrapment	Low commitment
Enjoyment	High	Low	Low
Benefits	High	Low	Low
Costs	Low	High	High
Alternative attractiveness	Low	Low ^a	High
Investments	High	High ^a	Low
Social constraints	?	High ^a	Low
Unidimensional identity	?	High ^b	Low
Perceived control	?	Low ^b	High

^aBased on the commitment model. ^bBased on Coakley (1992).

for exploring intriguing alternatives to understanding burnout among athletes. To date, however, their ideas have not been empirically tested. Consequently, the purpose of this study was to examine whether athletes with profiles representing sport entrapment, sport attraction, and low sport commitment could be identified based on the theoretical determinants of commitment (e.g., enjoyment, benefits, costs, personal investments, attractiveness of alternative options, social constraints, unidimensional identity, perceived control) and, subsequently, whether athletes in each of these profiles experienced varying levels of burnout. Athletes who have a profile representing entrapment should experience relatively high burnout scores. In contrast, athletes who have a profile depicting sport attraction or low commitment should demonstrate low burnout. The hypothesized profiles are depicted in Table 1.

Method

Participants

Participants for this study were 236 age-group swimmers representing 19 Oregon Swimming teams. Oregon Swimming, under the umbrella of United States Swimming (USS), is the governing body of club swim teams in Oregon and southern Washington. The sample consisted of 145 females and 84 males, who ranged in age from 13 to 18 years ($M = 15.5$, $SD = 1.5$). An additional 7 swimmers did not specify gender on the questionnaire. All swimmers were identified by coaches as "senior swimmers," representing the highest level for age-group swimmers. Overall, this sample had extensive swim team experience. Participants had competed in swimming for an average of 6.4 years (range = 1–14, $SD = 2.8$) and recalled starting to swim competitively when they were between 4 and 18 years of age ($M = 9.0$, $SD = 2.9$).

Swimmers were selected as a sample because considerable anecdotal evidence suggests that burnout is an important issue in swimming. Competitive

swim participation is characterized by extensive psychological and physical demands and requires high levels of commitment. These requirements are thought to make burnout more likely (Coakley, 1992; Feigley, 1984; Gould, 1993). The swimmers in this study trained and competed an average of 10.6 months of the year ($SD = 1.82$), spending about 14 hours per week in training ($M = 13.7$, $SD = 4.9$), taking part in slightly more than seven training sessions per week ($M = 7.2$, $SD = 2.3$), and swimming nearly 40,000 yards per week ($M = 39,795$, $SD = 17,775$).

Measures

Athlete Burnout. A well-established measure of athlete burnout does not currently exist. The most widely accepted measure of burnout, the Maslach Burnout Inventory (MBI), is not valid for athletes because its applicability is limited to human service providers. Maslach and Jackson's definition can be modified to adjust for contextual differences between the role of an athlete and human service provider. Based on this modified definition, athlete burnout was defined as a syndrome of physical/emotional exhaustion, sport devaluation, and reduced athletic accomplishment. To measure burnout, items that represent these dimensions were either adapted from previous burnout measures or developed specifically for this study.

Eades (1990) developed a preliminary burnout scale specifically for athletes that provided a good starting point for item development and use in this study. Unfortunately, her scale could not be used in its entirety because of conceptual and measurement limitations. From her scale, the 11 items that were most closely aligned with the definition of burnout employed in this study were selected and supplemented with an additional 10 face-valid items. This resulted in a total of 21 items, 7 for each of the three burnout dimensions. Swimmers rated how frequently they experienced each item on a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*most of the time*). Sample items for the burnout measure, as well as the other major constructs examined in this study, are provided in Table 2.¹

Benefits and Costs Associated With Swimming. Benefits and costs associated with swim team participation were measured analogously to Rusbult and colleagues' method of measuring these constructs in work and relationship settings (e.g., Rusbult, 1980; Rusbult & Farrell, 1983). In their research, Rusbult and colleagues define and provide specific examples of benefits and costs. This is done to educate the participants on the meaning of those constructs to enable more accurate answers on general items assessing benefits and costs. Participants then complete general measures of benefits and costs.

For this study, swimmers were familiarized with the meaning of benefits and costs. This was done by defining benefits and costs and by providing specific examples. The examples of benefits and costs were gleaned from the sport participation motivation and attrition literatures (e.g., Gould & Petlichkoff, 1988; Weiss & Petlichkoff, 1989). Examples of benefits included factors that make sport attractive (e.g., learning and mastering swimming skills, having fun with one's teammate), and examples of costs included factors that make sport unattractive (e.g., swimming takes too much time, training is boring). Swimmers were then asked to complete four questions each for benefits and costs on a scale that ranged from 1 (*not at all*) to 5 (*very much so*).

Swimming Enjoyment. In addition to completing the benefits and costs items to measure how favorably or unfavorably they viewed swim team participa-

Table 2 Representative Sample Items

Variable	Sample item
Emotional/physical exhaustion	I feel emotionally drained from my swim team participation
Reduced athletic accomplishment	I am not performing up to my ability in swimming
Sport devaluation	I don't care as much about my swim performance as I used to
Swim commitment	Do you want to keep participating on a swim team?
Benefits	How rewarding is swim team participation?
Costs	To what extent have you experienced costs associated with swimming?
Enjoyment	How fun is swim team participation for you?
Personal investments	How much effort have you put into swimming?
Alternative attractiveness	Compared to swim team participation, there are other things I could do which would be more enjoyable
Social constraints	The people most important to me would be disappointed with me if I were to quit swim team participation
Swim identity	Swimming is the only thing important in my life
Perceived control	I have a say in what I do when participating in swimming

tion, swimmers were also asked to complete four questions on 5-point Likert scales that assessed their overall swim team enjoyment. The items were derived from previous research examining sport enjoyment (e.g., Scanlan, Carpenter, et al., 1993; Stein & Scanlan, 1992). Foils for these items range from *not at all* (1) to *very much so* (5).

Personal Investments. This construct, defined as resources (e.g., time and energy) that a person puts into an activity that cannot be recovered if participation is discontinued, was measured in part by the two items (i.e., "How much effort and how much time have you put into swimming?") developed as part of the sport commitment model (Scanlan, Simons, et al., 1993). Because this scale originally demonstrated somewhat low reliability, these two items were supplemented with two additional items. One of these ("How much energy have you put into swimming?") was developed by Carpenter (1992), while the fourth item (i.e., "How much of yourself have you put into swimming?") was created specifically for this study. Items were measured on scales with response formats that ranged from 1 (*none at all*) to 5 (*a lot*).

Alternative Attractiveness. Carpenter (1992) developed a five-item measure to assess the attractiveness of alternative activities. This scale was used to assess how attractive swimmers felt other activities were compared to swimming. Carpenter demonstrated that this scale was a reliable (i.e., internal consistency) and valid (i.e., content, factorial, and construct) measure of alternative attractiveness. In support of construct validity, alternative attractiveness was negatively related to sport commitment. Aside from Carpenter's study, minimal psychometric evaluation has been conducted on this scale. For this study, each item was anchored on a

5-point Likert scale that ranged from 1 (*not at all true for me*) to 5 (*completely true for me*).

Social Constraints. Social constraints involve social expectations and norms that create feelings of obligation to participate in sport. The sport commitment research has assessed social constraints in two ways (Carpenter et al., 1993; Scanlan, Carpenter, et al., 1993; Scanlan, Simons, et al., 1993). In the original scale, a substantial number of the items measured the need to participate in sport to please significant others (i.e., coaches, mothers, fathers). Given that social constraints involve more than just the desire to please others, Carpenter's (1992) more recent measure included a greater diversity of question stems (e.g., "I feel pressure from my friends to keep playing," "My mom would be disappointed if I were to quit"). The scale becomes lengthy, however, when one includes individual assessments for friends, coaches, mother, and father.

Consequently, a more general approach was used in this study. Social constraints were assessed relative to important people in athletes' lives, but not for each specific important person (e.g., "The people most important to me expect me to stay on a swim team"). This modification made conceptual sense because the focus of this study was not on particular sources of social constraints, rather how strong the constraints were regardless of the specific source. Unique items from both of the existing social constraints scales were modified and used in this study. This resulted in six items that ranged from 1 (*not at all true for me*) to 5 (*completely true for me*).

Swim Identity. Coakley's (1992) notion of unidimensional identity was assessed through the Athletic Identity Measurement Scale (AIMS; Brewer, Van Raalte, & Linder, 1993). The AIMS consists of 10 items that measure the strength and exclusivity of individuals' identification with the athlete role. Given that the AIMS was developed to measure the strength and the exclusivity of the athlete role to an individual, AIMS is conceptually similar to Coakley's (1992) notion of unidimensional identity. In fact, Brewer et al. state that their measure differs from other self-perception constructs related to sport because it is the only one that examines the *exclusivity* of the athlete identity. Psychometric properties of the AIMS were established in a series of three studies (Brewer et al., 1993). Items were rated on 5-point scales that ranged from *not at all true for me* (1) to *completely true for me* (5) to make them consistent with the rest of the questionnaire, rather than using 7-point Likert scales that range from *strongly disagree* to *strongly agree* as in the original scale.

Perceived Control. Perceived control involves the degree to which individuals feel autonomous and self-determining in their actions and behaviors regarding sport involvement (e.g., Deci & Ryan, 1985; Vallerand, Deci, & Ryan, 1987). By this definition, perceived control involves whether athletes believe they have a choice on whether to participate in sport and whether they have control over their actions and behaviors within sport. Two measures were combined for this study: three items measuring perceived choice from the Intrinsic Motivation Inventory (IMI; McAuley, Duncan, & Tammen, 1989; Ryan, 1982) and three items that represented self-determination in Stein and Scanlan's (1992) research. Combining items from the IMI and from Stein and Scanlan's research made theoretical sense because each scale by itself does not tap the full range of what the definition of perceived control entails. The perceived choice items of the IMI only assess whether athletes have a choice on whether to participate in sport. In contrast, Stein and Scanlan's self-determination items only involve whether athletes have control

over their actions and behaviors within sport. The two scales combined collectively assess a more complete spectrum of perceived control and thereby result in higher content validity. Aside from internal consistency and face validity, limited validity information has been established for these items (Black & Weiss, 1992; Stein & Scanlan, 1992). To maintain consistency across the entire questionnaire, items were rated on 5-point scales that ranged from 1 (*not at all true for me*) to 5 (*completely true for me*) for this study.

Procedures

Prior to administering the questionnaire to the swimmers, three graduate students in sport psychology rated each item for face validity and readability. After modifying items based on their feedback, a sample ($N = 7$) of high school swimmers was used to pilot test the questionnaire for item readability and comprehension to ensure that the questionnaire was suitable for the present sample. Their suggestions were incorporated to modify item wordings.

Oregon Swimming was contacted to gain permission to conduct this study. Following approval, coaches were contacted to solicit their teams' participation in this study. Of the 23 coaches contacted, 4 declined participation primarily because they did not want their swimmers to complete a survey on burnout. Questionnaires then were administered to athletes who had completed informed consent forms (both athlete and parent/guardian) during the spring season (February–April). On the day of questionnaire administration, swimmers who had completed informed consent forms (both athlete and parent/guardian) were told the general purpose of the study, received instructions on how to complete the questionnaire, were reminded of confidentiality and anonymity, and were encouraged to answer the questions honestly. In providing a study overview, swimmers were told that the purpose of the study was to gain a better understanding of swimmers' thoughts and feelings about their experiences in swimming in order to learn more about how to make swimming a positive experience in the future. Originally, 244 participants agreed to participate in the study, but 8 were omitted from all analyses because of missing or unusable data.

Data Analysis

Several statistical procedures were used to test the research hypotheses. Initially the internal consistency of each scale was examined to ensure that each measure was reliable for the present sample. Means and standard deviations were calculated to describe the sample as whole. Subsequently, cluster analysis was used to establish profiles or subgroups of swimmers who showed distinct patterns based on the theoretical determinants of commitment. Finally, multivariate and univariate analyses of variance examined whether the swimmers in the emergent clusters differed on the three burnout dimensions.

Results

Scale Reliabilities and Descriptive Statistics

Cronbach's (1951) alpha coefficient was computed to evaluate the internal consistency of each scale. Using a criterion of .70 (Nunnally, 1978), all scales demonstrated acceptable reliability. The alpha coefficient for each vari-

able is shown on the diagonal of the correlation matrix presented in Table 3. Item analyses (i.e., interitem correlations, item-total r) revealed that one item on the enjoyment scale was not reliable and therefore was excluded in calculating enjoyment scores. Similarly, two swim identity items were unreliable and deleted from all analyses.²

Means and standard deviations for all constructs also are displayed in Table 3. The mean scores revealed that the sample of swimmers generally perceived their swim participation in positive terms. Specifically, this sample enjoyed their swim team participation. They perceived high benefits and moderate costs associated with swimming and felt that other activities were somewhat less attractive than swimming. Swimmers rated the importance of swimming to their self-identity as moderately high and reported that they invested a great deal of time and energy into their swim involvement. They also perceived high personal control over their swim team participation and moderately low social constraints from significant others. In terms of burnout, swimmers had moderately low scores on all three dimensions (emotional/physical exhaustion, swim devaluation, and reduced swim accomplishment).

Cluster Analysis on Theoretical Determinants of Commitment

Cluster analysis was used to examine whether swimmers could be partitioned into groups that represented different patterns based on their scores on the theoretical determinants of commitment. The overall goal of cluster analysis is to detect underlying structure or patterns in a data set based on relevant variables to the research question at hand. In doing so, cluster analysis attempts to separate the sample into relatively homogeneous subgroups that maximize between-group variance and minimize within-group variance. A nonhierarchical clustering procedure (SPSS Quick Cluster, 1988) was used, with the squared Euclidean distance serving as a similarity measure. Prior to computing the cluster analysis, all variables were standardized by converting them to z scores to allow easier interpretation of the results.

Results from the cluster analysis revealed four distinct, interpretable profiles of swimmers. The z scores, unstandardized means, and standard deviations for each cluster are shown in Table 4. In interpreting the results, a z value of ± 0.5 was used as a heuristic guide for classifying whether individuals scored relatively low or high on a particular variable compared to their peers (Weiss, Ebbeck, & Horn, 1997).

Cluster 1 ($n = 26$), the smallest cluster, represented swimmers who perceived their swim involvement negatively in comparison to their peers. Examination of cluster scores revealed that these swimmers reported relatively low enjoyment, coupled with low benefits and high costs, associated with swimming compared to their peers. They had a relatively weak swim identity, perceived low investments in swimming, and felt that other activities were more attractive than swimming. These swimmers may have felt entrapped because of low perceived control over their swim involvement and high social constraints to maintain participation compared to their peers. This profile was similar to the predicted entrapment profile and was named *malcontented* swimmers because of these swimmers' relatively negative outlook on swim participation. However, in contrast to Schmidt and Stein's predictions for this cluster these swimmers had relatively low investments and perceived attractive alternatives to swimming. They also placed low, rather than high importance, on their identities as swimmers.

Table 3 Descriptive Statistics, Correlations, and Alpha Coefficients for Determinants of Commitment

	1	2	3	4	5	6	7	8	9	10	11
1. Enjoyment	.86										
2. Benefits	.66	.82									
3. Costs	-.48	-.46	.79								
4. Alternative attractiveness	-.68	-.63	.56	.90							
5. Investments	.41	.46	-.21	-.38	.84						
6. Social constraints	-.39	-.31	.37	.41	-.09	.81					
7. Swim identity	.54	.48	-.30	-.51	.58	-.10	.81				
8. Perceived control	.57	.52	-.47	-.51	.27	-.60	.26	.74			
9. Exhaustion	-.49	-.52	.57	.53	-.21	.47	-.31	-.49	.89		
10. Swim devaluation	-.64	-.65	.52	.67	-.50	.42	-.53	-.54	.57	.89	
11. Reduced swim accomplishment	-.39	-.45	.40	.35	-.38	.34	-.30	-.44	.44	.56	.87
<i>M</i>	4.29	4.19	2.61	2.16	4.56	2.23	3.27	4.00	2.47	2.02	2.32
<i>SD</i>	0.69	0.62	0.81	0.89	0.53	0.82	0.72	0.64	0.83	0.84	0.74

Note. All means are on a 5-point scale.

Table 4 z Scores, Unstandardized Means, and Standard Deviations for Each Cluster on Theoretical Determinants of Commitment

	Cluster 1 (n = 26)			Cluster 2 (n = 104)			Cluster 3 (n = 40)			Cluster 4 (n = 66)		
	z	M	SD	z	M	SD	z	M	SD	z	M	SD
Enjoyment	-1.86	2.99	0.75	.70	4.77	0.31	-.28	4.09	0.43	-.20	4.15	0.41
Benefits	-1.66	3.16	0.60	.71	4.63	0.34	-.23	4.05	0.46	-.32	3.99	0.39
Costs	1.36	3.72	0.80	-.55	2.17	0.63	.39	2.94	0.71	.09	2.69	0.59
Alternative attractiveness	1.90	3.85	0.63	-.65	1.59	0.48	.21	2.35	0.61	.15	2.30	0.63
Investments	-1.25	3.89	0.59	.51	4.83	0.26	.48	4.81	0.25	-.61	4.23	0.54
Social constraints	.82	2.91	0.81	-.44	1.88	0.62	1.16	3.19	0.67	-.34	1.95	0.52
Swim identity	-1.34	2.31	0.52	.59	3.70	0.51	.33	3.51	0.58	-.61	2.83	0.52
Perceived control	-1.31	3.16	0.73	.56	4.36	0.39	-.88	3.44	0.48	.17	4.11	0.47

In direct contrast to Cluster 1, Cluster 2 ($n = 104$) consisted of swimmers who had a quite favorable impression of swim team participation. Their attraction to swimming was reflected by high enjoyment, high benefits, and low costs scores. Given their positive experiences in swimming, it is not surprising that they emphasized the importance of swimming to their self-identity, reported high swim investments, and felt that swimming was more attractive than other alternatives. These swimmers also perceived relatively high control over their swim involvement and moderately low social constraints. Athletes in this cluster were comparable to the predicted sport attraction profile and were labeled *enthusiastic swimmers*.

Although not as negative as Cluster 1, the third cluster ($n = 40$) of swimmers also exhibited characteristics of entrapment. These swimmers were not distinctly high or low in swimming attraction evident by near-average enjoyment and benefit scores and moderately high cost scores. They also demonstrated average scores on alternative attractiveness. Their most distinguishing characteristics were relatively low perceived control and high social constraints. Consequently, the label *obligated swimmers* depicts this profile because these swimmers may have felt compelled to swim. These swimmers also exhibited moderately strong swim identities and moderately high investments into their swim participation.

Cluster 4 ($n = 66$) included swimmers who reported low-to-average scores on all of the theoretical determinants of commitment in comparison to their peers and consequently were labeled *indifferent swimmers*. Most notably, these swimmers invested relatively little time and energy into swim team participation, viewed swimming as relatively unimportant to their self-identity, and perceived moderately low social constraints. They also did not appear highly attracted to swimming (average enjoyment and costs, and moderately low benefits) and exhibited average alternative attractiveness and perceived control scores. These swimmers appeared to have a detached or apathetic attitude relative to their peers and thus shared commonality with the predicted low commitment profile.

Cluster-Group Comparisons on Burnout Dimensions

To examine whether cluster groupings differed on the burnout dimensions (i.e., emotional/physical exhaustion, swim devaluation, and reduced swim accomplishment), a one-way MANOVA was conducted using the cluster grouping as the independent variable and the three burnout dimensions as the dependent variables. Results comparing cluster groups on burnout dimensions were significant: Wilks's $\Lambda = .41$, $F(9, 560) = 27.6$, $p < .0001$. Eta-squared (η^2) revealed that cluster differences accounted for 59% of the variance in burnout scores. Discriminant coefficients and follow-up univariate analyses revealed that all burnout dimensions were important for contributing to cluster group differences (see Table 5). Specifically, two discriminant functions were significant and each of the burnout dimensions recorded substantial coefficients on at least one of the functions. Moreover, the univariate analyses revealed significant cluster-group differences on all three burnout dimensions.

Given the significant MANOVA and one-way ANOVA results, post hoc Student-Newman-Keuls (SNK) comparisons ($p < .05$) were conducted to determine which clusters differed from one another on the three burnout dimensions. Table 6 includes the z and unstandardized mean scores for each burnout dimension, while Table 7 summarizes the SNK comparisons.

Table 5 Univariate *F* Values and Discriminant Coefficients for the Burnout Dimensions

	Univariate <i>F</i>	Discrimination coefficient	
		Function 1	Function 2
Emotional/physical exhaustion	41.86	.48	-.85
Swim devaluation	85.67	1.09	1.15
Reduced swim accomplishment	24.83	.15	-.69

Note. All *F* values are significant at $p < .0001$.

These comparisons revealed that, of the four clusters, malcontented swimmers (i.e., Cluster 1) had the highest burnout scores. Specifically, these swimmers were significantly higher on the physical/emotional exhaustion and swim devaluation burnout dimensions compared to the other three clusters. In addition, the malcontented swimmers also reported significantly higher reduced swim accomplishment scores compared to the indifferent and enthusiastic swimmers. The malcontented swimmers were not significantly higher than the obligated swimmers on reduced swim accomplishment. In direct contrast to malcontented swimmers, a nearly opposite pattern existed for the enthusiastic swimmers (i.e., Cluster 2). These swimmers reported significantly lower burnout scores on all three dimensions compared to the other three clusters.

Swimmers in the obligated and indifferent groups had burnout scores that were intermediate to those in the malcontented and enthusiastic groups. Overall, obligated swimmers had burnout scores that were moderately high to high. In comparison, indifferent swimmers had average burnout scores. These two groups, however, differed statistically on only one dependent measure: emotional/physical exhaustion. Obligated swimmers had higher emotional/exhaustion scores compared to indifferent swimmers.

Discussion

This study examined whether swimmer profiles similar to those posited by Schmidt and Stein (1991) and Coakley (1992) could be identified based on a sport commitment perspective, and whether swimmers in each of the emergent profiles experienced different levels of burnout. A sport commitment theoretical perspective highlights that this phenomenon is more than a response to unadulterated stress. Rather, a commitment perspective emphasizes that athletes who are entrapped or locked into the role of being an athlete are likely to burn out. This occurs when individuals do not really *want* to participate in sport but feel they *have* to maintain their involvement.

Overall, results from this study provided support for the theoretical prediction that athletes who exhibit psychological characteristics reflecting sport entrapment will experience higher levels of burnout than athletes without sport entrapment characteristics. In fact, the four emergent clusters based on the

Table 6 *z* Scores and Unstandardized Means, and Standard Deviations for Each Cluster on Burnout Dimensions

	<i>Malcontented</i> Cluster 1 (<i>n</i> = 26)			<i>Enthusiastic</i> Cluster 2 (<i>n</i> = 104)			<i>Obligated</i> Cluster 3 (<i>n</i> = 40)			<i>Indifferent</i> Cluster 4 (<i>n</i> = 66)		
	<i>z</i>	<i>M</i>	<i>SD</i>	<i>z</i>	<i>M</i>	<i>SD</i>	<i>z</i>	<i>M</i>	<i>SD</i>	<i>z</i>	<i>M</i>	<i>SD</i>
Exhaustion	1.06	3.35	0.83		1.97	0.64	.57	2.94	0.73	.19	2.63	0.62
Swim devaluation	1.63	3.40	0.81	-.67	1.45	0.47	.34	2.31	0.61	.20	2.19	0.63
Reduced swim accomplishment	.87	2.97	0.64	-.51	1.95	0.67	.47	2.68	0.58	.17	2.45	0.66

Table 7 Summary of Post Hoc Comparisons on Burnout Dimensions

	<i>Malcontented</i> Cluster 1 (<i>n</i> = 26)	<i>Enthusiastic</i> Cluster 2 (<i>n</i> = 104)	<i>Obligated</i> Cluster 3 (<i>n</i> = 40)	<i>Indifferent</i> Cluster 4 (<i>n</i> = 66)
Physical/emotional exhaustion	D	A	C	B
Reduced swim accomplishment	C	A	B/C	B
Swim devaluation	C	A	B	B

Note. A, B, C, and D represent scores on a continuum of low to high. Within each row, pairs with different letters are significantly different from one another.

theoretical determinants of commitment accounted for 59% of the variance in the burnout dimensions. These four profiles (depicted by the labels *enthusiastic*, *malcontented*, *obligated*, and *indifferent swimmers*) shared commonalities with those described by Schmidt and Stein (1991) and Coakley (1992).

Swimmers in the enthusiastic cluster viewed swimming the most favorably based on the theoretical determinants of commitment. This profile fits the description of the committed athlete who enjoys sport participation as posited by Schmidt and Stein (1991) and described by empirical research employing the sport commitment model (Carpenter, 1992; Carpenter et al., 1993; Scanlan, Carpenter et al., 1993; Scanlan, Simons et al., 1993). As predicted, these swimmers demonstrated the lowest burnout scores.

Swimmers in the malcontented and obligated clusters both had characteristics of entrapment. Most strikingly, both of these clusters had characteristics of entrapment in the form of relatively low perceived control and high social constraints. The malcontented swimmers viewed swim participation rather negatively compared to other swimmers. Given their negative outlook on swimming, coupled with their characteristics of entrapment, it was not surprising that these swimmers had the highest burnout scores on all three dimensions relative to other swimmers.

Compared to the malcontented swimmers, obligated swimmers were not distinctly high or low in attraction to swimming (average enjoyment and benefits and moderately high costs) relative to other swimmers. They were, however, similar to the malcontented swimmers in terms of relatively low personal control and high social constraints. In addition, obligated swimmers had moderately strong swim identities and moderately high investments in swimming. In theory those factors may have served as additional sources of entrapment, given that the obligated swimmers were not highly attracted to swimming. Although these swimmers did not exhibit burnout scores as high as the malcontented group, they did report moderately high burnout scores. Of the three burnout dimensions, their highest score was on emotional/physical exhaustion, which some researchers contend is the most central, as well as the first, dimension of burnout to develop (e.g., Koeske & Koeske, 1993; Lee & Ashforth, 1993; Shirom, 1989; Wallace & Brinkerhoff, 1991). Consequently, these swimmers had characteristics that suggest they may be on the road to future burnout.

Swimmers in the indifferent cluster were similar to the low commitment profile depicted by Schmidt and Stein (1991). Overall, these swimmers' relatively indifferent outlook on swimming, reflected by their low to average scores on all of the theoretical commitment determinants compared to their peers, made them similar to the predicted low commitment profile. Although these swimmers demonstrated higher attraction to swimming than the predicted low commitment profile, they were similar to this profile in several key respects. Specifically, they were not really attracted to swimming (average enjoyment and costs, and moderately low benefits), nor did they have characteristics associated with entrapment (low to average scores on the rest of the theoretical determinants of commitment). Because this study sampled swimmers who were still actively participating, it is not surprising that a profile with characteristics representing extremely low commitment did not emerge. Theoretically, the low commitment profile depicts athletes who are not attracted to sport nor entrapped by it. These athletes by definition are likely to discontinue swimming and therefore would not be included in this study's sample. To verify a true low commitment profile, researchers need to assess athletes who have recently dropped out of sport or who plan to discontinue participation in the near future.

Although the emergent profiles were similar to the predicted profiles in several respects, they were not identical to the hypothesized profiles. Of the potential sources of entrapment examined in this study, low perceived control and high social constraints were the most salient. The other sources of entrapment were not supported (e.g., alternative attractiveness), or received only modest support (e.g., swim identity, investments).

In contrast to Schmidt and Stein's (1991) predictions, swimmers in the malcontented profile did not report high personal investments and unattractive alternative options. Directly opposite to predictions, they reported investing relatively minimal time and energy into swimming and felt that other activities were more attractive than swim team participation. Although the alternative attractiveness finding is in contrast to Schmidt and Stein's predictions, it supports Coakley's (1992) conceptualization of burnout. Coakley suggested that athletes will not experience burnout unless they feel that they are missing out on other activities and life opportunities because of their sport involvement (i.e., high alternative attractiveness). However, contrary to Coakley's (1992) description of the entrapped athlete, the malcontented swimmers *did not* have a unidimensional identity, as was evident by their low scores on the swim identity measure.

A plausible explanation as to why alternative attractiveness, swim identity, and investments did not receive strong support in this study is that the nature of the relationship between theoretical determinants of commitment and burnout may vary depending on the level of burnout (e.g., whether the athlete is in the process of burning out or already experiencing high burnout). Burnout involves devaluing and psychologically withdrawing from an activity once deemed enjoyable (e.g., Eades, 1990; Smith, 1986). By definition, athletes who are burned out should decrease their investments in sport, devalue the importance of sport to their self-identity, and perceive that other activities are more attractive than sport. Aligned with those contentions, malcontented swimmers, who evidenced the highest burnout levels, also reported low investments into swimming, did not emphasize the importance of swimming to their self-identity, and reported that other activities were more attractive than swimming.

Although this provides a tenable explanation for the malcontented swimmer profile, it does not rule out the possibility that high sport investments, lack of attractive alternatives, and a unidimensional identity are antecedent conditions that set the stage for future burnout. For example, obligated swimmers had characteristics of sport entrapment (i.e., low perceived control, high social constraints, moderately high swim identity, and moderately high swim investments). Those characteristics of entrapment, coupled with their moderately high burnout scores (particularly on emotional/physical exhaustion), suggest that obligated swimmers may be in the early stages of burnout. If obligated swimmers' level of burnout increases, these athletes may decrease their investments into swimming, perceive other activities as more attractive than swimming, and devalue the importance of swimming to their self-identity. These shifts would result in obligated swimmers developing characteristics similar to the malcontented swimmers. If this were the case, it suggests that obligated and malcontented swimmers may define different points on a burnout continuum. Thus, the relationship between determinants of commitment and burnout thus could change depending on whether athletes were in the early stages of burnout or already experiencing heightened burnout. In the future, researchers may want to use a

longitudinal approach to examine whether the nature of the relationship between the determinants of commitment and burnout changes depending on the level of burnout.

Although entrapment is theoretically an antecedent of burnout, it is not possible to determine the direction of the relationship between entrapment and burnout based on this study's correlational design. For example, an alternative explanation is that burnout might be caused by factors unrelated to sport entrapment. Following this logic, athletes who continue to participate despite experiencing burnout may be doing so for entrapment-related reasons. If this is the case, it suggests that burnout may be a result of factors unrelated to sport entrapment and that entrapment keeps athletes involved in sport despite burnout.

For example, Gould, Udry, et al. (1996) contend that two types of burnout exist: one in which athletes discontinue altogether, and another, called *active burnout*, in which athletes still participate in sport but at a decreased involvement level. If two types of burnout exist, the difference between them could be an effect of burnout level. Athletes who remain in sport may be less burned out than those who discontinue sport participation altogether. Alternatively, the two types could experience similar levels of burnout, with the active group continuing to participate despite burnout because they are entrapped by sport. In contrast, the group that discontinues sport participation may not have characteristics of sport entrapment and therefore could readily drop out. The sampling strategy used in this study would only include the active type of burnout.

The findings from this study are unique in that this was the first empirical study on athlete burnout that did not stem from a stress perspective (Cohn, 1991; Eades, 1990; Gould et al., 1994; Silva, 1990). A commitment perspective on burnout does not deny that stress and burnout are related. Athletes who exhibit characteristics of entrapment are also likely to find sport stressful. In fact, several of the theoretical determinants of commitment examined in this study also were included in Smith's (1986) discussion of burnout from a stress perspective (e.g., low rewards, high costs, low autonomy, and self-worth dependent on sport success). Although Smith's (1986) theoretical discussion of burnout from a stress perspective contained several factors examined in this study, his model is very broad and does not delineate the specific conditions under which stress may be associated with burnout. A primary difference between a commitment and stress perspective is that a commitment framework identifies the specific conditions under which elevated stress may be associated with burnout—conditions that result in athletes having psychological characteristics of entrapment.

In summary, a commitment perspective is appealing because it attempts to capture the uniqueness of burnout by going beyond the notion that it is a simple consequence of chronic stress. Although not identical to the hypothesized profiles, results revealed four groups of swimmers who were similar in many respects to the predicted sport entrapment, attraction, and dropout profiles. Moreover, the four groups of swimmers experienced varying levels of burnout that were aligned with theoretical predictions. These results suggest that a sport commitment perspective can contribute to building a body of knowledge on athlete burnout. There also were key differences on certain variables that suggest profiling athletes in accordance with a commitment perspective is a complex undertaking needing additional empirical research.

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Notes

¹A copy of the entire questionnaire is available on request.

²The following enjoyment item was deleted from all analyses: "How satisfied are you with the way your swimming is going?" In addition, two swim identity items were omitted from all analyses: "I feel bad about myself when I do poorly in swimming," and "I need to participate in swimming to feel good about myself."

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