

ABSTRACT

Title of Thesis: TREATMENT ACCEPTABILITY OF NCAA DIVISION I STUDENT -
ATHLETES: FACTORS AFFECTING ATHLETES' ATTITUDES
TOWARD SPORT PSYCHOLOGY CONSULTANTS

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Consultations with sport psychologists can be a result of a coach implementing a sport psychology intervention for an athlete or team, or athletes personally choosing to utilize such services. The present study attempted to identify factors that could best predict an athlete's attitudes toward sport psychology consultants (SPCs). It was reasoned, following the Theory of Planned Behavior (Ajzen, 1988), that positive attitudes toward SPCs would create more of an incentive for an athlete to utilize the services of a sport psychologist. Student-athletes (N = 204) from a large university participated in the study. Results from multiple regression analyses indicated that gender, sport type, and knowledge about sport psychology were the significant predictors of athletes' attitudes. Implications for the applied field of sport psychology are made, specifically, that SPCs

should discover ways to increase treatment acceptability in male and team-sport athletes, as well as increase athletes' knowledge about the benefits and services of sport psychologists.

TREATMENT ACCEPTABILITY OF NCAA DIVISION STUDENT -ATHLETES:
FACTORS AFFECTING ATHLETES' ATTITUDES TOWARD SPORT
PSYCHOLOGY CONSULTANTS

by

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Chapter I

Introduction

Sport psychology services have been both implemented and utilized by several elite-athlete populations (Orlick & Partington, 1987; Gould, Murphy, Tammen, & May, 1991; Murphy & Ferrante, 1989; Sullivan & Hodge, 1991; Van Raalte, Brewer, Matheson, & Brewer, 1996; Martin, Wrisberg, Beitel, & Lounsbury, 1997; Maniar, Curry, Sommers-Flanagan, & Walsh, 2001; Selby, Weinstein, & Bird, 1990).

Implemented in the sense that coaches actively seek and hire a sport psychology consultant (SPC)¹ with the intent of maximizing a team's or athlete's performance. The term *utilized*, on the other hand, refers to an athlete taking the initiative to consult a sport psychologist that is available and/or qualified. Surely, any coach can "bring in" a SPC to give talks to his/her team (i.e., as a stimulant for proper mental preparation before a game), but this action may not be at the request of the athlete, nor is the athlete always willing to accept such interventions (Orlick & Partington, 1987, p. 14). In this sense, percentages of those athletes, characterized by any number of variables, reportedly consulting with a certified sport psychologist may merely be a reflection of which coaches implanted the SPC into the athlete's training/practice regime. A more accurate interpretation of which athletes are truly involved and accepting of a sport psychologist would be determined by gathering data which show the types of athletes willing to seek treatment with a sport psychologist for a performance or personal problem. The focus of this study is to determine which athletes are more prone to utilize sport psychology services.

Some studies have shown athletes' attitudes towards sport psychology based on superficial variables, like gender (Maniar, Perna, Newcomer, Roh, & Stilger, 2000; Maniar et al., 2001; Martin et al., 1997) and race (Maniar, Curry, Somers-Flanagan, & Perna, 1999; Martin et al., 1997), but a study conducted with the specific intent of determining the *underlying* factors that influence treatment acceptability has not been done. Some researchers in the field have asked that future endeavors in applied sport psychology research should determine treatment acceptability based on the type of sport (individual or team) of the athlete (Maniar et al., 2001; Martin et al. 1997; Blom, Hardy, Burke, & Joyner, 2003). To use a clever analogy, such a finding may only *seem* to help the applied field of sport psychology in preparing these certified consultants to know "which playing surface has the roughest terrain" ('playing surface' meaning sport type, and 'roughest terrain' meaning more players in need of consultation). However, sport type is also a surface variable. So the aim of this composition is to analyze the deeper variables at play when discussing the willingness of athletes to seek help from a SPC.

For an athlete to reach his/her fullest potential, the physical aspects of training must be matched with mental fitness (Bergandi & Wittig, 1984, p. 557). Vealey (1994, p. 496) states that "the objective of sport psychology is psycho-behavioral change to enhance the performance and quality of the sport experience for athletes." One manner in which that goal is obtained is through psychological skills training (PST). Such training is an approach to teaching athletes cognitive skills and strategies, like imagery, relaxation, and goal setting, which they will need to improve competitive performance (p. 495). Certainly, the importance of mental skills in sport is not a relatively recent phenomenon. The act of competition in sport alone demands cognitive and emotional

regulation, and no one who has competed in sport with a goal beyond that of pure enjoyment or recreation would doubt the role of mental fortitude. However, in recognizing this vital element in the formula for sporting success, sport psychology has made *official* leaps and bounds within the past two decades. The formation of the Association for the Advancement of Applied Sport Psychology (AAASP) in 1985 and the addition of Division 47 within the American Psychological Association in 1986 have made sport psychology services more formally recognized (Van Raalte, Brewer, Linder, & DeLange, 1990, p. 228) and more readily available as they have generated a list of certified sport psychologists for a potential client to contact. The United States Olympic Committee (USOC) also became involved with AAASP around the same time and made its most significant move when it sent two sport psychology consultants to the 1988 Summer Games to serve the athletes (Murphy & Ferrante, 1989, p. 375).

For athletes and coaches alike, sport psychology programs are integrated into training routines (Murphy & Ferrante, 1989, p. 374). Interventions with Olympic athletes and coaches have provided for the most useful knowledge in the applied setting (Orlick & Partington, 1987; Partington & Orlick, 1987; Murphy & Ferrante, 1989; Gould et al., 1991; Gould, Tammen, Murphy, & May, 1989). Such accounts in detailed articles have helped in determining the most desired qualities for a sport psychologist (Partington & Orlick, 1987, p. 97), as well as which issues are prominent among athletes (Murphy & Ferrante, 1989; Gould et al., 1991; Gould et al., 1989a). The generalizability of findings among populations, specifically between Olympic and collegiate athletes, cannot be taken at face value, as these athletes are often competing at different ages and stages in life, not to mention the level of competition is raised for Olympians. There is evidence, however,

to support the claim that findings among differing calibers of play and nationalities may be generalized. The results of Gould et al. (1991) and Maniar et al. (2001) suggest that similar sport psychology issues have been reported for U.S. Olympic and college athletes. In addition, British college athletes held similar views of sport psychology as compared to American college athletes (Van Raalte et al., 1996, p. 105). This paper, however, is geared toward explaining attitudes among college student-athletes.

Attitudes toward sport psychology have been delineated in several sport populations representing different countries and types of sports (Orlick & Partington, 1987; Gould et al., 1991; Sullivan & Hodge, 1991; Murphy & Ferrante, 1989; Gould et al., 1989a; Van Raalte et al., 1996; Martin et al., 1997; Maniar et al., 2001; Grove & Hanrahan, 1988). One comprehensive study, using U.S. Olympic athletes as subjects, spanned 25 different sports (Gould et al., 1991, p. 302). The types of athletes reporting the various issues and interventions handled by sport psychologists represent a variety of team contact and non-contact to individual, endurance, and aesthetic sports (Sullivan & Hodge, 1991, p. 142). Therefore, the interpretations of the views held by elite-level athletes carries some weight in terms of generalizability because of the representation of a wide range of sports. For instance, performance issues, as opposed to personal issues, are consistently the more frequently noted purpose for sport psychology consultation (Brewer, Van Raalte, Petitpas, Bachman, & Weinhold, 1998; Gould et al., 1989a; Murphy & Ferrante, 1989; Gould et al., 1991; Partington & Orlick, 1987), which is not surprising since performance is the main concern in athletics (Murphy & Ferrante, 1989, p. 378). More specifically, there is a trend for elite-level athletes to be more accepting of sport psychology interventions in the case of injury (Selby et al., 1990; Maniar et al.,

2001) and to be more accepting of goal setting as the type of intervention (Maniar et al., 2001; 2000b; Gould et al., 1991; Brewer, Jeffers, Petitpas, & Van Raalte, 1994). Two other highly rated psychological skills for athletes and coaches are imagery/visualization and relaxation (Gould et al., 1991; Greenspan & Feltz, 1989; Grove & Hanrahan, 1988; Gould et al., 1989a; Maniar et al., 2001; Leffingwell, Wiechman, Smith, Smoll, & Christensen, 2001). These previously cited studies have demonstrated an array of topics (mostly performance related) that athletes would utilize when consulting a sport psychologist, and have also demonstrated a desire for more information on PST (Gould et al., 1989a, p. 124), yet for both personal problems and performance problems, evidence exists that *coaches* are the most desirable helping resource for both male and female athletes (Selby et al., 1990, p. 15).

The main variable of interest in this study is the attitudes of the athletes toward sport psychologists. Currently, it is believed that elite athletes (collegiate and national/Olympic populations) hold positive attitudes toward sport psychologists (Orlick & Partington, 1987; Gould et al., 1991; Sullivan & Hodge, 1991; Gould et al., 1989a; Leffingwell et al., 2001). If attitudes toward SPCs are high, then it should follow that treatment acceptability of SPCs should be high. The Theory of Reasoned Action (TRA ; Fishbein & Ajzen, 1975) has provided evidence that an individual's attitudes can predict his/her respective behaviors (Jackson, Smith, & Conner, 2003; Adams, Lobianco, Wilcox, Hadler, & Griffith, 2003; Robinson, Roth, Gloria, Keim, & Sattler, 1993). Although no objective measure of behavior will be utilized in this study, the behaviors of those sampled can be inferred with some confidence due to the strength of the TRA. Specifically, the attitudes of the athletes in this sample can shed light onto what factors

would be the better predictors of an athlete actually initializing the process of seeking a SPC for a formal consultation.

Although there are many factors, like gender, race, job title, and fear of derogation (Maniar et al., 2001; Martin et al., 1997; Ravizza, 1988; Fenker & Lambiotte, 1987; Pinkerton, Hinz, & Barrow, 1989; Linder, Brewer, Van Raalte, & DeLange, 1991; Pierce, 1969) that would enable one to understand why an athlete *would not* utilize SPC services (despite holding favorable attitudes), the factors that *would* predict an athlete to take such an action are less developed. There is evidence to support the conclusion that females are more likely to seek help than males (Maniar et al., 2001, p. 211), and that white athletes are more likely to seek help than black athletes (Martin et al., 1997, p. 213), but there are no other findings in the sport psychology literature that directly discuss the influence of other personal or situational variables on treatment acceptability. All that is available are research findings that enable one to make inferences about this topic.

An athlete's willingness to seek "outside" help in the event of a personal or performance problem can be a function of the nature of the sport ([individual or team]; Simon and Martens, 1979, p. 164), or more specifically, the attitudes of the athletes in these sports. In Olympic and student-athlete populations, sport psychology consultants are more likely to consult with an individual member of a team, and rate themselves as more effective in this context (Gould et al., 1991; Murphy & Ferrante, 1989; Gould et al., 1989a; Fenker & Lambiotte, 1987). This is not to say that members of a team would not be interested in a group-counseling session (see Leffingwell et al., 2001), but individual performance is much easier to assess than team performance (Greenspan & Feltz, 1989,

p. 230). Because the individual athlete has more control over the outcome of a competition than a team sport athlete, there may be more competitive stress (Simon & Martens, 1979, p. 164) and higher perceptions of failure. Subsequently, there may be a greater need for intervention. For instance, in a review of 387 newspaper articles concerning the topic of sport psychology, golf (an individual sport) was mentioned most often (Brewer et al., 1998, p. 92). In addition, golf, tennis, and track and field (all individual sports for the most part) have a history of openness to sport psychology (Martin et al., 1997, p. 215).

Recent evidence supports the claim that athletes in individual sports are more likely to seek treatment from a SPC than athletes in team sports (Maniar et al., 1999a; Myers, 2001). One suggested line of reasoning for this discovery is that "the team" functions as a "social support group" (Pinkerton et al., 1989, p. 219), and that individual sports simply do not have as much team chemistry (Brawley, Carron, & Widmeyer, 1987; Mahoney, Gabriel, & Perkins, 1987), so teammates and coaches may not be considered a source for help for the individual athlete. The individual competitor must then go outside the team to seek help. However, as stated before, sport type is merely a surface variable, like gender or race, which does not delve into the real cognitions and performance factors that ultimately determine SPC treatment acceptability.

There are other personal variables in this matter to be considered, such as the athlete's knowledge of sport psychology and the experiences of the athlete. TRA clearly presents the argument that attitudes ultimately lead to behavior. However, what must be realized is that attitudes are a reflection of one's knowledge (Fishbein & Ajzen, 1975

14). Therefore, the knowledge one has about PST and SPC services can also help predict treatment acceptability. In addition, the collective experiences of the athlete may foster positive or negative attitudes toward the field of sport psychology. An athlete exposed to goal setting or imagery practices may benefit from such techniques, and as a consequence he/she will develop positive attitudes and greater treatment acceptability. Likewise, older, more experienced athletes may understand the importance of PST, having played for more years and/or having greater exposure to sport psychology. However, it is also reasonable to assume that less experienced athletes would have higher treatment acceptability due to an increase in competitive anxiety (think about a rookie stepping onto the field in front of tens of thousands of screaming fans for the first time).

Also related to the athlete's exposure to sport psychology is the implementation of PST on the part of the coach. The coach's attitudes and behaviors are very likely to influence the player, as the coach is undoubtedly the leader of the team. In other words, as the athlete is exposed to the attitudes and behaviors of the coach, certain impressions are being formed, and the attitudes and behaviors of the athlete are likely to change (Chelladurai, 1980, p. 230), mirroring those of the coach. In sum, if the coach fosters treatment acceptability for SPCs and PST through behaviors, then the athlete is more likely to seek help from a SPC.

Significance of the Study

The significance of the present study is that the field of applied sport psychology will be able to better understand which factors are having an impact on athletes' treatment acceptability of a SPC. In gaining this knowledge, SPCs can then attribute lack of treatment acceptability to the appropriate source and discover ways to enhance favorable

attitudes toward the profession. There are superficial, or foundational, variables, like gender and race, that may affect athletes' attitudes toward SPCs; however, there are also deeper, psychological and behavioral variables that are likely to influence athletes' attitudes. For instance, one's knowledge of sport psychology and previous experience with sport psychologists may have an influence on attitudes toward SPCs. These variables have not yet been examined in this context, so a practical implication for SPCs might be to find ways to increase the knowledge of the athletes regarding the benefits of sport psychology and how to obtain such services. In addition, some researchers (Maniar et al., 2001; Martin et al., 1997; Blom et al., 2003) have offered that future sport psychology research attempt to unveil the potential factor that sport type has on attitudes toward sport psychology. Following this study, sport psychologists will be able to gear their PST to meet the needs of athletes in either individual or team sports.

Sport psychology interventions have been proven successful (Greenspan & Feltz, 1989; Weinberg & Comar, 1994; Fenker & Lambiotte, 1987) and this study might also lend evidence to support the notion that if a coach is accepting of sport psychology, then those particular athletes are more likely to accept sport psychology interventions and the athletes can then begin to maximize athletic potential. Finally, the results of this study may justify the need for sport psychologists to hold a workshop for athletes and coaches in order to obtain knowledge about PST and the actual nature of sport psychology consultations.

Research Question

Considering that many potential variables can influence athletes' treatment acceptability, the primary purpose of the present study is to determine which factors have

a significant effect on athletes' attitudes toward sport psychology consultants.

Specifically, does an athlete's gender, race, sport experience, type of sport, competitive anxiety, previous experiences with SPCs, experience with the coach's use of sport psychology training and SPCs, perceived failure, and knowledge of sport psychology significantly predict his/her attitudes toward SPCs?

Hypotheses

In light of the literature pertaining to the variables highlighted above, the following hypotheses are specific to the dependent variable of treatment acceptability:

1. Because previous research has concluded that females have higher treatment acceptability and may experience higher levels of competitive anxiety and pessimism than males, *gender will be significantly related to athletes' attitudes toward treatment acceptability.*
2. Because individual sport athletes may experience greater competitive anxiety than team sport athletes, and because competitive anxiety can negatively affect performance, *sport type will be significantly related to athletes' attitudes toward treatment acceptability.*
3. Because competitive anxiety can have a debilitating effect on performance, and because performance is highly important for an elite athlete, *competitive anxiety will be significantly related to athletes' attitudes toward treatment acceptability.*
4. Because performance issues are most common in sport psychology consulting, *perceived failure will be significantly related to athletes' attitudes toward treatment acceptability.*

5. Because the coach exerts much influence on the team, and because the coach's use of PST may enhance the athlete's positive attitudes toward sport psychology, *the coach's use of PST will be significantly related to athletes' attitudes toward treatment acceptability.*
6. Because past behaviors are a strong predictor of future behaviors, *previous experience with sport psychology consultants will be significantly related to athletes' attitudes toward treatment acceptability.*
7. Because knowledge is strongly associated with attitudes, which have a significant effect on behaviors, *athlete's knowledge of sport psychology will be significantly related to athletes' attitudes toward treatment acceptability.*
8. Because performance-related issues are most prominent in sport psychology consultations, *performance related problems (competitive anxiety and perceived failure) will have the greatest significance on athletes' attitudes toward SPCs when compared to the other predictors.*

Assumptions

The assumption of the present study is that the subjects have sufficient understanding of the directions for questionnaire completion.

Limitations

1. The data in the present study are obtained by means of self-report.
2. Many of the items used in the questionnaire in the present study have no established reliability and validity.

Delimitations

1. The subjects in the present study are from a single university located in a large metropolitan city on the east coast.

2. The subjects do not represent athletes from all sports.
3. Not all subjects will complete the questionnaire during the competitive season.

Definitions

1. Treatment acceptability is "the attitudes a participant keeps toward receiving treatment" (Myers, 2001, p. 8); including the confidence the participant has in the treatment.
2. Behavioral attitudes are the individual's beliefs about the consequences of a behavior and the positive or negative evaluation of those consequences (Hausenblas, Carron, & Mack, 1997).
3. Sport experience refers to how much actual competitive experience the athlete has at the collegiate level.
4. Sport type refers to whether an athlete competes in an individual sport or a team sport.
5. Competitive anxiety is the amount of anxiety or stress that an athlete experiences before or during competition.
6. Previous experience with a SPC refers to whether or not an athlete, or a significant other, has had a formal consultation with a SPC.
7. Coach use refers to the coach's actual use of SPCs and PST with the athletes.
8. Perceived failure refers to how poorly the athlete perceives him/herself to be competing in his/her sport.
9. Athlete knowledge refers to the athlete's knowledge of the benefits of psychological skills for performance, as well as the knowledge for where to find sport psychology services.

Chapter II

Literature Review

The Importance of Sport Psychology

Much can be said about the importance of sport psychology. Athletes are not likely to derogate another athlete who consults a sport psychologist in comparison to one that consults a coach (Van Raalte et al., 1992, p. 276). Another athletic population held positive attitudes toward psychological interventions following an injury (Brewer et al., 1994, p. 181). Other studies show that athletes, coaches, and athletic directors have positive attitudes toward sport psychology (Martin et al., 1997; Selby et al., 1990; Bergandi & Wittig, 1984; Leffingwell et al., 2001). Certainly, any coaching staff knows the importance of mental training in sport (Grove & Hanrahan, 1988, p. 228); this is the reason for most sport psychology implementations.

According to coaches, psychological skills are most important in determining elite sporting success (Sullivan & Hodge, 1991, p. 141). Mental skills training is most appealing to a coach, and helps a SPC avoid the "shrink" stigma, when it is combined with the physical skills (Ravizza, 1988, p. 245). Several studies have indicated the success of SPCs working with athletes and the expressed interest of athletes and coaches in current and future sport psychology training (Orlick & Partington, 1987; Sullivan & Hodge, 1991; Gould et al., 1989a; Leffingwell et al., 2001). Reviews of interventions used in studies to enhance performance have demonstrated that various athletes, in numerous types of sports, have benefited from sport psychology interventions (Greenspan & Feltz, 1989; Weinberg & Comar, 1994; Fenker & Lambiotte, 1987). The importance of SPCs can be expressed as vital in the context of injury. Selby et al. (1990,

p. 17) found that the most important stressor for athletes is injury, and Maniar et al. (2001, p. 210) found that athletes indicate a preference for seeking help in the context of injury. Although it has been shown that coaches are the most desired source of help in the case of injury (Maniar et al., 2001; Selby et al., 1990), other research has shown that compared to other sources of help, athletes would be least willing to discuss their *emotional reactions* to injury with their coaches (Maniar, Perna, Newcomer, Roh, & Stilger, 1999). Also, the use of psychological interventions may improve athletes' attitudes toward injury rehabilitation; thus, the recovery may be quicker (Brewer et al., 1994, p. 183) and future performance may benefit.

Reasons for Not Utilizing a SPC

As previously determined by research, an athlete's willingness to seek help is influenced by a variety of factors (Maniar et al., 2001; Martin et al., 1997). In discussing treatment acceptability, a factor influencing an athlete's willingness to seek help from a SPC is whether or not the consultant is available and/or close to the athlete. Maniar et al. (2001, p. 214) reported that college athletes would be more likely to consult with coaches, friends, or family for performance related issues. Similarly, Selby et al. (1990, p. 15) indicated that following a traumatic event, those most often turned to were family, friends, and teammates, followed by intimate partners and coaches. The fact that student-athletes lean toward coaches as a source for guidance and consoling may be a reflection of student-athletes being uncomfortable in seeking help from someone outside the athletic department, who may not understand the special circumstances behind being a student-athlete (Greenspan & Anderson, 1995, p. 190). In addition, despite growth in the field, applied sport psychology apparently has not gained substantial public acceptance

(Brewer et al., 1998, p. 89). One well-known sport psychologist, Ken Ravizza, admits that athletes and coaches are skeptical of sport psychology (Ravizza, 1988, p. 244). Psychology is linked with the terms "weakness," "problems," and "vulnerability" (p. 244). Even though the service a sport psychologist provides may prove to be valuable in the end, this positive light of sport psychology may only be seen by athletes and coaches after the fact.

There are several well-developed and certainly realistic explanations as to why an athlete would choose not to seek help from a SPC (Fenker & Lambiotte, 1987; Pinkerton, Hinz, & Barrow, 1989; Linder et al., 1991; Pierce, 1969). To illustrate how this unwillingness manifests itself, one athlete stated that he "would be insulted" if referred to a sport psychologist following an injury (Brewer et al., 1994, p. 184), while a coach stated, "If one of my athletes needs a sport psychologist, I don't want that athlete on my team" (Partington & Orlick, 1987, p. 101). It may be that athletes are classifying sport psychologists into the same grouping as other mental health practitioners, who tend to work with the general public, because on a similar note, athletes underutilize mental health services (Pinkerton et al., 1989; Pierce, 1969). One reason why athletes might underutilize mental health services is because psychologists and psychiatrists are reportedly "tender-minded people who deal with abnormal phenomena" (Webb & Speer, 1985, p. 1064), which resembles the findings of Ravizza (1988). An alternative explanation for this under-use is that athletes are generally healthy minded people. Again, non-performance (personal) issues are cited less frequently for an athlete to see a sport psychologist (Gould et al., 1989a, p. 124), so maybe athletes have a diminished need for mental health services. As it turns out, should not the fact that athletes are not

frequently using mental health services be considered something positive for that population—that athletes are "mentally tough"? For instance, in one study, 35% of the athletes sampled reported a "current" physical injury and 94% of these injured athletes continued to train (Selby et al., 1990, p. 12). There is evidence that athletes and the general public differ in their view of emotional illness and those who treat it (Pierce, 1969, p. 246). It should be clear by now that reasons do exist for an athlete not to seek outside help for a problem, but the main purpose of this study is to determine those factors that facilitate the use of a SPC, so the attention of this review now shifts in that direction.

Gender

Sport psychology consultants (SPC) recognize the fact that differences in gender between the SPC and an athlete may influence the effectiveness of the treatment (Martin et al., 1997, p. 203). More importantly, the treatment is less likely to occur at all in the case of male athletes, as they are less likely to seek help (Maniar et al., 2001; Martin et al., 1997; Sabo, 1988). Female athletes rate sport psychologists and sport counselors higher than males (Maniar et al., 2001, p. 212), and women in general are more likely than men to seek help from mental health services (Reinhold, 1973; Murstein & Fontaine, 1993). Recent results show that female student-athletes have an improved perception of sport psychologists in relation to mental health practitioners and in comparison to previous research (Boks & Bull, 1999, p. 211). Scant evidence exists to suggest that male and female athletes do not differ in their willingness to seek help (Maniar et al., 2000a), but this finding was in the context of injury, which has been established as the greatest stressor for both male and female athletes (Selby et al., 1990, p. 17).

Several studies suggest the *underlying reasons* why females may be more likely to seek help from a sport psychologist. First, female athletes may be more pessimistic than male athletes (Wilson, Raglin, & Pritchard, 2002, p. 7), and have lower levels of self-confidence (Mahoney et al., 1987; Thuot, Kavouras, & Kenefick, 1998). As a result, female athletes have reported higher levels of pre-competitive anxiety (Wilson et al., 2002; Thuot et al., 1998). As this anxiety has been shown to have a detrimental effect on performance (GouldGreenleaf, Chung, & Guinan, 2002; Mahoney et al., 1987), female athletes may ultimately be more likely than male athletes to turn to a SPC. Also, elite female athletes have reported a preference for socially supportive strategies for emotional reasons (Crocker & Graham, 1995; Campen & Roberts, 2001); thus, they may be more likely than males to seek help for a performance problem.

Race

A social barrier that exists for a SPC to gain entry with a team, coach, or athlete is race. Few studies have examined treatment acceptability among different races in the context of sport, and the results are mixed. Martin and colleagues (1997, p. 213) and Wrisberg and Martin (1994) found that black college athletes were more likely to negatively stigmatize sport psychology consultants than white athletes, and therefore less willing to seek help from one of these individuals. Conversely, in another sample of college athletes, there were no differences in race for treatment acceptability (Maniar, et al., 1999a).

Sport Experience

It is known that performance related issues are the most frequently cited reasons for an athlete to consult a sport psychologist. Obviously, athletes can apply their own

psychological skills and ways of coping to handle performance issues (i.e., competitive anxiety or "slumps") without involving a SPC. As athletes mature and develop, increased opportunities to perform under stressful competitive situations are likely to assist in coping with the negative performance effects of stress (McGregor & Abrahamson, 2000). Similarly, Vealey (1990, p. 247) suggests that less experienced athletes, regardless of age, tend to have higher competitive trait-anxiety. For example, in two studies involving endurance athletes, older athletes had less pre competition anxiety than younger athletes (Campen & Roberts, 2001; Hammermeister & Burton, 1995). These findings may be due in part to older competitors possessing better psychological skills. Mahoney and colleagues (1987, p. 189) provided evidence that within a sample of highly talented athletes, those with more skill used more aspects of what can be considered PST (imagery, relaxation techniques, etc.) and had more success coping than the "pre-elite" athletes. Also concerning performance resources, the use of nutritional supplements in an elite population was reportedly higher for the very best athletes as compared to those with lower rankings (Sudgot-Borgen, Berglund, Torstveit, 2003, p. 141). In contrast, a review of studies using SCAT (Sport Competition Anxiety Test; Martens, 1977) conducted by Vealey (1990, p. 247) has provided some evidence to refute these previous findings. The review has shown higher levels of competitive trait-anxiety for younger athletes as compared to older athletes, but this same review found instances where older athletes had higher levels of anxiety (p. 247). In another study, starters and non-starters differed on their perceptions of task-cohesion within the team (Westre & Weiss 1991, p. 50), suggesting that one's status on the team alters how one judges relevant sport experiences.

It can be reasoned that the cumulative experiences of the athletes will alter the perceptions and use of resources that can affect subsequent performance. Collectively, the above findings suggest that as athletes obtain higher levels of skill (or rankings), they may be better in coping with performance issues on their own, but on the other hand, they may discover a greater need for tapping resources outside their regular training regiment, in this case a SPC. Therefore, it is difficult to make a claim that older, or more experienced, athletes would have higher or lower treatment acceptability for a SPC than less experienced athletes based on this demographic alone.

Type of Sport

Another contextual factor of predicted treatment acceptability is the type of sport in which one engages, namely individual versus team sports. The distinguishing factor between individual sport athletes and team sport athletes is that individual sports are a compilation of individual efforts, which are not contingent upon the behavior of teammates (i.e., golf, cross-country, tennis), whereas team sports require direct and coordinative behaviors among teammates ([basketball, soccer, lacrosse]; Ryska, Yin, Cooley, & Ginn, 1999, p. 526). Although some individual sports have relay teams, like swimming or track and field, or have "doubles" teams, like tennis or badminton, there is an exceptionally small amount of direct interaction between the athletes in such a situation. For instance, during a relay in swimming only one swimmer for each team swims at a given time, and during doubles play in tennis only one of the partners may make a play on the ball (no passing). More importantly, individual and team sports have been shown to differ on valuable performance issues, such as coping styles (Gould, Hodge, Peterson, & Gianni, 1989, p. 135) and preferred leadership styles (Chelladurai & Saleh,

1978, p. 89). Hall and colleagues (Hall, Rodgers, & Barr, 1990, p. 7) showed that the sport type plays a role in imagery use; however, evidence also exists that shows no differences between sport types in imagery use or other coping strategies for stress (Munroe et al., 1998; Holt & Hogg, 2002). Relevant to the possibility of sport psychology consultation, collegiate athletes in individual sports report more frequent problems with anxiety, confidence, and concentration as well as different patterns of experience with mental practice when compared to team sport athletes (Mahoney et al., 1987, 194).

The sport type affects the competitive anxiety of the athlete. Perhaps the first study to directly measure anxiety levels of individual sport and team sport athletes was conducted by Simon and Martens (1979). These researchers based their study on previous work by Griffin (1972) who found that participants competing in four individual sports had higher pre-competition anxiety levels than those competing in four team sports (although this was not the original aim of the study). Based on Griffin's (1972) work, Simon and Martens (1979) measured the pre-event anxiety levels of individual and team sport athletes, as well as band members playing solo or with a group. Results showed that individual competing athletes and solo band members had higher anxiety levels than team sport athletes and those in band groups, respectively (Simon & Martens, 1979, pp. 164-65). Furthermore, three activities out of eleven producing the highest pre-event anxiety were individual evaluation activities (p. 166). The researchers offered that in these contexts, mistakes and failures cannot be easily attributed to others (p. 166). Recent research has supported this claim. For instance, McGregor and Abrahamson (2001, p. 4) states that "diving as an individual sport inherently possesses an increased

potential for greater social evaluation in that the focus tends to be more strongly on the individual's performance, which significantly influences the subjective perception of negative aspects of competition." In addition, expectations of individual or team success are correlated with pre-game anxiety (Scanlan & Passer, 1978; 1979). As will be discussed in the next section, an increase in anxiety greatly enhances the likelihood for a poor performance.

Chelladurai (1984) postulated a similar notion of competitive stress for individually competing athletes: "track and field effort stands by itself; there are clear and objective criteria to evaluate the performance outcome as well as the process resulting in a given performance" (p. 39). This is not to say that athletes in team sports do not experience anxiety; however, the competitive anxiety in individual sports is thought to be *greater* because the individual has greater control over the outcome of the event. Also, athletes in team sports may face different stressors compared to individual sport athletes. For example, team athletes must rely on others to achieve success, have more frequent interactions with their teammates, and experience less individualized coaching programs (Holt & Hogg, 2002, p. 253). Hence, the structure of the team is markedly different depending on the type of sport.

Competitive Stress

Returning again to this notion of competitive stress, a concept such as this may ultimately be the deciding factor in an athlete initiating the process of seeking help for performance related issues. Elite sport is characterized by a demand to perform at optimal levels in pressure situations; hence, athletes must be able to cope with stress and anxiety that accompanies their performance (Vadocz, Hall, & Moritz, 1997, p. 241).

Competitive stress is largely a by product of the athlete anticipating inadequate performance ([low expectations]; McGregor & Abrahamson, 2001; Scanlan & Passer, 1979), competitive trait anxiety, and low self-esteem (Scanlan & Passer, 1979, p. 152). In other words, these expectations of success/performance are correlated with pre-game anxiety (Scanlan & Passer, 1978; 1979). Two studies, one using champion figure skaters (Gould, Jackson, & Finch, 1993, p. 152) and another using high school golfers (Cohn, 1990, p. 104; [both are individual sports]) found similar results. Namely, that the biggest stressor for these competitors was expectations and pressure to perform. Although it has been argued that many of the stressors are the same for individual sports and team sports (Hall et al., 1990, p. 207), the consequences of failure are minimized for team sports because individuals are not put on the spot, while everybody notices failures in individual sports (Iso-Ahola & Hatfield, 1986, p. 102). For example, following interviews with Olympic athletes, it was concluded that when performance is dependent on teammates, athletes believed this had a *positive* effect on performance (Gould et al., 2002a, p. 178).

In addition, individual sport athletes may experience more competitive stress as a result of this link between outcome expectancy and both state anxiety and self-confidence (McGregor & Abrahamson, 2001). State-anxiety and self-confidence continue to affect performance throughout the competitive event (McGregor & Abrahamson, 2001). In sum, greater outcome expectations, or greater control over the outcome of an event, will cause stress responses that result in reduced "athletic efficiency" (Grove & Stoll, 1999), but in more important terms the result is a decrement in performance. Evidence clearly supports this link. Gould et al. (2002a, p. 178) and Mahoney et al. (1987, p. 189) both found that athletes attributed state-anxiety and a lack

of confidence in their abilities to have a negative effect on their performance. When performance continues to decline for elite athletes as a result of competitive anxiety, the need for help in rectifying the problem increases. Again, performance related issues are cited as the top reason for sport psychologist consultation (Brewer et al., 1998; Gould et al., 1989a; Murphy & Ferrante, 1989; Gould et al., 1991; Partington & Orlick, 1987).

Perceived Success and Failure

To further delineate the immediate effects of competitive stress on performance, the focus of this composition now turns to perceived failure and success among athletic populations. Gernigon and Delloye (2003, p. 55) reported that reviews conducted in the domain of sport have shown clear evidence for a significant relationship between self-efficacy beliefs and performance. If low self-efficacy has a debilitating effect on performance, then it is important to understand what may contribute to lowered self-efficacy. To possess low self-efficacy suggests one does not have confidence in his/her abilities and one perceives him/herself as likely to fail. In one study, collegiate track and field athletes that were grouped as pessimists achieved low rates of success (Wilson et al., 2002, p. 899). On the other hand, high success expectations and lower anxiety led to improved personal performances in a basketball setting (Martin-Krumm, Sarrazin, Peterson, & Famose, 2003, p. 1693). A pessimist explains bad/negative events as: stable in time, generalizing to all activities, and being the result of internal causes (p. 1686). An optimist would explain bad/negative events with the opposite attributional pattern. For instance, Martin-Krumm et al. (2003, p. 1692) demonstrated that those with a more optimistic approach to competition performed better after a failure, whereas those with a more pessimistic style did not improve upon performance. Again, because performance

related issues are most important in the realm of sport psychology, the perceived success, or positive outlook, of an athlete, or its lack thereof (pessimism or perceived failure) will greatly alter the respective need for performance consultation. When an athlete considers where he/she stands in relation to a hypothetical success/ failure continuum, past experiences will obviously be an important source of information relative to the position on this continuum and to the construction of self-efficacy beliefs (Gernigon & Delloye, 2003, p. 70), which can be interpreted as predicting future success/failure expectations.

Gernigon & Delloye (2003, p. 70) showed that sprinters in a "success" group expressed higher levels of self-efficacy for future sprints than those in a "failure" group. Similarly, competitors with a pessimistic style have been proven to have greater stress reactivity than optimists, which ultimately leads to greater competitive anxiety (Martin-Krumm et al., 2003, p. 1693) and a subsequent decline in performance. In turn, progressive declines in performance cause a decline in self-confidence and further increases in anxiety (p. 1693). It then stands to reason that perceiving one's self as a failure in sport causes decreased self-esteem and self-efficacy. For example, Martin-Krumm et al. (2003, p. 1693) states that pessimism, following failure, has a negative correlation with expectations, so the individual then adopts a mentality that there is little or no control over the outcomes of competition. In other words, in a situation where failure has been experienced, or is perceived as inevitable, it is proposed that low self-esteem (pessimistic) individuals do not believe they can overcome the challenge (Lane, Jones, & Stevens, 2002, p. 341). Support for this claim is evident in Gernigon & Delloye's work (2003, p. 71) in which confidence in performance decreased after a failure. A study conducted by Lane et al. (2002, p. 338) showed that tennis players had

reduced self-esteem and self-efficacy following a failure. According to the theory of learned helplessness, individuals experience a sense of futility when outcomes are perceived to be beyond their control, and in turn they may possess a low sense of self-efficacy (Hiroto & Seligman, 1975). Finally, Reisel and Kopelman (1995, p. 111) concluded that a decrement in performance may tend to follow failure for both individuals and groups.

Influence of the Coach

To better understand the attitudes athletes hold toward sport psychology and SPCs, it is imperative to explore the attitudes and behaviors of the coach, essentially because these aspects of the coach greatly influence the players. Coaching behaviors, such as social support from the coach, have a strong impact on team cohesion (Westre & Weiss, 1991, pp. 50-51). The results from a study conducted by Turman (2003, p. 99) demonstrated the valuable role the coaches' behaviors play in developing team cohesion, as some actions promote team cohesion for the athletes, while other actions serve as a deterrent. As a leader, the coach initiates structure by organizing and clarifying roles for members of the group (Chelladurai, 1980, p. 227). This behavior is indicative of the leader's concern for task accomplishment, or goal attainment (Chelladurai, 1980; Laios, Theodorakis, & Gargalianos, 2003). In relation to elite sport, this concern deals with performance.

Competitive stress and anxiety have been established as being a decrement to performance; however, athletes perceiving their coaches as supportive or exemplifying other desirable coaching behaviors may have a reduction in competitive state-anxiety as well as a reduction in anxiety throughout the duration of a season (Smith, Smoll, &

Barnett, 1995; Ryska & Yin, 1999). In contrast, coaches can also be a *source* of stress (Holt & Hogg, 2002, p. 269). Either way, coaches should become aware of potential psychological implications of their behavior (p. 269). To reiterate, coaching-related issues, like the coach-athlete relationship, have both positive and negative effects on performance, depending on the nature of the behavior (Greenleaf, Gould, & Dieffenbach, 2001; GouldGuinan, Greenleaf, Medbery, & Peterson, 1999). The congruence of goals shared by the coach and athlete, and the control the coach has over the players, imply that any behavior directed toward the attainment of the goal (i.e., peak performance) is acceptable to the player (Chelladurai, 1980, p. 230). This feature—that the coach has almost total control over the athletes—is very unique to sports (Chelladurai, 1984, p. 27). It is becoming abundantly clear that athletes' attitudes and behaviors can often be mere reflections of the coaches' attitudes and behaviors because of the unique role that the coach possesses—that of a leader.

There is some evidence to support this notion. Sundgot-Borgen et al. (2003, p. 140) found that coaches were the most influential figure in advising athletes to use nutritional supplements. Also, after finding an increase of imagery use by collegiate athletes as the season progressed, Munroe and colleagues (Munroe, Hall, Simms, & Weinberg, 1998, p. 448) proposed that this increase was based on coaches' guidance. Coaches' verbal and non-verbal messages are communicated to the athlete (sometimes in unintentional ways) and after prolonged exposure to such messages, the likelihood of athletes adhering to the messages increases (Giffin & Harris, 1996, p. 191). Coaches themselves have admitted that specific leadership qualities are most important in influencing individual and team performance, namely, "expert power", which comes from

the coach's special knowledge, skills, and experiences (Laios et al., 2003, p. 151). Hence, if a coach demonstrates an interest in sport psychology during practice or game settings, then these very same ways of using sport psychology training will have a higher likelihood of being adopted by the players.

Coach's Use

Of much importance regarding athletes' willingness to accept SPC treatment is the prior use of sport psychology training by the coach. Recent evidence suggests that the overwhelming majority of coaches are not applying PST (<1%), despite a wealth of knowledge published in sport psychology journals (Figone, 1999, p. 4). Sullivan and Hodge (1991, p. 149) found that national level coaches spent 12% of their coaching time on psychological areas. Based on data obtained from other studies using national level coaches in which coaches indicate a clearly positive appraisal of PST, this may be a relatively high percent. In any event, many coaches may neglect PST because many coaches do not understand how to teach or practice it (Figone, 1999, p. 4), but those that do understand seem not to downplay its importance. Presumably, the coach's experience with a SPC greatly influences future use of a SPC or sport psychology altogether (Partington & Orlick, 1987, pp. 97-98). The next section will explain that past behaviors are strong predictors of future behaviors; therefore, if a coach has implemented a SPC in the past for his/her team, then the likelihood of one of these players seeking help from a SPC in the future is enhanced. The coach's use of a SPC with the team, or the use of PST in practice and games, exposes the athlete to the potential benefits of sport psychology concepts. This exposure may increase the knowledge the athlete has of sport psychology

(knowledge will be shown to play a vital role in behaviors) and allows the athlete to make a more accurate appraisal of the use of sport psychology.

Theory of Planned Behavior

The Theory of Reasoned Action (TRA) was conceptualized in 1975 by Fishbein and Ajzen to develop a framework to explain behavior (Fishbein & Ajzen, 1975). In 1985, the Theory of Planned Behavior (TPB) spawned from TRA, adding one additional component to the model perceived behavioral control (Ajzen, 1988). Since then, Hausenblas and colleagues (1997, p. 45) conducted a review to compare the TRA and the TRB, and the results provided support for the greater predictive utility of TPB over TRA. The two theories are essentially the same. Jackson et al. (2003, p. 119) provide a good summary: "the proximal determinant of behavior is the intention to perform or not to perform that behavior. Intention is determined by attitude towards the behavior and the subjective norm (perceptions of social pressure to perform the behavior)." The difference is that TPB considers "perceived behavioral control" as another factor influencing intentions and behaviors. Perceived behavioral control is the ease or difficulty of performing the behavior (Ajzen, 1988). For actions and behaviors that are performed relatively infrequently, perceived behavioral control, which is a result of past behaviors, should strongly influence future behaviors. TPB is still widely used today and is cited numerous times in psychology research. Recent findings continue to provide further support for TPB's predictive qualities and strong framework (Higgins & Conner, 2003; Rhodes & Courneya, 2003; Conn, Tripp-Reiner, & Mass, 2003; Jackson et al., 2003). For instance, Higgins & Conner (2003) and Conn et al. (2003) found that attitudes, subjective norms, and intentions were significantly correlated.

Hausenblas et al. (1997, p. 37), in their recent review, noted that attitudes toward performing a behavior are a function of a cognitive belief structure that embraces two subcomponents: the individual's beliefs about the consequences of the behavior and the positive or negative evaluation of those consequences. Fishbein and Ajzen (1975, p. 14) originally stated that a person's attitude toward an object is based on his/her salient beliefs about that object. Beliefs represent the *information* the individual has about the object, meaning the beliefs are formed on the basis of information received from outside sources (p. 12). In other words, attitudes are based on obtained knowledge. Fishbein and Ajzen (p. 14) go on to state that "the totality of a person's beliefs serve as the informational base that ultimately determines attitudes, intentions, and behaviors." In the present study, the variable of interest is the subjects' attitudes (the dependent variable). It is now apparent that in understanding one's attitudes, the knowledge of that individual must be assessed. The nature of TPB allows one to infer that knowledge and previous behaviors are predictors of attitudes; therefore, it may stand to reason that because attitudes are an indirect indicator of behavior (acting through behavioral intentions), knowledge and previous experience are indirect indicators of behavior. In sum, in order to understand an athlete's attitudes toward SPCs, one must measure the athlete's knowledge and previous experience with SPCs. Once the attitudes toward a SPC have been revealed, one can deduce, following TPB, that these attitudes predict future treatment acceptability.

Athlete's Knowledge

There is congruence between beliefs and behaviors, as one behaves in accordance with beliefs (Robinson et al., 1993, p. 129). The literature provides examples of the

predictive quality of attitudes and knowledge. In a study concerning organ donation, attitudes and knowledge were significantly associated with granting authorization for organ/tissue donation (Rubens, & Oleckno, 1998). Besides organ donation, knowledge has been shown to be a strong indicator of desirable behavior in many aspects of life such as manatee conservation efforts (Aipanjiguly, Jacobson, & Flamm, 2003, p. 1101), recycling (Arbuthnot & Lingg, 1975, p. 278), and West Nile Virus protection (Adams et al., 2003, p. 887). Zelezny (1999) conducted a meta-analysis on studies involving pro-environmental behavior and found strong correlations between knowledge and behavior. Thus, even when discussing topics that can be viewed as "sensitive" (such as consultation with a mental health practitioner), an individual's knowledge and attitudes may successfully predict behavior. Specifically, in order for an athlete to make an accurate positive or negative appraisal of sport psychology, he/she must have knowledge of the subject matter. In addition, it cannot be overlooked that because SPCs provide a service to people (including the general public), and that consultations are not always implemented, meaning the services have to be utilized, the athlete must have knowledge of how to obtain such a service.

In a recent sample of 277 NCAA Division I student-athletes representing 17 men's and women's teams, 78% of the athletes indicated knowledge of the Sport Psychology Service offered by the university, and 60% knew about a Human Performance Enhancement academic course (Leffingwell et al., 2001). In addition, three out of every four athletes sampled at this university rated the sport psychology services as above average, and 60% indicated that they would make use of the services in the future. Although causality can not be determined from this report, one could argue that athletes

hold favorable attitudes toward the sport psychology services when they are knowledgeable as to how to obtain the services.

Athlete's Attitudes

The primary focus of this study is on attitudes—the athletes' attitudes toward SPCs will be assessed, and a link to treatment acceptability will be attempted. Attitudes can be thought of as behavioral beliefs, which are the positive and negative consequences of performing a behavior (Conn et al., 2003, p. 154). Attitudes have been shown to correlate with intentions in a variety of domains (Higgins & Conner, 2003; Rhodes & Courneya, 2003; Jackson et al., 2003; Rubens & Oleckno, 1998). Likewise, exercise intentions have been correlated with actual exercise behavior eight weeks later (Jackson et al., 2003, p. 127), suggesting attitudes have an indirect effect on behavior (acting through intentions). More importantly, attitudes have been shown to have a direct effect on behavior in multiple studies. Attitudes were significant predictors of exercise (Conn et al., 2003, p. 157), and not being worried about the West Nile Virus (attitude) was significantly associated with no preventive behaviors (Adams et al., 2003, p. 887). Additionally, attitudes were significantly correlated with short-term and long-term behaviors (Robinson et al., 1993, p. 127), and in another study attitudinal measurements were predictive of environmental behavior (Arbuthnot & Lingg, 1975, p. 278). To apply these findings to the current study, the attitude toward sport psychology consultants is the outcome variable, as opposed to some observable behavior. The rationale here is that the athletes' attitudes would be solid indicators of both intentions and behaviors regarding seeking help for a performance related issue. Research has shown that elite athletes hold positive views toward sport psychology, and that they recognize the value of mental

preparation and PST to peak performance (Greenleaf et al., 2001; Gould et al., 1999; Blom et al., 2003). As a consequence, those holding favorable attitudes toward sport psychology and SPCs should have higher treatment acceptability. Recently, Leffingwell et al. (2001) reported 60% of NCAA Division I student-athletes felt that the sport psychology services they received were useful (i.e., positive attitudes), and 60% of the same sample also indicated that they would utilize the services in the future (i.e., treatment acceptability).

Previous Experience

So far, the latter sections of this literature review have outlined that knowledge, attitudes, and intentions effectively predict behavior. However, perhaps the strongest predictor of behavior is *actual* behavior, or past behavior for that matter. For behaviors that are performed infrequently, such as consulting a SPC, past behaviors provide information to the individual about how to go about the behavior (Jackson et al., 2003, p. 121). Thus, for actions that occur infrequently, the effect of past behavior should be mediated by the construct of perceived behavioral control (p. 121). Hence, previous use of a SPC should facilitate future use of a SPC and aid in an athlete holding more favorable attitudes toward SPCs. For instance, athletes who had weekly contact with athletic counselors or sport psychologists did not derogate an athlete reported to consult a SPC (Van Raalte et al., 1992, p. 281). In addition, Rhodes and Courneya (2003, p. 63) proved that past behavior had a significant effect on both current intentions and future behavior, just as Jackson et al. (2003, p. 125) showed that physical activity done in the past was related to both intending to do physical activity and actual physical activity

levels. Likewise, past behavior has been shown to be a significant predictor of smoking (Higgins & Conner, 2003, p. 180).

When an athlete considers previous experience with a SPC, he/she may also be considering the experiences of significant others, such as coaches, teammates, and friends. It is worthy to consider this possibility as peer behaviors are significantly correlated with one's attitudes, short-term behaviors, and long-term behaviors (Robinson et al., 1993, p. 127). Robinson et al. (1993, p. 128) contends that "if it is acceptable for their peers, it is likely to be acceptable for themselves." Similarly, being able to identify a physically active person was associated with intending to do physical activity (Jackson et al., 2003, p. 125), and knowing someone who has signed an organ donor card is a significant predictor of granting authorization for organ/tissue donation (Rubens & Oleckno, 1998). By using SPC services, or knowing someone that has, an athlete is more likely to understand the value and importance of these services. Partington and Orlick (1987) and Gould et al. (1991) provide an outline of factors that influence positive perceptions of SPCs and characteristics of SPCs that influence their effectiveness. Finally, Leffingwell et al. (2001) found that collegiate student-athletes that gave the highest overall ratings to their university's Sport Psychology Services were those athletes who had worked with consultants providing such services.

Other Factors

Now that all the potential variables that might influence athletes' attitudes toward SPCs, or treatment acceptability, have been laid out, it is worthy to note why some potential intervening variables were excluded from the design of the study, namely the coach's knowledge of, and attitudes toward, sport psychology, the concepts of social

support and team cohesiveness, and the title of the consultant. First, coaches' actual knowledge of sport psychology and their attitudes will not be considered because coaches tend to overestimate their knowledge of subject matter related to sports and performance. In addition, only athletes will be sampled in this study and it was determined that it is not viable for an athlete (or any individual for that matter) to know, or perceive to know, a coach's *actual* knowledge of, or attitudes toward, sport psychology. It was established above that *coaches' behaviors* can influence athletes' attitudes and behaviors, as opposed to the coaches' knowledge and attitudes having this effect. If a coach's knowledge or attitude is truly having an effect on the athlete's treatment acceptability, then these characteristics would manifest themselves through the coach's behaviors.

Coaches have been shown to overestimate their confidence in their accuracy of assessing the mental skills/weaknesses of their athletes (Leslie-Toogood & Martin, 2003, p. 60), as there has been little agreement between athletes and coaches in the areas of athletes' mental preparation (p. 60) and emotional control (Grove & Hanrahan, 1988, p. 226). This creates a problem for the consulting process if the consultation is *implemented* (Leslie-Toogood & Martin, 2003, p. 60). Salminen and Liukkonen (1996) and Fisher and colleagues (Fisher, Mancini, Hirsch, Prouix, & Staurowsky, 1982) demonstrated that coaches evaluated themselves more favorably in coaching behaviors than athletes did. On a similar note, elite athletes and their coaches did not share views on the use of nutritional supplements, and more importantly, these coaches were shown to lack knowledge of nutrition, but were still guiding their athletes despite this lack of knowledge (Sundgot-Borgen et al., 2003, p. 142). Coaches have also been shown to overestimate their knowledge of obesity (Griffin & Harris, 1996, p. 188) and knowledge of sport

psychology (Sullivan & Hodge, 1991, p. 143). Finally, Sullivan and Hodge (1991, p. 143) have concluded that although 96% of a sample of coaches used PST, 73% felt they did *not* have adequate sport psychology knowledge. Consequently, it is more important to measure the *athletes'* knowledge.

Studies have shown that coaches of elite athletes value SPCs and have positive attitudes toward exclusive roles for SPCs (Gould et al., 1989a; Grove and Hanrahan, 1988). Specifically, coaches of high caliber athletes value the importance of mental preparation and its role in peak athletic performance (Gould, Guinan, Greenleaf, & Chung, 2002, p. 246). Again, coaches' attitudes toward SPCs are critical in determining player treatment acceptability. For instance, Griffin and Harris (1996, p. 182) found that coaches' attitudes about obesity and weight control may be important in determining weight-loss advice they give their athletes. Additionally, athletes have indicated that they want approval from coaches in order to seek help from a SPC (Blom et al., 2003, p. 20). TRA and TPB also suggest that the coach's attitudes toward PST will be indicative of the coach's use of PST. The latter attribute in this case has more direct consequences; therefore, only the coach's use of PST and SPCs will be assessed.

Because social support functions to both prevent the onset of, and "buffer," the effects of stress (or competitive stress), it will not be included in this model. The overall function of social support is to enhance the recipient's mental and physical well-being (Hardy, Burke, & Crace, 1999, p. 182). Social support can buffer the impact of stress on the individual, altering his/her cognitions and affect (p. 182). As a prime example, in response to pressure from coaches, the 1999 U.S. Women's World Cup team relied on each other for encouragement during training and games (Holt & Hogg, 2002, p. 265). In

another study, high levels of support were associated with low levels of stress and high self-esteem (Davis-Sacks, Jayaratne, & Chess, 1985, p. 242). Also, coaches engaging in high levels of social support behaviors were associated with high levels of cohesion (Westre & Weiss, 1991, p. 50); however, perceptions of high group cohesion and social support do not always result in the lowest levels of mood disturbances and stress for athletes (Henderson, Bourgeois, LeUnes, & Myers, 1998; Rosenfeld, Richman, & Hardy, 1989). The concept of social support within an athletic population can be difficult to interpret. Despite supportive behaviors from the coach, athletes may satisfy their social needs from others (Ryska & Yin, 1999), and teammates may not always provide emotional support (Rosenfeld et al., 1989, p. 30). Therefore, because of its uncertainty, social support will be left out of the equation. Furthermore, Westre and Weiss (1991, p. 50) suggest a strong association between the two constructs of social support and team cohesiveness.

Differences between how groups and individuals experience and interpret success/failure can be a function of the amount of team unity that exists within team sports and individual sports. Cohesion and performance are positively correlated for sport teams (Carron, Colman, Wheeler, & Stevens, 2002; Kozub & Button, 2000), although the directionality of the relationship is unclear (Carron et al., 2002, p. 183). While it is thought that cohesion is more important for success in team sports than individual sports (Kozub & Button, 2000, p. 84), it must be noted that some evidence exists to support a claim that the cohesion-performance effect is stronger for individual sports (Carron et al., 2002, 182). A vital difference that emerges regarding team issues based on sport type is the notion of conformity. Related to the concept of conformity is

the construct of subjective norms, stemming from Fishbein and Azjen's Theory of Reasoned Action (1975). Subjective norm is a joint product of an individual's perceptions about the expectations of important others and motivation to comply with those expectations (Hausenblas, Carron, & Mack, 1997, p. 38). Consequently, as team cohesiveness increases, the pressure from teammates to comply with common attitudes and/or behaviors increases. In addition, Hardy and colleagues (1999, p. 183) state that social support may lead to increased pressure to conform. If the team, or possibly the coach, has a clear objection or disregard for sport psychologists, and there is high team cohesiveness, then an athlete considering the possibility of seeking help from a SPC may choose to do otherwise from fear of ridicule or being stigmatized for going against team norms. For instance, Van Raalte et al. (1990, p. 280) suggest that a fellow athlete who seeks out a psychotherapist may be viewed as deviating from acceptable behavior. In addition, if the coach fosters a cohesive environment, or is perceived by an athlete to do so, there may be less need for a SPC. From a different standpoint, it is also possible that a highly cohesive team may be accepting of sport psychology. Therefore, the increased perceptions of cohesion and conformity may actually increase treatment acceptability. Because of its uncertainty in relation to treatment acceptability, team cohesiveness will not be included as a variable in the study.

The job title of the practitioner providing the service to the athlete has an effect on the attitude toward the consultant. For instance, an athlete who consults a psychotherapist may be more strongly derogated than an athlete who consults a sport psychologist (Linder et al., 1991; Van Raalte et al., 1992). However, in some cases, the word "psychologist," or "counselor," regardless of the context, may contribute to the

athlete's unwillingness to seek help from a mental health practitioner (Maniar et al., 2001; Brooks & Bull, 1999). In practical terms, a sport psychologist should emphasize performance enhancement, or use phrases like "mental training" or mental toughness" so that the sport psychologist is not viewed as someone who strictly works with "problem" athletes (Ravizza, 1988, p. 243). It is important to understand in which realm of expertise sport psychologists reside. Although sport psychologists are considered to be more similar to sport-related practitioners (i.e. coach, trainer) than other mental health consultants (Van Raalte et al., 1996; 1992), sport psychologists are still perceived to be similar to mental health practitioners in a general sense (Van Raalte et al., 1996; 1990). Because of the evidence that suggests athletes are not prone to seek a mental health practitioner (Pinkerton et al., 1989; Pierce, 1969), sport psychologists can increase the willingness of athletes to seek their services (and subsequently change their image) if they refer to themselves as performance enhancement specialists (PES) (Maniar et al., 2000a; 2001), which would remove "psychologist" from the title. This alteration would prove beneficial for the sport psychologist, as psychologists and psychiatrists are perceived to be the same profession (Webb & Speer, 1986;1985; Murstein & Fontaine, 1993).

Clearly, athletes have a preference for sport-titled professionals (Maniar et al., 2001; 2000a; Van Raalte et al., 1990) and derogate fellow athletes when the consultation is with someone perceived to be outside the sporting world, like a psychotherapist (Van Raalte et al., 1992, p. 280). In addition, mental health practitioners wishing to work with athletes should adopt "sport" titles to increase treatment acceptability (Maniar et al., 2000a; 2001). One study indicated that athletes felt the word "psychologist" scares

people, and going to see a sport psychologist may label them as "crazy" or be suitable grounds for "being picked on" (Blom et al., 2003, p. 20). Some studies have shown sport psychologists to be labeled as "non-sport" (versus "sport") and "mental" ([versus "physical"]; Linder et al., 1991; Van Raalte et al., 1990), but it must be noted that these studies used undergraduate students as subjects, not athletes. Because the instrument measuring the dependent variable in this study uses the title "sport psychology consultant," the results must be interpreted with caution, as the results could be swayed by the title. It has been shown that female athletes and male athletes hold differing perceptions of SPCs based on their title (Maniar et al., 2001, p. 212). However, the reliability and validity of the Sport Psychology Attitudes – Revised (SPA-R) Form was established using the title "sport psychologist" throughout the instrument. For the purposes of the present study, to use another title in its place would jeopardize the psychometric qualities of the instrument measuring the dependent variable.

Importance of Using Athletes as Subjects

Some research findings in the area of sport psychology, and implications based on these findings, are gathered from non-athlete populations (Linder et al., 1991, for example). Some studies that have been conducted to gather information on the perceptions and use of PST have been done in athletic settings, but the subjects were regular students (Martin-Krumm et al., 2003), not true athletes, or student-athletes. Although the findings from these studies are useful for developing theoretical frameworks, the generalizability of the findings is suspect. Perceptions of sport psychologists and of athletes who consult sport psychologists vary across populations (Van Raalte et al., 1996, p. 103), namely athletes versus non-athletes. For example, non-

athletes derogated an athlete who consulted a sport psychologist (Linder et al., 1991, p. 143), but athletes did not cast a "negative halo" on fellow sports participants who consulted a sport psychologist (Van Raalte et al., 1992, p. 276). In contrast, other research efforts using athletes and non-athletes found that the general public has favorable ratings of professionals in the mental health field (psychologist, psychiatrist, counselor) (McGuire & Borowy, 1979; Webb & Speer, 1986), whereas athletes tend to view such practitioners negatively (Van Raalte et al., 1992; Maniar et al., 2001). It makes sense that the latter finding in each case be weighted more heavily since athletes represent the primary consumer of sport psychology services (Van Raalte et al., 1996, p. 103).

The attitudes of non-athletes, or such studies that use undergraduates as subjects, are not externally valid because non-athletes obviously do not seek treatment from SPCs. Owen and Lee (1987) state, "Although it is easier to obtain samples of students than to assess sport performers, the generalizability of findings from one group to the other is somewhat questionable;" hence there is a problem when the research in sport psychology does not use athletes as subjects (Greenspan & Feltz, 1989, p. 219). The use of athletes as subjects for the present study is of the essence. Furthermore, there is evidence which suggests that these two populations have different personalities, or mental characteristics (Berger & Owen, 1988; Selby et al., 1990). Athletes are a unique population, so a negative stigma towards sport psychology that arises with non-athlete college students may not exist among the student-athletes or vice versa. This research effort is interested in the attitudes of athletes, and will therefore use athletes as subjects.

Chapter III

Methods

Subjects and Sampling

Participants (N = 204) were male (n = 108) and female (n = 96) NCAA Division I varsity student-athletes from a single university. Athletes represented the following sports: baseball (n = 28), basketball (n = 11), cross-country (n = 9), tennis (n = 14), swimming and diving (n = 19), lacrosse (n = 66), track and field (n = 32), and soccer (n = 24), which produced 74 individual-sport athletes and 130 team-sport athletes.

Approximately eighty-seven percent of the sample was white and 9% of the sample was black. Approximately half of the sample was comprised of first- or second-year players (47.5%), while the other half of the sample was competing in their third, fourth, or fifth year (52.5%)². Sixty-one percent of the sample was athletes that indicated being a starter, first-stringer, or frequent substitute, while 29% was athletes who received little or no playing time (including red-shirts). Ten percent of the respondents left this item blank. Eight participants, representing four different sports, submitted questionnaires with at least one incomplete page, and their data were disregarded and are not included in any of the analyses stated above or below.

During the Fall semester of 2003, consent from head coaches was obtained prior to considering their athletes as potential participants. Coaches were contacted in order to explain the general nature of the research and to solicit the participation of their teams in the study. All participants, as well as the coaches, were assured that their participation was voluntary and that there would be no ramifications for those who chose not to participate. Any subjects that competed in more than one sport were asked to indicate the

primary sport in which they were involved. This step was taken to prevent any complications during data analyses when grouping athletes based on sport. This action was taken with track and field and cross-country athletes in mind. Many of these athletes compete year-round, with track and field runners competing in cross-country solely to get in better shape before their indoor or outdoor track season, just as cross-country runners compete in track after their season is over to stay in shape (the bond between these runners is also acknowledged). Because many of these athletes are on athletic scholarship for one of these sports, and it is difficult to try and compete year-round at one's fullest potential with no "off" season, it was presumed that these runners have a primary season in which they strive to maximize potential.

Design and Variables

The research design in this study used the survey method, and was correlational by its nature. Questionnaires were self-administered and all subjects completed the same questionnaire. All variables of interest in this study were obtained with the questionnaire. The main headings of the predictor variables were: "gender," "race," "sport experience," "sport type," "competitive anxiety," "perceived failure," "coach use," "athlete knowledge," and "previous experience," and are described in greater detail below. The dependent variable was treatment acceptability, or "attitude". The dependent variable of treatment acceptability referred to "the attitudes a participant keeps toward receiving treatment, including the confidence the participant has in the treatment" (Myers, 2001, p. 8).

Instrumentation

The operational definitions of the variables are given below. Appendices B and C represent the measures of the predictor variables (note: all measures were distributed to the subjects as one questionnaire). *Gender* and *race* ("ethnic background") were easily obtained by the questionnaire. Race was subsequently divided into "white" athletes and "minority" athletes. Athletes were also asked to indicate their primary sport by writing their sport on the line provided, and these were then divided into two categories: individual and team ("sport type"). The individual sports are tennis, swimming and diving, track and field, and cross-country, while the team sports are baseball, lacrosse, basketball, and soccer.

Sport experience was determined by two items. First, the subject was asked to "indicate the number of *completed* seasons of collegiate participation in your sport." The response choices were: 0, 1, 2, 3, 4 and 5 (it is possible to have completed 4 or 5 seasons and still be a participant if the athlete was a "red-shirt" for one year, which means he/she may practice with the team, but not compete). The reason for specifying *completed* seasons (labeled "seasons") is that actual competition is different than practice sessions, and some athletes on these teams may have been on the team for several months at the time of the study, but may have never competed due to the fact that they are still in the off-season. The point is not to downplay the pressures and stress of practice sessions, but there is greater pressure to perform during competition as compared to practice, and the measure of competitive anxiety is concerned with actual competition. This enables the researcher to better differentiate the athletes based on competitive experience. In addition, this question was preferred over simply asking for academic standing

(freshman, sophomore, etc.) because academic standing does not necessarily guarantee (or correlate with) the same number of years involved with the sport. For instance, an athlete could indicate that he/she is a senior, but being a first-year "walk-on," this athlete certainly does not have more sport experience than a sophomore who has started for two years.

For the second measure of sport experience, the athlete was asked to indicate his/her current playing status during competitions (labeled "status"). This was done because, obviously, a first-string starter has a different competitive experience than a bench player who never actually enters the game. The two options were "Starter/ First-string/ Frequent Substitute" and "Very limited or No playing time/ Red-shirt," and the responses corresponded with "high status" and "low status," respectively.

Competitive anxiety was measured with the Sport Competition Anxiety Test (SCAT; Martens, 1977). SCAT (Appendix C) measures competitive trait-anxiety with fifteen questions, four of which are "filler" items that help mask the true objective of the instrument. Several questions begin with: "Before I compete I feel..." and are completed with words like, "uneasy," "calm," "relaxed," and "nervous". Other sample questions include: "When I compete I worry about making mistakes," and "I get nervous wanting to start the game." Subjects respond to each statement by checking a box corresponding to the frequency (Hardly-ever, Sometimes, Often) for which they experience the behavior in question. The four filler items are not scored, and with the exception of two items that are reverse-scored, a response of "Hardly-ever" = 1 point, "Sometimes" = 2 points, and "Often" = 3 points. The scores on SCAT range from 10 (low competitive trait anxiety) to 30 (high competitive trait-anxiety), thus resulting in one score for this variable.

SCAT was chosen to represent the measure of competitive anxiety because of its pervasiveness in the area of competitive anxiety over the last quarter of a century. Systematic research studies have deemed SCAT as a reliable and valid operationalization of competitive trait-anxiety (Vealey, 1990, p. 244). Vealey's (1990, p. 248) review of SCAT also states that 30 published studies have supported SCAT as a valid predictor of *state*-anxiety. Martens, Vealey, and Burton (1990) support the content-, concurrent-, construct-, and predictive validity for SCAT. In addition, test-retest reliability ($r = .85$) and internal consistency (.95) are established for SCAT. In the present study, Cronbach's coefficient alpha for SCAT was .87, which is the same value previously reported (Vealey, 1990, p. 249).

Perceived failure was measured by asking the athletes to respond to the following statements: "My *personal* performance in my sport during this 2003-2004 school year has been successful" (labeled "personal failure"), and "My *personal* performance in my sport during this 2003-2004 school year has been successful compared to my teammates' performances" (labeled "failure compared to team"). The respondent was asked to indicate the level of agreement with these statements using a 7-point Likert scale with verbal anchors for each number (e.g., 1 = strongly disagree, 4 = neutral, and 7 = strongly agree). These items were reverse-scored so that higher numbers correspond with higher levels of perceived failure. Cronbach's alpha for these two items was .88, so these items were also combined to produce one score, labeled "perceived failure" which was used for subsequent analyses.

These questions were used in place of the team's win-loss record because, first, not all teams represented in the sample were in-season at the time they completed the

questionnaire, so there was no objective measure of performance. Second, for the purposes of this study, the *individual's* performance is viewed as more important than the team's performance, primarily because one cannot effectively alter team (or a teammate's) performance through individualized psychological skills training (PST). And third, even though the team or individual may actually be playing well, an athlete may still desire to seek help from a sport psychology consultant (SPC) if individual performance is perceived to be lacking.

Athlete knowledge was addressed in three items. The first two items were "I am knowledgeable about the benefits of psychological skills for performance" (labeled "knowledge benefits"), and "I am knowledgeable about where to find sport psychology services" (labeled "knowledge services"). The subjects responded using the same 7-point Likert scale. The final item asked the subjects, "Have you ever taken a course in sport psychology?" The response was simply "Yes," or "No," and the item was labeled "course". Cronbach's alpha coefficient for the first two items was .32, so the items were considered to be independent of one another and were not combined into a composite score.

Previous experience contained two items. The subjects indicated whether or not ("Yes" or "No") they "have ever *personally chosen* to have a formal consultation with a sport psychology consultant" (labeled "personal consultation"). The definition of a formal consultation accompanies this question (see Appendix B). This item measured their past behavior, which according to the Theory of Reasoned Action, should predict their future behavior. Likewise, the subjects were asked if they "know a friend, teammate, or significant other that has had a formal consultation" (arbitrarily labeled

"friend consultation"), and responded in the same manner. It has also been shown that knowing someone who has engaged in a particular behavior increases the likelihood of performing that same behavior (Jackson et al., 2003, p. 125).

Coach use was comprised of two items and symbolized the actual behavior of the coach regarding sport psychology techniques. First, athletes responded to the statement, "My coach uses sport psychology techniques during practice/ game settings," using the same 7-point Likert scale. The second item was: "Has your coach ever asked a sport psychology consultant to talk to the entire team or team members?" The second item required a simple "Yes/ No" response. These two items were labeled "coach use of PST" and "coach implementation". Additionally, the three items concerning previous experience with a SPC (personal consultation, friend consultation, coach implementation) were combined into one interval variable, labeled "cumulative consultant experience," in which a lower score represents more experience with a SPC (range = 3 – 6).

In order to operationalize the dependent variable, the Sport Psychology Attitudes - Revised (SPA-R) Form (Martin, Kellmann, Lavalley, & Page, 2002; Appendix A) was used for the present study. The SPA-R contains 25 items measuring four constructs. Each item on the SPA-R contains a statement that the respondent is asked to agree or disagree with using a 7-point Likert scale with verbal anchors for each number (e.g., 1 = strongly disagree, 4 = neutral, and 7 = strongly agree). The first construct, *Stigma Tolerance*, concerns the willingness of an athlete to consult a SPC despite potential disapproval from coaches or teammates, and is measured by seven items. Typically, high scores on this construct represent a greater fear of ridicule, or sense of stigmatization, and perhaps a greater sense of violating team norms. However, scores on this construct will

be reverse scored so that low numbers indicate a negative attitude toward seeking help from a SPC and high numbers indicate positive attitudes. Example items include: “I would not go to a sport psychology consultant because my teammates would harass me,” and “If I went to a sport psychology consultant, I would not want my coach to know about it.” *Confidence in SPC* represents the attitudes held toward the perceived effectiveness of the consultation, and is measured by eight items. A high score on this construct represents greater confidence in SPCs. Example items include: “A sport psychology consultant can help athletes improve their mental toughness,” and “A sport psychology consultant could help me fine tune my sport performance.” *Personal Openness* represents the degree to which a person is willing to share feelings and/or troubles with others, and is measured by six items. Low scores on this construct represent a greater sense of personal openness, but scores were reverse coded to allow for consistency in comparing means for hypotheses testing. Example items include: “There are certain problems, which should not be discussed outside one’s immediate family,” and “Emotional difficulties tend to work themselves out in time.”

The final construct, *Cultural Preference*, represents the preference for associating with those of the same ethnicity or culture of the respondent. However, the 4 items representing Cultural Preference were omitted from the questionnaire distributed to the subjects because they did not seem particularly relevant to any of the independent variables. Even when considering race, previous research has provided results based on the stigma construct. Example items include: “I respect the opinions of people of my own culture more so than those of people of another culture,” and “The athletes that I associate most with are of the same race and ethnicity as me.” The creator of the

instrument found that each of the SPA-R constructs (subscales) “have adequate robust factor structure” and could be used independently (Martin et al., 2002, p. 286); therefore the omission of these four items does not jeopardize the psychometric qualities of the instrument. The scores for each remaining item on the SPA-R were averaged as to produce one composite score on the dependent variable for each subject.

The psychometric evaluation of the SPA-R is provided by Martin et al. (2002), and suggests that this instrument possesses sufficient reliability and validity. In a previous study using an earlier form of the present instrument, Martin et al. (1997) reported that the Cronbach coefficient alphas (Morgan & Griego, 1998, p. 125) obtained for stigma tolerance, recognition of need/confidence, and personal openness were .89, .81, and .64, respectively. Test-retest correlations for these constructs were .93, .88, and .85, respectively. After the creation of the SPA-R, coefficient alphas of .84, .82, .61, and .66 were obtained for stigma tolerance, confidence in SPC, personal openness, and cultural preference, respectively. The test-retest coefficients for the SPA-R were .90, .83, .71, and .70, respectively. The overall test-retest correlation for all 25 items was .81 (these latter results are based on data obtained from Martin et al., 1997). In the most recent published study using the SPA-R, the test-retest reliabilities of the four constructs were above .70 (Martin et al., 2002, p. 286). Taken together, the two reliability estimates (i.e., internal-consistency and test-retest) of the SPA-R are sufficient (p. 286).

In the present study, Cronbach's coefficient alphas for stigma tolerance, confidence in a SPC, and personal openness were .87, .86, and .62, respectively. Even though the coefficient alpha for personal openness is consistently reported in the .60s, Martin et al. (2002, p. 286) assert that this may be viewed as tolerable considering the

number of items representing the subscale. Martin et al. (1997) tested the concurrent validity of the SPA-R and found no significant differences in the comparisons to an already established measure of attitudes toward seeking professional psychological help. Martin et al. (2002, pp. 274-275) also contend that the SPA-R is generalizable across samples and has good concurrent and construct validity.

Data Collection Procedures

The head coach of each varsity athletic team that offers that same sport to both men and women at the university³ was contacted in the Fall semester of 2003 to obtain permission for the use of their athletes as participants in the study. For those coaches that consented, separate meetings were arranged between the researcher and the athletes with the aid of the coach. However, the coach was not present during the administering of questionnaires. When possible, participants completed the questionnaire in a setting conducive to paper and pencil work (i.e., a room with tables and chairs and abundant personal space between participants). However, most teams completed the questionnaires in their locker room or at the practice site (either immediately before or after practice) in the presence of their teammates.

Prior to the administering of questionnaires, participants were reminded that participation was voluntary and that choosing not to participate would have no bearing with their coach, team, or subsequent participation in their sport. In addition, they were told that the questionnaire was both anonymous and confidential, and they were to make no identifying marks on the questionnaire. They were informed that by completing the questionnaire they were implying their consent. However, a cover-page was attached to the questionnaire (along with oral instructions) to explain that they were able to withdraw

from the study at any time up until the point when they submitted their questionnaire. Also at this time, subjects were instructed 1) to take their time to carefully understand each set of instructions and relevant questions before responding to an item, and that although some items may appear repetitive, there are different meanings attached to each question, and 2) that there are no right or wrong answers. In light of these instructions, there was no time limit imposed for the completion of the questionnaire; however, the total time required to complete the entire questionnaire ranged from only five to ten minutes. A potential order-effect was proposed to occur in that the completion of the SCAT prior to the remaining questions might raise one's level of awareness regarding competitive anxiety and induce the thought that one might be in need of consulting a SPC, subsequently affecting the responses to the SPA-R portion of the questionnaire. Therefore, it was considered appropriate to place the SCAT on the last page. Upon indicating their completion of the questionnaire, all questionnaires (complete and incomplete) were collected by the same researcher that distributed them. The questionnaires were then stored in a locked filing cabinet until data analyses.

A pilot study conducted by the researcher indicated that in general, the questionnaire was easy to follow and the response items to each question were appropriately worded/ phrased. Overall, the subjects in the pilot study indicated that the length of time required to complete the questionnaire was not demanding. The average time to complete the questionnaire was approximately eight minutes, and the range of times was anywhere from 5 to 10 minutes. With the exception of one item (stated below), no questions were ambiguously worded, and participants also indicated that although some questions seemed repetitive, they were able to recognize the subtle

differences in the meanings of the questions. The one item that was re-worded was in the SPA-R portion of the questionnaire. "An athlete with emotional problems during sport performances would feel most secure in receiving assistance from a sport psychology consultant" was changed to "An athlete with emotional problems during sport performances would receive the most assistance from a sport psychology consultant."

Statistical Analyses

Analyses in the present study were conducted using the SPSS version 11.0, SAS v.8, and Sudaan 8.0. software packages. The first analyses in the present study involved computing Cronbach's alpha coefficients among the relevant predictor variables. In calculating Cronbach's alpha, the researcher can reduce the number of items in each variable by combining those that are correlated above .60 (as described under *Instrumentation*). Cronbach's alpha coefficients are given above in accordance with the following variables: perceived failure, athlete knowledge, competitive anxiety, stigma tolerance, personal openness, and confidence in SPC. The variable *perceived failure* was created on the basis of a high alpha coefficient (.88) between the two Likert-scale items in this variable heading, while the two Likert-scale items for athlete knowledge produced a low alpha coefficient (.32); hence, no new variable was created.

Next, descriptive statistics were computed. Means and standard deviations were calculated for all interval (continuous) variables, and frequency distributions were obtained for all nominal (categorical) variables. These are presented in Tables I and II, respectively. The next step involved calculating correlations among all variables. Tables IV and V display the correlations among the constructs of the SPA-R and the correlations among the continuous variables, respectively. Tables VI and VIII display the correlations

between the nominal variables and the continuous variables, and the correlations among all nominal variables, respectively. It should be noted that because there was an unequal distribution of whites and minorities in the sample (87% and 13%, respectively), correlations were not computed between race and other variables (Guilford & Fruchter, 1973, p. 305). In calculating correlations among continuous variables, Pearson's correlation coefficient was used (Guilford & Fruchter, 1973, p. 83). The correlations between the continuous variables and nominal variables required the use of a point-biserial correlation (Guilford & Fruchter, 1973, p. 297). The correlations among all nominal variables were calculated using the phi coefficient (Guilford & Fruchter, 1973, p. 306). Also, the mean scores on the dependent variable were calculated based on nominal variable groupings, so that direct comparisons between groups could be observed. These values are given in Table VII.

Before testing the hypotheses, an intra-class correlation was computed to determine independence of athletes' attitudes within the same team. In other words, teammates' responses may not be independent of one another, as being in their particular team environment *and* being exposed to the same coaching style may have created similar appraisals of sport psychology. This non-independence of scores would essentially lead to a "clustering" of observations, and each team in the study would serve as a cluster. This clustering effect has an impact on the interpretation of the results, because individual data were collected, but it would not be possible to make inferences about individuals based on group data, or clustered data. So, to determine if clusters emerged in the present study, an intra-class correlation was computed. Only eleven

teams were considered in computing the intra-class correlation because in some cases, both the men's and women's teams for a given sport have the same head coach.

Again, in testing the eight hypotheses, as well as the variables for which no hypotheses were made, the three constructs contained in the SPA-R (stigma tolerance, confidence in SPC, and personal openness) were combined to produce one score on the dependent variable. The items were scored so that higher numbers reflect positive attitudes toward SPCs. Multiple regression analyses were used to test the hypotheses. The purpose of multiple regression analysis is to predict an interval scale dependent variable from a combination of several interval scale or dichotomous predictor variables (Morgan & Griego, 1998, p. 139). The hypotheses were rejected or accepted based on the p-value of the unstandardized beta coefficient (β). The multiple correlation coefficient, R , is a result of using all the predictors simultaneously, while the prediction of the dependent variable from the combination of predictor variables in each step is R^2 . In the case of the present study, R^2 indicates the total amount of variance in athletes' attitudes that can be predicted from a given combination of the variables. The regression analysis in the present study considered the effect on the dependent variable when all predictor variables are considered simultaneously. All multiple regression models used only one step, as all predictors were entered into the regression equation, and these results are given in Tables IX and X.

Chapter IV

Results

Descriptive Statistics

The mean score for all athletes on the dependent measure of athletes' attitudes toward sport psychology consultants (SPA-R) is $M = 4.69$ ($S.D. = 0.65$; Table I). This number being slightly higher than a neutral score of 4 suggests that, in general, this population of athletes holds relatively favorable attitudes toward sport psychology consultants (SPC). The mean scores for the subscales of the SPA-R, stigma tolerance, personal openness, and confidence in SPCs are $M = 5.40$ ($S.D. = 1.04$), $M = 3.59$ ($S.D. = 0.92$), and $M = 4.87$ ($S.D. = 0.95$), respectively. These scores indicate that, in general, this population of athletes does not possess a fear of derogation (as indexed by a high score on the stigma tolerance subscale), and the athletes have a modest sense of confidence in SPCs. The mean score for the personal openness subscale suggests that these athletes are not keen on the idea of sharing personal matters with others, including a SPC.

In terms of the athletes' knowledge of the benefits of psychological skills on performance and knowledge as to where to find sport psychology services, it appears that the athletes are knowledgeable of the benefits of psychological skills training (PST) ($M = 5.18$, $S.D. = 1.27$), but are not knowledgeable about how to obtain such services ($M = 3.69$, $S.D. = 1.74$). Another proposed facet of sport psychology knowledge is whether or not the athlete has enrolled in a sport psychology course at the university. Thirty-eight percent of the participants indicated that they had taken such a course, while 62% indicated that they had not (Table II).

*Table I**Means and standard deviations of all continuous variables for all subjects*

Variable	Mean (S.D.)
attitude	4.69 (0.65)
stigma tolerance	5.40 (1.04)
personal openness	3.59 (0.92)
confidence in SPC	4.87 (0.95)
perceived failure	3.69 (1.41)
competitive anxiety	20.20 (4.60)
coach use of PST	4.56 (1.74)
knowledge benefits	5.18 (1.27)
knowledge services	3.69 (1.74)
cumulative SPC experience	4.88 (0.96)
personal failure	3.48 (1.55)
failure compared team	3.91 (1.45)

*Table II**Frequency distributions for selected items^a*

Variable	Yes (%)	No (%)
personal consultation	16	84
friend consultation	52	48
coach implementation	44	56
course in sport psychology	38	62

^a variables were coded as 1= yes and 2 = no

Regarding athletes' previous experiences with psychological techniques or SPCs, Table I shows that this population of athletes feels that their coaches are using a moderate degree of PST during practices and games ($M = 4.56$, $S.D. = 1.74$). Table II shows that only 16% of the respondents had personally chosen to seek help from a SPC, while 52% reported that they have a friend, teammate, or significant other that has had a consultation. Almost half (44%) of the respondents indicated that their coach has asked a SPC to consult with individual team members or the team as a group. The mean score for the continuous variable of *cumulative consultant experience*, which was created by summing the latter three items is $M = 4.88$ ($S.D. = 0.96$) (range = 3 – 6; lower numbers indicate a higher degree of experience with SPCs, either personally or through a friend, significant other, or teammate).

Concerning performance related issues, this particular group of athletes did not indicate a high degree of *perceived failure* when their personal performance and their performance in relation to their teammates are considered together ($M = 3.69$, $S.D. = 1.41$; Table I). It is worthy to note that athletes perceived less failure when considering their personal performance alone ($M = 3.48$, $S.D. = 1.55$) as compared to their personal performance as measured against that of their teammates ($M = 3.91$, $S.D. = 1.45$; Table I). In fact, the athletes' collective mean score for the latter variable greatly reflects a neutral score (i.e., a score of 4 on the 1 -7 scale), suggesting that the athletes in this study are not likely to derogate or inflate their teammates' performances. In addition, nearly 40% of the sample gave a "neutral" response to this item (data not shown). This result may partially be due to the fact that the participants completed the questionnaire in the

presence of their teammates, even though they were assured anonymity and confidentiality.

The mean score on the SCAT, which measures competitive trait-anxiety, was $M = 20.20$ ($S.D. = 4.60$) (scores range from 10 – 30), suggesting that, in general terms, this sample of athletes is neither high nor low in trait anxiety. Moreover, examination of the data (not shown in Tables) revealed that the greatest frequency of composite scores on this test was between 18 and 23; hence, within this sample there seems to be a normal distribution of scores for competitive trait-anxiety (50% in the middle range and 25% at each end of the scale).

As a point of interest, Table III displays the means and standard deviations of the dependent variable based on each sport, collapsed across genders. Basketball and baseball are not shown because only one gender was represented in the sample for both of these sports. As can be seen from the means, individual-sport athletes tended to have more positive attitudes toward SPCs.

Correlations

Table IV shows the correlations among the subscales of the SPA-R, as determined by Pearson's correlation. Stigma tolerance was correlated with personal openness ($r = .23, p < .01$) and confidence in a SPC ($r = .20, p < .05$), while personal openness and confidence in a SPC were not significantly correlated ($r = .08, p > .05$).

Table V shows the correlations among all continuous variables, while Table VI shows the correlations between the nominal and continuous variables (the correlations with the dependent variable are displayed in each of these tables in **bold**). Several variables had moderately strong correlations with the dependent variable (attitude):

*Table III**Dependent variable means and standard deviations based on specific sports*

<u>sport</u>	<u>attitude towards sport psychology consultants</u>
track and field	5.00 (0.57)
swimming and diving	4.89 (0.57)
cross country	4.87 (0.82)
tennis	4.84 (0.55)
lacrosse	4.64 (0.65)
soccer	4.28 (0.61)

*Table IV**Correlations within the Sport Psychology Attitudes-Revised form (SPA-R)*

<u>Variable</u>	<u>attitude toward sport psychologists</u>	<u>stigma tolerance</u>	<u>personal openness</u>	<u>confidence in SPC</u>
attitude (composite score)				
stigma tolerance	.73**			
personal openness	.60**	.23**		
confidence in SPC	.69**	.20*	.08	

*p < .05. **p < .01

Table V

Correlations among all continuous variables

	attitude	perceived failure	SCAT	coach PST	personal failure	knowledge benefits	failure/team	knowledge services	cum. SPC experience	seasons
Attitude										
perceived failure	.09									
competitive anxiety ^c	.19**	.25**								
coach use of PST ^b	.16*	-.09	.05							
personal failure	.11	.94**	.27**	-.14*						
knowledge benefits	.31**	-.09	-.03	.31**	-.08					
failure compared team	.06	.94**	.19**	-.03	.78**	-.08				
knowledge services	.11	-.09	-.17*	.21**	-.14*	.20**	-.02			
cumulative SPC exper. ^a	-.19**	.11	.04	-.26**	.14*	-.19**	.07	-.35**		
seasons	.05	-.12	.05	-.01	-.10	.15*	-.11	.00	-.11	

^a variable was coded so that lower numbers indicate more experience with a SPC

^b PST = psychological skills training

^c competitive anxiety was measured with the SCAT

*p < .05. **p < .01

Table VI

Correlations between nominal variables and continuous variables

Variable	gender ^a	status ^b	personal consultation ^c	Friend consultation ^c	coach implementation ^c	course ^c	sport type ^d
attitude	.28**	-.08	-.21**	-.01	-.12	-.09	-.28**
perceived failure	.14*	.31**	.02	.09	.11	.00	-.06
competitive anxiety	.23**	.10	.00	.03	.03	.06	-.24**
Coach use of PST	.36**	.00	-.20**	-.07	-.28**	-.01	.03
personal failure	.11	.26**	.03	.09	.15*	.03	-.11
knowledge benefits	.12	-.10	-.17*	-.06	-.18**	-.22**	.01
Failure compared team	.15*	.33**	.01	.08	.04	-.04	-.01
knowledge services	.15*	.09	-.24**	-.23**	-.27**	-.14*	.31**
cumulative SPC exper.	-.39**	.14	.65**	.71**	.71**	-.05	-.13
seasons	-.05	-.40**	-.03	-.17*	-.07	.18*	.01

^a variable was coded as 1 = male and 2 = female

^b variable was coded as 1 = starter and 2 = non-starter

^c variable was coded as 1 = yes and 2 = no

^d variable was coded as 1 = individual and 2 = team

*p < .05. **p < .01

*Table VII**Dependent variable means and standard deviations based on nominal variable groupings*

Nominal variable	attitude towards SPCs ^a
male	4.51 (0.65)
female	4.89 (0.60)
white	4.65 (0.66)
minority	4.95 (0.52)
high status	4.70 (0.67)
low status	4.58 (0.66)
personal consultation – yes	5.02 (0.65)
personal consultation – no	4.62 (0.64)
friend – yes	4.75 (0.63)
friend – no	4.62 (0.67)
coach implementation – yes	4.77 (0.66)
coach implementation – no	4.62 (0.65)
course – yes	4.77 (0.58)
course – no	4.64 (0.69)
individual sport	4.93 (0.59)
team sport	4.54 (0.65)

^a SPC = sport psychology consultant

coach use of PST ($r = .16, p < .05$), knowledge of benefits ($r = .31, p < .01$), and cumulative consultant experience ($r = -.19, p < .01$). It should be pointed out that low scores for cumulative consultant experience (a composite score) represent a higher degree of previous experience with SPCs, which explains the negative correlation. This negative correlation means that as experience with a SPC increases (as indexed by lower values), one develops more positive attitudes toward SPCs. Regarding the continuous variables, treatment acceptability (*attitude*) increases as the coach's use of PST and one's knowledge of sport psychology benefits increase.

The two scores representing performance-related issues, perceived failure and competitive anxiety, were significantly correlated with one another ($r = .25, p < .01$; Table V); however, the strength of this correlation was moderately low. Perceived failure was significantly correlated with status ($r = .31, p < .01$; Table VI), and this correlation coefficient suggests a moderately strong relationship. Here, the correlation indicates that athletes who have less playing time in competitions have more perceived failure than do those that play more frequently. The strength of the relationships of competitive anxiety with gender ($r = .23, p < .01$) and sport type ($r = -.24, p < .01$; Table VI) were moderately low. In line with previous research, these correlations suggest that females and individual-sport athletes possess more competitive trait-anxiety than do males and team-sport athletes.

Regarding previous experiences with SPCs and PST, choosing to have a personal consultation with a SPC was significantly correlated with both friend consultation ($r = .25, p < .01$) and coach implementation ($r = .26, p < .01$; Table VIII). The latter two variables were also significantly correlated ($r = .18, p < .01$; Table VIII), but the strength

Table VIII

Correlations among all nominal variables

Variable	gender ^a	status ^b	personal consultation ^c	friend consultation ^c	coach implementation ^c	course ^c	sport type ^d
gender							
status	.02						
personal consultation	-.21**	.11					
friend consultation	-.16*	.20*	.25**				
coach implementation	-.42**	-.01	.26**	.18**			
course	-.04	.05	-.03	-.12	.04		
sport type	-.08	.27**	.06	.03	-.28**	.18**	

^a variable was coded as 1 = male and 2 = female

^b variable was coded as 1 = starter and 2 = non-starter

^c variable was coded as 1 = yes and 2 = no

^d variable was coded as 1 = individual and 2 = team

*p < .05. **p < .01

of these correlations was low. Gender was most strongly correlated with the coach's use of psychological techniques in practices and games ($r = .36, p < .01$), coach implementation ($r = -.42, p < .01$) and cumulative consultant experience ($r = -.39, p < .01$), which implies that when compared to male athletes, female athletes perceived their coach's to use more PST and had more experience with SPCs.

Regarding the athletes' knowledge of sport psychology, *course* was significantly correlated with both *knowledge benefits* ($r = -.22, p < .01$) and *knowledge services* ($r = -.14, p < .05$; Table VI), though these correlations were weak. In relation to the coding of the scores for *course* (see Table II), a response of "yes" received a value of 1 and "no" received a value of 2; therefore the correlations are negative and indicate that athletes who have taken a course in sport psychology report more knowledge about the benefits of sport psychology techniques and where to obtain sport psychology services. The knowledge about the benefits of sport psychology skills was moderately correlated with gender ($r = .31, p < .01$) and the coach's use of PST ($r = .31, p < .01$), which implies that females perceive more knowledge in this area than do males, and one's knowledge of the benefits of PST increases as the coach uses these strategies with the athlete. There was a moderately strong association between cumulative consultant experience and the knowledge of where to obtain sport psychology services ($r = -.35, p < .01$). Intuitively, this finding makes sense, as having a personal consultation with a SPC or knowing someone that has had a consultation would enable one to be aware of how to go about initiating a consultation. Finally, and as one would predict, playing status was significantly correlated with the number of seasons on the team ($r = -.40, p < .01$; Table

VI). This moderately strong relationship indicates that older athletes receive the most playing time.

Multiple Regression

Before multiple regression analyses were conducted, the intra-class correlation within the teams was computed. Among the eleven teams, the intra-class correlation was .25. Because this value is higher than the normally acceptable value of .10 (Huitema, McKean, & McKnight, 1999), it was reasoned that teammates had given similar responses on the dependent variable measure, presumably because being a part of their particular team had influenced their attitudes toward sport psychology consultants. As previously stated, teammates' responses were not independent of one another, as being in their particular team environment *and* being exposed to the same coaching style may have created similar appraisals of sport psychology. This "clustering" of observations based on the athletes' teams, or coaches, was dealt with by using the statistical software packages SAS v.8 and Sudaan 8.0. When running regression analyses, Sudaan 8.0. takes the clustering into account by producing standard errors for the beta coefficients that reflect the effects of clustering (Research Triangle Institute, 2002). For example, the residuals for the observations from each specific team would be correlated with the dependent variable. The Sudaan standard errors reflect such effects by applying appropriate weighting of the data to obtain unbiased variances, or more robust estimates of the variance (see Graubard & Korn, 1994 for mathematical notation).

Also, variable tolerances (calculated with SPSS) were sufficiently high to conclude that multicollinearity was not a problem (Morgan & Griego, 1998, p. 147). Variable tolerances ranged from .726 to .969, and "only tolerances of less than .0001 are

significant enough to warrant caution" (Stanton-Rich & Iso-Ahola, 1998, p. 1940). In addition, the variance inflation factors (VIFs) were sufficiently low to conclude that multicollinearity was not a problem in regression estimation. The VIFs for the predictor variables ranged from 1.032 to 1.378. "Multicollinearity is indicated when the VIFs are above 10" (p. 1942).

The results of the hypotheses are stated below. It should be noted that for the broader constructs of "athlete knowledge," "previous experience," "performance-related problems," and "sport experience," which all contained more than one operational definition, only one operational definition (primary predictor) from each construct was used when testing the hypotheses. Subsequently, separate regression models were computed, substituting the secondary variables, or items, for the primary predictors (one at a time) to determine if any of the differing operational definitions of a given construct altered the results of the regression analysis. For instance, "athlete knowledge" is comprised of three items, *knowledge benefits*, *knowledge services*, and *course*; however, *knowledge benefits* was considered the primary predictor, as it is more directly concerned with the actual role of a SPC. So, in two different subsequent analyses *knowledge services* and *course* replaced *knowledge benefits*, with all other primary predictors remaining constant. Table IX shows the results of the multiple regression analysis utilizing all primary predictors (the footnotes explain any changes in significance for primary predictors when using secondary predictors in the model). Table X shows the

Table IX

Multiple regression analysis of primary predictors (attitude as the dependent variable)

Variable	β^c	p
gender	-.21	.02*
race	-.18	ns ^b
seasons	.01	ns
sport type	.36	.0005***
knowledge benefits	.15	.0002***
perceived failure	.04	ns
cumulative SPC experience ^d	-.08	ns ^a

Explained variance (R^2) = 26%; SUDAAN does not compute an adjusted R^2

Note: Variables are not presented in any particular order in Tables and analyses

ns = not significant

^a significant ($\beta = -.13$, $p < .05$) when *course* is substituted for *knowledge benefits*

^b significant ($\beta = -.29$, $p < .01$) when *status* is substituted for *seasons*

^c SUDAAN does not produce *standardized* beta coefficients

^d SPC = sport psychology consultant

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table X

Multiple regression analyses of secondary predictors (attitude as the dependent variable)

Variable	β^f	p
course ^a	.21	.014*
knowledge services ^b	.06	ns
coach use of PST ^{c,g}	.01	ns
competitive anxiety (SCAT) ^d	.02	ns
status ^e	.00	ns

Note: Variables are not presented in any particular order in Tables and analyses

ns = not significant

^{a, b, c, d, e} When variable is entered into equation, (R^2) = 21, 21, 25, 26, and 28%, respectively; SUDAAN does not compute an adjusted R^2

^f SUDAAN does not produce standardized beta coefficients

^g PST = psychological skills training

* $p < .05$.

results of the multiple regression analyses for the secondary predictors once they are entered into the regression model in lieu of the respective primary predictors for a given construct.

Hypothesis 1: Gender will be significantly related to athletes' attitudes toward treatment acceptability. Table IX shows that gender was a significant predictor of athletes' attitudes toward SPCs ($\beta = -.21, p < .05$); therefore, hypothesis 1 is accepted. This indicated that females had more positive attitudes than males toward sport psychology consultants.

Hypothesis 2: Sport type will be significantly related to athletes' attitudes toward treatment acceptability. Table IX shows that sport type was a significant predictor of athletes' attitudes toward SPCs ($\beta = .36, p < .001$); therefore, hypothesis 2 is accepted. This indicated that individual-sport athletes had more positive attitudes than team-sport athletes toward sport psychology consultants.

Hypothesis 3: Competitive anxiety will be significantly related to athletes' attitudes toward treatment acceptability. Table X shows that competitive anxiety was not a significant predictor of athletes' attitudes toward SPCs ($\beta = .02, p > .05$); therefore, hypothesis 3 is rejected.

Hypothesis 4: Perceived failure will be significantly related to athletes' attitudes toward treatment acceptability. Table IX shows that perceived failure was not a significant predictor of athletes' attitudes toward SPCs ($\beta = .04, p > .05$); therefore, hypothesis 4 is rejected.

Hypothesis 5: The coach's use of PST will be significantly related to athletes' attitudes toward treatment acceptability. Table X shows that the coach's use of PST was not a

significant predictor of athletes' attitudes toward SPCs ($\beta = .01$, $p > .05$); therefore, hypothesis 5 is rejected.

Hypothesis 6: Previous experience with sport psychology consultants will be significantly related to athletes' attitudes toward treatment acceptability. Table IX shows that cumulative consultant experience was not a significant predictor of athletes' attitudes toward SPCs ($\beta = -.08$, $p > .05$); therefore, hypothesis 6 is rejected.

Hypothesis 7: Athletes' knowledge of the sport psychology will be significantly related to athletes' attitudes toward treatment acceptability. Table IX shows that knowledge of the benefits of PST was a significant predictor of athletes' attitudes toward SPCs ($\beta = .15$, $p < .001$); therefore, hypothesis 7 is accepted. This indicated that athletes who perceived themselves to have more knowledge about the benefits of sport psychology skills for performance had more positive attitudes toward sport psychology consultants, as compared to athletes who perceived themselves to have relatively little knowledge about the benefits of psychological skills.

Hypothesis 8: Performance related problems (competitive anxiety and perceived failure) will have the greatest significance on athletes' attitudes toward SPCs when compared to the other predictors. Tables IX and X show that perceived failure and competitive anxiety (respectively) were not significant predictors of athletes' attitudes toward SPCs when other predictors are simultaneously considered ($\beta = .04$, $p > .05$; and $\beta = .02$, $p > .05$, respectively); therefore, hypothesis 8 is rejected.

There were two variables for which no hypotheses were made, namely sport experience (seasons and status) and race. As can be seen in Tables IX and X, neither component of

sport experience was a significant predictor of treatment acceptability ($\beta = .01$, $p > .05$; and $\beta = .00$, $p > .05$, respectively). Likewise, race was not found to be a significant predictor of athletes' attitudes, except in the instance when *status* was substituted for *seasons* ($\beta = -.29$, $p < .01$; Table X).

Based on the regression models, it appears that gender, sport type, and knowledge of the benefits of psychological techniques are the only consistent predictors of athletes' attitudes toward sport psychology consultants. In addition, the regression model that accounted for the most explained variance of the dependent variable was that model that utilized playing status (e.g., starter vs. non-starter) in lieu of the number of completed seasons, while all other primary predictors remained constant ($R^2 = 28\%$; see footnotes in Tables IX and X). This model may have explained the most variance of the dependent variable because even though *gender*, *sport type*, and *knowledge benefits* were the only significant predictors in all regression analyses, *race* also became a significant predictor when *status* was used in the model. In other words, even though status itself was not a significant predictor of athletes' attitudes toward SPCs, it did significantly alter other predictors in the model.

Finally, when secondary predictors were substituted for primary predictors the results of the regression analyses changed in only three instances. First, and as stated above, race became a significant predictor when status was used in the model (Table IX). Second, cumulative consultant experience became a significant predictor when course was considered as the knowledge component (Table IX). Third, course was the only secondary predictor to reach significance in a regression analysis (Table X).

Chapter V

Discussion

Summary and Conclusions

The purpose of the present study was to determine which factors predict an athlete's treatment acceptability of a sport psychology intervention. Questionnaires were distributed to NCAA Division I student-athletes at a large university to assess their attitudes toward sport psychologists. Hypotheses concerning treatment acceptability were made in reference to the athletes' demographic characteristics, knowledge of sport psychology, experience with sport psychology, and performance related issues. The main statistical analysis used multiple regression to predict athletes' attitudes toward sport psychology consultants (SPC) based on this myriad of factors. Three of the hypotheses were supported and those hypotheses are discussed next.

First, gender was significantly related to athletes' attitudes toward treatment acceptability, as females had more positive attitudes than males toward SPCs. This finding supports previous research that reported females holding more favorable attitudes than males toward mental health practitioners, including sport psychologists (Maniar et al., 2001; Martin et al., 1997; Sabo, 1988; Reinhold, 1973; Murstein & Fontaine, 1993). In light of previous findings, there are a number of possibilities as to why this effect was observed, so some additional, supportive analyses are worth noting. First, female athletes have been shown to be more pessimistic than male athletes (Wilson et al., 2002), have lower levels of self-confidence (Mahoney et al., 1987; Thuot et al. 1998), and higher levels of competitive anxiety (Wilson et al., 2002; Thuot et al., 1998). In the present study, females perceived significantly more failure in their performances ($p < .05$) and

reported significantly higher levels of competitive anxiety ($p < .001$) than males. Tentatively, it may be reasoned that these elements of performance related problems did not distinguish the significant differences in males' and females' attitudes toward SPCs because neither perceived failure nor competitive anxiety was a significant predictor of *attitude* (although competitive anxiety approached significance, $p = .06$). Also, elite female athletes have reported a preference for socially supportive strategies for emotional reasons (Crocker & Graham, 1995; Campen & Roberts, 2001), and the present study supports this notion and is evident in the fact that females had a significantly higher score than males on the *personal openness* subscale of the SPA-R ($p < .05$). This finding suggests that the willingness of females to discuss performance related issues, like perceived failure, contributes to their positive attitudes toward SPCs.

Second, sport type was significantly related to athletes' attitudes toward treatment acceptability, as individual-sport athletes had more positive attitudes than team-sport athletes toward SPCs. Previous studies have concluded that individual-sport athletes (e.g., diving, track and field, tennis) experience more competitive anxiety (e.g., Simon & Martens, 1979) and may experience more perceived failure (e.g., Iso-Ahola & Hatfield, 1986) than team-sport athletes (e.g., soccer, basketball, lacrosse). In the present study, individual-sport athletes experienced significantly more competitive anxiety than team-sport athletes ($p < .001$), but there was no significant difference between the groups in terms of perceived failure ($p > .05$). As stated before, competitive anxiety approached significance as a predictor of attitudes toward SPCs, so it may be that competitive anxiety is a moderator in explaining sport type as a significant predictor.

Third, athletes' knowledge of sport psychology was significantly related to athletes' attitudes toward treatment acceptability. The reported knowledge an athlete possesses about the benefits of mental skills for athletic performance and the athlete having taken a course in sport psychology were both significant predictors of treatment acceptability. In addition, the knowledge an athlete has about where to find sport psychology services approached significance ($p = .08$). The Theory of Planned Behavior (Ajzen, 1988) states that attitudes are based on obtained knowledge. Simply stated, individuals are more likely to hold stronger attitudes (positive or negative) toward a given topic, or entity, when they are more knowledgeable about the relevant information surrounding the topic. Moreover, an individual should be more likely to act on his/her knowledge and attitudes when these two attributes are perceived to be well-justified by the individual (Jackson et al., 2003; Adams et al., 2003; Robinson et al., 1993). Here, possessing more knowledge about sport psychology techniques, or the role of a sport psychologist, theoretically, would facilitate the likelihood of an athlete utilizing sport psychology services. While actual sport psychology consultations did not serve as the dependent measure in the present study, several studies report that knowledge serves as a strong predictor of *intentions* to act (Higgins & Conner, 2003; Rhodes & Courneya, 2003; Jackson et al., 2003; Rubens & Oleckno, 1998), which means that those athletes reporting a relatively high degree of knowledge of the benefits of psychological skills training (PST) (perhaps by way of having been enrolled in a relevant course) would be more likely to utilize sport psychology services. However, and as one would presume, having completed a sport psychology course at the collegiate level does not necessarily guarantee knowledge of the subject matter.

Several hypotheses in the present study were not supported. Neither aspect of performance related problems (competitive anxiety and perceived failure) was a significant predictor of the dependent variable. The prediction that performance related problems would have the *greatest* significance on athletes' attitudes was, obviously, also not supported. It is certainly viable that athletes have other additional socially supportive influences in their lives other than SPCs to help them cope with performance related problems. Selby et al. (1990) and Maniar et al. (2001) have reported that athletes prefer to consult coaches, friends, and family members in dealing with performance related problems.

Although the correlation between competitive anxiety and treatment acceptability was significant, and competitive anxiety approached significance in the multiple regression analysis, the stress and nervousness associated with competition at the collegiate level may not be sufficient enough to warrant the need of a SPC. For instance, the mean score on the SCAT for this sample of athletes was approximately 20, while the possible score ranges from 10 to 30. Thus, it can be reasoned that this group of athletes, collectively, does not perceive pre-competition anxiety as a significant detriment to performance, and are therefore less likely to seek help from a SPC to cope with such an issue. It should also be pointed out that competitive anxiety may not be an adverse mental state in elite-level competition. In fact, during elite-level competition, some degree of competitive anxiety may be required to facilitate performance, via appropriate arousal levels and/or creating self-awareness that the athlete "is ready to play" (Yerkes & Dodson, 1908; Hanton & Jones, 1999). The fact that this sample of athletes did not possess an extremely high degree of competitive anxiety, which could be argued to

adversely affect performance, is admirable because these athletes are competing at the national level.

Perceived failure of personal performance was significantly correlated with the dependent variable in a bivariate analysis, but was not a significant predictor of athletes' attitudes toward SPCs in multiple regression analysis, and this may be a result of the items developed for the questionnaire used in the present study. This limitation may not have allowed for enough variance in scores on the perceived failure variable. For instance, seventy-eight percent of the sample perceived their personal performances as either successful or "neutral" (along a 7-point continuum), and approximately the same percent of athletes responded similarly when asked about their personal performance in comparison to their teammates' performances. Items measuring perceived failure should have been more specific to the athletes' personal performances in actual competitions, as opposed to referencing the entire school year, which hypothetically would include successful practice sessions and individual off-season training. This result of generally positive performance scores can also be attributed to the nature of mentally healthy people to "distort reality in a direction that enhances self-esteem, maintains beliefs in personal efficacy, and promotes an optimistic view of the future" (Taylor & Brown, 1988). Research has shown that athletes are generally healthy-minded people (Pinkerton et al., 1989; Pierce, 1969). In other words, no matter how unsuccessful the athletes' performances may have been, they have learned to adapt and cope by somehow perceiving their performances in a successful light and maintaining self-confidence.

The fact that not all teams were in their competitive season at the time they completed the questionnaire may have had an effect on the results. Additional analyses

showed that although there were no significant differences in attitudes between "in-season" and "post-season" athletes ($p > .05$), there were significant differences in perceived failure and competitive anxiety of "in-season" and "post-season" athletes ($p < .05$ for both analyses), as "post-season" athletes perceived *more* failure but *less* competitive anxiety than "in-season" athletes. Viable explanations can be offered for these findings. Obviously, post-season practice sessions do not fully simulate game/match situations, which explains the *lower* scores on the SCAT for post-season athletes, and following the season there may be a heightened sense of failure if individual or team goals were not attained, hence, *more* perceived failure. Moreover, if all teams included in the sample were in-season, then this would have allowed for more consistency among competitive experiences and an objective measure of success or failure could have been obtained (i.e., win-loss record). Perhaps the *objective* measures of individual or team success are more important factors in determining SPC treatment acceptability. For instance, once the individual or team starts producing a respectable winning percentage regardless of personal performance standards, the athlete may think that "winning is winning," and therefore there is no reason to seek outside help.

The two items measuring previous experience (cumulative consultant experience and the coach's use of sport psychology techniques) were not significant predictors of treatment acceptability in the multiple regression analyses. However, cumulative consultant experience was a composite score of *personal consultation*, *friend consultation*, and *coach implementation*, and it could be argued that combining these three items may have changed the results of the study. Pearson's correlations (but not multiple regression analysis) revealed that having direct contact with a SPC (personal

consultation) was significantly correlated with *attitude*, as was cumulative consultant experience, but *friend consultation* and *coach implementation* were not significantly correlated with the dependent variable when observing the zero-order correlations. Thus, one might argue that this summing of the items may have diminished, or hidden, the potential effect of an athlete personally utilizing SPC services. However, supplementary analyses (not shown in Tables) revealed that when *personal consultation* was substituted for *cumulative consultant experience*, the results of the regression analyses changed in only one instance; competitive anxiety reached significance ($p < .05$).

The fact that cumulative consultant experience was not significantly related to *attitude* in the multiple regression analysis, but was significantly related to the dependent variable in zero-order correlations required further exploration. As shown in Table IX, cumulative consultant experience was a significant predictor of the dependent variable when *course* is substituted for *knowledge benefits*. In addition, cumulative consultant experience was found to be marginally significant ($p < .10$) in its relationship with the dependent variable during multiple regression when *knowledge services* is substituted for *knowledge benefits*. So, although cumulative consultant experience was not significant in the main hypothesis testing, it was found to be a significant predictor (to some degree) in secondary analyses.

In further explaining the results of the previous experience construct, it should be noted that previous experience with a SPC would not guarantee future consultation because the initial experience (or any experience for that matter) may be a "bad" one, thus altering the perceptions of PST. In addition, knowing a friend, teammate, or significant other that has had a consultation with a sport psychologist may not be

sufficient grounds to utilize SPC services especially if the athlete initially holds strong negative attitudes toward sport psychology or already feels confident in his/her athletic abilities. Moreover, it does not appear that *utilizing* a SPC may be a better predictor of positive attitudes than the *implementation* of a SPC, or knowing someone that has had a consultation. Also, the Theory of Planned Behavior suggests that prior engagement in an activity (i.e., consulting with a SPC) should strengthen that behavior for the future through the notion of perceived behavioral control. However, interacting with a SPC might occur relatively too infrequently to facilitate future consultations.

Athletes in this particular sample may also view seeking help from a SPC strictly as an off-the-field activity and not value their coaches' attitudes or behaviors for such matters. This same rationale might help in explaining why the coach's use of sport psychology techniques in practice and game settings did not significantly influence athletes' attitudes toward SPCs. It is also possible that the athletes in the sample had different interpretations of what is meant by "sport psychology techniques." For example, some athletes may have construed this phrase to mean imagery, while others may have considered it to strictly mean relaxation training. Also, this particular item, as well as the item addressing *coach implementation*, did not state the "current" coach as the coach in question, nor did this item refer to the current season as the season in question. This limitation implies that some athletes in the sample may have played for two different head coaches while attending the university, and/or may have recalled instances from a previous season when the head coach typically did, or did not, use sport psychology techniques. Therefore, there may have been a lack of consistency among a respondent's scores on several of the variables.

Race was not a significant predictor of athletes' attitudes toward treatment acceptability when other predictor variables are considered simultaneously. A previous study that sampled college athletes found no differences in treatment acceptability based on race (Maniar et al., 1999a). However, additional analysis of the present data revealed that when mean scores are considered separately (and not in conjunction with other predictor variables as in multiple regression) there is a significant effect for race. Minorities had significantly more positive attitudes than whites ($p < .05$), which is contrary to prior research in the area (Martin et al., 1997; Wrisberg & Martin, 1994). However, the hypotheses were tested using multiple regression analysis, and the race of the athletes was not a significant predictor of the dependent variable, most likely because the predictors that were entered into the equation along with race accounted for the majority of the variance. Thus, race was not a strong enough predictor of athletes' attitudes to contribute any further variance to the equation. Additionally, the small number of minorities in the sample makes it difficult to draw a definitive conclusion concerning this variable.

Sport experience (the number of seasons on the team and the amount of playing time during competitions) was not significantly related to treatment acceptability. Regarding older athletes and those that play frequently, Gernigon and Delloye (2003, p. 71) state that a resilient sense of self-efficacy acquired by repeated competitive experiences buffers individuals from the effects of outcomes. So, over time, even if an athlete is consistently not performing well, he/she may develop "thick skin" and adapt mentally to poor performance; consequently, there is less need for a SPC. On the other hand, those athletes who do not participate much during actual competitions might not

see the need for outside help, like a SPC, if they do not exert much influence on the outcomes of the competitions. In addition, younger athletes might not have accumulated enough knowledge about sport psychology to realize the benefits of mental skills training. There are other viable explanations as to why a younger, less experienced athlete would have either higher *or* lower treatment acceptability of SPCs, such as not being fully aware of the resources available to enhance performance, or not possessing appropriate sport psychology skills (e.g., Campen & Roberts, 2001; Hammermeister & Burton, 1995; Sudgot-Borgen et al., 2003).

As alluded to above, and with the exception of the SPA-R and SCAT, many of the items used in the present study were developed strictly for use in this research effort; hence, there is no evidence to support the psychometric qualities of the items and their respective constructs. So, it may turn out that these particular items are not accurate measures of the variables in question. In addition, because the sample was comprised of collegiate athletes from a single university, and not all sports were represented, the results may not be generalizable to other elite-athlete populations. Another limitation in the present study was the specific title of "sport psychology consultant" that was used throughout the questionnaire. It has been shown that female athletes and male athletes hold differing perceptions of SPCs based on the title (Maniar et al., 2001, Brooks & Bull, 1999). Lastly, the Sudaan statistical software does not compute adjusted R^2 or standardized beta coefficients for multiple regression analysis. Therefore, additional useful information is not available to the reader, and it is not possible to draw a conclusion as to which single predictor accounted for the most variance on the dependent variable.

Within the constraints of the present study and based on the current sample population, there is evidence to support the following three conclusions. First, an athlete's gender is a significant predictor of his/her attitudes toward sport psychology consultants. Second, an athlete's knowledge of sport psychology is a significant predictor of his/her attitudes toward sport psychology consultants. Third, whether an athlete competes in an individual or team sport is a significant predictor of his/her attitudes toward sport psychology consultants. In light of these conclusions, the practical implications of the results in the realm of sport performance are discussed below.

Implications

The significance of the findings of the present study is that the applied field of sport psychology is better able to understand which factors are having an impact on athletes' treatment acceptability of a SPC. In gaining this knowledge, SPCs can attribute lack of treatment acceptability to the appropriate source. It should not be overlooked that SPCs are providing a service to athletic populations, and are indeed earning a living to some extent from these services. In order to better market themselves to athletic populations and to enhance the likelihood of athletes utilizing their services (or accepting their services if the coach implements the sport psychology intervention), it would make sense that these consultants become aware of potential variables likely to assist in this matter.

As a result of this study, applied sport psychologists in the field can better prepare themselves to consult an athlete knowing that the gender of the athlete determines the willingness to accept the treatment. This is important because many coaches implement sport psychologists without an athlete's request. This preparation could be accomplished

by SPCs compelling themselves to be aware of particular topics that are sensitive to each gender, or which aspects of the sport are valued more by one gender versus the other. For example, Henschen (1991) and Yambor and Connelly (1991) have identified issues in consulting with athletes when the gender between the two differs. Striving to *identify* with the athlete may influence the successfulness of the consultation.

Because the knowledge an athlete possesses about sport psychology is a significant predictor of treatment acceptability, it would make sense for sport psychologists to attempt to educate athletes about the potential benefits of psychological skills training (PST). For instance, Leffingwell et al. (2001) have outlined their sport psychology training program that was implemented within a major Division I university. Their Sport Psychology Services (SPS) program centers around cognitive-behavioral skills taught to the coaches and athletes in the athletic department. In terms of increasing the knowledge of sport psychology skills among athletes, SPS publishes *The Mental Edge*, a newsletter distributed to coaches, staff, and athletes several times per year. In fact this newsletter is actually mailed directly to each athlete's home address. The authors state that the newsletter is an additional resource of their program that typically covers one or two mental training topics and also includes a list of upcoming SPS events. The program also hosts a webpage that includes information about their services and mental training topics that are of interest to the athletes. Also of considerable importance is that the webpage contains information about how to reach the SPS staff.

For those sport psychologists employed by a college or university, making their presence known to coaches and athletes via newsletters and/or a relevant website could increase the athletes' knowledge of sport psychology. In addition, athletes at these

universities would have an increased awareness of the role of a SPC, as well as the different services provided. If a coach values sport psychology, then making his/her athletes aware of such programs, or services, might make the athletes more receptive to psychological skills techniques during practice or game settings. Even though the coach's use of PST was not significantly *directly* related to attitudes in the present study, many athletes might attain their sport psychology knowledge from their coaches. Coaches could also encourage their athletes to enroll in a sport psychology course at the college to increase the athletes' appreciation for the benefits of such training.

Some researchers (Maniar et al., 2001; Martin et al., 1997; Blom et al., 2003) have proposed that future sport psychology research should attempt to unveil the potential influence that the type of sport has on attitudes toward sport psychology. It is now evident that sport psychologists can better gear their PST to meet the needs of athletes in either individual or team sports. In the present study, individual-sport athletes had significantly more competitive anxiety, but not significantly more perceived failure. So, there may be issues unique to individually competing athletes versus team sport athletes, like competitive anxiety, and SPCs can then understand that an individually competing athlete may be experiencing performance slumps due to high levels of pre-event stress. It is also worthy to point out that because individual-sport athletes had greater treatment acceptability, SPCs might want to learn more about the nature of some of these sports and familiarize themselves with the general strategies and terminology of the sports (Halliwell, 1990).

In the present study, an athlete's race and sport experience were not significantly related to treatment acceptability; therefore, it does not seem sensible for consultants to

be overly concerned with understanding the implications that an athlete's race, or experience in a given sport, might have on treatment acceptability. The findings regarding the relationship between race and treatment acceptability of SPCs have been equivocal to this point, so race may not be as important a determinant of attitudes toward SPCs as other demographic variables, like gender. Likewise, athletes of varying experience could certainly utilize sport psychology techniques at any point in their career and benefit from psychological skills training, regardless of whether the athlete is a key player on the team or a rookie "paying his/her dues." In either case, the nature of athletics is concerned with optimal performance at all times, so it does not seem reasonable to assume that older, more experienced athletes would have an enhanced regard for PST over younger, less experienced athletes (or vice versa).

Because the present sample of athletes held relatively favorable attitudes toward SPCs, it is vital that consultants are able to gain entry into the athletic department so that their services can be utilized by the coaches and athletes. Several articles have discussed this issue (Ravizza, 1988; 1990; Rotella, 1990; Halliwell, 1990). Similarly, because cumulative consultant experience was not a significant predictor of athletes' attitudes in the present study, it may be that some of the consultations were not productive and athletes in the sample developed negative attitudes toward SPCs based on their own experiences, or experiences of significant others. Orlick and Partington (1987; Partington & Orlick, 1987) have outlined several favorable qualities of SPCs as determined by Olympic athletes, as well as several undesirable characteristics of SPCs (also see Petitpas, Giges, & Danish, 1999).

Athletes in this study viewed sport psychologists in a relatively favorable light, which follows the current trend in the field of sport psychology (see *The Importance of Sport Psychology* in this composition). In fact, a recent survey of 115 NCAA Division I athletic departments revealed that 53% were currently using sport psychology consultants (Voight & Callaghan, 2001, as cited in Leffingwell et al., 2001). Therefore, every effort should be made for SPCs to inform coaches and athletic department staff of the services they could provide for the athletes.

Future Research

Due to the several limitations of the present study, suggestions for future research in the field are given below in order to further delineate the acceptance of sport psychology within athletic populations. First, subsequent studies on treatment acceptability should coincide with the teams' competitive seasons, so that variables such as perceived failure and competitive anxiety can be better controlled. This step would ensure that there would be some objective measure of team success, from which comparisons to *perceived* success could be made. It could then be determined whether actual team success is more important than perceived individual success in relation to treatment acceptability of SPCs. A second (logistical) limitation in the present study was that the number of minorities in the sample was very low. This may have compromised statistical analyses. Future research should utilize an athletic population with more disparity in ethnic backgrounds. Furthermore, another study using race as a predictor variable would help resolve the equivocal findings concerning this variable and might explain *why* one's race would play a role in treatment acceptability.

Third, the selected title of the consultant could be changed in future studies (i.e., performance enhancement specialist or sport counselor). This would further enable researchers to observe any differences in the findings of studies that attempt to predict attitudes toward SPCs. Fourth, because males have consistently been shown to report less positive attitudes than females toward SPCs, one could attempt to unravel the reason for why this may be so. Perhaps a *qualitative* study is in order. For example, conducting interviews with male athletes to discover if there is more to their likelihood to stigmatize SPCs besides a possible detriment to their "macho" image. Sport psychologists could then develop steps they might take to facilitate acceptance of interventions with male athletes. For instance, sport psychologists have used terms like "mental toughness" to enhance the credibility of a sport psychology intervention with a collegiate football team (Fenker & Lambiotte, 1987). Likewise, another future endeavor for researchers is to validate this finding concerning sport type and establish the specific reason for individual-sport athletes holding more favorable attitudes than team-sport athletes toward SPCs.

Fifth, in order to ascertain exactly how athletes' are forming their assessments of their own knowledge of sport psychology, subsequent studies should determine the source of the athletes' knowledge. In other words, is the knowledge stemming from the coach's use of PST or material learned in a relevant course? This would better help SPCs convey meaningful information to athletes that would both help clarify the role of the SPC and aid in setting up future consultations with the athlete to help maximize performance. On a similar note, it might be useful to applied sport psychologists to find

out the best medium to increase athletes' knowledge of sport psychology skills, like goal setting and imagery.

Sixth, previous research has shown performance related problems to be the most prominent issue among sport psychology interventions; however, these issues were not strongly associated with attitudes toward SPCs in the present study. Therefore, future research should attempt to uncover the cognitive processes involved with performance related problems. For instance, experiencing an injury is a frequently cited reason for an athlete to utilize sport psychology services, but based on the present results, it might not be that the athlete has sought help from the SPC because of a sense of perceived failure (i.e., by getting injured and not being able to achieve goals) or competitive anxiety (i.e., thinking about re-injuring his/herself after rehabilitation). If there are other factors operating in determining the willingness of an athlete to seek help from a SPC for performance related problems, then future research should discover those factors so that SPCs can develop a compatible intervention to meet the athlete's needs.

Seventh, in order to test the Theory of Planned Behavior as it pertains to treatment acceptability, future researchers might attempt a long-term study to test the predictive qualities of the TPB. The TPB has been validated in other important areas (e.g., Aipanjiguly et al., 2003), but it is yet to be an established theory in this setting. Although knowledge of sport psychology was a significant predictor of the dependent variable in the present study, previous experience with sport psychology was not a strong indicator of athletes' attitudes as the TPB might suggest (i.e., perceived behavioral control). It might be that if athletes completed a questionnaire similar to the one used in the present study, then follow-up sessions could be arranged with the athletes to see whether or not

they have utilized sport psychology services. Thus, intentions to act and actual behavior could be measured.

Ninth, now that other variables other than gender and race have been used in determining attitudes toward SPCs, similar studies might attempt to unfold the relevant importance of these predictors. Unfortunately, the present study was not able to utilize standardized beta coefficients, which would have enabled the researcher to observe the relative strength of the predictors in comparison to one another. In the present study, the hypothesis that performance related issues would emerge as the strongest predictor was immediately dismissed because neither component (i.e., perceived failure and competitive anxiety) was significant in the regression analyses. Based on the present results, future research should take a strong theoretical stance and attempt to predict which factors are actually having the most influence on an athlete's attitudes toward SPCs. For instance, in light of the TPB, one might predict knowledge to be the most significant predictor of treatment acceptability. Knowledge is a psychological construct, which is more closely related to one's core beliefs, unlike superficial variables like gender and sport type. Such a research effort could also utilize a stepwise regression procedure so that the predictors are entered in an order dictated by theory and previous research. This would also control for the effects of foundational variables, like gender, race, and sport type.

Finally, in conjunction with the previously mentioned notion of determining the relative weight of the predictors, future research should examine the *interaction effects* of the predictor variables in order to obtain more accurate interpretations of factors influencing treatment acceptability. For instance, the present study revealed that males

and team sport athletes might not be likely to fully embrace a sport psychology intervention. However, knowledge was also a significant predictor of athletes' attitudes. Therefore, although it may seem reasonable to deduce that a collegiate football player might possess negative attitudes about consulting with a SPC (because the athlete is a male competing in a team sport), if he possesses much knowledge about the benefits of PST, then he may actually have high treatment acceptability and accept such an intervention. Other variables, like the coach's attitudes and behaviors could also modify the effects of gender or sport type. Fenker and Lambiotte (1987) provide an excellent example of how the actions of a head football coach can help facilitate the implementation of a sport psychology training program within a football team. In other words, studies in this area should demonstrate that "the world works in interactions, not main effects."

Appendix A

SPA-R

For each of the following questions, please indicate your level of agreement with each of the following statements by circling **only one** appropriate number that corresponds to your answer. Please respond to each statement as truthfully as you can.

SD	D	MD	N	MA	A	SA
1	2	3	4	5	6	7
Strongly Disagree	Disagree	Moderately Disagree	Neutral	Moderately Agree	Agree	Strongly Agree
=====						

In answering the following questions, consider a sport psychology consultant as an individual who helps athletes with the mental aspects of their sport.

A sport psychology consultant can help athletes improve their mental toughness.

1 2 3 4 5 6 7

If an athlete asked my advice about personal feelings of failure related to sport, I might recommend that he/she see a sport psychology consultant.

1 2 3 4 5 6 7

I would not go to a sport psychology consultant because my teammates would harass me.

1 2 3 4 5 6 7

There are certain problems that should not be discussed outside one's immediate family.

1 2 3 4 5 6 7

A good idea for avoiding personal worries and concerns is to keep one's mind on a job.

1 2 3 4 5 6 7

To help me better help myself as an athlete, I would like the assistance of a sport psychology consultant.

1 2 3 4 5 6 7

I would feel uneasy going to a sport psychology consultant because some people would disapprove.

1 2 3 4 5 6 7

There is something respectable in the attitude of athletes who are willing to cope with their conflicts and fears without resorting to professional help.

1 2 3 4 5 6 7

An athlete with emotional problems during sport performances would receive the most assistance from a sport psychology consultant.

1 2 3 4 5 6 7

Having seen a sport psychology consultant is bad for an athlete's reputation.

1 2 3 4 5 6 7

There are experiences in my life that I would not discuss with anyone.

1 2 3 4 5 6 7

If I was worried or upset about my sport performance, I would want to get help from a sport psychology consultant.

1 2 3 4 5 6 7

Emotional difficulties tend to work themselves out in time.

1 2 3 4 5 6 7

I think a sport psychology consultant would help me perform better under pressure.

1 2 3 4 5 6 7

I would not want someone to know about me receiving help from a sport psychology consultant.

1 2 3 4 5 6 7

If I went to a sport psychology consultant, I would not want my coach to know about it.

1 2 3 4 5 6 7

A sport psychology consultant could help me fine-tune my sport performance.

1 2 3 4 5 6 7

If I went to a sport psychology consultant, I would not want other athletes to know about it.

1 2 3 4 5 6 7

At times I have felt lost and would have welcomed professional advice for a personal or emotional problem.

1 2 3 4 5 6 7

The coach would think less of me if I went to a sport psychology consultant.

1 2 3 4 5 6 7

Athletes with a strong character can get over mental conflicts by themselves.

1 2 3 4 5 6 7

Appendix B

Predictor Variables

My coach uses sport psychology techniques during practice/ game settings.

1 2 3 4 5 6 7

My *personal* performance in my sport during this 2003-2004 school year has been successful.

1 2 3 4 5 6 7

I am knowledgeable about the benefits of psychological skills for performance.

1 2 3 4 5 6 7

My *personal* performance in my sport during this 2003-2004 school year has been successful compared to my teammates' performances.

1 2 3 4 5 6 7

I am knowledgeable about where to find sport psychology services.

1 2 3 4 5 6 7

Gender ____ Male ____ Female

Ethnic Background ____ White/ Caucasian ____ Black/ African American
(check one)

 ____ Hispanic ____ Asian American

 _____ Other (please indicate)

Sport (please indicate your primary sport; only one sport) _____

Please indicate your positions/ events(if applicable) _____

Indicate the number of completed seasons of collegiate participation in your sport.

(circle number) 0 1 2 3 4

Indicate your current playing status during competitions (check one, if applicable).

_____ Starter/ First-string/ Frequent substitute

_____ Very limited or no playing time/ Red-shirt

Have you ever personally chosen to have a formal consultation with a sport psychologist consultant? (A formal consultation is defined as involving a referral or self-referral for an identifiable issue, a face-to-face session with a staff psychologist, and duration of at least 30 minutes.)

Yes

No

Do you know a friend, teammate, or significant other that has had a formal consultation with a sport psychology consultant?

Yes

No

Has your coach ever asked a sport psychology consultant to talk to the entire team or team members?

Yes

No

Have you ever taken a course in sport psychology?

Yes

No

Appendix C

SCAT

Below are some statements about how people feel when they compete in sports and games. Read each statement and decide if you **HARDLY-EVER**, or **SOMETIMES**, or **OFTEN** feel this way when you compete in sports and games. If your choice is **HARDLY-EVER**, check or circle the square labeled **A**, if your choice is **SOMETIMES**, check or circle the square labeled **B**, and if your choice is **OFTEN**, blacken the square labeled **C**. There are no right or wrong answers. Do not spend too much time on any one statement. Remember to choose the word that describes how you usually feel when competing in sports and games.

	Hardly-ever	Sometimes	Often
1. Competing against others is socially enjoyable.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
2. Before I compete I feel uneasy.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
3. Before I compete I worry about not performing well.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
4. I am a good sportsman when I compete.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
5. When I compete I worry about making mistakes.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
6. Before I compete I am calm.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
7. Setting a goal is important when competing.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
8. Before I compete I get a queasy feeling in my stomach.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
9. Just before competing I notice my heart beats faster than usual.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
10. I like to compete in games that demand considerable physical energy.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
11. Before I compete I feel relaxed.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
12. Before I compete I feel nervous.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
13. Team sports are more exciting than individual sports.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
14. I get nervous wanting to start the game.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>
15. Before I compete I usually get uptight.	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input type="checkbox"/>

THANK YOU

Appendix D

Athletes' Attitudes Questionnaire

The purpose of this research questionnaire is to gather data concerning athletes' attitudes towards sports consultants. The items contained in this questionnaire will ask for your opinions about sport psychology consultants, such as indicating how helpful one of these individuals may be in helping an athlete. Your participation in this study will greatly contribute to the further understanding of sport behavior, which is a topic of increasing interest in sport and exercise sciences. This study is being conducted by the Department of Kinesiology at the University of Maryland. We hope you will fill out this questionnaire, which will take approximately 10 minutes, and thereby help the Department's research efforts.

Please be aware that your participation in this study has no effect with your coach, teammates, or later participation in your sport. As a participant in this study, you have the freedom to withdraw at any point until you submit the questionnaire to the researcher, and can choose not to answer any questions contained in the questionnaire without penalty or prejudice.

Your identity and the answers contained within the questionnaire are anonymous, so that there is no way to identify you as a respondent. Please do not write your name or any other identifying marks on the questionnaire. In addition, the data is confidential and only group averages will be reported. Please note that there are no right or wrong answers to any of the questions, only your personal opinions and responses.

If you have any questions or comments, please contact Michael Hamberger or Dr. Seppo Iso-Ahola in the Department of Kinesiology.

Thank you very much for your assistance.

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¹The terms sport psychology consultant (SPC) and sport psychologist will be used interchangeably throughout the paper.

²Because only one athlete indicated 5 completed seasons, this athlete was grouped with those athletes indicating 4 completed seasons.

³This specific step was taken to ensure relatively equal numbers in both gender and sport type, as well as to control for the nature of the sports within each gender and sport type (contact vs. non-contact, etc.)