ATHLETES' ATTITUDES TOWARD SEEKING SPORT PSYCHOLOGY CONSULTATION: DEVELOPMENT AND VALIDATION OF THE SPORT PSYCHOLOGY ATTITUDES QUESTIONNAIRE

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The purpose of the study was to create a questionnaire to identify underlying dimensions of athletes' attitudes toward seeking sport psychology consultation. A total of 1138 athletes (625 males, 513 females) representing 36 sports from four levels of participation were used to develop the Sport Psychology Attitudes Questionnaire (SPAQ). In Study I, exploratory factor analysis produced a two-factor solution that accounted for 37.1% of the overall variance: (a) belief in the credibility of sport psychology (14 items) and (b) preference for similarity with a sport psychology consultant (SPC) (7 items). Three items were omitted following item analysis, and nine items were eliminated after failing to load higher than the cut-off value of .40 on either of the factors. In Study II, confirmatory factor analysis supported the two-factor model, and multigroup comparison in Study III demonstrated that the model fit well for both male and female samples. As for validity, the SPAQ factors predictably (a) distinguished between athletes with and without previous experience with a SPC, (b) related to ratings of helpfulness/satisfaction related to a previous experience with a SPC, and (c) correlated with willingness to see a SPC for help in the future. Also, the SPAQ factors were related, as predicted, to (a) belief that practicing sport psychology skills will lead to desirable outcomes, (b) interpersonal openness, and (c) affective prejudice toward identified outgroups but were not related to level of self-concept as hypothesized. Contrary to

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CHAPTER I

INTRODUCTION

In the past 30 years, sport psychology as a science and a profession has grown tremendously. Sport psychology typically is considered a subdiscipline of both the psychological and sport sciences and defined as "a field of study in which the principles of psychology are applied in a sports setting" (Cox, 1985, p. xiii) or "the branch of sport and exercise science that seeks to provide answers to questions about human behavior in sport" (Gill, 1986, p. 3). Thus, the study of sport psychology is concerned with the psychological factors that affect performance and participation in sport and physical activity and the psychological effects of performing and participating in sport and physical activity (Williams & Straub, 1993).

According to Landers (1995), the field of sport psychology has its formal beginnings in the 1960's with the formation of several sport psychology professional organizations (e.g., International Society for Sport Psychology) and continued to develop in the 1970's with societies in the American Alliance for Health, Physical Education, Recreation, and Dance and the American College of Sports Medicine. The additions in the 1980's of the Association for the Advancement of Applied Sport Psychology and Division 47 (Exercise and Sport Psychology) of the American Psychological Association, and subsequent growth of these two organizations, have served to further advance the field. During this same time period, the sport psychology literature expanded

tremendously with the advent of sport psychology research journals, textbooks, and other specialty books.

The study of sport psychology can be traced back to the turn of the 20th century in which investigations examined reaction time, the psychological benefits of play, transfer of training, and the effect of sport participation on a person's character and personality (Davis, Huss, & Becker, 1995). Norman Triplett (1898) is credited with the first experiment directly involving psychological factors and sport when he concluded that competition stimulated improved performance (Davis et al., 1995). Coleman Roberts Griffith ("America's First Sport Psychologist"; Kroll & Lewis, 1970) is cited as being the most active person at this time and the first North American to devote a significant portion on his career to research, teaching, and service in sport psychology (Gould & Pick, 1995). Around the same time as these investigations, popular periodicals (e.g., Cosmopolitan, Harper's Weekly) included analyses, postulations, and pseudo-scientific conclusions about all phases of sporting life, including personality and athletic aptitude, concentration, will and desire, aggression, and the euphoria of optimal athletic experience (King, Raymond, & Simon-Thomas, 1995).

As for applied sport psychology, Griffith was hired by Philip Wrigley of the Chicago Cubs professional baseball team in 1938 to be the club's sport psychologist, the first position of its kind in the U.S. (Gould & Pick, 1995). He examined player ability, baseball skill learning, personality, leadership, and social psychological factors and summarized the results in a lengthy, unpublished report. Not again until the 1960's and 70's does the literature report psychological services being provided to athletes and coaches in North America. During this controversial time, sport psychologists assisted

coaches with player selection based on psychological profiles, provided relaxation/ imagery skills to enhance sport performance, and emphasized attention/ concentration techniques with athletes (Landers, 1995).

So why the need to study and practice sport psychology? This question was addressed many years ago, and the response still is applicable today. In a speech read to a group of university physical education directors, Griffith (1925) commented that

> When an athlete goes out on the field for a contest he does not leave his mind tucked away in a locker with his shoes, his watch and his hat . . . . It takes but a moment, however, to realize that the best athletes use almost every faculty of their minds when they go into a contest . . . . In other words, when we go to athletic competition with an open eye to psychological matters we cannot help but come away with belief that all athletic competition is purposeful, clever, intelligent, emotional, and skillful, and not merely mechanical. The athlete who goes into a contest is a mind-body organism and not merely a physiological machine . . . . the more mind is made use of in athletic competition, the greater will be the skill of our athletes, the finer will be the contest, the higher will be the ideals of sportsmanship displayed, the longer will our games persist in our national life, and the more truly will they lead to those rich personal and social products which we ought to expect of them (p. 193).

Thus, Griffith (1925) viewed sport as fundamentally psychological and sport psychology as a vehicle, to not only enhance the performance of sport, but to increase sport's personal and social value as well. Likewise, sport psychology today is a science and a practice that is in a position to assist athletes and physical activity participants in reaching their goals and to provide a means for personal and societal growth. Current areas of investigation include the relationship between personality and sport, motivational orientations, self-referent thought, the arousal-performance relationship, group dynamics, leadership effectiveness, the use of intervention techniques to improve sport performance, and the psychological benefits of exercise to name just a few. Today, the primary goal of applied sport psychology is to enhance the performance and personal growth of athletes

and physical activity participants, and the main areas of application are intervention/ performance enhancement, exercise and health psychology, and social psychology.

Applied Sport Psychology and the Age of Accountability

Although applied sport psychology is an exciting, up-and-coming field, responsible researchers and practitioners need to recognize that applied sport psychology still is living in the "Age of Accountability" (Smith, 1989). That is, paralleling the increased interest in applied sport psychology is the need to enhance and protect the welfare of athletic and nonathletic consumers of sport psychological services. According to Smith (1989), the issue of accountability includes, but is not limited to, the continuing establishment of the body of sport psychology knowledge and the effective provision of sport psychology services.

Debate continues as to whether a sufficient amount of sport psychology knowledge exists to guide professional practice. For example, Dishman (1983) stated that the professional model of sport psychology "assumes that there is something to deliver which produces clearly defined and reliable results" (p. 126). He added that "under close scrutiny the validity of this assumption is presently unclear" (p. 126). More recently, Morgan (1997) argued that a very limited number of experimental studies exist to support the efficacy of applied sport psychology, citing lack of external validity, inadequate experimental designs, and behavioral artifacts (e.g., halo effect). Yet, literature reviews by Greenspan and Feltz (1989) and Meyers, Whelan, and Murphy (1996) have demonstrated that applied sport psychology interventions can be effective. In addition, recent investigations have paid greater attention to the evaluation of sport psychology intervention programs in attempts to document their effectiveness (e.g.,

Brewer & Shillinglaw, 1992; Cogan & Petrie, 1995; Gould, Petlichkoff, Hodge, & Simons, 1990).

To date, applied sport psychology research has focused mainly on the identification of effective interventions (e.g., imagery, self-talk) for various problems (e.g., high anxiety, low confidence) and minimal evidence exists regarding the effects of athlete and sport psychology consultant (SPC) characteristics on the effectiveness of applied sport psychology. However, Smith (1989) argued that the evaluation of a change program goes beyond a simple determination of whether a specific intervention is effective or not. According to Smith (1989), athlete and SPC characteristics also must be taken into account when evaluating the effectiveness of applied sport psychology.

Athlete Characteristics and the Effectiveness of Applied Sport Psychology

One athlete characteristic that has received some attention in the sport psychology literature is athletes' attitudes and perceptions of sport psychology. How do athletes' attitudes relate to the effectiveness of sport psychology? Based on Fishbein and Ajzen's (1975) expectancy-value model, Greaser (1992) hypothesized that athletes' beliefs and attitudes about sport psychology skills would have an impact on their intentions to practice sport psychology skills. The investigator developed an instrument consisting of statements that reflected various beliefs and attitudes about practicing sport psychology skills and administered it to 76 intercollegiate sport competitors representing five sports. Multiple regression results revealed that athletes' behavioral intentions to practice sport psychology skills were indeed influenced by their attitudes about practicing sport psychology skills. The results also showed that the specific beliefs and evaluations that comprised an athletes' overall attitude about practicing sport psychology skills

differentiated between high and low intenders to practice sport psychology skills. In particular, athletes who reported a high intention to practice sport psychology skills believed more strongly that practicing sport psychology skills would have positive effects (e.g., would increase my competitive drive, would increase confidence in myself) on sport performance than those with low intentions. Greaser (1992) concluded that athletes with low intentions to use sport psychology skills could become convinced to practice them if they were persuaded that sport psychology would lead to positive outcomes (e.g., achieving their sport goals, enhancing their confidence, improving their concentration).

In addition to influencing intentions to practice sport psychology skills, athletes' attitudes, according to Bull's (1994) mental training adherence model, have an impact on athletes' adherence levels to mental skills training. In two separate studies, Bull (1991, 1995) asked athletes to participate in a psychoeducational mental skills training program and instructed them to continue to mentally train on their own following the workshops. The results of his analyses revealed a significant positive relationship between perceived efficacy in the mental training program and mental training adherence duration and frequency. Thus, Bull (1994) concluded that perceived efficacy in the mental training program was one of the personal variables that influenced athletes' adherence levels to mental skills training and is among the reasons why only a small number of athletes adhere to mental skills training following educational workshops.

In addition to the importance of determining the effects of athletes' attitudes toward sport psychology on the effectiveness of applied sport psychology, others have suggested that knowledge of athletes' attitudes and perceptions of sport psychology will assist in future opportunities for SPCs. Specifically, Schell, Hunt, and Lloyd (1984)

argued that to effectively meet the changing needs and demands in elite sport, sport psychologists need to investigate the attitudes toward sport psychology of sport personnel, such as athletes and coaches, who influence decisions made concerning sport psychologists. Schell et al. (1984) stated that knowledge of these attitudes will provide direction as to how they can be changed, how they relate to actual behavior, and how they determine future market opportunities for sport psychologists. On a similar theme, DeFrancesco and Cronin (1988), in their six-step marketing plan for sport psychologists, recommended conducting a situational analysis that incorporates evaluating the public's awareness of the sport psychologist's available services and the public's perceptions and evaluation of the sport psychologist and his or her services. They added that such knowledge would certainly aid the sport psychologist in effectively meeting the needs of potential consumers.

In sum, it has been argued that a need exists to increase the accountability of applied sport psychology by documenting its effectiveness while considering the effect of athlete characteristics such as athletes' attitudes toward sport psychology. In addition, it appears that athletes' attitudes not only affect their intentions to practice sport psychology skills but also influence their adherence levels to mental skills training following psychoeducational workshops. Also, there is evidence to suggest that athletes' attitudes toward sport psychology partially determine future market opportunities for sport psychologists. Thus, athletes' attitudes toward sport psychology would appear to be an important variable of consideration for both researchers and practitioners.

Statement of the Problem

Given the argument presented above, it would seem that a measure to assess athletes' attitudes toward sport psychology would be a useful addition to the sport psychology literature for both researchers and practitioners. Until recently, however, no attempts have been made to establish a valid and reliable instrument to do so (Harmison & Petrie, 1998; Martin, Wrisberg, Beitel, & Lounsbury, 1997). A brief overview of these two attempts is provided below, and a more detailed review of these studies can be found in the review of literature in the next chapter.

Based on the sport psychology and counseling psychology literature, Martin et al. (1997) theoretically developed the Attitudes Toward Seeking Sport Psychology Consultation Questionnaire (ATSSPCQ) to identify principal factors that influence athletes' perceptions of psychological skills and attitudes toward seeking sport psychology consultation. Martin et al. (1997) administered the ATSSPCQ to 225 college student-athletes, and principal components analysis with varimax rotation produced a three-factor solution: (a) stigma tolerance, (b) confidence in sport psychology consultation/recognition of need, and (c) personal openness/openness to sport psychology consultation. After conducting a series of validity and reliability tests, Martin et al. (1997) concluded that the ATSSPCQ appeared to be a valid, reliable, and stable instrument for assessing athletes' attitudes toward seeking sport psychology consultation.

Harmison and Petrie (1998) attempted to replicate and extend the work of Martin et al. (1997) and administered the ATSSPCQ to 405 college student-athletes. Principal factor analysis with oblique rotation produced a three-factor solution: (a) confidence in sport psychology, (b) stigma tolerance, and (c) preference for racial similarity with a

SPC. After conducting a series of validity and reliability tests, Harmison and Petrie (1998) argued that their results only provided partial support for the findings of Martin et al. (1997) and concluded that the ATSSPCQ could be modified to better assess athletes' attitudes toward seeking sport psychology consultation. Based on the theoretical and empirical support they provided for their derived factor structure, Harmison and Petrie (1998) proposed a number of changes for a revised version of the ATSSPCQ and called for further analysis and validation of the instrument.

Purpose of the Study

Thus, the purpose of the present study was to build on the attempts of Martin et al. (1997) and Harmison and Petrie (1998) to develop a valid and reliable questionnaire to identify principle factors that influence athletes' attitudes toward seeking sport psychology consultation. In a process outlined later in more detail, items from the ATSSPCQ were reworded, combined, or eliminated and new items were written to form the Sport Psychology Attitudes Questionnaire (SPAQ). The SPAQ then was subjected to exploratory factor analysis, confirmatory factor analysis, and multigroup comparison to determine the underlying dimensions that define male and female athletes' attitudes toward seeking sport psychology consultation as measured by the SPAQ. To establish concurrent, convergent, and discriminant validity and reliability of the SPAQ, a number of hypothesized relationships between the SPAQ factors and various predictor variables were tested as well. The result was a 21-item, two-factor model that was deemed to be a valid and reliable instrument for assessing athletes' attitudes toward seeking sport psychology consultation.

CHAPTER II

REVIEW OF LITERATURE

A number of investigators and practitioners have attempted to identify athletes' attitudes toward sport psychology. This chapter provides a comprehensive review of the sport psychology literature related to athletes' attitudes toward and perceptions of sport psychology. Specifically, sections addressing general attitudes toward sport psychology, perceptions of athletes who consult a sport psychologist, and perceptions of sport psychologists are presented. The chapter concludes with a review of the attempts by Martin et al. (1997) and Harmison and Petrie (1998) to develop an instrument to assess athletes' attitudes toward seeking sport psychology consultation.

General Attitudes Toward Sport Psychology

This section includes anecdotal accounts of athletes' and coaches' attitudes toward sport psychology, results from surveys administered to athletes and coaches, and the effect of gender, race, and type of sport in which one participates on athletes' attitudes toward sport psychology.

Anecdotal Accounts

Suinn (1985) provided a brief historical description of events involving the activities in sport psychology associated with the 1984 Olympics. The author included several subjective perspectives of athletes and sport psychologists that reflected the level of the athletes' attributions of success to psychological training. For example, a

weightlifter cited a sport psychologist as being a major contributor to his winning a gold medal. Two gold medal winning boxers indicated that a sport psychologist's efforts helped them to stay in training and to overcome blocks prior to the finals. A fencer acknowledged that psychological skills training provided by a sport psychologist was helpful to reestablish concentration in the middle of a bout. Also, a significant number of athletes contacted the two sport psychologists who were available for consultation during the games. Suinn (1985) concluded that the 1984 Olympics did much to cause the athletic community to recognize the value of sport psychology.

Based upon his extensive work with elite intercollegiate, Olympic, and professional athletes, Ravizza (1988) discussed various issues that confront sport psychology consultants (SPCs) in gaining entry into applied sport psychology consultations. One significant barrier mentioned by Ravizza (1988) is the negative connotations linked to the "sport psychology-shrink" image. He noted that the average athlete is apprehensive about a SPC due to the perception that psychology is associated with problems. In addition, he felt that the awareness that psychology involves examination of vulnerabilities and weakness is threatening to even the most confident and secure athletes. He stated that the average coach is skeptical of sport psychology as well, adding that they do not give much credibility to SPCs nor welcome them with open arms. Ravizza (1988) mentioned that coaches realize that the mental aspects of the game are important but are protective of their athletes regarding SPCs who may work with them. He generalized that about one third of the athletes on a team will be very receptive to sport psychology in the beginning, one third will seek consultation when they are struggling, and one third likely will never seek consultation.

Additionally, Ravizza (1990) provided more specific insights into the attitudes toward sport psychology held by professional baseball players, coaches, and organizations. Ravizza (1990) reported that mental training is not currently a priority with most professional sport teams, including baseball. He stated that many professional baseball organizations do not have a clear idea of what sport psychology is all about, adding that a SPC is typically contacted when there is a problem. According to Ravizza (1990), many players and coaches are ignorant of sport psychology and confuse it with psychiatry. In addition, some baseball players are fearful of being associated with mental training and are unwilling/unable to look at the reasons behind their mental mistakes. Despite the existence of these apparent negative attitudes, Ravizza (1990) concluded that sport psychology is experiencing increased receptivity in professional baseball.

Kirschenbaum, Parham, and Murphy (1993) reported on sport psychology services provided at the 1991 U.S. Olympic Festival. Two sport psychologists provided 85 formal consultations to over 300 athletes, coaches, staff members, and others. The types of services provided ranged from performance enhancement problem-solving (e.g., concentration skills training) to more personal issues (e.g., marital concerns). The authors indicated that these services were very well received and offered some examples that illustrated the athletes' perceptions and attitudes of sport psychology. The first author noticed that many of the athletes he consulted with possessed confusions and potentially inadequate conceptualizations of the mental aspects of participation in sports (e.g., focusing on outcomes to increase "motivation"). The second author had the chance to work with two African-American athletes regarding critical racial issues. Both athletes reported feeling positive about discussing these issues with the sport psychologist,

indicating their initial "eagerness" and "relief" at the opportunity to discuss "real life" issues with him. Another athlete, distracted by a reasonably serious, but not detrimental to his performance, type of injury seemed pleased that sport psychology services were available to him. Kirschenbaum et al. (1993) also reported that distributed evaluation forms indicated clearly favorable ratings of the services and provided no negative comments other than requests for greater availability of services.

Surveys of Athletes' Attitudes Toward Sport Psychology

In attempts to gain more objective perspectives of athletes' attitudes toward sport psychology, a number of investigators have administered various types of surveys to athletes. Fenker and Lambiotte (1987) presented a case study that described the development and implementation of a performance enhancement program for a major college football team. The authors reported that many of the football players told their coaches that they were skeptical about a program of mental conditioning prior to the beginning of the intervention. After three weeks of preseason practice that included a performance enhancement program, many athletes reported to their position coaches positive results from the program while several others continued to actively resist the mental exercises. At the end of the season, the players completed an evaluation form that included an assessment of the perceived effectiveness of the program with 86% of the players indicating that the team benefited from the program and 58% rating the program to be effective for themselves. Fenker and Lambiotte (1987) concluded that the evaluations of the mental training program were positive and consistent with much of the sport psychology literature on performance enhancement.

Hellstedt (1987) described a sport psychology program conducted at a ski academy for a group of skiers in grades 8-12. The program began during the precompetition season and continued during the competition season and was implemented in workshop formats and in small groups. At the end of the program, the athletes were asked to evaluate their own progress during the year and the effectiveness of the program using an instrument developed by the investigator. The results of the questionnaires revealed that most of the athletes felt that the program was helpful to the athletes and rated the topics covered in the program to be moderately to highly useful.

Heishman and Bunker (1989) surveyed 55 female lacrosse players from five countries competing in the 1986 Lacrosse World Cup Tournament concerning their use of mental preparation in training and competition. The survey included questions that asked the athletes to indicate the importance of mental preparation, frequency of consultation with a sport psychologist, and personal use of mental preparation. The results revealed that most (81%) of the participants rated mental preparation as very or extremely important in competition preparation. Comparing mental to physical practice, 65% considered mental practice to be as important or more important than physical practice at the elite level. As for frequency of consultation, 51% indicated that they had not used a sport psychologist at all in the past year and 44% stated that they had worked with a sport psychologist only one to five times in the past year. In addition, only 44% reported that they used mental preparation often or frequently before competition, with 17% indicating never having used mental preparation strategies often or frequently. Heishman and Bunker (1989) concluded that these elite female athletes considered mental preparation to be important in preparing for competition, and with some athletes, even more important

than physical preparation. Despite the apparent value of mental strategies, the investigators added that these elite athletes did not use mental strategies frequently or consult with sport psychologists on a regular basis.

Smith and Johnson (1990) described a psychological skills training program developed for the Houston Astros' minor league player development program. A competent, well-trained individual with baseball-specific knowledge within the organization delivered the actual training to the athletes. The delivery of the services began in spring training, continued throughout the season, and was individualized to address the specific needs of each player. At the end of the second year of the program, 88 of the athletes from five of the six minor leagues clubs completed a questionnaire that asked them to rate the helpfulness of the mental training program. The results revealed that most (92%) of the players felt that psychological factors were extremely or fairly important and only 2% rated them as unimportant. When the concept of psychological skills training was originally introduced, 63% thought the program might be useful. By the end of the second year, 92% indicated that the program could either help them a great deal or might be possibly useful to them. Only 4% of the athletes felt the program could not be of use to them. Smith and Johnson (1990) concluded that these athletes believed that psychological factors were important to their performance, adding that attitudes concerning the value of the program became more positive as players were exposed to it.

Sullivan and Hodge (1991) examined the use and status of sport psychology in New Zealand. Sixty-eight elite athletes were asked to complete a questionnaire that assessed their perceptions of sport psychology, perceived importance of psychological skills, and actual use of sport psychology. The results revealed that the athletes rated the

importance of sport psychology in the training of elite athletes and to elite sporting success as very high. However, about three-fourths of the athletes admitted that they felt they did not have adequate sport psychology knowledge. As for the actual use of sport psychology, the majority of the athletes (73.8%) expressed an interest in having a sport psychologist work with them, and two-thirds thought they would perform better if they had a sport psychologist working along with them and their coach. Sullivan and Hodge (1991) concluded that these results were extremely supportive of the perceived role of sport psychology in enhancing sporting success.

Francis (1992) administered questionnaires to 99 male and 44 female collegiate soccer players that assessed their perceptions of the nature of psychology, sport psychology education, and attitudes about their relative use of sport psychological skills. The results revealed that the athletes associated sport psychology with some form of analysis/evaluation (e.g., studying people's minds) and performance enhancement. As for the role of sport psychologists, 85.3% felt that sport psychologists work at least sometimes with athletes who have psychological problems (e.g., alcoholism); 88.1% felt that sport psychologists work at least some of the time with athletes on performance issues; and 52.4% reported that the term "sport psychologist" made them think at least somewhat of someone who works with problem athletes. Seventy-eight percent felt that sport psychology could make more than "somewhat" of a difference in soccer, and 69.2% and 73.4% indicated that they and their team, respectively, could be helped more than "somewhat" by a sport psychologist. The athletes indicated that the main factors that would influence their decision to work with a sport psychologist were their perceptions that sport psychology would enhance their performance and the need to see some

evidence of how sport psychology has helped other athletes. Francis (1992) concluded that soccer player's perceptions of sport psychology are accurate but limited and that their attitudes toward sport psychology appear receptive but inquisitive.

Surveys of Coaches' Attitudes Toward Sport Psychology

Several investigations also have focused on surveying coaches' attitudes toward sport psychology. Silva (1984) surveyed 146 male and 90 female high school and college coaches across the U.S. to identify areas of sport psychology deemed important by coaches and to gain insight into how coaches would like to integrate sport psychology into their programs. The results revealed that over 90% of the coaches believed that sport psychology could be of assistance to them and their athletes and 68.2% indicated a desire for a sport psychologist to work with their team. Despite the apparent interest in the services of a sport psychologist, 64.8% stated that they would not be willing to pay for such services. Seventy-eight percent indicated that they would be interested in a published listing of sport psychologists in their geographical area. Silva (1984) concluded that the coaches surveyed showed an interest in sport psychology and noted this interest as encouraging to the development of the field.

Schell, Hunt, and Lloyd (1984) examined 48 Canadian amateur and professional coaches' attitudes regarding sport psychology in hopes of providing direction for future development and image improvement of sport psychology. The results of their univariate analyses revealed that coaches perceived a need for more sport psychologists and were mostly aware of the services available. However, many of the coaches reported inadequate access to these services as a result of poor funding. In addition, the coaches

indicated that 61% of athletic success could be attributed to mental preparation but felt capable of filling this role themselves.

Tierney (1988) determined the relationship among exposure to, receptivity of, and implementation of the methods and techniques of sport psychology by 95 U.S. swim coaches and explored the reasons why sport psychology was not being fully utilized. Questionnaire results revealed that most of the coaches had been exposed to sport psychology to some degree through journals, books, and other coaches. Most of the coaches reported that sport psychology could fit well within their established programs and that their program would benefit from sport psychology. Sources that might interfere with a coach's receptivity of sport psychology techniques and practice included perceptual and comprehensive difficulties (e.g., sport psychology is an unproven area), structural problems within the organization (e.g., organization is not supportive of innovations such as sport psychology), and limited resources (e.g., money). As for implementation of sport psychology, the coaches indicated that that they were implementing sport psychology into their programs ranging from a moderate to large degree. Implementation related to working directly or indirectly with a sport psychologist was not widely utilized by the coaches. Variables that were identified which may prevent a coach from implementing the methods and techniques of sport psychology included problems with sport psychologists (e.g., stigma of sport psychologists as "shrinks"), structural constraints (e.g., economic situation), and structural problems (e.g., taking time away from other training). Tierney (1988) concluded that simply exposing coaches to sport psychology does not ensure that they will be receptive to its methods and techniques. Rather, he suggested that it is necessary

for sport psychology's practical utility to be made known to them and that funds be available. He added that the degree of receptivity is a critical factor in determining the degree to which a sport psychology program is implemented.

As they did with New Zealand athletes, Sullivan and Hodge (1991) asked 46 national coaches to complete a questionnaire that assessed their perceptions of sport psychology, perceived importance of psychological skills, and actual use of sport psychology. The results also revealed that the importance of sport psychology in the training of elite athletes was rated very highly by the coaches, as was its importance to elite sporting success. Similar to the athletes, about three-fourths of the coaches admitted that they felt they did not have adequate sport psychology knowledge. As for the actual use of sport psychology, nearly every coach (95.6%) reported that sport psychology was included in their program but only a few (6.5%) indicated that they employed the services of a sport psychologist. Almost all of the coaches (97.6%) expressed an interest in having a sport psychologist work with them and most (94.9%) thought that their athletes would perform better with the services of a sport psychologist.

Effect of Gender, Race, and Type of Sport on Attitudes Toward Sport Psychology

In one of the only studies of its kind, Martin et al. (1997) determined the effect of race and gender on athletes' attitudes toward seeking sport psychology consultation. The investigators administered an attitudes questionnaire to 132 male and 93 female student-athletes and 177 Caucasian and 48 African-American student-athletes from a NCAA Division I university. MANOVAs and follow-up discriminant function analyses revealed that males and African-American athletes were more likely to stigmatize SPCs than females and Caucasian athletes. Martin et al. (1997) concluded that as a result of

stigmatizing SPCs to a greater extent, male and African-American athletes are less likely to seek the assistance of a SPC than female and Caucasian athletes.

Attempting to replicate and extend the findings of Martin et al. (1997), Harmison and Petrie (1998) determined the effects of several athlete characteristics (i.e., gender, race, and type of sport in which one participates) on attitudes toward seeking sport psychology consultation and the relationship between selected athlete characteristics (e.g., race, previous experience with a SPC, confidence in sport psychology) and willingness to consult with a SPC. MANOVAs revealed that (a) females athletes possessed more confidence and expressed more stigma tolerance than male athletes, (b) athletes of color preferred a racially similar SPC more so than Caucasian athletes and (c) non-physical contact sport (e.g., golf, tennis) athletes possessed more confidence in sport psychology than physical contact sport (e.g., football, basketball) athletes. Also, a MANCOVA (with athletes' levels of confidence in sport psychology, stigma tolerance, and preference for a racially similar SPC as covariates) revealed that only athletes' confidence in sport psychology predicted a greater willingness to seek help from a SPC for a performance-related problem (e.g., loss of confidence). Harmison and Petrie (1998) concluded that females, Caucasian athletes, and non-physical contact sport athletes appear to possess more favorable attitudes toward sport psychology than males, athletes of color, and physical contact sport athletes. They also identified an athlete's confidence in sport psychology as the most important factor in determining whether or not the athlete will seek the services of a SPC.

Summary

The anecdotal and survey literature reviewed above suggests that a majority of athletes and coaches at the higher levels of sport competition have been exposed to and are aware of sport psychology. Also, a good number of athletes and coaches acknowledge that sport psychology is helpful and has value as it relates to sport performance. However, many athletes and coaches remain unclear of what sport psychology is and appear to possess inadequate knowledge with regard to how sport psychology can help them. In addition, specific groups of athletes, namely males, athletes of color, and physical contact sport athletes, do not seem to possess as favorable attitudes toward sport psychology as their counterparts.

It also is interesting to note that a significant number of athletes and coaches appear to express a desire and willingness to work with a sport psychologist and seem to believe that a sport psychologist could be very helpful. However, only a small proportion of these athletes and coaches reported employing or seeking the services of a sport psychologist. In addition, it is clear that some athletes utilize sport psychology services and can become converts while others are resistant from the beginning and remain so throughout attempts to provide them with mental skills training. The literature offers several explanations for these apparent discrepancies, including skepticism about the field of sport psychology and sport psychologists, fears and anxieties of being stigmatized and associated with psychology, and a lack of openness and willingness to make mental training and sport psychologists a priority. The literature also suggests that the key determination of whether or not an athlete will seek the services of a sport

psychologist is their confidence in sport psychology or belief that mental training will lead to improved performance.

Perceptions of Athletes Who Consult a Sport Psychologist

The preceding section provided a review of the literature concerning athletes' and coaches' general attitudes toward sport psychology. This section will focus more specifically on how athletes who consult a sport psychologist are perceived. The studies in this area have examined how these athletes are viewed by the public as well as other athletes.

Public Perceptions of Athletes who Consult a Sport Psychologist

A productive line of research that has provided insight into how the public perceives athletes who seek sport psychology consultation has been carried out by Linder and his colleagues. Linder, Pillow, and Reno (1989) tested the hypothesis that athletes who consult a sport psychologist are derogated by the public compared to athletes who work with their coaches on the same issue. Male and female introductory psychology students were asked how strongly they would recommend that a professional football team draft a fictitious football player who was working with his coaches or a sport psychologist on a performance problem to improve his consistency. The results revealed that players being helped by a sport psychologist were recommended less strongly, seen as less emotionally stable, and thought to be less likely to fit in well with management than those working with a coach. In a second experiment, Linder et al. (1989) found similar results when male and female introductory psychology students were asked to make draft recommendations for fictitious baseball and basketball players. The baseball and basketball athletes were recommended less strongly and expected to relate less well

to other players if they consulted a sport psychologist versus working with their coaches to improve their consistency. The investigators concluded that a negative halo exists for athletes who consult a sport psychologist and argued that athletes are likely sensitive to the evaluations they receive from the public. They added that athletes' expectations of a negative reaction adds to the cost of contact with a sport psychologist and may prevent athletes from seeking assistance that could be helpful to their sport performance or personal happiness.

Linder, Brewer, Van Raalte, and DeLange (1991) reported on two studies that replicated and extended the findings of Linder et al. (1989). In the first study, male and female introductory psychology students were asked to make draft recommendations for fictitious baseball, basketball, and football players who were working with either a coach, sport psychologist, or psychotherapist to improve playing consistency. For the male participants, the results revealed that draft ratings for players consulting with their coaches were higher than those for players consulting with sport psychologists or psychotherapists. The male participants' draft ratings were the same for players seeing a sport psychologist or a psychotherapist. In the second study, male Lions Club members were asked to make similar draft recommendations as in the first study. As with the male college student population, players who were consulting with their coaches received higher draft ratings than those who were consulting with sport psychologists or psychotherapists. Also, male Lions Club members' draft ratings for players seeing a sport psychologist did not differ from ratings for players seeing a psychotherapist. Linder et al. (1991) suggested that since athletes who consulted with a sport psychologist were rated the same as athletes who consulted with a psychotherapist, the derogation of the athletes

by the public was a result of the athlete being labeled as a "social deviate" (i.e., someone who acts outside a set of behavioral expectations) rather than being stigmatized as a "mental patient" (i.e., someone who has psychological problems and is emotionally disturbed).

Athletes' Perceptions of Athletes who Consult a Sport Psychologist

In addition to assessing how the public perceives an athlete who consults a sport psychologist, athletes' perceptions of an athlete who consulted with a sport psychologist also have been explored. Van Raalte, Brewer, Brewer, and Linder (1992) asked male football players from two NCAA Division II universities to indicate how strongly they would recommend drafting a football player who consulted with his coaches, a sport psychologist, or a psychotherapist to improve his performance. The results revealed that the participants did not rate an athlete who consulted with a sport psychologist lower than an athlete who consulted with his coaches for the same issue. However, athletes who worked with a psychotherapist received lower draft ratings as compared to those that worked with a sport psychologist. Van Raalte et al. (1992) concluded that these results suggest that athletes have a different set of behavioral expectations for their fellow athletes than those held by the public.

Summary

The negative halo research conducted by Linder and his colleagues reviewed above suggests that athletes are indeed stigmatized by the public for consulting with a sport psychologist or a psychotherapist on performance-related problems. It is interesting to note that athletes do not appear to stigmatize their fellow athletes for working with a sport psychologist but do so if they seek help from a psychotherapist. Based on this line

of research, it seems that the stigmatization of athletes by the public for consulting with a sport psychologist or psychotherapist is the result of the athlete being perceived as behaving in an unexpected manner for an athlete as opposed to being viewed as crazy or emotionally disturbed. It seems that this is not the case with regard to stigmatization by their fellow athletes, who appear to possess more accepting expectations of an athlete working with a sport psychologist on performance-related problems. The research reviewed in the next section provides a possible answer to how athletes derogate and label fellow athletes who consult with a psychotherapist.

Perceptions of Sport Psychologists

A third area of investigation highly relevant to the present study concerns how sport psychologists are perceived. The studies in this area have concentrated on how sport psychologists are viewed by the public, athletes, and themselves.

Public Perception of Sport Psychologists

Van Raalte, Brewer, Linder, and DeLange (1990) explored public perceptions of sport psychologists in relation to other sport-oriented professional practitioners. Male and female undergraduate psychology students were asked to judge the similarities between pairs of the following 12 practitioners: sport psychologist, clinical psychologist, psychotherapist, coach, psychiatrist, counselor, performance consultant, nutritionist, sports medicine specialist, strength coach, hypnotist, and technical equipment advisor. Using multidimensional scaling, Van Raalte et al. (1990) found a two-dimensional solution that best determined the psychological structure underlying perceptions of these 12 sport practitioner-professionals. The first dimension ordered practitioners as a function of their concern with either the mental or the physical aspects of sport. The

second dimension ordered practitioners as a function of whether they focus on sport-specific or nonsport concerns. Along the mental/physical dimension, the results showed that college students perceived hypnotists, clinical psychologists, psychiatrists, psychotherapists, sport psychologists, and counselors, respectively, as mostly concerned with the mental aspects of sport and nutritionists and sports medicine specialists as mostly concerned with the physical aspects of sport. In order along the sport/nonsport dimension, the participants viewed performance consultants, coaches, and strength coaches as mostly focused on sport-specific concerns and psychotherapists, psychiatrists, nutritionists, clinical psychologists, counselors, hypnotists, sport psychologists, and sports medicine specialists as mostly focused on nonsport concerns. Thus, college undergraduates perceive sport psychologists as being similar to mental health professionals on both the mental versus physical dimension and on the sport versus nonsport dimension. Van Raalte et al. (1990) concluded that the term "psychologist" may be the primary determinant of the public perception of sport psychologists. The investigators suggested that, in addition to being hindered by the perception of being similar with mental health professionals (e.g., athlete who consults with a sport psychologist is a deviate), sport psychologists also may be able to reap some benefits (e.g., professional respect) that result from the association with the established mental health field.

Athletes' Perceptions of Sport Psychologists

Van Raalte et al. (1992) also explored athletes' perceptions of sport psychologists in relation to other sport-oriented professionals. The investigators asked male Division II football players to rank and make similarity judgments from sets of triads of 11 of the 12

Van Raalte et al. (1990) practitioner terms (technical equipment advisor was eliminated). The results revealed that college student-athletes perceive the following, in rank order, to possess the most expertise in sport issues: coach, strength coach, sport psychologist, sports medicine specialist, performance consultant, nutritionist, counselor, clinical psychologist, psychiatrist, psychotherapist, and hypnotist. The participants viewed the following, in rank order, to possess the most expertise in mental issues: psychotherapist, clinical psychologist, psychiatrist, sport psychologist, hypnotist, counselor, performance consultant, coach, sports medicine specialist, nutritionist, and strength coach. They rated the following, in rank order, to possess the most expertise in physical issues: sports medicine specialist, strength coach, nutritionists, coach, performance consultant, sport psychologist, psychiatrist, clinical psychologist, psychotherapist, counselor, and hypnotist. Van Raalte et al. (1992) suggested that male college student-athletes view the sport psychologist as an important resource for sport-related issues and possessing considerable expertise about mental and physical issues. They concluded that athletes may be less likely than sports fans and the general public to derogate another athlete who consults with a sport psychologist. However, the investigators added that since the psychotherapist ranked low on expertise in sport and physical issues yet high in mental issues, athletes may view fellow athletes who consult with a psychotherapist as deviating from acceptable behavior and label them as a mental patient.

Attempting to extend their findings, Van Raalte, Brewer, Matherson, and Brewer (1996) conducted a similar exploration of British athletes' perceptions of sport and mental health practitioners. Seventeen female and 15 male athletes attending one of two universities in England were asked to perform a judged similarity task from a set of triads

of the following 11 practitioner terms: sport psychologist, clinical psychologist, psychotherapist, coach, psychiatrist, student counselor, performance consultant, nutritionist, sports medicine specialist, fitness advisor, and hypnotist. Multidimensional scaling analysis produced several distinct clusters, including a sport-oriented cluster consisting of coaches and performance consultants and a mental health-oriented cluster consisting of hypnotists, psychiatrists, psychotherapists, and clinical psychologists. Sport psychologists fell equally between these two clusters. These results suggested that British athletes see sport psychologists as similar to mental health practitioners but more similar to sport-related practitioners than other mental health consultants. Van Raalte et al. (1996) concluded that British athletes perceive sport psychologists similar to how U.S. athletes view them.

Sport Psychologists' Perceptions of Themselves

Similar to their investigations concerning public and athletes' perceptions, Van Raalte, Brewer, Brewer, and Linder (1993) assessed sport psychologists' perceptions of sport-oriented practitioners. Attendees of an annual conference of the Association for the Advancement of Applied Sport Psychology were asked to rank 11 sport-oriented professional practitioners (Van Raalte et al., 1992) on their expertise in sport-related issues, mental issues, and physical issues and to make similarity judgments from a set of three practitioners. The results revealed that sport psychologists perceive the following, in rank order, to possess the most expertise in sport issues: coach, sport psychologist, strength coach, performance consultant, sports medicine specialist, nutritionist, counselor, clinical psychologist, psychotherapist, psychiatrist, and hypnotist. The participants viewed the following, in rank order, to possess the most expertise in mental

issues: clinical psychologist, psychotherapist, psychiatrist, counselor, sport psychologist, performance consultant, hypnotist, coach, sports medicine specialist, strength coach, and nutritionist. They rated the following, in rank order, to possess the most expertise in physical issues: sports medicine specialist, strength coach, nutritionists, coach, performance consultant, sport psychologist, psychiatrist, clinical psychologist, psychotherapist, counselor, and hypnotist. Thus, sport psychologists perceive themselves as having more sport-related expertise than all other non-coaching practitioners, possessing more expertise in physical issues than all other mental health practitioners, and obtaining less expertise in mental issues than the other mental health practitioners. Van Raalte et al. (1993) concluded that since sport psychologists perceive themselves to be less knowledgeable than other mental health practitioners and athletes view sport psychologists as important resources in this area, athletes may fail to reap the benefits of being perceived as knowledgeable consumers seeking help from mental health experts. Adding this perception to the derogation of being labeled as a deviate or a mental patient, the investigators suggested that athletes may be even more hesitant to seek out the help of a sport psychologist as a result.

Summary

The studies reviewed in this section regarding public, athletes', and sport psychologists' perceptions of sport psychologists produced some similar findings along with several interesting differences. All three groups appear to perceive sport psychologists as possessing considerable expertise in mental issues. However, the public seems to clearly identify sport psychologists as working more with mental and non-sport issues as opposed to physical and sport issues. On the other hand, athletes report that

sport psychologists are important resources for sport, physical, and mental issues. This supports the findings presented in the previous section that suggest athletes are less likely than the public to derogate their fellow athletes for seeking sport psychology consultation. It is interesting to note that athletes perceive psychotherapists as the foremost experts on mental issues but having considerably less expertise on sport and physical issues than sport psychologists, suggesting that athletes would possibly derogate fellow athletes who consult with a psychotherapist versus a sport psychologist and label them a "mental patient" as a result. Complicating the situation somewhat further is the finding that sport psychologists perceive themselves as experts on sport issues but less so on mental issues when they compare themselves to mental health practitioners. The tendency for the public and athletes to align sport psychologists with the field of mental health combined with the apparent desire for sport psychologists to not do so as closely may lead to some athletes feeling as if they are not educated consumers of sport psychology services, adding to the cost of contact with a sport psychologist and resulting in them not seeking consultation services.

Attitudes Toward Seeking Sport Psychology Consultation Questionnaire

Martin et al. (1997)

Based on much of the sport psychology literature reviewed above and modeling a professional psychological help-seeking scale (Fischer & Turner, 1970), Martin et al. (1997) developed the 50-item Attitudes Toward Seeking Sport Psychology Consultation Questionnaire (ATSSPCQ) to identify principal factors that influence athletes' perceptions of psychological skills and athletes' attitudes toward seeking sport psychology consultation. The investigators theoretically devised the measure to tap into

the following underlying constructs regarding athletes' attitudes toward sport psychology consultation: (a) confidence in sport psychology, (b) stigmatization, (c) interpersonal openness, (d) recognition of need, and (e) social desirability.

Martin et al. (1997) administered the ATSSPCQ to 225 student-athletes (93 females, 132 males) representing nine sports from a single NCAA Division I university in the southeastern U.S. Principal components analysis with varimax rotation produced a three-factor solution that accounted for 35% of the overall response variance. All factor loadings were .23 or greater and a decision was made to retain all 50 items. The first factor, stigma tolerance, was comprised of items describing expected negative consequences of seeking sport psychology consultation and accounted for 21% of the variance of the scores on the ATSSPCQ. The second factor, confidence in sport psychology consultation/recognition of need, was comprised of items that dealt with an athlete's confidence in SPCs and his or her ability to recognize the need to receive help, accounting for 7.2% of the total variance. The third factor, personal openness/openness to sport psychology consultation, consisted of items concerning an athlete's interpersonal openness and willingness to try sport psychology consultation and accounted for 6.4% of the total variance. Cronbach alpha reliability coefficients were .89, .81, and .61 for the three factors, respectively. Pairwise correlations between the three factors were not significant. Correlated t-tests from a sample of 16 student-athletes not in the original sample produced eight-week test-retest correlations of .89 for the entire ATSSPCQ, .93, .88, and .85 for the three factors respectively, and between .69 and .98 for each of the 50 items. A nomological network was performed using the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; Fischer & Turner, 1970), and paired

t-tests on the items from the ATSSPCQ and ATSPPHS produced no significant differences. Martin et al. (1997) concluded that the ATSSPCQ appeared to be a valid, reliable, and stable instrument for assessing athletes' attitudes toward seeking sport psychology consultation.

Despite the conclusions of Martin et al. (1997), several questions existed regarding the ability of the derived factor structure of the ATSSPCQ to effectively assess athletes' attitudes toward seeking sport psychology consultation. Along with the need for replication, doubts remained concerning the purity of Martin et al.'s (1997) factors, the construct validity of the factor structure, and the generalizability of their results. Specifically, Martin et al. (1997) failed to find a link between their theoretical constructs and the empirically-derived factors, combined the theoretical constructs of confidence in sport psychology and recognition of need to form a single, empirically-derived factor, and retained unnecessary items that likely were not pure measures of the factor due to their low factor loadings. In addition, since Martin et al. (1997) conducted minimal tests of construct validity, it was unclear if the factors as defined by Martin et al. (1997) assessed what they had been purported to measure. Finally, the external validity of Martin et al.'s (1997) findings was limited due to the nature of the sample used in their study. In particular, the participants were sampled from a single, NCAA Division I university in the southeastern U.S. whose athletic programs advocated the services of the SPCs on staff. The possibility exists that the supportive relationship between the athletic programs and the SPCs at this university influenced the athletes' attitudes toward sport psychology consultation and affected their responses on the ATSSPCQ.

Harmison and Petrie (1998)

With these questions in mind, Harmison and Petrie (1998) examined the work of Martin et al. (1997) to develop a valid questionnaire to identify principle factors that influence athletes' attitudes toward seeking sport psychology consultation. The investigators (a) conducted an exploratory factor analysis on the ATSSPCQ in hopes of producing a more accurate and succinct measure, (b) determined the concurrent and construct validity of the ATSSPCQ, and (c) increased the external validity of the findings of Martin et al. (1997) by sampling athletes from NCAA Division I, II, and III universities from various geographical regions in the U.S.

Harmison and Petrie (1998) administered the ATSSPCQ to 405 student-athletes (204 males and 201 females) representing 13 sports from 11 NCAA Division I, II, and III schools. Principal factor analysis with oblique rotation produced a three-factor solution that accounted for 28.7% of the overall variance. The first factor, confidence in sport psychology, was comprised of 19 items, accounted for 18.4% of the overall response variance, and represented an athlete's belief in the credibility of sport psychology and faith in the abilities of a SPC to help. The second factor, stigma tolerance, was comprised of 8 items, accounted for 7.4% of the overall response variance, and represented an athlete's willingness to tolerate the expected negative consequences of seeking sport psychology consultation. The third factor, preference for racial similarity with a SPC, was comprised of 4 items, accounted for 2.9% of the overall response variance, and represented an athlete's preference to consult with a racially similar SPC. Cronbach alpha reliability coefficients were .90, .82, and .73 for the three factors, respectively. The remaining 19 items failed to load higher than the cut-off value of .40

on any of the factors and appeared to address constructs (e.g., interpersonal openness, attitudes toward women) that differed from the derived factors. As for concurrent validity, scores on the confidence in sport psychology and stigma tolerance factors revealed that (a) athletes with previous SPC experience possessed more confidence in sport psychology and stigma tolerance, (b) athletes' ratings of helpfulness and satisfaction related to a previous SPC experience were positively related to their confidence in sport psychology and stigma tolerance, and (c) athletes' willingness to consult with a SPC in the future was positively related to their confidence in sport psychology and stigma tolerance. As for construct validity, the ATSSPCQ factors were positively related (a) to general help-seeking attitudes for all athletes, (b) to femininity scores for males only (stigma tolerance and preference for racial similarity with a SPC factors only), but (c) not to level of interpersonal trust as hypothesized. Harmison and Petrie (1998) argued that these results provided partial support for the findings of Martin et al. (1997). However, the investigators pointed out a number of differences with Martin et al. (1997), namely the differential nature of Factors 1 and 3 between the two studies and the failure of the 19 items to meaningfully load on any of the derived factors.

To support their findings and arguments presented above, Harmison and Petrie (1998) provided both theoretical and empirical evidence for the interpretation of their derived factor structure. Specifically, support for the interpretation of the confidence in sport psychology factor can be found in Strong's (1968) social influence theory and the characteristics of effective SPC literature (e.g., Dorfman, 1990; Orlick & Partington, 1987). Conceptualizing counseling as a social influence process, Strong hypothesized that the extent to which a client perceives a counselor as expert (i.e., knowledgeable and

able to help), attractive (i.e., likable, similar), and trustworthy (i.e., honest, sincere) will determine a client's willingness to change his or her attitudes or behaviors to be consistent with the counselor's suggestions. Thus, a goal of the counselor is to enhance his or her perceived expertness, attractiveness, and trustworthiness to increase the client's involvement in counseling and put himself or herself in a position of influence to change a client's attitudes and behaviors. Studies have shown that certain prestigious cues (e.g., objective evidence of training) and counselor verbal/nonverbal behaviors (e.g., self-disclosure, eye contact) can increase a client's perceptions of counselor expertness, attractiveness, and trustworthiness (Heppner & Claiborn, 1989). Given the similarities between counseling and applied sport psychology (i.e., assisting individuals with personal and/or performance-related problems), Hankes, Harmison, and Petrie (1996) suggested that social influence theory could be applied to understand SPC effectiveness. More specifically, Harmison (1996) reviewed anecdotal accounts of effective delivery of sport psychology services along with surveys that identified characteristics of effective SPCs and concluded that an effective SPC demonstrates a certain sense of credibility, possesses a likable personality, and is able to gain the athlete's trust. Thus, an athlete's belief in the credibility of sport psychology and the abilities of a SPC to help would seem to be an important attitudinal factor in determining whether or not a SPC is able to place him/herself in a position of influence to change an athlete's thoughts, attitudes, and behaviors to improve the athlete's performance.

In addition, Harmison and Petrie (1998) indicated that support for the stigma tolerance factor can be found in the negative halo research by Linder and colleagues reviewed earlier in this chapter. As stated earlier, the results of these studies suggest that

a negative halo exists for athletes who consult a sport psychologist or psychotherapist, with the derogation appearing to be the result of the public labeling the athlete as a "social deviate" (Linder et al., 1991) and fellow athletes labeling the athlete as a "mental patient" (Van Raalte et al., 1992). Harmison and Petrie (1998) claimed that the stigma tolerance factor provided an assessment of an athlete's willingness to tolerate these expected negative consequences of seeking sport psychology consultation by providing an indication of the athlete's desire to not have others aware of their seeking consultation. Thus, an athlete's level of stigma tolerance also would seem to be an important attitudinal factor for an SPC to address when structuring the consulting experience to help an athlete overcome this barrier to seeking sport psychology consultation.

Finally, Harmison and Petrie (1998) stated that support for the preference for racial similarity with a SPC factor can be found in the ethnic similarity hypothesis discussed in the multicultural counseling literature (Atkinson & Lowe, 1995; Leong, Wagner, & Tata, 1995). The ethnic similarity hypothesis suggests that a high level of racial/ethnic similarity between a counselor and client serves to promote Strong's (1968) social influence process inherent to the therapeutic process and to lead to better client outcomes (Leong et al., 1995). Atkinson and Lowe (1995) reviewed counseling process and outcome research and concluded that, all other things being equal, ethnic minority individuals prefer an ethnically similar counselor versus an ethnically dissimilar counselor. Evidence exists to suggest that African-American, Asian-American, Hispanic, Native American, and Caucasian participants prefer a racially similar counselor (Leong et al., 1995). Also, Atkinson and Lowe (1995) found substantial evidence from three major archival studies of mental health patients that treatment outcomes are enhanced when the

counselor and client are matched on language and/or ethnicity. However, Leong et al. (1995) presented evidence to suggest that the preference for an ethnically similar counselor may be the result of the ethnic individual's desire to share similar cultural values or worldviews with the counselor. Thus, consistent with Leong et al. (1995), a preference for a racially similar SPC may be an overt manifestation of an athlete's desire to match cultural values or worldviews with a SPC to guarantee a more comfortable consulting relationship. Thus, an athlete's preference for a racially similar SPC also would seem to be an important consideration that would allow a SPC to intervene in culturally consistent ways, which research suggests leads to greater client willingness to return for counseling, satisfaction with counseling, and depth of self-disclosure (Atkinson & Lowe, 1995).

Given their findings and the theoretical and empirical support outlined above, Harmison and Petrie (1998) concluded that the ATSSPCQ could be modified to better assess athletes' attitudes toward seeking sport psychology consultation. Based on their exploratory factor analysis, the investigators revised the ATSSPCQ by eliminating, rewording, and combining some of the existing items while introducing several new, theoretically-developed items reflective of their modified factor structure. Specifically, the 19 items that failed to load higher than the cut-off value of .40 on any of the three derived factors were eliminated. Also, inter-item correlations of the individual items that loaded on each of the derived factors were examined to determine if more than one item appeared to address the same attitude. When this seemed to be the case, the items were either reworded, combined, or eliminated. In addition, a decision was made to refine Martin et al.'s (1997) confidence in sport psychology/recognition of need factor to allow

it to be a more pure measure of an athlete's confidence in sport psychology. Thus, each item was interpreted, and modified if necessary, to reflect a belief in the credibility of sport psychology or a faith in the abilities of a SPC to help. Finally, several new items were theoretically developed to supplement the stigma tolerance and preference for racial similarity factors.

Summary of Review of Literature

In sum, the anecdotal and survey evidence in the sport psychology literature suggests that elite athletes and coaches are aware of sport psychology, acknowledge that sport psychologists can be helpful, and point to the value and effectiveness of including sport psychology and/or sport psychologists in their sport preparation. In addition, sport psychologists are perceived by athletes as being experts in mental issues as well as important resources for sport and physical issues. As a result, it appears that athletes and coaches are expressing a great willingness to work with sport psychologists and include sport psychology into their training, and it is probably safe to assume that more and more athletes and coaches will possess more openness to sport psychology services as time goes on.

Despite these positive attitudes toward sport psychology, various reservations about the field and sport psychologists still exist. The literature suggests that athletes and coaches, although receptive and positive, possess a somewhat limited knowledge of sport psychology and sport psychologists. Doubts appear to exist concerning the effectiveness of sport psychology and the abilities of a sport psychologist to help. Anecdotal and survey evidence indicates that sport psychology and sport psychologists are often confused with and linked to psychology/psychiatry and psychologists/psychiatrists. In

addition, empirical studies have suggested that, although athletes do not seem to stigmatize their fellow athletes for consulting with a sport psychologist on performance-related problems, athletes may be sensitive to the derogation from the public who seem to perceive athletes who consult with sport psychologists as acting outside of behavioral expectations. It also is apparent in the literature that many athletes and coaches simply lack a willingness to make sport psychology a priority in their training and/or an openness to work with a sport psychologist, citing financial and time constraints along with feeling capable of mentally training without the help of a sport psychologist. Lastly, there is some preliminary evidence that indicates that certain types of athletes, specifically males, athletes of color, and physical contact sport athletes (e.g., football, basketball), possess more negative attitudes toward sport psychology. Undoubtedly, these reservations explain some of the discrepancy between athletes' and coaches' expressed desire to include sport psychology and sport psychologists in their training and their actual use of and resistance to sport psychology services.

Based mainly on the review of the sport psychology literature presented in this chapter, there have been two attempts (Harmison & Petrie, 1998; Martin et al., 1997) to develop a valid and reliable questionnaire to assess the underlying dimensions of athletes' attitudes toward sport psychology, specifically as they relate to seeking sport psychology consultation. Taken together, the results of these two investigations suggest that potentially there are four principle factors that influence athletes' attitudes toward seeking sport psychology consultation: (a) confidence in sport psychology, (b) stigma tolerance, (c) preference for racial similarity with a SPC, and (d) openness to sport psychology. The theoretical and empirical support for these underlying dimensions

seems to be strong, and these four attitudinal factors would appear to be important considerations for both practitioners and researchers with regard to the effectiveness of applied sport psychology. As is, the ATSSPCQ does not effectively and accurately tap into these four underlying dimensions. It follows that additional revisions and subsequent analyses are needed before a valid and reliable measure to assess athletes' attitudes toward seeking sport psychology consultation can be achieved.

Purpose of the Study and Hypotheses

For the purposes of the present study, the Sport Psychology Attitudes Questionnaire (SPAQ) was developed. The SPAQ is a modified version of the ATSSPCQ and consists of four empirically- and theoretically-derived subscales: (a) confidence in sport psychology (9 items), (b) stigma tolerance (7 items), preference for similarity with a SPC (8 items), and (d) openness to sport psychology (9 items). As reviewed earlier in this chapter, some athletes and coaches lack an openness to sport psychologists and a willingness to try sport psychology or include it their training. Due to the low internal consistency of Martin et al.'s (1997) factor, the original ATSSPCQ items were either reworded or eliminated and new items were written to increase the reliability of this set of items to measure an athlete's willingness to talk with a sport psychologist about his or her problems or issues.

In addition, a decision was made to broaden Harmison and Petrie's (1998) preference for racial similarity factor to include personal characteristics other than race/ethnicity. This decision was based on Leong et al.'s (1995) conclusion that a preference for racial/ethnic similarity may actually indicate an individual's desire to share similar cultural values or worldviews with a counselor. It also was based on the

multicultural counseling research that suggests matches on personal characteristics, such as personality and gender, are more important to clients than matches on race and ethnicity (Leon et al., 1995). Thus, the ATSSPCQ items that addressed this construct were revised and new items were written to reflect a preference for similarity with a SPC in terms of race/ethnicity/culture, attitudes/values, gender, athletic ability, socioeconomic status, personality, and life experiences.

Thus, the purpose of the present study was to build on the attempts of Martin et al. (1997) and Harmison and Petrie (1998) to develop a valid and reliable questionnaire to identify principle factors that influence athletes' attitudes toward seeking sport psychology consultation. The specific objectives of the present study, along with the corresponding hypotheses, are listed below:

a. To conduct an exploratory factor analysis (EFA) on the SPAQ to determine the underlying dimensions that define athletes' attitudes toward seeking sport psychology consultation:
   (1) Athletes' attitudes toward seeking sport psychology consultation will be defined by four principal factors: (1) confidence in sport psychology, (2) stigma tolerance, (3) preference for similarity with a SPC, and (4) openness to sport psychology.
b. To conduct a confirmatory factor analysis (CFA) of the SPAQ factor structure as defined by EFA.
   (1) The four-factor model of the SPAQ produced by EFA will be confirmed by CFA.

c. To conduct a multigroup comparison to simultaneously compare the fit of two independent samples to the SPAQ factor structure produced by EFA and confirmed by CFA.

   (1) The four-factor model of the SPAQ will hold for both male and female athletes.

d. To determine the concurrent validity of the SPAQ:

   (1) Athletes who previously have worked with a SPC for help with a performance-related problem or issue, for help with a personal problem or issue, or as a member of a team or group will possess more positive attitudes toward sport seeking psychology consultation compared to those who have not.

   (2) Athletes' attitudes toward seeking sport psychology consultation will be positively correlated with their ratings of helpfulness and satisfaction related to a previous experience with a SPC for help with a performance-related problem or issue, for help with a personal problem or issue, and as a member of a team or group.

   (3) Athletes' attitudes toward seeking sport psychology consultation will be positively correlated with their willingness to see a SPC for help in the future with a performance-related or personal problem or issue.

e. To determine the convergent validity of the SPAQ:

   (1) Athletes' confidence in sport psychology will be positively correlated with their belief that practicing sport psychology skills will lead to desirable results.

(2) Athletes' stigma tolerance will be positively correlated with their level of self-concept.

(3) Athletes' preference for similarity with a SPC will be positively correlated with their level of affective prejudice toward outgroups.

(4) Athletes' openness to sport psychology will be positively correlated with their level of interpersonal openness to seeking professional psychological help.

(5) Female athletes will possess more positive attitudes toward seeking sport psychology consultation than male athletes.

(6) Caucasian athletes will possess more positive attitudes toward seeking sport psychology consultation than athletes of color.

(7) Athletes of color will possess greater preference for similarity with a SPC than Caucasian athletes.

f. To determine the discriminant validity of the SPAQ:

(1) Athletes' attitudes toward seeking sport psychology consultation will not be related to their level of competitive trait anxiety.

(2) Athletes' attitudes toward seeking sport psychology consultation will not be related to their tendency to respond in a socially favorable manner.

CHAPTER III

METHODS

Participants

The participants were recruited from two U.S. Olympic Training Centers, four NCAA Division I universities, three U.S. high schools, and one local gymnastics club. The respective national governing bodies, athletic departments, and/or coaches were contacted by the investigator or those assisting in data collection by telephone, letter, or in person for permission to use their athletes as participants in the present study. Also, parental/guardian consent was obtained for all participants under 18 years of age.

A total of 1138 athletes (625 males, 513 females) participated in the study. The athletes were classified into one of four levels of participation: (a) Sr. elite, (b) Jr. elite, (c) college, and (d) high school/developmental. The athletes were designated as Sr. elite level athletes if they indicated that they were members of their sport's Sr. national team, competed in their sport's major national/international competitions (e.g., Olympics, Pan Am Games), competed in a major professional league (e.g., WNBA), or were members of a Sr. national development team. The athletes were designated as Jr. elite level athletes if they indicated that they were members of the sport's Jr. national team, competed in their sport's major national/international competitions (e.g., Jr. World Championship), or were members of a Jr. national development team. The athletes were designated as college level athletes if they indicated that they attended a Division I university and competed as

a member of an intercollegiate team. The athletes were designated as high school/developmental level athletes if they indicated that they attended a high school or middle school and competed as a member of a club, varsity, junior varsity, or middle school team. Forty one percent (n = 468) of the athletes classified themselves as Sr. elite, 20.7% (n = 236) as Jr. elite, 23.1% (n = 263) as college, and 15% (n = 171) as high school/developmental. In addition, a total of 36 sports were represented in the sample. The breakdown of the sample by gender, level of participation, and sport is presented in Table 3.1.

Table 3.1

The total number of participants by gender, level of participation, and sport.

	Males (n = 625)				Females (n = 513)			
Sport	Sr. elite [a](n=263)	Jr. elite (n=142)	College (n=99)	HS/Dev (n=121)	Sr. elite (n=205)	Jr. elite (n=94)	College (n=164)	HS/Dev (n=50)
Alpine Skiing	3	6	-	-	-	3	-	-
Archery	6	10	7	-	3	7	1	-
Badminton	3	1	-	-	1	-	-	-
Baseball	-	-	16	9	-	-	-	-
Basketball	-	-	3	9	14	-	3	4
Boxing	21	-	-	-	-	-	-	-

(table continues)

	Males (n = 625)				Females (n = 513)			
Sport	Sr. elite [a](n=263)	Jr. elite (n=142)	College (n=99)	HS/Dev (n=121)	Sr. elite (n=205)	Jr. elite (n=94)	College (n=164)	HS/Dev (n=50)
Canoe/Kayak	2	-	-	-	2	-	-	-
Cycling	5	-	-	-	1	-	-	-
Dis. Alp. Skiing	4	-	-	-	3	-	-	-
Diving	1	-	-	-	-	-	2	-
Fencing	1	-	-	-	1	-	-	-
Field Hockey	20	16	-	-	16	1	3	-
Football	-	-	2	60	-	-	-	-
Golf	-	-	8	2	-	-	4	-
Gymnastics	17	26	-	-	1	2	9	1
Ice Hockey	-	-	-	9	-	-	-	-
In-line Sp. Skating	23	6	-	4	6	7	-	3
Judo	9	-	-	-	9	1	-	-
Lacrosse	-	-	-	-	-	-	22	-
Modern Pentathlon	-	-	-	-	1	-	-	-
Roller Hockey	20	-	-	-	-	-	-	-
Rowing	-	-	1	-	47	-	59	-
Shooting	2	-	5	-	1	-	1	-

(table continues)

	Males (n = 625)				Females (n = 513)			
Sport	Sr. elite [a](n=263)	Jr. elite (n=142)	College (n=99)	HS/Dev (n=121)	Sr. elite (n=205)	Jr. elite (n=94)	College (n=164)	HS/Dev (n=50)
Soccer	18	-	3	1	16	2	2	2
Softball	-	-	-	-	15	1	12	11
Speed Skating	3	-	-	-	5	-	-	-
Swimming	11	17	8	12	12	19	9	-
Tae Kwon Do	7	-	-	-	3	-	-	-
Tennis	-	-	3	2	-	-	10	2
Track & Field	6	-	10	5	4	2	22	12
Triathlon	1	2	-	-	1	3	-	-
Volleyball	26	24	-	-	38	44	5	5
Water Polo	-	3	-	6	-	2	-	8
Water Skiing	1	-	-	-	5	-	-	-
Wheelchair Bsktball	36	6	6	-	-	-	-	-
Wrestling	17	25	27	1	-	-	-	-

Note. N = 1138. [a]Three participants failed to indicate the sport in which they participated.

The participants ranged in age from 12 to 55 years with a mean age of 20.0 years (SD = 5.0). A little over 78% (n = 892) of the athletes sampled identified themselves as Caucasian, 7.9% (n = 90) as African-American, 4.7% (n = 54) as Asian-American/Pacific Islander, 3.7% (n = 42) as Hispanic, 1.0% (n = 11) as Native American/American Indian, 3.3% (n = 38) as multiracial, and 0.7% (n = 7) as international. Four participants (0.4%) failed to indicate their racial classification. As for highest/current level of education, 1.9% (n = 22) of the participants obtained master's/doctoral degrees, 12.2% (n = 139) obtained bachelor's degrees, 45.7% (n = 520) reached college, 35.1% (n = 400) reached high school, and 3.6% (n = 41) reached junior high school. Sixteen (1.4%) of the participants failed to indicate their academic classification.

As for previous experience with a sport psychology consultant (SPC), 56.1% (n = 638) of the athletes reported that they previously had worked with a SPC and 43.9% (n = 500) indicated that they had not. More specifically, 35.3% (n = 402) of the athletes reported that they previously had worked individually with a SPC on either a performance-related (n = 370) or personal (n = 135) problem or issue or both (n = 103), and 49.7% (n = 566) indicated that they previously had worked with a SPC as a member of a team or group. Of the athletes who indicated that they previously had worked individually with a SPC for help with a performance-related problem or issue, 67.8% (n = 250) reported that they found the SPC to be more than somewhat helpful and 71.5% (n = 268) reported that they were more than somewhat satisfied with the experience. Of the athletes who indicated that they previously had worked individually with a SPC for help with a personal problem or issue, 74.6% (n = 100) reported that they found the SPC to more than somewhat helpful and 73.1% (n = 98) reported that they were more than

somewhat satisfied with the experience. Of the athletes who indicated that they previously had worked with a SPC as a member of a team or group, 54.1% (n = 306) reported that they found the SPC to more than somewhat helpful and 62.2% (n = 352) reported that they were more than somewhat satisfied with the experience.

Measures

Demographics

A demographic information form was used to assess each participant's age, gender, race, academic classification, the sport and event/position in which they primarily participated, and current level of participation. Each participant also was asked to indicate if they had ever worked with a SPC before (a) on a performance-related problem or issue (e.g., loss of confidence), (b) on a personal problem or issue (e.g., parents getting a divorce), and (c) as a member of a team or group (e.g., attended workshops led by a consultant). Each participant who previously had worked with a SPC also was asked to rate on 7-point Likert scales the helpfulness of the SPC and their satisfaction with their experience with the SPC. In addition, questions assessing each participant's previous experience with a mental health practitioner (MHP) with a performance-related or personal problem or issue and ratings of the helpfulness of the MHP and their satisfaction with their experience with the MHP were provided as well. Finally, the participants were asked to indicate their willingness to see a SPC for help in the future with a performance-related problem or issue and a personal problem or issue on 7-point Likert scales. All of the 7-point Likert scales on the demographic information form ranged from 1 (not at all) to 7 (very).

Attitudes Toward Seeking Sport Psychology Consultation

The Sport Psychology Attitudes Questionnaire (SPAQ) is a 33-item measure of an athlete's attitude toward seeking sport psychology consultation. The SPAQ consists of four empirically- and theoretically-derived subscales: (a) confidence in sport psychology (9 items), (b) stigma tolerance (7 items), preference for similarity with a SPC (8 items), and (d) openness to sport psychology (9 items). Respondents were asked to rate on a 7-point Likert scale the degree to which they agree or disagree with each SPAQ item. The Likert scale ranges from 1 (strongly disagree) to 7 (strongly agree). Scores for each SPAQ factor are computed by summing the value of the items that load on each factor and dividing by the number of items of each factor. This score is reported for each factor as opposed to the total factor score to assist in the ease of comparison between scores on the factors.

Beliefs about Practicing Sport Psychology Skills

The Sport Competitor Opinion Survey (SCOS; Greaser, 1992) is a 63-item measure of an athlete's attitudes and beliefs about and intentions to practice sport psychology skills. The SCOS consists of four theoretically-derived attitudinal dimensions: (a) outcome evaluation of practicing sport psychology skills, (b) belief strength concerning the outcomes, (c) normative beliefs about practicing sport psychology skills, and (d) motivations to comply to what others think about practicing sport psychology skills. Reliability estimates revealed the SCOS to have good internal consistency ($\underline{r}$ = .89). For the purposes of the present study, only the 22 SCOS items addressing the belief that practicing sport psychology skills will result in desirable outcomes were selected to assess for convergent validity of the underlying dimension of

confidence in sport psychology. It was hypothesized that athletes who believed more strongly that practicing sport psychology skills would result in desirable outcomes also would possess more belief in the credibility of sport psychology and faith in the abilities of a SPC to help. Respondents were asked to indicate on a 7-point Likert scale the degree to which they believe practicing sport psychology skills will lead to various outcomes. The Likert scale for these items was modified from the original version to allow it to range from 1 (extremely unlikely) to 7 (extremely likely), and belief scores on the SCOS can range from 22 to 154 with higher scores reflecting a greater belief that practicing sport psychology skills will lead to desirable outcomes.

Self-concept

The Tennessee Self-Concept Scale: Second Edition (TSCS:2; Fitts & Warren, 1996) is a 100-item multidimensional measure of self-concept. The TSCS:2 consists of six theoretically-developed substantive subscales: (a) physical, (b) moral, (c) personal, (d) family, (e) social, and (f) academic/work. The subscales can be grouped into a Total Self-Concept score. Reliability estimates revealed the TSCS:2 to possess good internal consistency (r values ranged from .81 to .95) and stability over time (r values ranged from .73 to .82) (Fitts & Warren, 1996). The TSCS:2 also has been shown to be correlated with the Piers-Harris Children's Self-Concept Scale (r values ranged from .51 to .80) and Minnesota Multiphasic Personality Inventory scales in expected directions and to share low correlations with the Edwards Personal Preference Schedule (Fitts & Warren, 1996). For the sake of brevity, the investigator selected the 20-item shortened version, which has been found to correlate highly (r = .94) with the longer version and to be internally consistent as well (r = .84) (Fitts & Warren, 1996). The TSCS:2 was used

to assess for convergent validity of the underlying dimension of stigma tolerance. It was hypothesized that athletes with a greater self-concept would be more willing to tolerate the stigma associated with seeking sport psychology consultation as they would be less concerned about what others thought about them seeking help from a SPC. Respondents were asked to indicate on a 5-point Likert scale the degree to which each item represents how they feel about themselves. The Likert scale ranges from 1 (always false) to 5 (always true), and scores on the short form can range from 20 to 100 with higher scores reflecting a greater self-concept.

Interpersonal Openness

The Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; Fischer & Turner, 1970) is a 29-item measure of attitudes toward seeking professional help for psychological disturbances. The ATSPPHS consists of four empirically-derived subscales: (a) recognition of personal need, (b) tolerance of stigma associated with psychiatric help, (c) interpersonal openness regarding one's problems, and (d) confidence in the mental health professional. For the purposes of the present study, only the seven-item Interpersonal Openness (I-O) subscale was selected to assess for convergent validity of the underlying dimension of openness to sport psychology. It was hypothesized that athletes who expressed a greater openness to seeking professional psychological help also would be more willing to talk with a sport psychologist about his or her problems or issues. Reliability estimates revealed the I-O subscale to possess moderate internal consistency ($\underline{r}$ = .62), to be negatively correlated with authoritariansim ($\underline{r}$ values were -.52 and -.36) and external locus of control ($\underline{r}$ = -.42), and to be positively correlated with interpersonal trust ($\underline{r}$ = .21) (Fischer & Turner, 1970). Respondents were

asked to rate on a 4-point Likert scale the degree to which they agree or disagree with each item. The Likert scale ranges from 0 (disagree) to 3 (agree), and scores on the I-O subscale can range from 0 to 21 with higher scores representing a greater interpersonal openness to seeking professional psychological help.

Affective Prejudice

The Disturb Scale (DIST) was created for the purposes of the present study based on the Blatant and Subtle Prejudice Scales developed by Pettigrew (1997). The DIST included seven items that assessed affective aspects of prejudice toward groups of people as reflected on the SPAQ subscale of preference for similarity with a SPC. Thus, respondents were asked to indicate on a 7-point Likert scale the degree to which they find disturbing the presence of people different from themselves along the lines of race/ethnicity/culture, attitudes/values, gender, athletic ability, socioeconomic status, personality, and life experiences. The DIST was developed to assess for convergent validity of the underlying dimension of preference for similarity with a SPC. It was hypothesized that athletes who possessed more affective prejudice toward the outgroups designated on the DIST also would express a greater preference to consult with a SPC perceived to be similar to them. The Likert scale ranges from 1 (not at all) to 7 (very), and scores on the DIST can range from 7 to 49 with higher scores reflecting a greater affective prejudice toward the outgroups represented on the measure. Reliability estimates revealed that the DIST possessed good internal consistency (r = .79).

Competitive Trait Anxiety

The Sport Competition Anxiety Test (SCAT; Martens, 1977) is a 15-item (including five filler items) measure of competitive trait anxiety. Reliability estimates

revealed the SCAT to possess good internal consistency (r values ranged from .95 to .97) and consistency over time (r = .77) (Martens, 1977). The SCAT has been found to be positively correlated with other measures of general anxiety (r values ranged from .28 to .46) (Martens, 1977). The SCAT was selected to assess for discriminant validity of the underlying dimensions of the SPAQ. It was hypothesized that an athlete's competitive trait anxiety would not be related to his or her confidence in sport psychology, stigma tolerance, preference for similarity with a SPC, or openness to sport psychology in any predictable manner. Respondents were asked to indicate on a 3-point Likert scale how they feel about each statement regarding competing in sports and games. The Likert scale ranges from 1 (hardly ever) to 3 (often), and scores on the SCAT can range from 10 to 30 with higher scores reflecting greater levels of competitive trait anxiety.

Social Desirability

The Marlowe-Crowne Social Desirability Scale - Form C (SDS; Reynolds, 1982) is a 13-item shortened form of the standard 33-item version (Crowne & Marlowe, 1960) designed to measure an individual's desire to appear socially favorable to gain the approval of others. Form C was found to have an acceptable level of reliability (r = .76) that compared favorably to the standard version (r = .82). The shortened form also demonstrated concurrent validity with the standard version (r = .93) and displayed a similar relationship (r = .41) with the Edwards Social Desirability Scale (Edwards, 1957) as the standard version (r = .35). The SDS was selected to detect a biased response set and to assess for discriminant validity of the underlying dimensions of the SPAQ. It was hypothesized that an athlete's desire to appear socially favorable would not be related to his or her confidence in sport psychology, stigma tolerance, preference for similarity with

a SPC, or openness to sport psychology in any predictable manner. Respondents were asked to determine how each item best applies to them by indicating if the statement is "true" or "false", and one point is scored for each item that is answered in the socially desirable direction. Scores can range from 0 to 13, with higher scores reflecting a greater desire to appear socially favorable.

Procedure

Once permission to recruit the athletes was granted by the national governing bodies, athletic departments, and/or coaches (and parents where necessary), the athletes were asked to voluntarily participate in the study. When possible, the investigator or research assistants verbally outlined the purpose of the study, indicated what would be required of the participant, listed the anticipated risks and benefits of participation, emphasized that participation was voluntary, addressed the issue of confidentiality of the participants' responses, and provided a statement of assurance. An informed consent form or an assent form for minors containing this information was provided to the participants as well.

The investigators or research assistants administered the standard protocol. Each athlete read and signed the informed consent form/assent form for minors and completed the series of questionnaires described above (see Appendix A for a copy of the questionnaire packet). Upon completion of the study, the investigators or research assistants debriefed interested athletes concerning the nature of the study and answered any of the athletes' questions with regard to the study.

Data Analysis

The investigator entered the data into the SPSS 10.0 for Windows program and randomly sorted the complete sample into three independent samples matched on gender, level of participation, race, and previous experience with a SPC. Sample A (n = 285) was used for the exploratory factor analysis conducted in Study I. Sample B (n = 285) was used for the confirmatory factor analysis conducted in Study II. Sample C (n = 568) was used for the multigroup comparison conducted in Study III. The breakdown of the complete sample into the three independent samples along with the descriptive statistics for each sample is presented in Table 3.2.

Table 3.2

The number and percentage of participants by gender, level of participation, race, and previous experience with a SPC for each of the three independent samples.

	Sample A		Sample B[a]		Sample C[b]	
	n	%	n	%	n	%
Gender						
Males	158	55.4	158	55.4	312	54.9
Females	127	44.6	127	44.6	256	45.1
Level of participation						
Sr. elite	121	42.4	114	40.0	233	41.0

(table continues)

	Sample A		Sample B[a]		Sample C[b]	
	n	%	n	%	n	%
Jr. elite	53	18.6	64	22.5	119	21.0
College	66	23.2	66	23.2	131	23.1
HS/Developmental	45	15.8	41	14.4	85	15.0
Race						
Caucasian	226	79.2	222	77.9	444	77.8
African-American	22	7.7	25	8.8	43	7.6
Asian-American/						
Pacific Islander	11	3.9	15	5.3	28	4.9
Hispanic	14	4.9	9	3.2	19	3.3
Native American/						
American Indian	1	0.4	3	1.1	7	1.2
Multiracial	11	3.9	6	1.1	21	3.6
International	0	0.0	4	1.4	3	0.6
Previous experience with a SPC						
With	163	57.2	159	55.8	316	55.6
Without	122	42.8	126	44.2	252	44.4

Note. N = 1138. [a]One athlete failed to indicate his or her racial classification. [b]Three athletes failed to indicate their racial classification

Study I

The purpose of Study I was to conduct an exploratory factor analysis (EFA) to determine the underlying dimensions that define athletes' attitudes toward seeking sport psychology consultation. The EFA was conducted on the participants' responses on the SPAQ utilizing the SPSS 10.0 for Windows Factor program. To determine the adequacy of extraction and number of factors, the following criteria were used: (a) eigenvalues greater than 1.0, (b) scree test, (c) percentage of variance accounted for by each factor, (d) cumulative percentage of variance accounted for by the derived factors, and (e) interpretability of the factors. Initial internal consistency reliabilities and inter-factor correlations were calculated as well, and item analysis was undertaken to eliminate any unnecessary items.

A total of 285 participants (158 males, 127 females) were included in Study I. Just over forty-two percent (n = 121) of the athletes were Sr. elite, 18.6% (n = 53) were Jr. elite, 23.2% (n = 66) were college, and 15.8% (n = 45) were high school/ developmental. A total of 32 sports were represented in Study I. The participants ranged in age from 12 to 54 years with a mean age of 20.3 years (SD = 5.2). A little over 79% (n = 226) of the athletes sampled identified themselves as Caucasian, 7.7% (n = 22) as African-American, 3.9% (n = 11) as Asian-American/Pacific Islander, 4.9% (n = 14) as Hispanic, 0.4% (n = 1) as Native American/American Indian, and 3.9% (n = 11) as multiracial.

As for previous experience with a SPC, 57.2% (n = 163) previously had worked with a SPC and 42.8% (n = 122) had not. More specifically, 35.8% (n = 102) of the athletes previously had worked individually with a SPC on either a performance-related

(n = 92) or personal (n = 33) problem or issue or both (n = 23), and 50.5% (n = 144) previously had worked with a SPC as a member of a team or group. Almost 73% (n = 67) found the SPC to be more than somewhat helpful with a performance-related problem or issue; 71.7% (n = 66) were more than somewhat satisfied with the experience. Almost 76% (n = 25) found the SPC to be more than somewhat helpful with a personal problem or issue; 72.7% (n = 24) were more than somewhat satisfied with the experience. Almost 54% (n = 77) found the SPC to be more than somewhat helpful as a member of a team of group; 59.7% (n = 86) were more than somewhat satisfied with the experience.

Study II

The purpose of Study II was to conduct a confirmatory factor analysis (CFA) of the factor structure of the SPAQ as defined by the EFA in Study I and to assess for the SPAQ's reliability and validity. The CFA was conducted with the LISREL 8.3 (du Toit, du Toit, Jöreskog, & Sörbom, 1999) maximum likelihood procedure. The fit of the data was assessed by examining several absolute fit measures: (a) likelihood-ratio chi-square statistic (χ^2), (b) root mean square residual (RMR; Jöreskog & Sörbom, 1988), and (c) goodness-of-fit index (GFI; Jöreskog & Sörbom, 1988). Several incremental fit measures were utilized as well: (a) root mean square error of approximation (RMSEA; Steiger, 1990), (b) non-normed fit index (NNFI; Bentler, 1990), and (c) comparative fit index (CFI; Bentler, 1990). Also, the normed chi-square (χ^2/df) was computed to assess the parsimonious fit of the model. To achieve the best fit for the model, the modification index matrices were examined for information on how each unmodeled term improved the fit and the standardized residual matrix to compare the covariance matrix reproduced by the model with the original covariance. To evaluate the overall goodness-of-fit of the

data to the model chosen in Study I, the above fit indices and the completely standardized factor loadings were also examined. In addition, internal consistency reliabilities were calculated for each factor of the confirmed model.

To determine concurrent, convergent, and discriminant validity of the SPAQ, one-way MANOVAs were conducted to determine the effect of previous experience with a SPC on the SPAQ factor scores. To protect against Type I error, alpha was adjusted to test the significance of the follow-up univariate ANOVAs. In addition, Pearson product-moment correlation coefficients were calculated to determine the relationship between the SPAQ factor scores and the ratings of a previous experience with a SPC, willingness to see a SPC for help in the future, belief that practicing sport psychology skills will lead to desirable outcomes, self-concept, interpersonal openness to seeking professional psychological help, affective prejudice toward outgroups, competitive trait anxiety, and social desirability. Due to the large number of correlations examined, alpha was set at the more conservative .01 level. Finally, a 2 (Gender) X 2 (Race) X 2 (SPC) MANOVA was conducted to determine the effect of gender, race, and previous experience with a SPC on the SPAQ factor scores. To protect against Type I error, alpha was adjusted to test the significance of the follow-up univariate ANOVAs.

A total of 285 participants (158 males, 127 females) were included in Study II. Forty percent (n = 114) of the athletes were Sr. elite, 22.5% (n = 64) were Jr. elite, 23.2% (n = 66) were college, and 14.4% (n = 41) were high school/developmental. A total of 33 sports were represented in Study II. The participants ranged in age from 13 to 55 years with a mean age of 20.2 years (SD = 5.4). Almost 78% (n = 222) of the athletes sampled identified themselves as Caucasian, 8.8% (n = 25) as African-American, 5.3% (n = 15) as

Asian-American/Pacific Islander, 3.2% (n = 9) as Hispanic, 1.1% (n = 3) as Native American/American Indian, 1.1% (n = 6) as multiracial, and 1.4% (n = 4) as international. One athlete (0.4%) failed to indicate his/her racial classification.

As for previous experience with a SPC, 55.8% (n = 159) previously had worked with a SPC and 44.2% (n = 126) had not. More specifically, 38.6% (n = 110) of the athletes previously had worked individually with a SPC on either a performance-related (n = 100) or personal (n = 39) problem or issue or both (n = 29), and 48.1% (n = 137) previously had worked with a SPC as a member of a team or group. Seventy percent (n = 70) found the SPC to be more than somewhat helpful with a performance-related problem or issue; 74.0% (n = 74) were more than somewhat satisfied with the experience. About 76% (n = 29) found the SPC to be more than somewhat helpful with a personal problem or issue; 76.3% (n = 29) were more than somewhat satisfied with the experience. About 55% (n = 76) found the SPC to be more than somewhat helpful as a member of a team of group; 65.0% (n = 89) were more than somewhat satisfied with the experience.

Study III

The purpose of Study III was to simultaneously compare the fit of two separate samples (i.e., males and females) to the SPAQ factor structure that was confirmed in Study II and to further assess the SPAQ's reliability and validity. A multigroup comparison was used to test for gender invariance to determine the degree to which the confirmed model from Study II fit both groups simultaneously. Since it is a more stringent test that allows the researcher to determine the degree to which the model fits both groups simultaneously (Shumacker & Lomax, 1996), the multigroup comparison was chosen instead of comparing each sample independently to the model as done by

CFA. The multigroup comparison was conducted using the LISREL 8.3 program (du Toit et al., 1999), and the goodness-of-fit indices listed in Study II were examined as well. In addition, the set of validation hypotheses listed in Study II were tested independently by gender in Study III with the same conservative alpha levels.

A total of 568 participants (312 males, 256 females) were included in Study III. Forty-one percent (n = 233) of the athletes were Sr. elite, 21.0% (n = 119) were Jr. elite, 23.1% (n = 131) were college, and 15.0% (n = 85) were high school/developmental. A total of 36 sports were represented in Study III. The participants ranged in age from 12 to 51 years with a mean age of 19.9 years (SD = 4.8). About 78% (n = 444) of the athletes sampled identified themselves as Caucasian, 7.6% (n = 43) as African-American, 4.9% (n = 28) as Asian-American/Pacific Islander, 3.3% (n = 19) as Hispanic, 1.2% (n = 7) as Native American/American Indian, 3.6% (n = 21) as multiracial, and 0.6% (n = 3) as international. Three athletes (0.5%) failed to indicate their racial classification.

As for previous experience with a SPC, 55.6% (n = 316) previously had worked with a SPC and 44.4% (n = 252) had not. More specifically, 33.5% (n = 190) of the athletes previously had worked individually with a SPC on either a performance-related (n = 178) or personal (n = 63) problem or issue or both (n = 51), and 50.2% (n = 285) previously had worked with a SPC as a member of a team or group. Almost 64% (n = 113) found the SPC to be more than somewhat helpful with a performance-related problem or issue; 70.1% (n = 124) were more than somewhat satisfied with the experience. Seventy-three percent (n = 46) found the SPC to be more than somewhat helpful with a personal problem or issue; 71.4% (n = 45) were more than somewhat satisfied with the experience. Almost 54% (n = 153) found the SPC to be more than

somewhat helpful as a member of a team of group; 62.1% (n = 177) were more than somewhat satisfied with the experience.

CHAPTER IV

RESULTS

Study I – Exploratory Factor Analysis

Initial Statistics

The purpose of Study I was to conduct an exploratory factor analysis (EFA) on the Sport Psychology Attitudes Questionnaire (SPAQ) to determine the underlying dimensions that define athletes' attitudes toward seeking sport psychology consultation. The means and standard deviations for each of the SPAQ items are presented in Tables 4.1 and 4.2. The principal-axis factor extraction procedure produced an initial solution of eight factors (with eigenvalues greater than 1.0), which accounted for 58.7% of the variance of the responses on the SPAQ. Scree plot analysis (Cattell, 1966) suggested that two- and three-factor solutions were possible. These two possible solutions, plus the hypothesized four-factor solution, were subjected to oblique rotation (direct quartimin method). Final determination of the number of factors was based on interpretability and parsimony. To assist in the interpretation of the possible factor structures, a factor loading of .40 was considered the cutoff point for retaining an item on a factor. A gap in loadings lower than .40 across the factors made it easier to interpret the factors and specify which items loaded and which did not (Tabachnick & Fidell, 1989).

Extraction and Rotation of Factors

The four-factor solution accounted for 37.1% of the overall response variance and did not rotate to simple structure as two items loaded greater than .40 on each of two factors. In addition, one factor contained only three items that loaded greater than .40 while another factor contained only two items that did. The three-factor solution accounted for 34.4% of the overall response variance and did not rotate to simple structure as well as two items loaded greater than .40 on each of two factors. Also, one factor contained only two items that loaded greater than .40. The two-factor solution accounted for 31.0% of the overall response variance and rotated to simple structure as each item loaded greater than .40 on only one of the two factors.

Final Statistics

Based on the criteria mentioned in Chapter III, a decision was made to accept the two-factor model as the most clearly defined and interpretable solution of the data. The first factor was comprised of 17 items loading greater than .40 that dealt with an athlete's belief in the credibility of sport psychology and accounted for 23.2% of the overall response variance (see Table 4.1). Eight (i.e., 1, 5, 9, 13, 17, 25, 29, and 32) of the nine hypothesized confidence in sport psychology items loaded on this factor, as well as five (i.e., 2, 6, 10, 14, 18, and 22) of the hypothesized stigma tolerance items and four (i.e., 4, 12, 28, and 31) of the hypothesized openness items. Five items loaded in a negative direction on this factor: 5, 6, 9, 25, and 28. After reversing these items, high scores on Factor 1 represented an athlete's belief in the credibility of sport psychology that reflected his or her confidence in the abilities of a sport psychology consultant (SPC) to help, willingness to seek help despite the risk of being stigmatized, and openness to trust SPCs.

The second factor was comprised of 7 items loading greater than .40 that reflected an athlete's preference for similarity with a SPC and accounted for 7.7% of the overall response variance (see Table 4.1). Seven (i.e., 3, 7, 11, 15, 19, 23, and 27) of the eight hypothesized preference for similarity with a SPC items loaded on this factor. High scores on Factor 2 represented an athlete's preference to consult with a SPC perceived to be similar to him or her in personality, life experiences, attitudes/values, socioeconomic level, athletic background, race/ethnicity/culture, and gender.

In an attempt to increase the parsimony and practical utility of the SPAQ, the individual items that loaded on the two factors were subjected to item analysis (Kline, 1986; Zyzanski, 1992) in hopes of eliminating unnecessary items. First, the inter-item correlations within each factor were visually inspected to group items that correlated and appeared to address the same theme. Second, the item-total correlations were examined for each factor to determine the degree to which each individual item contributed to the total factor variance. Third, the squared multiple correlations were looked at for each item within each factor to determine the multicollinearity for each item. Finally, the Cronbach coefficient alphas for each item were checked to assess the change in internal consistency of each factor if the item was deleted. These four steps led to the omission of three items (i.e., 18, 29, and 31) from Factor 1 for the confirmatory factor analysis (CFA) in Study II. Specifically, item 18 was judged as unnecessary due to its relationship ($\underline{r}$ = .64) and similarity in wording with item 22. Items 29 and 31 were eliminated due to their relatively low factor loadings (.51 and .45, respectively), item-total correlations (.52 and .44, respectively), and squared multiple correlations (.36 and .29, respectively), and relatively negative impact on the internal consistency of Factor 1 (i.e., Cronbach

coefficient alpha remained the same as opposed to being lowered if the items were removed). No items were removed from Factor 2 for the CFA in Study II due to the relatively similar factor loadings, item-total correlations, and squared multiple correlations and the lowering of the internal consistency of Factor 2 if items were removed.

Finally, the EFA produced nine of the 33 SPAQ items with factor loadings less than .40 on both factors (see Table 4.2). One of these items (i.e., 21) was a hypothesized confidence in sport psychology item, two (i.e., 10 and 26) were hypothesized stigma tolerance items, five (i.e., 8, 16, 20, 24, and 33) were hypothesized openness items, and one (i.e., 30) was a hypothesized preference for similarity with a SPC item.

Table 4.1

Means, standard deviations, and factor loadings of the two-factor model for the SPAQ produced by EFA.

SPAQ Item	M[a]	SD	Loadings 1	2
1. A SPC could fine-tune my sport performance.	5.1	1.35	.81[b]	.17
2. Would work with a SPC even though some might label me a "mental patient" or "problem athlete".	4.9	1.69	.60[b]	.05
3. Would prefer working with a SPC from a racial/ethnic/cultural group similar to my own.	3.3	1.56	.10	.49[c]

(table continues)

SPAQ Item	M[a]	SD	Loadings 1	2
4. Would openly discuss my thoughts and feelings with a SPC.	5.2	1.41	.63[b]	-.01
5. A SPC does not have knowledge and skills to help me.	2.4	1.34	-.66[b]	.03
6. Working with a SPC is bad for an athlete's reputation.	2.1	1.17	-.58[b]	.21
7. Would want a SPC to have attitudes and values similar to my own.	4.4	1.43	.02	.59[c]
9. Do not have much respect for SPCs.	2.0	1.21	-.61[b]	.09
11. Would want a SPC to be of the same gender.	3.4	1.55	-.11	.44[c]
12. Respect athletes who seek help when they are unable to cope.	5.8	1.18	.57[b]	-.03
13. Would follow the suggestions a SPC gave to me.	5.4	1.08	.68[b]	.20
14. Would work with a SPC despite beliefs that athletes don't need that type of assistance.	5.4	1.29	.74[b]	.08
15. Would prefer working with a SPC who has a competitive athletic background similar to my own.	5.5	1.24	.18	.50[c]
17. If my emotions were negatively affecting my performance, a SPC would be helpful.	5.7	1.25	.64[b]	.12
18. Would not bother me if people knew I was receiving help from a SPC.	5.4	1.36	.63[b]	.02

(table continues)

SPAQ Item	M[a]	SD	Loadings 1	2
19. Would relate best to a SPC who is from a socioeconomic level similar to my own.	3.8	1.38	-.13	.53[c]
22. If I needed mental training, would get help even if others knew.	5.7	1.14	.69[b]	.06
23. Would want a SPC to have a personality similar to my own.	4.3	1.37	-.08	.70[c]
25. Considering the time and commitment, working with a SPC would have little value for me.	3.1	1.28	-.62[b]	.09
27. Would want a SPC to have had life experiences similar to my own.	4.2	1.30	.03	.68[c]
28. If I was stressed and overwhelmed, would rather work it out myself than talk with a SPC.	3.8	1.57	-.60[b]	.15
29. Would recommend that a teammate see a SPC.	4.2	1.43	.51[b]	-.04
31. If an athlete was feeling down, would suggest they talk with someone.	5.3	1.33	.45[b]	.09
32. Discussing personal matters with a SPC would be helpful.	4.7	1.36	.59[b]	-.05

Note. N = 285. [a]1 = strongly disagree, 7 = strongly agree. [b]Factor 1. [c]Factor 2.

Table 4.2

Means, standard deviations, and factor loadings for the SPAQ items not loading on the two-factor model produced by EFA.

SPAQ Item	M[a]	SD	Loadings 1	2
8. There are certain personal issues I would not discuss with a SPC.	4.9	1.67	.37	.03
10. Would not matter what my coach thought about my working with a SPC.	4.6	1.85	.37	.07
16. There are certain problems that should only be discussed within one's family.	4.8	1.77	-.36	.25
20. Athletes with a strong character can overcome personal difficulties without talking to a SPC.	4.3	1.50	-.30	.14
21. If I were having problems, a SPC would be more helpful than a coach or anyone else.	4.2	1.43	.26	-.05
24. Would be easy for me to talk a SPC even if I didn't know him/her.	4.1	1.47	-.25	.20
26. If I worked with a SPC, would not want my teammates to know.	3.0	1.44	-.06	.33
30. Would respect most the opinions of a SPC from my own racial/ ethnic/cultural group.	3.9	1.40	-.19	.23

(table continues)

SPAQ Item	M[a]	SD	Loadings 1	2
33. Best way to cope with negative feelings is to not give in to them.	5.1	1.70	-.05	.07

Note. N = 285. [a]1 = strongly disagree, 7 = strongly agree.

Reliability and Inter-factor Correlations

To determine the internal consistency of the factor structure of the SPAQ as determined by the EFA, Cronbach alphas were calculated for each of the two derived factors. The Cronbach coefficient alphas for Factors 1 and 2 were .91 and .76, respectively, surpassing the recommended alpha value of .70. In addition, a small, negative relationship existed between the two factors (r = -.21).

Discussion of Study I

Underlying dimensions of athletes' attitudes. The results of the EFA in Study I revealed that there are two primary dimensions underlying athletes' attitudes toward seeking sport psychology consultation as measured by the SPAQ: (a) belief in the credibility of sport psychology and (b) preference for similarity with a SPC. The hypothesis that there would be four underlying dimensions (i.e., confidence in sport psychology, stigma tolerance, preference for similarity with a SPC, and openness to sport psychology) was not supported. Thus, the results of the present EFA only provide partial

support for the findings of Martin et al. (1997) and Harmison and Petrie (1998). Both sets of investigators found the dimensions of confidence in sport psychology and stigma tolerance to underlie athletes' attitudes toward seeking sport psychology consultation. Also, Martin et al. (1997) found an additional underlying dimension of openness to sport psychology. However, the results of Study I suggested that these three dimensions may actually comprise a much broader dimension, one that appears to be best described as an overall belief in the credibility of sport psychology. In addition, the EFA results revealed that a broader dimension tapping into an athlete's preference to consult with a SPC perceived to be similar to him or her was supported as well.

Broader belief in the credibility of sport psychology factor. Careful examination of the 14 SPAQ items that were retained on Factor 1 in Study I indicated that the items appear to express several themes that are consistent with a belief in the credibility of sport psychology. Items 1 and 5 evaluate whether or not an athlete views a SPC as a resource for performance enhancement. Items 17, 28, and 32 give an idea of an athlete's perception that a SPC is a resource for personal/emotional problems and concerns. Items 2, 6, 14, and 22 offer insights into an athlete's belief that a SPC will be helpful even though others may stigmatize him or her for seeking help from one. Items 9 and 12 suggest an athlete's level of general respect for a SPC as a helping professional. Items 13 and 25 provide an indication of the value that an athlete places on what a SPC has to offer. Finally, item 4 taps into an athletes' willingness to trust and be open to a SPC.

Theoretical support for the interpretation of a broader underlying dimension of the SPAQ that assesses an athlete's belief in the credibility of sport psychology can be found in the counseling psychology and sport psychology literature. As discussed earlier in

Chapter II, Strong (1968) hypothesized that the extent to which a client perceives a counselor as knowledgeable and helpful (i.e., expertness), likable and similar (i.e., attractiveness), and honest and sincere (i.e., trustworthiness) will determine a client's willingness to change, their involvement in counseling, and a counselor's ability to influence the client. Initially, Strong (1971) wondered whether these three perceptions were independent of one another or inseparable. Attempting to examine the content and number of these dimensions, Barak and LaCrosse (1975) found that expertness and attractiveness appeared to be distinct from each other whereas expertness and trustworthiness were highly related or part of a more unitary dimension of credibility. Other investigators suggested that the three perceptions actually may be subsumed by a unitary dimension such as a "good guy" factor (LaCrosse, 1977) or that two types of credibility may result from either perceived expertness or attractiveness in combination with trustworthiness (Corrigan, 1978). Eventually, Corrigan & Schmidt (1983) concluded that the three dimensions were separate from one another but highly correlated. Furthermore, Corrigan and Schmidt (1983) provided evidence to suggest that counselor legitimate power (i.e., the ability to influence client change based on a counselor's socially acceptable role as a helper with no motive for personal gain) is based on client perceptions of expected counselor expertness and trustworthiness.

In addition, Strong and Matross (1973) argued that clients seek counselors because they believe counselors have expert resources to meet their need to reduce their costs in attaining their goals (i.e., get help with minimal discomfort, distress, anxiety, etc.). These authors suggested that counselor expert resources refer to client perceptions of counselor knowledge/skills and public image. They added that counselor public image

was a critical determinant of help-seeking as it serves as the basis for a client's initial judgment of the best source of help in cutting the costs of achieving their goals. Related to this conclusion is Linder et al.'s (1989) contention that a negative halo exists for athletes who consult a sport psychologist and likely adds to the cost of contact with a sport psychologist, preventing many athletes from seeking assistance that could be very helpful.

Thus, it seems that athlete perceptions of SPC expertness, attractiveness, and trustworthiness are dimensions that might be difficult to separate from one another and are likely related, with the possibility that certain combinations (e.g., expertness and trustworthiness) may tap into a more unitary dimension such as a perception of credibility. In addition, an athlete's belief in a SPC's knowledge, skills, and public image would appear to impact his or her perceptions of the SPC's expertness or credibility. Also, it seems that any athlete perception of a SPC that reduces the cost in attaining his or her goals (e.g., has knowledge and skills to help me) would add to perceptions of SPC credibility whereas any perception that adds to the cost (e.g., working with a SPC is bad for an athlete's reputation) could reduce perceptions of credibility. The apparent Factor 1 themes (e.g., resource for performance enhancement, willingness to tolerate the stigma, trust) seem to be consistent with this theoretically-defined dimension of perceived credibility.

Broader preference for similarity with a SPC factor. The results of Study I also revealed that the modifications of Harmison and Petrie's (1998) preference for racial similarity factor were successful in creating a broader measure of an athlete's preference to consult with a SPC perceived to be similar to him or her. In addition to tapping into an

athlete's preference to work with a racially similar SPC, the results of Study I suggested that the SPAQ allows for an assessment of an athlete's preference for similarity with a SPC in terms of personality, life experiences, attitudes/values, socioeconomic level, athletic background, and gender.

Support for a broader underlying dimension of the SPAQ that assesses an athlete's preference for similarity with a SPC on characteristics other than just race/ ethnicity can be found in the multicultural counseling psychology literature. More specifically, the ethnic similarity hypothesis implies that the high level of similarity between a counselor and client will promote the social influence process (Strong, 1968) inherent to the therapeutic process (Leong et al., 1995). Evidence exists to suggest that African-American, Asian-American, Hispanic, Native American, and Caucasian participants all prefer a racially similar counselor (Leong et al., 1995). Leong et al. (1995) also presented evidence to suggest that the preference for an ethnically similar counselor may be the result of an individual's desire to share similar cultural values or worldviews with the counselor. Thus, consistent with Leong et al. (1995), an athlete's preference for a racially similar SPC may be an overt manifestation of his or her desire to match with a SPC on personal characteristics such as personality, values, worldview, etc. to guarantee a more comfortable consulting relationship. Thus, it appears that Factor 2 as identified by the present EFA is more consistent with the contentions of Leong et al. (1995) than the previously found factors by Martin et al. (1997) and Harmison and Petrie (1998).

Results of Study II – Confirmatory Factor Analysis

Model Estimation

The purpose of Study II was to conduct a CFA of the factor structure of the SPAQ as defined by the EFA in Study I and to assess for the SPAQ's reliability and validity. Using LISREL 8.3 (du Toit et al., 1999), the maximum likelihood estimation procedure indicated that the overall model fit well (see Table 4.3 for a summary of the overall fit indices). All T-values for the parameter estimates were significant (all values > 1.96, ranging from 5.30 to 15.29) with the exception of the correlation between the two factors (which was subsequently set to zero). Based on the inspection of the modification indices, the error variances of the following pairs of SPAQ items were allowed to correlate to achieve the best fit for the model: 1 and 22; 5 and 9; 6 and 32; 7 and 23; 25 and 28; and 28 and 32. In addition, all parameters loaded in the expected direction and on the expected factors (see Table 4.4 for the means, standard deviations, and completely standardized factor loadings). Finally, the Cronbach coefficient alphas were .89 and .70 for Factor 1 and 2, respectively, surpassing the recommended alpha value of .70 and indicating an acceptable level of internal consistency reliability for each factor.

Table 4.3

Summary of goodness-of-fit indices of the two-factor model for the SPAQ produced by CFA.

χ^2	*df*	χ^2/df	CFI	GFI	NNFI	RMR	RMSEA
329.10*	183	1.80	.92	.90	.91	.061	.053

Note. N = 285. χ^2/df = normed chi-square (values < 2.0 suggest a good fit); CFI = Comparative Fit Index (values > .90 suggest a good fit); GFI = Goodness-of-Fit Index (values close to 1.0 suggest a perfect fit, values close to 0 suggest a poor fit); NNFI = Non-normed Fit Index (values > .90 suggest a good fit); RMR = Root Mean Square Residual (values < .05 suggest a very good fit, values > .10 suggest a poor fit); RMSEA = Root Mean Square Error of Approximation (values < .05 suggest a very good fit, values > .10 suggest a poor fit). *p < .01

Table 4.4

Means, standard deviations, and completely standardized factor loadings of the two-factor model for the SPAQ produced by CFA.

SPAQ Item	M[a]	SD	Loadings 1	2
1. A SPC could fine-tune my sport performance.	5.1	1.33	.79	.00
2. Would work with a SPC even though some might label me a "mental patient" or "problem athlete".	5.0	1.60	.68	.00
3. Would prefer working with a SPC from a racial/ethnic/ cultural group similar to my own.	3.4	1.59	.00	.36
4. Would openly discuss my thoughts and feelings with a SPC.	5.1	1.51	.62	.00
5. A SPC does not have knowledge and skills to help me.	2.5	1.25	-.63	.00
6. Working with a SPC is bad for an athlete's reputation.	2.0	1.14	-.54	.00
7. Would want a SPC to have attitudes and values similar to my own.	4.6	1.51	.00	.40
9. Do not have much respect for SPCs.	2.0	1.21	-.55	.00
11. Would want a SPC to be of the same gender.	3.4	1.61	.00	.46
12. Respect athletes who seek help when they are unable to cope.	5.7	1.30	.56	.00

(table continues)

SPAQ Item	M[a]	SD	Loadings 1	2
13. Would follow the suggestions a SPC gave to me.	5.3	1.06	.69	.00
14. Would work with a SPC despite beliefs that athletes don't need that type of assistance.	5.3	1.37	.65	.00
15. Would prefer working with a SPC who has a competitive athletic background similar to my own.	5.4	1.31	.00	.44
17. If my emotions were negatively affecting my performance, a SPC would be helpful.	5.6	1.25	.60	.00
19. Would relate best to a SPC who is from a socioeconomic level similar to my own.	3.9	1.28	.00	.65
22. If I needed mental training, would get help even if others knew.	5.6	1.17	.67	.00
23. Would want a SPC to have a personality similar to my own.	4.4	1.26	.00	.60
25. Considering the time and commitment, working with a SPC would have little value for me.	3.1	1.26	-.55	.00
27. Would want a SPC to have had life experiences similar to my own.	4.2	1.32	.00	.62

(table continues)

SPAQ Item	M[a]	SD	Loadings 1	2
28. If I was stressed and overwhelmed, would rather work it out myself than talk with a SPC.	3.8	1.57	-.44	.00
32. Discussing personal matters with a SPC would be helpful.	4.8	1.32	.63	.00

Note. N = 285. [a]1 = strongly disagree, 7 = strongly agree

Concurrent Validity of Factor Structure

To establish concurrent validity of the SPAQ factor structure as confirmed by the CFA, the relationships between the SPAQ factors and previous experience with a SPC were examined. It was hypothesized that athletes who had worked with a SPC before on a performance-related problem or issue, personal problem or issue, or as a member of a team or group would possess more belief in the credibility of sport psychology than those who had not. Three one-way MANOVAs were conducted to determine the effect of previous experience with a SPC on athletes' belief in the credibility of sport psychology and preference for similarity with a SPC. To protect against Type I error, alpha was adjusted (.05/6 = .01) to test the significance of the follow-up univariate ANOVAs.

The results of the MANOVAs revealed a significant effect for previous experience with a SPC for a performance-related problem or issue, Wilks' Lambda = .93,

$F(2, 282) = 10.71$, $p < .001$, for a personal problem or issue, Wilks' Lambda = .92, $F(2, 282) = 11.96$, $p < .001$, and as a member of a team or group, Wilks' Lambda = .94, $F(2, 282) = 9.78$, $p < .001$. Follow-up univariate ANOVAs indicated that only Factor 1 was significant for previous experience with a SPC for a performance-related problem or issue, $F(1, 283) = 21.15$, $p < .001$, for a personal problem or issue, $F(1, 283) = 20.90$, $p < .001$, and as a member of a team or group, $F(1, 283) = 19.45$, $p < .001$. Thus, as predicted, scores on Factor 1 revealed that athletes with previous experience with a SPC for help with a performance-related problem or issue ($M = 5.6$, $SD = .84$), for help with a personal problem or issue ($M = 5.9$, $SD = .84$), and as a member of a team or group ($M = 5.5$, $SD = .85$) possessed more belief in the credibility of sport psychology than athletes with no such previous experience ($M = 5.1$, $SD = .79$; $M = 5.2$, $SD = .74$; $M = 5.1$, $SD = .79$, respectively). See Table 4.5 for means and standard deviations.

Table 4.5

Mean SPAQ factor scores for athletes with and without previous experience with a SPC.

SPAQ Factors	n	M[a]	SD	F	p
Belief in the credibility of sport psychology					
Performance-related problem or issue					
Previous experience with a SPC	100	5.6	.84	21.15	.000
No previous experience with a SPC	185	5.1	.79		
Personal problem or issue					
Previous experience with a SPC	39	5.9	.84	20.90	.000
No previous experience with a SPC	246	5.2	.74		
As a member of a team or group					
Previous experience with a SPC	137	5.5	.85	19.45	.000
No previous experience with a SPC	148	5.1	.79		
Preference for similarity with a SPC					
Performance-related problem or issue					
Previous experience with a SPC	100	4.1	.91	.36	.551
No previous experience with a SPC	185	4.2	.82		

(table continues)

SPAQ Factors	n	M[a]	SD	F	p
Personal problem or issue					
Previous experience with a SPC	39	4.0	.93	2.84	.093
No previous experience with a SPC	246	4.2	.84		
As a member of a team or group					
Previous experience with a SPC	137	4.1	.87	.19	.667
No previous experience with a SPC	148	4.2	.83		

Note. N = 285. [a]1 = low, 7 = high.

It also was hypothesized that athletes' ratings of helpfulness and satisfaction related to a previous experience with a SPC would be positively correlated to their belief in the credibility of sport psychology. Alpha was set at .01, and the results are presented in Table 4.6. The Pearson product-moment correlation coefficients revealed significant, positive relationships between only Factor 1 and ratings of both helpfulness and satisfaction related to a previous experience with a SPC for a performance-related problem or issue and as a member of a team or group. The correlation coefficients also revealed a significant, positive relationship between Factor 1 and ratings of satisfaction for a personal problem or issue. It is noted that a positive relationship was observed between Factor 1 and ratings of helpfulness for a personal problem or issue, and the significance of the relationship ($p = .02$) approached the conservative .01 alpha level.

Thus, as predicted, the more helped and satisfied an athlete felt in relation to a previous experience with a SPC the more belief he or she possessed in the credibility of sport psychology.

A final test of the concurrent validity of the SPAQ involved an examination of the relationships between the SPAQ factors and athletes' willingness to work with a SPC in the future. The hypothesis that a greater willingness to see a SPC for help with a performance-related or personal problem or issue would be positively correlated with belief in the credibility of sport psychology was tested. The results are presented in Table 4.6. The Pearson product-moment correlation coefficients revealed significant, positive relationships between only Factor 1 and willingness to see a SPC for help with a performance-related and personal problem or issue. Thus, as predicted, the more an athlete believed in the credibility of sport psychology the more he or she reported being willing to work with a SPC in the future on both a performance-related and personal problem or issue.

Table 4.6

Correlations between SPAQ factors and athletes' ratings of the helpfulness and their satisfaction related to a previous experience with a SPC and athletes' willingness to see a SPC for help in the future.

	Factor 1	Factor 2
Performance-related problem or issue (n = 100)		
Helpfulness of the SPC	.54**	-.02
Satisfaction with the SPC	.52**	.02
Personal problem or issue (n = 39)		
Helpfulness of the SPC	.37	-.13
Satisfaction with the SPC	.43*	-.22
As a member of a team or group (n = 137)		
Helpfulness of the SPC	.42**	-.09
Satisfaction with the SPC	.41**	-.04
Willingness to see a SPC for help (n = 285)		
Performance-related problem or issue	.73**	.00
Personal problem or issue	.49**	.00

Note. N = 285. *p < .01, **p < .001

Convergent Validity of the Factor Structure

To establish convergent validity of the SPAQ factor structure as confirmed by the CFA, the relationships between the SPAQ factors and several personality variables were examined. More specifically, it was hypothesized that athletes' belief in the credibility of sport psychology would be positively correlated with their belief that practicing sport psychology skills would lead to desirable outcomes, level of self-concept, and interpersonal openness toward seeking professional psychological help. Also, the hypothesis that athletes' preference for similarity with a SPC would be positively correlated with their level of affective prejudice toward identified outgroups was tested as well.

Alpha was set at .01, and a summary of the results is presented in Table 4.7. The Pearson product-moment correlation coefficients revealed significant, positive relationships between Factor 1 and belief about practicing sport psychology skills (SCOS) and interpersonal openness (I-O ATSPPHS) and a significant, negative relationship between Factor 2 and affective prejudice (DIST) toward several identified outgroups. A significant relationship was not observed between Factor 1 and self-concept (TSCS:2). Thus, as predicted, the more an athlete believed in the credibility of sport psychology, the more he or she believed that practicing sport psychology skills would lead to desirable outcomes and was open to seeking professional psychological help. Also, the more an athlete preferred to work with a SPC perceived to be similar to him or her, the more affective prejudice he or she possessed toward outgroups that differed along the lines of race/ethnicity/culture, attitudes and values, gender, athletic ability, socioeconomic level, personality, and life experiences. Contrary to predictions,

an athlete's belief in the credibility of sport psychology and their level of self-concept were not related. It is noted that a significant, negative relationship was observed between Factor 2 and the I-O subscale of the ATSPPHS. It makes intuitive sense that the more affective prejudice an athlete possessed toward outgroups, the more he or she would be less open to seeking professional psychological help, especially from a professional deemed to be a member of an outgroup. However, since the correlation is small (r = -.19), the amount of shared variance that does exist likely results in minimal, if any, impact on the relationship between these two variables.

Table 4.7

Correlations between SPAQ factors and various personality measures.

	n[a]	Factor 1	Factor 2
SCOS	276	.69**	-.02
TSCS:2	264	.01	-.13
I-O ATSPPHS	266	.35**	-.19*
DIST	264	-.10	.27**
SCAT	265	.17*	.00
SDS	276	-.01	-.02

Note. N = 285. [a]Some validity measures were not administered to all participants due to

(table continues)

time constraints. SCOS = Sport Competitor Opinion Survey; TSCS:2 = Tennessee Self-Concept Scale:2; I-O ATSPPHS = Interpersonal Openness; DIST = Disturb Scale; SCAT = Sport Competition Anxiety Test; SDS = Social Desirability Scale. *$\underline{p} < .01$, **$\underline{p} < .001$

A final test of the convergent validity of the confirmed SPAQ factor structure involved a 2 (Gender) X 2 (Race) X 2 (SPC) MANOVA that was conducted to determine the effects of gender, race, and previous experience with a SPC on athletes' belief in the credibility of sport psychology and preference for similarity with a SPC. For the purposes of this analysis, the athletes who identified themselves as being other than Caucasian were grouped together to form a single racial classification, referred to as athletes of color. Also, given the robust findings between the SPAQ factors and a previous experience with a SPC, the independent variable of previous experience with a SPC was included in the MANOVA to account for the effects of gender and race adjusted for this variable. The athletes were classified as having previous experience with a SPC if they had worked with one either as an individual or as a member of a team or group. It was hypothesized that female athletes, Caucasian athletes, and athletes with previous experience with a SPC would possess more belief in the credibility of sport psychology than male athletes, athletes of color, and athletes without previous experience. Also, athletes of color were hypothesized to possess a greater preference for similarity with a SPC than Caucasian athletes. To protect against Type I error, alpha was adjusted (.05/14 = .005) to test the significance of the follow-up univariate ANOVAs.

The results of the Gender X Race X SPC MANOVA produced only a significant main effect for previous experience with a SPC, Wilks' Lambda = .97, $\underline{F}(2, 275) = 4.76$,

$p < .009$. The MANOVA revealed no significant interactions for gender by race by previous experience with a SPC, Wilks' Lambda = 1.00, $F(2, 275) = .17$, $p = .85$, gender by race, Wilks' Lambda = .99, $F(2, 275) = 1.74$, $p = .18$, gender by previous experience with a SPC, Wilks' Lambda = .99, $F(2, 275) = 1.30$, $p = .28$, or race by previous experience with a SPC, Wilks' Lambda = 1.00, $F(2, 275) = .43$, $p = .65$, or main effects for gender, Wilks' Lambda = .99, $F(2, 275) = 2.11$, $p = .12$, or race, Wilks' Lambda = .99, $F(2, 275) = 2.01$, $p = .13$. Follow-up univariate ANOVAs indicated that only Factor 1, $F(1, 276) = 9.52$, $p < .002$, was significant. Thus, as predicted, scores on Factor 1 revealed that athletes with previous experience with a SPC ($M = 5.5$, $SD = .79$) held a greater belief in the credibility of sport psychology than athletes with no such previous experience ($M = 5.0$, $SD = .85$). Contrary to predictions, no differences were found between male ($M = 5.1$, $SD = .90$) and female ($M = 5.5$, $SD = .73$) athletes in their belief in the credibility of sport psychology. In addition, no support was found for the hypothesized difference between Caucasian athletes and athletes of color in their belief in the credibility of sport psychology ($M = 5.1$, $SD = .75$ and $M = 5.3$, $SD = .87$, respectively) or preference for similarity with a SPC ($M = 4.2$, $SD = .87$ and $M = 4.1$, $SD = .80$, respectively). Means and standard deviations are provided in Table 4.8.

Table 4.8

Mean SPAQ factor scores by gender, race, and previous experience with a SPC.

SPAQ Factors	n[a]	M[b]	SD	F	p
Belief in the credibility of sport psychology					
Male athletes	155	5.1	.90	3.51	.062
Female athletes	129	5.5	.73		
Caucasian athletes	222	5.3	.87	3.82	.052
Athletes of color	62	5.1	.75		
Previous experience with a SPC	158	5.5	.79	9.52	.002
No previous experience with a SPC	126	5.0	.85		
Preference for similarity with a SPC					
Male athletes	155	4.2	.83	.70	.404
Female athletes	129	4.2	.88		
Caucasian athletes	222	4.2	.87	.29	.591
Athletes of color	62	4.1	.80		

(table continues)

SPAQ Factors	n[a]	M[b]	SD	F	p
Previous experience with a SPC	158	4.2	.85	.03	.885
No previous experience with a SPC	126	4.2	.86		

Note. N = 285. [a]One athlete did not indicate his or her racial classification. [b]1 = low, 7 = high.

Discriminant Validity of the Factor Structure

To establish discriminant validity of the SPAQ factor structure as confirmed by the CFA, the relationships between the SPAQ factors and several personality variables also were examined. More specifically, it was hypothesized that athletes' level of competitive trait anxiety or tendency to respond in a socially favorable manner would not be related in any predictable way to their belief in the credibility of sport psychology and preference for similarity with a SPC. A summary of the results can be found in Table 4.7. As predicted, no significant relationships were observed between the SPAQ factors and athletes' level of competitive trait anxiety (SCAT) and social desirability (SDS). It is noted that a small, significant relationship was found between Factor 1 and competitive trait anxiety. It makes intuitive sense that athletes who reported more competitive trait anxiety would perceive a SPC as a resource to them and, thus, believe more strongly in the credibility of sport psychology. However, since the correlation is small (r = .17), the amount of shared variance that does exist likely results in minimal, if any, impact on the

relationship between these two variables. In addition, since significant relationships were not observed between the SPAQ factors and the social desirability scores, it was concluded that the participants' responses on the SPAQ did not appear to be influenced by the tendency of the participants to respond in a socially favorable manner.

Discussion of Study II

Underlying dimensions of attitudes toward sport psychology consultation. The purpose of Study II was to confirm the factor structure of the SPAQ as defined by the EFA in Study I and to assess for the SPAQ's reliability and validity. The results of the goodness-of-fit indices for the CFA and the internal consistency reliabilities supported the 21-item, two-factor model suggested by the EFA. More specifically, the results of Study II confirmed the model of two primary, orthogonal, and reliable dimensions underlying athletes' attitudes toward seeking sport psychology consultation as measured by the SPAQ: (a) belief in the credibility of sport psychology and (b) preference for similarity with a SPC. Caution, however, is stressed when interpreting the CFA results as such as it cannot be stated with certainty that these two factors exhaust the domain of dimensions that underlie athletes' attitudes toward seeking sport psychology consultation. Yet, it does appear that the SPAQ taps into a set of latent variables that adhere to a current conceptualization of important attitudinal dimensions with regard to seeking sport psychology consultation.

Validity of factor structure. The relationships found between the SPAQ factors and various other measures provided evidence for the concurrent, convergent, and discriminant validity of the factor structure of the SPAQ as confirmed by the CFA in Study II. More specifically, the SPAQ was found to distinguish, as predicted, between

athletes with and without previous experience with a SPC. In addition, scores on the SPAQ were found to be positively related, as predicted, to ratings of helpfulness and satisfaction for athletes with previous experience with a SPC. Also, SPAQ scores were positively related, as hypothesized, to willingness to see a SPC for help in the future. These findings appear to be consistent with previous research with general help-seeking attitudes that suggests that exposure to and contact with psychology or its practitioners results in more positive attitudes toward seeking professional help (e.g., Tijhuis, Peters, & Foets, 1990). With respect to athletes, Schell et al. (1984) found that an athlete who employed the services of a sport psychologist in the past likely will become a supporter of sport psychology and likely will use sport psychology services in the future as well. In addition, Gould, Murphy, Tammen, and May (1991) surveyed a group of elite athletes and coaches concerning the effectiveness of the SPC that worked with them and found 79% of the coaches and 91% of the athletes chose to retain the services of the SPC. Thus, previous research suggests that exposure to sport psychology, especially previous experiences that are perceived as positive, likely lead to more favorable attitudes toward seeking sport psychology consultation and a greater likelihood that consultation will be sought in the future.

The results of Study II also revealed that athletes' belief in the credibility of sport psychology was related, as predicted, to their belief that practicing sport psychology skills will lead to desirable outcomes as well as their level of interpersonal openness to seeking professional psychological help. These results are consistent with Greaser's (1992) finding that athletes who reported a high intention to practice sport psychology skills believed more strongly that practicing sport psychology skills would have positive

outcomes (e.g., achieving sport goals). Given that a number of SPAQ items reflect an athlete's confidence in the abilities of a SPC to help (e.g., a SPC could fine-tune my performance), it follows that athletes who believe that practicing sport psychology skills results in good outcomes would place more credibility in a SPC and what he or she has to offer them. The results also are consistent with Fischer and Turner's (1970) finding of a positive relationship between interpersonal openness and interpersonal trust. It was argued previously in the discussion of the EFA results that an athlete's perception of a SPC's trustworthiness appears to be an important part of an athlete's belief in the credibility of sport psychology. In addition, several of the items on the SPAQ tap into an athlete's willingness to trust and be open with a SPC (e.g., would openly discuss my thoughts and feelings with a SPC). Therefore, it is not surprising that a significant, positive relationship was observed between an athlete's belief in the credibility of sport psychology and interpersonal openness to seeking professional psychological help.

In addition, the results of Study II indicated that athletes' preference for similarity with a SPC was related, as predicted, to their level of affective prejudice toward outgroups that differed from them along the lines of race/ethnicity/culture, personality, athletic background, etc. This result is consistent with Pettigrew's (1997) findings that intergroup contact with diverse friends, coworkers, and neighbors is related to reduced levels of affective prejudice. It also is consistent with the universal aspect of human behavior in which people divide others in their lives into "ingroups" and "outgroups" (LeVine & Campbell, 1972). According to Brislin (1993), ingroups refer to individuals for whom a person has positive feelings and outgroups refer to individuals for whom a person has less than positive feelings. Thus, a person is more likely to interact with

ingroup others, depend on them in a time of need, and think of them as "similar to me". It follows, then, that an athlete who possesses stronger negative feelings about outgroups would prefer more to interact with a SPC perceived to be similar to him or her, allowing him or her to experience the positive feelings associated with interacting with an ingroup other.

As for the ability of the SPAQ to distinguish between groups of athletes based on their gender and race, the results of Study II showed that Factor 1 was not successful at doing so as predicted. The finding of no significant gender differences is inconsistent with the results of previous research conducted by Martin et al. (1997) and Harmison and Petrie (1998). Martin et al. (1997) suggested that male athletes may have less confidence in sport psychology and stigmatize it more than females due to the way men are socialized into sport, the emphasis male athletes place on competition, success, and maintaining a macho image, and the male drive to conform to masculine stereotypes. Harmison and Petrie's (1998) finding that male athletes who adopted a less traditional male gender role expressed greater stigma tolerance lends support to this interpretation. Additional support for this argument can be found in Fischer and Turner's (1970) finding that males possessed less interpersonal openness toward seeking professional psychological help than females and the counseling psychology literature where traditional attitudes about the male role (Good, Dell, & Mintz, 1989) and masculine socialization indices (Robertson & Fitzgerald, 1992) have been found to be related to more negative help-seeking attitudes. Thus, it is surprising that the female athletes in Study II were not found to possess more belief in the credibility of sport psychology than the male athletes. Perhaps this nonsignificant finding is related to the breadth of the

sample in Study II and the previous studies were biased in some manner. Also, it is very possible that the increased exposure and access to sport psychology over the last several years has resulted in changed, more positive attitudes toward sport psychology and, thus, eliminating the previously observed gender differences. However, replication of this nonsignificant result is needed before further conclusions can be made about the effect of gender on athletes' attitudes toward seeking sport psychology consultation.

The finding of no significant differences between Caucasian athletes and athletes of color in their belief in the credibility of sport psychology is consistent with the findings of Harmison and Petrie (1998) but not with those of Martin et al. (1997). Mixed support for this finding with previous research likely is due to the differential nature of the samples across the three studies. More specifically, Martin et al. (1997) compared the responses of Caucasian and African-American athletes from a single, predominately White university in the southeastern U.S. On the other hand, Study II and Harmison and Petrie (1998) compared the responses of Caucasian athletes and athletes of color from a number of different U.S. and international geographical regions. Thus, the possibility exists that lumping these separate racial and ethnic groups into one racial/ethnic classification may have prevented Study II from detecting the racial differences found in Martin et al. (1997). However, when the responses between the Caucasian and African-American athletes in Study II were re-examined using a one-way MANOVA, no significant differences in the belief in the credibility of sport psychology or preference for similarity with a SPC were found, Wilks' Lambda = .99, $\underline{F}(2, 244) = 1.78$, $\underline{p} = .17$. Based on this finding, a more plausible explanation for the lack of racial differences detected in Study II could be that the sample was more representative of all African-American and

other minority athletes, and thus, not as influenced by the societal, political, and cultural climate specific to the southeastern U.S. Replication of this finding is needed before more definitive conclusions can be drawn.

Finally, the SPAQ factors also were predicted to relate to level of self-concept in a meaningful way but failed to do so. In particular, a significant, positive relationship was not found between athletes' belief in the credibility of sport psychology and their level of self-concept. Originally, it was hypothesized that athletes with a greater self-concept would be more willing to tolerate the stigma associated with seeking sport psychology consultation as they would be less concerned about what others thought about them seeking help from a SPC. However, the results of the EFA and the confirmed model of the CFA failed to find support for a single stigma tolerance factor. Rather, the EFA and CFA results revealed that a subset of the hypothesized stigma tolerance items tapped into the broader belief in the credibility of sport psychology factor. A careful examination of these items as they relate to the other items on Factor 1 suggests that if an athlete believes a SPC will be helpful he or she will seek help from one no matter what others think. It appears that the emphasis here for the athlete is on their belief that a SPC will be helpful as opposed to worrying about being stigmatized for seeking help from one. At this point in time, it is unclear as to how the subset of hypothesized stigma tolerance items relates to athletes' willingness to tolerate the stigma associated with seeking sport psychology consultation and belief in the credibility of sport psychology. Based on the arguments of Strong and Matross (1973) and Linder et al. (1989) presented earlier, the stigma associated with seeking sport psychology consultation would appear to add to the cost of contact with a SPC (i.e., being stigmatized for seeking help could

increase discomfort, distress, anxiety, etc.). The high correlations (r values of .73 and .49) between Factor 1and willingness to see a SPC for help in the future suggests that the stigma associated with seeking consultation with a SPC does not add to the cost of contact for athletes who believe that a SPC will be helpful even though others may stigmatize them. Perhaps further exploration of this relationship would lead to better understanding of the contribution of the hypothesized stigma tolerance items that loaded on Factor 1.

Results of Study III – Multigroup Comparison

Model Estimation and Parameter Estimates

The purpose of Study III was to simultaneously compare the fit of two separate samples (i.e., males and females) to the SPAQ factor structure that was confirmed in Study II and to further asses the SPAQ's reliability and validity. A multigroup comparison was used to test for gender invariance to determine the degree to which the confirmed model from Study II fit both groups simultaneously (Shumacker & Lomax, 1996). Using LISREL 8.3 (du Toit et al., 1999), the maximum likelihood estimation procedure indicated that the overall model fit well for both males and females (see Table 4.9 for a summary of the overall fit indices). The correlation between the two factors was set to zero, and all T-values for the parameter estimates were significant (all values > 1.96, ranging from 7.91 to 18.98). Based on the inspection of the modification indices, the error variances of the following pairs of SPAQ items were allowed to correlate to achieve the best fit for the model: 1 and 5; 1 and 12; 1 and 22; 3 and 19; 5 and 6; 5 and 9; 5 and 25; 6 and 9; 7 and 23; 9 and 13; 9 and 25; 11 and 19; 12 and 13; 15 and 19; 22 and

25; and 25 and 28. In addition, error variances for all items were unconstrained, allowing them to be estimated by the model to achieve the best fit of the data.

Table 4.9

Summary of goodness-of-fit indices of the two-factor model for the SPAQ produced by multigroup comparison

χ^2	*df*	χ^2/df	CFI	GFI	NNFI	RMR	RMSEA
722.90*	383	1.89	.91	.89	.90	.092	.056

Note. N = 285. χ^2/df = normed chi-square (values < 2.0 suggest a good fit); CFI = Comparative Fit Index (values > .90 suggest a good fit); GFI = Goodness-of-Fit Index (values close to 1.0 suggest a perfect fit, values close to 0 suggest a poor fit); NNFI = Non-normed Fit Index (values > .90 suggest a good fit); RMR = Root Mean Square Residual (values < .05 suggest a very good fit, values > .10 suggest a poor fit); RMSEA = Root Mean Square Error of Approximation (values < .05 suggest a very good fit, values > .10 suggest a poor fit). *p < .01

Concurrent Validity of Factor Structure

To further examine the concurrent validity of the SPAQ factor structure as confirmed by the multigroup comparison, the relationships between the SPAQ factors and previous experience with a SPC were examined independently by gender. It was hypothesized that athletes who had worked with a SPC before on a performance-related

problem or issue, personal problem or issue, or as a member of a team or group would possess more belief in the credibility of sport psychology than those who had not. For each gender, three one-way MANOVAs were conducted to determine the effect of previous experience with a SPC on athletes' belief in the credibility of sport psychology and preference for similarity with a SPC. To protect against Type I error, alpha was adjusted (.05/6 = .01) for each independent sample to test the significance of the follow-up univariate ANOVAs.

For male athletes, the results of the MANOVAs revealed a significant effect for previous experience with a SPC for a performance-related problem or issue, Wilks' Lambda = .92, $F(2, 309) = 13.09$, $p < .001$, and as a member of a team or group, Wilks' Lambda = .95, $F(2, 309) = 8.06$, $p < .001$, but not for previous experience with a SPC for a personal problem or issue, Wilks' Lambda = 1.00, $F(2, 309) = .76$, $p = .47$. Follow-up univariate ANOVAs indicated that Factor 1, $F(1, 310) = 15.76$, $p < .001$, and Factor 2, $F(1, 310) = 7.77$, $p < .006$, were significant for previous experience with a SPC for a performance-related problem or issue, and only Factor 1 was significant for as a member of a team or group, $F(1, 310) = 10.24$, $p < .001$. Thus, as predicted, scores on Factor 1 revealed that male athletes with a previous experience with a SPC for help with a performance-related problem or issue ($M = 5.6$, $SD = .83$) and as a member of a team or group ($M = 5.5$, $SD = .71$) possessed more belief in the credibility of sport psychology than male athletes with no such previous experience ($M = 5.1$, $SD = .82$ and $M = 5.1$, $SD = .88$, respectively). Contrary to predictions, however, no differences were found between male athletes with ($M = 5.4$, $SD = 1.01$) and without ($M = 5.2$, $SD = .82$) a previous experience with a SPC for help with a personal problem or issue in their belief

in the credibility of sport psychology. Not predicted was the finding that Factor 2 scores showed that male athletes without a previous experience with a SPC (M = 4.2, SD = .92) for help with a performance-related problem or issue expressed a greater preference to consult with a SPC perceived to be similar to him than those with previous experience (M = 3.9, SD = 1.05). See Table 4.10 for means and standard deviations.

For female athletes, the results of the MANOVAs revealed a significant effect for previous experience with a SPC for a performance-related problem or issue, Wilks' Lambda = .91, $F(2, 253) = 11.94$, $p < .001$, for a personal problem or issue, Wilks' Lambda = .94, $F(2, 253) = 7.57$, $p < .001$, and as a member of a team or group, Wilks' Lambda = .95, $F(2, 253) = 7.34$, $p < .001$. Follow-up univariate ANOVAs indicated that Factor 1, $F(1, 254) = 8.80$, $p < .001$, and Factor 2, $F(1, 254) = 7.63$, $p < .003$, were significant for previous experience with a SPC for a performance-related problem or issue, and only Factor 1 was significant for a personal problem or issue, $F(1, 254) = 8.07$, $p < .001$, and for as a member of a team or group, $F(1, 254) = 6.73$, $p < .001$. Thus, as predicted, scores on Factor 1 revealed that female athletes with a previous experience with a SPC for help with a performance-related problem or issue (M = 5.7, SD = .83), for help with a personal problem or issue (M = 5.9, SD = 1.04), and as a member of a team or group (M = 5.6, SD = .82) possessed more belief in the credibility of sport psychology than female athletes with no such previous experience (M = 5.3, SD = .75; M = 5.4, SD = .73; M = 5.3, SD = .72, respectively). Not predicted was the finding that Factor 2 scores showed that female athletes without a previous experience with a SPC (M = 4.2, SD = .87) for help with a performance-related problem or issue expressed a greater preference

to consult with a SPC perceived to be similar to her than those with a previous experience (M = 3.9, SD = .98). See Table 4.11 for means and standard deviations.

Table 4.10

Mean SPAQ factor scores for male athletes with and without a previous experience with a SPC.

SPAQ Factors	n	M[a]	SD	F	p
Belief in the credibility of sport psychology					
Performance-related problem or issue					
Previous experience with a SPC	79	5.6	.83	15.76	.000
No previous experience with a SPC	233	5.1	.82		
Personal problem or issue					
Previous experience with a SPC	25	5.4	1.01	1.36	.244
No previous experience with a SPC	287	5.2	.82		
As a member of a team or group					
Previous experience with a SPC	123	5.5	.71	15.22	.000
No previous experience with a SPC	189	5.1	.88		
Preference for similarity with a SPC					
Performance-related problem or issue					
Previous experience with a SPC	79	3.9	1.05	7.04	.006
No previous experience with a SPC	233	4.2	.92		

(table continues)

SPAQ Factors	n	M[a]	SD	F	p
Personal problem or issue					
Previous experience with a SPC	25	4.2	.95	.11	.747
No previous experience with a SPC	287	4.1	1.12		
As a member of a team or group					
Previous experience with a SPC	123	4.1	1.00	.43	.513
No previous experience with a SPC	189	4.2	.94		

Note. N = 312. [a]1 = low, 7 = high.

Table 4.11

Mean SPAQ factor scores for female athletes with and without a previous experience with a SPC.

SPAQ Factors	n	M[a]	SD	F	p
Belief in the credibility of sport psychology					
Performance-related problem or issue					
Previous experience with SPC	99	5.7	.83	14.56	.000
No previous experience with SPC	157	5.3	.75		

(table continues)

SPAQ Factors	n	M[a]	SD	F	p
Personal problem or issue					
Previous experience with SPC	38	5.9	1.04	13.28	.000
No previous experience with SPC	218	5.4	.73		
As a member of a team or group					
Previous experience with SPC	162	5.6	.82	10.98	.001
No previous experience with SPC	94	5.3	.72		
Preference for similarity with a SPC					
Performance-related problem or issue					
Previous experience with SPC	99	3.9	.98	9.17	.003
No previous experience with SPC	157	4.2	.87		
Personal problem or issue					
Previous experience with SPC	38	3.9	1.04	2.06	.152
No previous experience with SPC	218	4.1	.90		
As a member of a team or group					
Previous experience with SPC	162	4.0	.97	3.87	.050
No previous experience with SPC	94	4.2	.83		

Note. N = 256. [a]1 = low, 7 = high.

It also was hypothesized that athletes' ratings of helpfulness and satisfaction related to a previous experience with a SPC would be positively correlated to their belief in the credibility of sport psychology. Alpha was set at .01, and the results for the male and female athletes are presented in Table 4.12. For male athletes, the Pearson product-moment correlation coefficients revealed significant, positive relationships between only Factor 1 and ratings of both helpfulness and satisfaction related to a previous experience with a SPC for a performance-related problem or issue, for a personal problem or issue, and as a member of a team or group. For female athletes, the correlation coefficients revealed significant, positive relationships between only Factor 1 and ratings of both helpfulness and satisfaction related to a previous experience with a SPC for a performance-related problem or issue and as a member of a team or group. No significant relationships were observed between the SPAQ factors and female athletes' ratings of helpfulness and satisfaction related to a previous experience with a SPC for a personal problem or issue. Thus, as predicted, the more helped and satisfied an athlete felt in relation to a previous experience with a SPC the more he or she believed in the credibility of sport psychology. However, support for this prediction is not as strong for female athletes as no such relationships were found for a previous experience with a SPC for a personal problem or issue.

Table 4.12

Correlations between SPAQ factors and athletes' ratings of the helpfulness and their satisfaction related to a previous experience with a SPC and athlete's willingness to see a SPC for help in the future.

	Factor 1	Factor 2
Performance-related problem or issue		
Male athletes (n = 78)		
Helpfulness of the SPC	.58**	.22
Satisfaction with SPC	.50**	.10
Female athletes (n = 99)		
Helpfulness of SPC	.25*	-.05
Satisfaction with SPC	.27*	.03
Personal problem or issue		
Male athletes (n = 25)		
Helpfulness of the SPC	.49*	.26
Satisfaction with the SPC	.57*	.42
Female athletes (n = 38)		
Helpfulness of SPC	.00	-.07
Satisfaction with SPC	-.03	-.02

(table continues)

	Factor 1	Factor 2
As a member of a team or group		
Male athletes (n = 123)		
Helpfulness of the SPC	.52**	.02
Satisfaction with the SPC	.53**	.06
Female athletes (n = 162)		
Helpfulness of SPC	.42**	-.02
Satisfaction with SPC	.40**	.04
Willingness to see a SPC for help		
Male athletes (n = 312)		
Performance problem or issue	.67**	.11
Personal problem or issue	.59**	.03
Female athletes (n = 255[a])		
Performance problem or issue	.55**	-.01
Personal problem or issue	.50**	.02

Note. N = 312 (males), N = 256 (females). [a]One female athlete failed to indicate her willingness to see a SPC for help in the future.

*p < .01, **p < .001

Convergent Validity of the Factor Structure

To establish convergent validity of the SPAQ factor structure as confirmed by the multigroup comparison, the relationships between the SPAQ factors and several personality variables were examined independently by gender. More specifically, it was hypothesized that athletes' belief in the credibility of sport psychology would be positively correlated with their belief that practicing sport psychology skills would lead to desirable outcomes and interpersonal openness toward seeking professional psychological help. Based on the result of Study II, no such relationships were expected to be found between the SPAQ factors and level of self-concept. Also, the hypothesis that athletes' preference for similarity with a SPC would be positively correlated with their level of affective prejudice toward identified outgroups was tested as well.

Alpha was set at .01, and a summary of the results is presented in Table 4.13. For both male and female athletes, the Pearson product-moment correlation coefficients revealed significant, positive relationships between Factor 1 and belief about practicing sport psychology skills (SCOS) and interpersonal openness (I-O ATSPPHS) and between Factor 2 and affective prejudice (DIST) toward several identified outgroups. Although consistent with the findings in Study II, it is noted that the correlations between Factor 2 and the DIST scores are small (r values of .19 and .16), suggesting that the shared variance has minimal, if any impact, on the relationship between these two variables. Along these same lines, significant, negative relationships for both male and female athletes were observed between Factor 1 and DIST scores. It makes intuitive sense that the more affective prejudice an athlete possessed toward outgroups, the less he or she would believe in the credibility of sport psychology, especially, especially with regard to

a SPC deemed to be a member of an outgroup. However, since the correlations are small (r values of -.16 and -.20), the impact of the shared variance on the relationship between these two variables was deemed minimal at best. In addition, the correlation coefficients did not produce a significant relationship between Factor 1 and self-concept (TSCS:2). Thus, as predicted, the more an athlete believed in the credibility of sport psychology, the more he or she believed that practicing sport psychology skills would lead to desirable outcomes and was open to seeking professional psychological help. Also, the more an athlete preferred to work with a SPC perceived to be similar to him or her, the more affective prejudice he or she possessed toward outgroups that differed along the lines of race/ethnicity/culture, attitudes and values, gender, athletic ability, socioeconomic level, personality, and life experiences. It is noted that the positive relationship between affective prejudice and belief in the credibility of sport psychology is not a strong finding, although it is consistent with the results of Study II.

A final test of the concurrent validity of the SPAQ involved an examination of the relationships between the SPAQ factors and athletes' willingness to work with a SPC in the future. The hypothesis that a greater willingness to see a SPC for help with a performance-related or personal problem or issue would be positively correlated with belief in the credibility of sport psychology was tested. The results for the male and female athletes are presented in Table 4.12. For both males and females, the Pearson product-moment correlation coefficients revealed significant, positive relationships between only Factor 1 and willingness to see a SPC for help with a performance-related and personal problem or issue. Thus, as predicted, the more an athlete believed in the

credibility of sport psychology the more he or she reported being willing to work with a SPC in the future on both a performance-related and personal problem or issue.

Table 4.13

Correlations between SPAQ factors and various personality measures.

	n[a]	Factor 1	Factor 2
SCOS			
Male athletes	301	.66**	-.06
Females athletes	244	.66**	-.10
TSCS:2			
Male athletes	284	.07	-.04
Females athletes	232	-.04	.02
I-O ATSPPHS			
Male athletes	285	.33**	-.09
Females athletes	232	.41**	-.12
DIST			
Male athletes	281	-.16*	.19**
Females athletes	231	-.20*	.16*
SCAT			
Male athletes	283	.13	.12
Females athletes	233	.08	.00

(table continues)

	n[a]	Factor 1	Factor 2
SDS			
Male athletes	308	-.06	-.14*
Females athletes	255	.01	-.05

Note. N = 312 (males), N = 256 (females). [a]Some validity measures were not administered to all participants due to time constraints. SCOS = Sport Competitor Opinion Survey; TSCS:2 = Tennessee Self-Concept Scale:2; I-O ATSPPHS = Interpersonal Openness; DIST = Disturb Scale; SCAT = Sport Competition Anxiety Test; SDS = Social Desirability Scale.

*p < .01, **p < .001

A final test of the convergent validity of the confirmed SPAQ factor structure involved a 2 (Gender) X 2 (Race) X 2 (SPC) MANOVA that was conducted to determine the effects of gender, race, and previous experience with a SPC on athletes' belief in the credibility of sport psychology and preference for similarity with a SPC. Given the significant effects observed in Study II between the SPAQ factors and previous experience with a SPC, the previous experience with a SPC independent variable again was included to account for its effect on the relationships between gender and race and the SPAQ factors. The same classification criteria in Study II for athletes of color and those with previous experience with a SPC was used for this analysis as well. It was

hypothesized that female athletes, Caucasian athletes, and athletes with previous experience with a SPC would possess more belief in the credibility of sport psychology than male athletes, athletes of color, and athletes without previous experience. To protect against Type I error, alpha was adjusted (.05/14 = .005) to test the significance of the follow-up univariate ANOVAs.

The results of the Gender X Race X SPC MANOVA produced only a significant main effect for previous experience with a SPC, Wilks' Lambda = .97, $\underline{F}(2, 556) = 9.86$, $\underline{p} < .001$. The MANOVA revealed no significant interactions for gender by race by previous experience with a SPC, Wilks' Lambda = .99, $\underline{F}(6, 1096) = .64$, $\underline{p} = .70$, gender by race, Wilks' Lambda = 1.00, $\underline{F}(2, 548) = .04$, $\underline{p} = .96$, gender by previous experience with a SPC, Wilks' Lambda = .99, $\underline{F}(6, 1096) = 1.34$, $\underline{p} = .24$, or race by previous experience with a SPC, Wilks' Lambda = .99, $\underline{F}(6, 1096) = 1.30$, $\underline{p} = .25$, or main effects for gender, Wilks' Lambda = 1.00, $\underline{F}(2, 548) = 1.34$, $\underline{p} = .26$, or race, Wilks' Lambda = 1.00, $\underline{F}(2, 548) = .74$, $\underline{p} = .48$. Follow-up univariate ANOVAs indicated that only Factor 1, $\underline{F}(1, 557) = 14.14$, $\underline{p} < .001$, was significant. Thus, as predicted, scores on Factor 1 revealed that athletes with previous experience with a SPC ($\underline{M} = 5.5$, $\underline{SD} = .80$) held greater beliefs in the credibility of sport psychology than those with no such experience ($\underline{M} = 5.1$, $\underline{SD} = .81$). Contrary to predictions, no differences were found between male ($\underline{M} = 5.2$, $\underline{SD} = .84$) and female ($\underline{M} = 5.5$, $\underline{SD} = .80$) athletes in their belief in the credibility of sport psychology. In addition, no support was found for the hypothesized difference between Caucasian athletes and athletes of color in their belief about the credibility of sport psychology ($\underline{M} = 5.4$, $\underline{SD} = .84$ and $\underline{M} = 5.3$, $\underline{SD} = .78$, respectively)

or preference for similarity with a SPC (M = 4.1, SD = .94 and M = 4.1, SD = .97, respectively). Means and standard deviations are provided in Table 4.14.

Table 4.14

Mean SPAQ factor scores by gender, race, and previous experience with a SPC.

SPAQ Factors	n[a]	M[b]	SD	F	p
Belief in the credibility of sport psychology					
Male athletes	311	5.2	.84	5.49	.020
Female athletes	254	5.5	.80		
Caucasian athletes	444	5.4	.84	.45	.703
Athletes of color	121	5.3	.78		
Previous experience with a SPC	314	5.5	.80	14.14	.000
No previous experience with a SPC	251	5.1	.81		
Preference for similarity with a SPC					
Male athletes	311	4.1	.96	.27	.606
Female athletes	254	4.1	.93		

(tables continues)

SPAQ Factors	n[a]	M[b]	SD	F	p
Previous experience with a SPC	314	4.0	.98	4.82	.029
No previous experience with a SPC	251	4.2	.89		

Note. N = 568. [a]Three athletes did not indicate their racial classification. [b]1 = low, 7 = high.

Discriminant Validity of the Factor Structure

To establish discriminant validity of the SPAQ factor structure as confirmed by the multigroup comparison, the relationships between the SPAQ factors and several personality variables also were examined independently by gender. More specifically, it was hypothesized that athletes' level of competitive trait anxiety or tendency to respond in a socially favorable manner would not be related in any predictable way to their belief in the credibility of sport psychology and preference for similarity with a SPC. A summary of the results can be found in Table 4.13. As predicted, no significant relationships were observed between the SPAQ factors and athletes' level of competitive trait anxiety (SCAT) and social desirability (SDS). It is noted that a small, significant relationship ($r = -.14$) was found between Factor 2 and SDS scores for male athletes. However, this relationship was deemed to be a function of the large sample size ($n = 308$) and not reflective of the true relationship between these two variables. Thus, it was

concluded that the participants' responses on the SPAQ did not appear to be influenced by the tendency of the participants to respond in a socially favorable manner.

Discussion of Study III

Gender invariance. The purpose of Study III was to simultaneously compare the fit of two separate samples (i.e., males and females) to test the factorial invariance of the SPAQ across gender and to further assess for the SPAQ's reliability and validity. The results of the multigroup comparison demonstrated that the model of the SPAQ factor structure confirmed in Study II fit well for both samples. Thus, the two-factor, orthogonal model of the SPAQ seems to hold for both male and female athletes, and it appears that the 21-item SPAQ as suggested by EFA and confirmed by CFA would be an appropriate tool to assess both male and female athletes' (a) belief in the credibility of sport psychology and (b) preference for similarity with a SPC. Caution, again, is stressed when interpreting the results of the multigroup comparison because it cannot be stated with certainty that these two factors exhaust the domain of dimensions that underlie male and female athletes' attitudes toward seeking sport psychology consultation. However, it does appear that the SPAQ taps into a set of latent variables that adhere to a current conceptualization of important attitudinal dimensions for both male and female athletes with regard to seeking sport psychology consultation.

Validity of factor structure. The relationships found between the SPAQ factors and various other measures supported the findings in Study II and provided further evidence for the concurrent, convergent, and discriminant validity of the SPAQ factor structure. More specifically, the SPAQ was found to distinguish, as predicted, between both male and female athletes with and without previous experience with a SPC (the

exception was males for a personal problem or issue). In addition, scores on the SPAQ were found to be positively related, as predicted, to ratings of helpfulness and satisfaction for both male and female athletes with a previous experience with a SPC (the exception was females for a personal problem or issue). Also, SPAQ scores were positively related, as hypothesized, to willingness to see a SPC for help in the future for both males and females. These findings are consistent with the results of Study II and the previously cited research with general help-seeking attitudes (Tijhuis et al., 1990) and athletes' use of sport psychology services (Gould et al., 1991; Schell et al., 1984).

The results of Study III also revealed that male and female athletes' beliefs in the credibility of sport psychology were related, as predicted, to their belief that practicing sport psychology skills will lead to desirable outcomes as well as their interpersonal openness to seeking professional psychological help. These findings are consistent with the findings of Study II and the research cited previously regarding the relationships between belief about sport psychology skills and intentions to practice them (Greaser, 1992) and interpersonal openness and interpersonal trust (Fischer & Turner, 1970). In addition, the results of Study III indicated that male and female athletes' preference for similarity with a SPC was related, as predicted, to their levels of affective prejudice toward outgroups that differed from them along the lines of race/ethnicity/culture, personality, athletic background, etc. Although these results are not strong, they are consistent with the results of Study II and the relationship outlined previously between ingroup/outgroup designations and affective prejudice (Brislin, 1993; LeVine & Campbell, 1972; Pettigrew, 1997).

As for the ability of the SPAQ to distinguish between groups of athletes based on their gender and race, the results of Study III showed that Factor 1 was not successful at doing so as predicted. The finding of no gender differences is consistent with the results of Study II but not with previous research conducted by Martin et al. (1997) and Harmison and Petrie (1998). These two studies found that female athletes possessed more belief in the credibility of sport psychology, more faith in the abilities of a SPC to help, and more willingness to tolerate the stigma associated with sport psychology than male athletes. Based on the argument that male athletes may believe less in the credibility of sport psychology due to the way they are socialized and the degree to which they adopt a traditional male gender role (Good et al., 1989; Harmison & Petrie, 1998; Martin et al, 1997; Robertson & Fitzgerald, 1992), it is surprising that female athletes in both Study II and III were not found to possess more belief in the credibility of sport psychology than male athletes. It is noted that the follow-up univariate ANOVA revealed a difference between male and female athletes on Factor 1 scores in the predicted direction that approached significance ($p = .02$). However, the SPSS General Linear Model Multivariate procedure accounts for each effect in the design adjusted for any other effects that do not contain it and orthogonal to any effects (if any) that contain it. Thus, by including the independent variable of previous experience with a SPC in the MANOVA, the results suggest that there are no differences between male and female athletes in their belief in the credibility of sport psychology after the effect of their previous experience with a SPC is accounted for. This conclusion is supported by the observation that about two-thirds of the female athletes in both Study II and III reported to have worked with a SPC as an individual or member of a team or group whereas only

about half of the male athletes reported doing so. Given the robust findings that a previous experience with a SPC is related to higher Factor 1 scores, it is argued that female athletes in the present study likely possessed more belief in the credibility of sport psychology than their male counterparts due to the fact that they as a group had more experience with SPCs. Thus, it was concluded that the lack of gender differences in the belief in the credibility of sport psychology observed in both Study II and III is accounted for by the effect of previous experience with a SPC. The possibility remains that attitudes toward sport psychology consultation have become more positive over the last several years due to increased exposure and access to sport psychology and SPCs, thus accounting for the lack of gender differences. It also is possible that the present sample, due to its breadth and diversity, is more representative of the population of male and female athletes. Further exploration of the relationship between gender and attitudes toward seeking sport psychology consultation is needed before definitive conclusions can be drawn.

The finding of no significant differences between Caucasian athletes and athletes of color in their belief in the credibility of sport psychology is consistent with the findings of Study II and Harmison and Petrie (1998). The results of these three studies differ with the findings of Martin et al. (1997) who found that African-American athletes were more likely to stigmatize SPCs than Caucasian athletes. The most plausible explanation for the similarity in findings amongst Study II, Study III, and Harmison and Petrie (1998) that contrasts those of Martin et al. (1997) appears to be a sampling one. As in Study II, when the responses between the Caucasian and African-American athletes in Study III were re-examined using a one-way MANOVA, no significant differences in

the belief in the credibility of sport psychology or preference for similarity with a SPC were found, Wilks' Lambda = .99, $\underline{F}(2, 484) = 2.33$, $\underline{p} = .10$. Replication of this finding in Study III with a sample of minority athletes from different competitive levels and U.S. and international geographical regions gives more credence to the conclusion that the samples in Study II and Study III are more representative of all minority athletes than that of Martin et al. (1997).

Similar to the findings in Study II, the SPAQ factors also failed to relate to level of self-concept in a meaningful way. As stated earlier, it originally was hypothesized that athletes with a greater self-concept would be more willing to tolerate the stigma associated with seeking sport psychology consultation as they would be less concerned about what others thought about them seeking help from a SPC. However, since the results of Study II and Study III failed to support this hypothesis, it remains unclear as to how the subset of hypothesized stigma tolerance items relates to athletes' willingness to tolerate the stigma associated with seeking sport psychology consultation and belief in the credibility of sport psychology. Given the high correlations ($\underline{r}$ values range from .50 to .67) between Factor 1 and male and female athletes' willingness to see a SPC for help in the future, it seems possible that the stigma associated with seeking sport psychology consultation does not add to the cost of contact with a SPC for those athletes who strongly believe in the credibility of sport psychology (Linder et al., 1989; Strong & Matross, 1973. Further exploration of this relationship is needed before definitive conclusions can be drawn, however.

One finding of note that was not predicted was the significant difference for both male and female athletes in their preference for similarity with a SPC between those with

and without a previous experience with a SPC for help with a performance-related problem or issue. This finding suggests that athletes without a previous experience with a SPC for a performance-related problem or issue (and thus less knowledgeable about and familiar with a SPC) would express a greater preference to consult with a SPC perceived to be similar to him or her. Perhaps this finding is best explained when the cost of contact with a SPC is factored into the equation (Linder et al., 1989; Strong & Matross, 1973). Previously, it was reported that both male and female athletes without a previous experience with a SPC for help with a performance-related problem or issue believed less in the credibility of sport psychology. One possible interpretation of this finding is that athletes without a previous experience with a SPC are more sensitive to the stigma associated with seeking sport psychology consultation, would experience discomfort, distress, anxiety, etc. related to seeking help from a SPC, and would prefer to consult with a SPC perceived to be more similar to him or her as a result. Support for this interpretation is provided when the SPAQ items (i.e., 2, 6, 14, and 18) that tap into an athlete's belief that a SPC will be helpful even though others may stigmatize him or her for seeking help from one are examined. More specifically, the mean scores for these items for male and female athletes with a previous experience (means range from 5.5 to 6.3 and 5.5 to 6.4, respectively) with a SPC for a performance-related problem or issue are found to be higher than the means of those without a previous experience (means range from 4.7 to 5.8 and 5.0 to 6.0, respectively). In addition, this explanation is consistent with the argument that individuals prefer to interact with people perceived to be more similar to them to experience the positive feelings associated with an ingroup

other as opposed to the negative feelings related to an outgroup other (Brislin, 1993; LeVine and Campbell, 1972).

CHAPTER V

DISCUSSION

In his presidential address for the Association for the Advancement of Applied Sport Psychology, Smith (1989) argued that a need exists to increase the accountability of applied sport psychology by documenting its effectiveness and called for a greater consideration of the effect of athlete and sport psychology consultant (SPC) characteristics on the effectiveness of applied sport psychology. Research suggests that one such athlete characteristic, namely attitudes toward sport psychology, impact athletes' intentions to practice sport psychology skills (Greaser, 1992), influence their adherence levels to mental skills training following psychoeducational workshops (Bull, 1994), and determine future market opportunities for sport psychologists (DeFrancesco & Cronin, 1988; Schell et al., 1984). Thus, athletes' attitudes toward sport psychology would appear to be an important variable of consideration for both researchers and practitioners regarding the effectiveness of applied sport psychology.

Martin et al. (1997), followed by Harmison and Petrie (1998), attempted to develop and validate the Attitudes Toward Seeking Sport Psychology Consultation Questionnaire (ATSSPCQ) as an instrument to assess the underlying dimensions of athletes' attitudes toward sport psychology, specifically as they relate to seeking sport psychology consultation. Taken together, the results of these two investigations suggested that potentially there were four primary constructs that influence athletes'

attitudes toward seeking sport psychology consultation: (a) confidence in sport psychology, (b) stigma tolerance, (c) preference for racial similarity with a sport psychologist, and (d) openness to sport psychology. Although the theoretical and empirical support for these underlying dimensions seemed strong, Harmison and Petrie (1998) concluded that the ATSSPCQ did not effectively and accurately tap into them.

Thus, the purpose of the present study was to build on the attempts of Martin et al. (1997) and Harmison and Petrie (1998) to develop a valid and reliable questionnaire to identify principle factors that influence athletes' attitudes toward seeking sport psychology consultation. More specifically, the Sport Psychology Attitudes Questionnaire (SPAQ) was theoretically- and empirically-developed and subjected to exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and multigroup comparison to determine the underlying dimensions that define male and female athletes' attitudes toward seeking sport psychology consultation. In addition, a number of tests were conducted to establish concurrent, convergent, and discriminant validity and reliability of the SPAQ factor structured produced by EFA and confirmed by CFA and multigroup comparison.

Underlying Dimensions of Attitudes Toward Sport Psychology Consultation

The results of the EFA conducted on the SPAQ in Study I produced a 21-item measure and revealed that there were two primary dimensions underlying athletes' attitudes toward seeking sport psychology consultation as measured by the SPAQ: (a) belief in the credibility of sport psychology and (b) preference for similarity with a sport psychology consultant (SPC). Thus, the original hypothesis that there would be four independent, underlying dimensions (i.e., confidence in sport psychology, stigma

tolerance, openness to sport psychology, and preference for similarity with a SPC) was not supported. Rather, the EFA results suggested that the dimensions of confidence in sport psychology, stigma tolerance, and openness to sport psychology comprised a much broader dimension, one that was defined as an overall belief in the credibility of sport psychology. In addition, the EFA results revealed that the modifications of Harmison and Petrie's (1998) preference for racial similarity factor were successful in creating a broader measure of an athlete's preference to consult with a SPC perceived to be similar in personality, life experiences, attitudes/values, socioeconomic level, athletic background, race/ethnicity/ culture, and gender.

The results of the CFA in Study II supported the 21-item, two-factor model suggested by the EFA, and the results of the multigroup comparison in Study III demonstrated that the model of the SPAQ factor structure fit well for both independent samples. As a result, it was concluded that the two-factor model of the SPAQ held for male and female athletes. Thus, it appears that the SPAQ taps into a set of latent variables that adhere to a current conceptualization of important attitudinal dimensions with regard to seeking sport psychology consultation, namely a belief in the credibility of sport psychology and preference for similarity with a SPC (see Appendix B for the 21-item version of the SPAQ).

Support for the interpretation of a broader underlying dimension of the SPAQ that assesses an athlete's belief in the credibility of sport psychology can be found in the counseling psychology and sport psychology literature (e.g., Barak and LaCrosse, 1975; Corrigan & Schmidt, 1988; Linder et al., 1989; Strong, 1968). This literature supports the notion that athlete perceptions of SPC expertness, attractiveness, and trustworthiness

are difficult to separate from one another and that certain combinations (e.g., expertness and trustworthiness) may tap into a more unitary dimension such as a perception of credibility. Also, evidence exists that perceptions of credibility are influenced by an athlete's belief in a SPC's knowledge, skills, and public image. In addition, it is argued that any perception of a SPC that reduces the cost in attaining an athlete's goals (e.g., has knowledge and skills to help me) would add to perceptions of credibility whereas any perception that adds to the cost (e.g., working with a SPC is bad for an athlete's reputation) could reduce perceptions of credibility. This supporting literature is consistent with the themes of the belief in the credibility of sport psychology factor of the SPAQ (i.e., SPC viewed as a resource for performance enhancement and personal/ emotional problems and concerns, SPC will be helpful despite stigma, respect for a SPC as a helping professional, value on what a SPC has to offer, willingness to trust and be open to a SPC).

Support for a broader underlying dimension of the SPAQ that assesses an athlete's preference for similarity with a SPC on characteristics other than just race/ ethnicity can be found in the multicultural counseling psychology literature. Evidence exists to suggest that African-American, Asian-American, Hispanic, Native American, and Caucasian participants all prefer a racially similar counselor (Leong et al., 1995). Leong et al. (1995) also presented evidence to suggest that the preference for an ethnically similar counselor may be the result of an individual's desire to share similar cultural values or worldviews with the counselor. Thus, consistent with Leong et al. (1995), an athlete's preference for a racially similar SPC may be an overt manifestation of his or her desire to match with a SPC on personal characteristics such as personality,

values, worldview, etc. to guarantee a more comfortable consulting relationship. Thus, it is concluded that expanding the preference for similarity with a SPC factor allows the SPAQ to more effectively tap into this desire to match with a SPC on various personal attributes.

Validity of the SPAQ Factor Structure

The relationships found between the SPAQ factors and various other measures provided evidence for the concurrent, convergent, and discriminant validity of the SPAQ factor structure. More specifically, the SPAQ was found to distinguish, as predicted, between both male and female athletes with and without previous experience with a SPC (the exception was males for a previous experience with a SPC for a personal problem or issue). In addition, the SPAQ factors were found to be related, as predicted, to ratings of helpfulness and satisfaction for both male and female athletes with a previous experience with a SPC (the exception was females for a previous experience with a SPC for a personal problem or issue) and to willingness to see a SPC for help in the future. Also, the validity tests revealed that the SPAQ factors were related, as predicted, to athletes' belief that practicing sport psychology skills will lead to desirable outcomes, interpersonal openness to seeking professional psychological help, and affective prejudice toward outgroups that differed from them along the lines of race/culture, personality, athletic background, etc.

As for the ability of the SPAQ to distinguish between groups of athletes based on their gender and race, the results showed that it was not successful at doing so as hypothesized. The inability of both Study II and III to demonstrate a significant main effect for gender related to belief in the credibility of sport psychology was very

surprising given the strong empirical support for this gender difference (Good et al., 1989; Harmison & Petrie, 1998; Martin et al, 1997; Robertson & Fitzgerald, 1992). The most plausible explanation for why no significant gender differences were found in the belief in the credibility of sport psychology appears to be related to the nature of these samples. More specifically, since a greater percentage of the female athletes in both Study II and III reported to previously have worked with a SPC compared to the male athletes, it is argued that the effect of previous experience with a SPC is able to account for the lack of gender differences in the present study. Researchers are encouraged to further explore the nature of the relationship between gender and previous experience with SPCs before definitive conclusions can be made about the effect of gender on athletes' attitudes toward sport psychology.

The finding of no significant differences between Caucasian athletes and athletes of color in their belief in the credibility of sport psychology in both Study II and III was consistent with the findings of Harmison and Petrie (1998) but not with those of Martin et al. (1997). This inconsistency with previous research appears to be the result of sampling differences amongst the studies. The results of Study II and III provide strong support for the argument that the racial differences found in Martin et al. (1997) likely were influenced by the social, cultural, and political climate specific to that sample (i.e., large, predominately White university in the southeastern U.S.). Future research attempting to determine the effect of race/ethnicity on athletes' attitudes toward seeking sport psychology consultation needs to account for the intragroup as well as the intergroup variability between and among majority and minority groups of athletes.

Another hypothesized relationship that failed to be observed is worthy of note as well. In particular, the SPAQ factors did not relate to level of self-concept in a meaningful way as predicted. It originally was hypothesized that athletes with a greater self-concept would be more willing to tolerate the stigma associated with seeking sport psychology consultation as they would be less concerned about what others thought about them seeking help from a SPC. Since the results of the present study failed to find support for this hypothesis, it remains unclear as to how the subset of hypothesized stigma tolerance items relates to athletes' willingness to tolerate the stigma associated with seeking sport psychology consultation and belief in the credibility of sport psychology. Further exploration of the relationship between the cost of contact with a SPC and athletes' belief in the credibility of sport psychology may provide more clarity to this question (Linder et al., 1989; Strong & Matross, 1973).

Limitations

Several limitations should be kept in mind when interpreting the findings of the present study. First, it must be kept in mind that the data in the present study are based on self-report measures. It is difficult to ascertain if the questions were interpreted as desired, if the statements were answered truthfully, or if a particular response set was utilized. However, precautions (e.g., guarantee of anonymity, social desirability check) were taken to ensure that the responses were accurate, and it was concluded that the participants' responses did not appear to be influenced by the desire to appear socially favorable in front of others.

Second, a thorough attempt was made to recruit a representative sample of athletes across all levels of participation, and for the most part, this goal was met.

However, the possibility remains that the athletes sampled in the present study do not accurately represent the population of athletes that do exist. In particular, both older and younger competitive athletes are underrepresented in the present sample. Along these lines, it should be noted that the SPAQ was designed to assess competitive athletes' attitudes toward sport psychology consultation. Thus, it may not be appropriate for the recreational athlete. In addition, it was observed during administration that the younger athletes struggled at times with the wording of the items on the SPAQ. Given this observation, it is not recommended that the SPAQ be administered to athletes much younger than 13 years of age.

Third, the results of the present study do not prove beyond a shadow of a doubt that the underlying dimensions that define athletes' attitudes toward seeking sport psychology consultation are the belief in the credibility of sport psychology and preference for similarity with a SPC. The method (i.e., structural equation modeling) taken in the present study to develop and validate a measure of athletes' attitudes toward sport psychology is limited by what data and information is put into the model. In many ways, the investigator liked the four-factor model, found it to be more appealing, and believed that it provided better information to both researchers and practitioners. However, the underlying theory for why individual items are in the model has not been changed, and perhaps, may even have been improved. The results of the present study suggest that the constructs of confidence in sport psychology, stigma tolerance, and openness to sport psychology are highly related, and viewing them as independent of one another may actually limit the effect that each has on the other. Thus, by using the structural approach, more confidence can be placed in the ability of the SPAQ to

effectively and accurately tap into a set of underlying attitudinal dimensions related to seeking sport psychology consultation.

Directions for Future Research

Although it appears that the present study was very successful in developing a valid and reliable questionnaire to measure athletes' attitudes toward seeking sport psychology consultation, the door is open for future investigations to add to the SPAQ's effectiveness and accuracy to do so. In particular, determining the relationship of the three hypothesized dimensions (i.e., confidence in sport psychology, stigma tolerance, openness to sport psychology) with one another and with the broader belief in the credibility of sport psychology factor would seem to be an important next step. By doing so, it is hoped that a better understanding of these relationships would lead to a more comprehensive understanding of how these variables relate to athletes' consultation-seeking behavior.

Another potential line of research involves the examination of the effects of gender, race, and level of participation on athletes' attitudes toward seeking sport psychology consultation. The results of the present study cast some doubt on the previously found differences between male and female athletes and their levels of belief in the credibility of sport psychology. Although it seems that female athletes possess more favorable attitudes toward sport psychology consultation, the results of the present study did not support these gender differences, and replication of the lack of significant gender differences is needed before this finding can become valid. Also, there is reason to believe that some minority athletes possess less favorable attitudes toward sport psychology consultation. It is suggested that research in this area focus on the intra- and

intergroup difference between and among minority and majority groups of athletes along such variables as racial/ethnic identity, cultural mistrust, etc. to better understand the effect of race on consultation-seeking attitudes and behavior. Lastly, although not examined in the present study, it seems logical to assume that athletes at higher levels of participation would possess more favorable attitudes toward seeking sport psychology consultation than their lower level counterparts. However, there is a need to tease out the effects of other variables, such as previous exposure to sport psychology and age and developmental maturity, before an accurate understanding of this relationship can be gained.

Finally, the results of the present study support the contention that the SPAQ can be used to assess for the effect of the athlete characteristic of attitudes toward sport psychology consultation when evaluating the effectiveness of applied sport psychology. One such use of the SPAQ would be to administer the instrument to a group of participants prior to embarking on an intervention for a single problem (e.g., goal setting for improved free-throw shooting performance) or a mental skills training program. By doing so, a researcher might be better able to account for individual differences within his or her sample that might impact the relationship between the primary variables under study.

Practical Implications

The confirmed factor structure of the SPAQ appears to provide the practitioner with some valuable information regarding athlete attitudes toward seeking sport psychology consultation. Prior to working with an athlete or team, a SPC can assess the athletes' belief in the credibility of sport psychology and preference for similarity with a

SPC by administering the SPAQ prior to working with them. Based on the factor scores, the SPC could determine the degree to which he or she would need to increase the athletes' confidence in sport psychology, ease the athletes' level of discomfort related to the stigma associated with sport psychology, and/or gain the trust of the athletes to enhance his or her effectiveness with them.

The SPAQ also would supply valuable information regarding an athlete's desire to match with a SPC on characteristics such as personality, attitudes, gender, and so forth. This factor score would provide the practitioner with valuable information that would allow the SPC to respond to the athlete with a culturally-responsive consulting strategy. This kind of information may be particularly relevant when working with athletes of color. Given that the profession of sport psychology is predominately comprised of Caucasians, the chances of an athlete of color working with a racially similar SPC are relatively slim. However, Sue, Arredondo, and McDavis (1995) provide several recommendations to help SPCs be more culturally competent and address an athlete's need for similarity. For starters, a SPC can effectively meet the needs of an athlete of color by being sensitive to the athlete's life experiences, cultural heritage, and historical background. Also, working with an athlete's of color cultural beliefs and attitudes in a nonjudgmental fashion would serve to convey an understanding of the athlete's different worldview. Being open to the ways in which sociopolitical influences (e.g., poverty, racism) impact and scar the lives of racial and ethnic minorities would help to align a SPC with an athlete of color as well. Finally, a healthy awareness of how a SPC's own cultural heritage, background, experiences, attitudes, values, and biases personally and professionally affects their view of athletes and their problems would prevent an

ethnocentric worldview, a key ingredient to effective multicultural counseling and consulting

Conclusion

The present study was successful in developing a questionnaire to measure athletes' attitudes toward seeking sport psychology consultation. A series of factor analyses and other tests revealed that the SPAQ is a valid and reliable instrument for assessing two important underlying, broader dimensions of athletes' attitudes toward sport psychology, namely the belief in the credibility of sport psychology and the preference for similarity with a SPC. In addition, the SPAQ is deemed as a potentially useful research instrument that could be utilized to assess the impact of athlete attitudes toward sport psychology consultation on the effectiveness of applied sport psychology. Thus, a researcher could use the SPAQ to account for the athlete characteristics and individual differences within his or her sample that might affect the relationship between the primary variables under study. The SPAQ appears to be a useful aid in applied settings as well, allowing practitioners to gauge the degree to which athletes perceive them to be a resource, are willing to tolerate the stigma associated with sport psychology, and are willing and open to try sport psychology. Armed with this information, a practitioner should be better able to structure their consulting experiences to address these potential barriers and increase their effectiveness with the athletes with whom they work.

In addition, the present study revealed several directions that seem to be fertile ground for future research. In particular, the results of the present study suggest that the constructs of confidence in sport psychology, stigma tolerance, and openness to sport psychology are difficult to separate from one another and tap into a broader belief in the

credibility of sport psychology factor. Determining the specific nature of the relationships of these three constructs with the unitary factor likely would lead to a more comprehensive understanding of how these variables relate to athletes' consultation-seeking behavior. In addition, Linder et al.'s (1989) notion of cost of contact related to seeking help from a SPC and its actual impact on consultation-seeking behavior would appear to be an important piece to this puzzle.

Finally, given the nonsignificant finding of gender differences in athletes' belief in the credibility of sport psychology, researchers are encouraged to further explore the relationship between gender, previous experience with a SPC, and attitudes toward sport psychology consultation to determine the impact of each on athletes' consultation-seeking behavior. Likewise, given the finding of a lack of racial differences in athletes' belief in the credibility of sport psychology and preference for similarity with a SPC, researchers also are encouraged to further investigate the inter- and intragroup variability in athletes' attitudes toward sport psychology consultation to better understand the effect of race/ethnicity on athletes' consultation-seeking behavior.

APPENDIX A

QUESTIONNAIRE PACKET

DEMOGRAPHIC INFORMATION

IDENTIFYING DATA:

1. Age:_____	**2. Gender** (circle one):	1-Male	2-Female

3. Race (circle one):				
1-African-American	2-Asian-American/ Pacific Islander	3-Caucasian	4-Hispanic	5-Native-American/ American Indian
6-Multiracial (please define):_____		7-Other:_____		

4. Academic Classification (circle highest level attained):							
High School:				College:			
1-Freshman	2-Sophomore	3-Junior	4-Senior	5-Freshman	6-Sophomore	7-Junior	8-Senior
Post-College:							
9-B.A. / B.S.	10-M.A. / M.S.	11-Ph.D. / Ed.D. / M.D.		12-Other:_____			

SPORT-SPECIFIC DATA:

5. Sport That You *Primarily* Participate In (circle one):					
1-Archery	2-Badminton	3-Baseball	4-Basketball	5-Biathlon	6-Bobsled
7-Bowling	8-Boxing	9-Canoe/Kayak	10-Curling	11-Cycling	12-Diving
13-Equestrian	14-Fencing	15-Field Hockey	16-Figure Skating	17-Golf	18-Gymnastics
20-Ice Hockey	21-Judo	22-Lacrosse	23-Luge	24-Modern Pentathlon	25-Racquetball
26-Roller Skating	27-Rowing	28-Sailing	29-Shooting	30-Skiing	31-Soccer
32-Softball	33-Speed Skating	34-Squash	35-Swimming	36-Synchronized Swimming	37-Table Tennis
38-Taekwondo	39-Team Handball	40-Tennis	41-Track & Field	42-Triathlon	43-Volleyball
44-Water Polo	45-Water Skiing	46-Weightlifting	47-Wrestling	48-Other:_____	

6. Position / Event That You *Primarily* Participate In (for example, catcher in softball, offensive lineman in football, 100 m in track, etc.) (please define): _____

7. Current Level of Participation (circle one):		
1-Sr. Elite • compete professionally • OR compete in national or international competitions as a member of a Sr. national team	2-Sr. National • compete in regional, national, or international competitions but not a member of a Sr. national team • OR a member of a national development team	3-Jr. Elite • compete in regional, national, or international competitions as a member of a Jr. national team
4-College • attend a Div. I, II or III college or university • AND a member of an intercollegiate team	5-Club • attend a Div. I, II or III college or university • AND a member of a club team	6-High School • attend a high school • AND a member of a varsity team
7-Jr. National • compete in regional, national, or international competitions but not a member of a Jr. national team	8-Jr. Developmental • attend a high school • AND compete in a sport that is not considered a high school sport	9-Master's • compete in age-group divisions at regional, national, or international competitions
10-Other:_____		

PREVIOUS INDIVIDUAL EXPERIENCE WITH A SPORT PSYCHOLOGY CONSULTANT:

8. Have you ever worked with a sport psychology consultant before on a performance-related problem or issue, such as, difficulty staying focused, lack of motivation to practice, or improving ability to visualize? (circle one):	1-Yes (go to #8a)	2-No (go to #9)
(a) If you answered "Yes" to #8, how helpful was the sport psychology consultant in assisting you? (circle one):	1 2 3 4 5 6 7 not at all somewhat very	
(b) If you answered "Yes" to #8, how satisfied were you with the sport psychology consultation experience? (circle one):	1 2 3 4 5 6 7 not at all somewhat very	

9. Have you ever worked with a sport psychology consultant before on a personal problem or issue, such as parents getting a divorce, relationship difficulties, or struggling with school? (circle one):	1-Yes (go to #9a)	2-No (go to #10)
(a) If you answered "Yes" to #9, how helpful was the sport psychology consultant in assisting you? (circle one):	1 2 3 4 5 6 7 not at all somewhat very	
(b) If you answered "Yes" to #9, how satisfied were you with the sport psychology consultation experience? (circle one):	1 2 3 4 5 6 7 not at all somewhat very	

10. Estimate the number of hours you have met individually with a sport psychology consultant for help with a performance-related or personal problem or issue (circle one):	1 0	2 1-5	3 6-10	4 11-15	5 16-20	6 over 20

PREVIOUS TEAM / GROUP EXPERIENCE WITH A SPORT PSYCHOLOGY CONSULTANT:

11. Have you ever worked with a sport psychology consultant before as a member of a team or group (e.g., attended workshops or participated in group discussions led by a consultant)? (circle one):					1-Yes (go to #11a)	2-No (go to #12)
(a) If you answered "Yes" to #11, how helpful was the sport psychology consultant in assisting you? (circle	1 not at all	2	3	4 somewhat	5	6 7 very
(b) If you answered "Yes" to #11, how satisfied were you with the sport psychology consultation experience? (circle one):	1 not at all	2	3	4 somewhat	5	6 7 very
(c) If you answered "Yes" to #11, estimate the number of hours you have met with a sport psychology consultant in a team or group setting (circle one):	1 1-5	2 6-10	3 11-15	4 16-20	5 over 20	

PREVIOUS EXPERIENCE WITH A MENTAL HEALTH PROFESSIONAL:

12. Have you ever worked with a mental health professional (e.g., psychologist, psychiatrist) other than a sport psychology consultant before on a performance-related or personal problem or issue? (circle one):					1-Yes (go to #12a)	2-No (go to #13)
(a) If you answered "Yes" to #12, how helpful was the mental health professional in assisting you? (circle one):	1 not at all	2	3	4 somewhat	5	6 7 very
(b) If you answered "Yes" to #12, how satisfied were you with the mental health professional experience? (circle one):	1 not at all	2	3	4 somewhat	5	6 7 very
(c) If you answered "Yes" to #12, estimate the number of hours you have met individually with a mental health professional for help with a performance-related or personal problem or issue (circle one):	1 1-5	2 6-10	3 11-15	4 16-20	5 over 20	

FUTURE EXPERIENCE WITH A SPORT PSYCHOLOGY CONSULTANT:

13. How willing would you be to see a sport psychology consultant for help with a *performance-related problem or issue*? (circle one):	1 2 3 4 5 6 7 not at all somewhat very

14. How willing would you be to see a sport psychology consultant for help with a *personal problem or issue*? (circle one):	1 2 3 4 5 6 7 not at all somewhat very

SPAQ

Directions: Please indicate your beliefs about the following statements by circling the response that corresponds to your opinions toward each statement. There are no right or wrong answers. Using the scale below, please respond to each statement as truthfully as you can.

1	**2**	**3**	**4**	**5**	**6**	**7**
Strongly Disagree	**Disagree**	**Moderately Disagree**	**Neutral**	**Moderately Agree**	**Agree**	**Strongly Agree**

1.	A sport psychology consultant could help me fine-tune my sport performance……..…	1	2	3	4	5	6	7
2.	I would work with a sport psychology consultant even though some people might label me a "mental patient" or "problem athlete"……...	1	2	3	4	5	6	7
3.	I would prefer working with a sport psychology consultant from a racial, ethnic, or cultural group similar to my own……...	1	2	3	4	5	6	7
4.	I would openly discuss my thoughts and feelings with a sport psychology consultant……	1	2	3	4	5	6	7
5.	A sport psychology consultant does *not* have the knowledge and skills to help me perform better……	1	2	3	4	5	6	7
6.	Working with a sport psychology consultant is bad for an athlete's reputation…….	1	2	3	4	5	6	7
7.	If I worked with a sport psychology consultant, I would want him/her to have attitudes and values similar to my own……...	1	2	3	4	5	6	7
8.	There are certain personal issues that I would *not* discuss with a sport psychology consultant……	1	2	3	4	5	6	7
9.	I do *not* have much respect for sport psychology consultants……..	1	2	3	4	5	6	7
10.	It would *not* matter to me what my coach thought about my working with a sport psychology consultant..	1	2	3	4	5	6	7
11.	If I worked with a sport psychology consultant, I would want him/her to be of the same gender……...	1	2	3	4	5	6	7

1 Strongly Disagree	2 Disagree	3 Moderately Disagree	4 Neutral	5 Moderately Agree	6 Agree	7 Strongly Agree

12. I respect athletes who seek help when they are unable to cope with their problems by themselves…….	1	2	3	4	5	6	7
13. I would follow the suggestions a sport psychology consultant gave to me……..	1	2	3	4	5	6	7
14. I would work with a sport psychology consultant despite some people's belief that athletes do not need that type of assistance……..	1	2	3	4	5	6	7
15. I would prefer working with a sport psychology consultant who has a competitive athletic background similar to my own……..	1	2	3	4	5	6	7
16. There are certain problems that should only be discussed within one's family…….	1	2	3	4	5	6	7
17. If my emotions were negatively affecting my performance, working with a sport psychology consultant would be helpful……...……	1	2	3	4	5	6	7
18. It would *not* bother me if people knew I was receiving help from a sport psychology consultant……	1	2	3	4	5	6	7
19. I would relate best to a sport psychology consultant who is from a socioeconomic level similar to my own..	1	2	3	4	5	6	7
20. Athletes with a strong character can overcome personal difficulties without talking to a sport psychology consultant……	1	2	3	4	5	6	7
21. If I were having problems during competition, such as difficulty with focusing or handling pressure, a sport psychology consultant would be more helpful than a coach or anyone else……..….	1	2	3	4	5	6	7
22. If I thought I needed mental training to improve my sport performance, I would get help even if others knew about it……..	1	2	3	4	5	6	7
23. If I worked with a sport psychology consultant, I would want him/her to have a personality similar to my own……...	1	2	3	4	5	6	7
24. It would be easy for me to talk about my problems with a sport psychology consultant even if I didn't know him/her very well……..….	1	2	3	4	5	6	7

1 Strongly Disagree	2 Disagree	3 Moderately Disagree	4 Neutral	5 Moderately Agree	6 Agree	7 Strongly Agree

25. Considering the time and commitment involved in working with a sport psychology consultant, it would have little value for me…….……..….	1	2	3	4	5	6	7
26. If I worked with a sport psychology consultant, I would *not* want my teammates to know about it……	1	2	3	4	5	6	7
27. If I worked with a sport psychology consultant, I would want him/her to have had life experiences similar to my own……...…	1	2	3	4	5	6	7
28. If I was stressed and overwhelmed about my sport performance, I would rather work it out myself than talk with a sport psychology consultant…….……	1	2	3	4	5	6	7
29. If a teammate asked my advice about how to become mentally tougher, I would recommend that he/she see a sport psychology consultant……...….	1	2	3	4	5	6	7
30. I would respect most the opinions of a sport psychology consultant from my own racial, ethnic, or cultural group…….	1	2	3	4	5	6	7
31. If an athlete I knew was feeling down, I would suggest they talk with someone about their problems…….	1	2	3	4	5	6	7
32. To help me better understand myself as an athlete, discussing personal matters with a sport psychology consultant would be helpful……..…….	1	2	3	4	5	6	7
33. The best way to cope with negative feelings is to not give in to them……	1	2	3	4	5	6	7

SCOS

Directions: Please indicate your beliefs about each of the following statements by circling the response that corresponds to your opinions toward each statement. There are no right or wrong answers. Using the scale to the right, please respond to each statement as truthfully as you can. Begin reading each statement with the phrase:

Practicing sport psychology skills…

	1 = Extremely Unlikely	2 = Quite Unlikely	3 = Slightly Unlikely	4 = Neither	5 = Slightly Likely	6 = Quite Likely	7 = Extremely Likely
1. helps me concentrate on the game……	1	2	3	4	5	6	7
2. helps me achieve my sport competition goals……..	1	2	3	4	5	6	7
3. could cause me to lower my sport performance goals……...	1	2	3	4	5	6	7
4. would increase my confidence in myself……..	1	2	3	4	5	6	7
5. might interfere with achieving my sport goals……..	1	2	3	4	5	6	7
6. would interfere with my physical training…….	1	2	3	4	5	6	7
7. prepares me emotionally for sport competition…….	1	2	3	4	5	6	7
8. improves concentration during sport competition…….	1	2	3	4	5	6	7
9. could lead to developing feelings of failure……..	1	2	3	4	5	6	7
10. would help me stay motivated……..	1	2	3	4	5	6	7
11. would allow me to achieve my greatest potential……..	1	2	3	4	5	6	7
12. would help me become better in all areas of life……..	1	2	3	4	5	6	7
13. increases my competitive drive……..	1	2	3	4	5	6	7
14. would help me challenge myself……	1	2	3	4	5	6	7
15. could interfere with team goals……..	1	2	3	4	5	6	7
16. could increase my determination to succeed in sport competition…….	1	2	3	4	5	6	7
17. takes too much time……..	1	2	3	4	5	6	7
18. will prevent me from enjoying sport competition……..	1	2	3	4	5	6	7
19. interferes with team solidarity……	1	2	3	4	5	6	7
20. places too much reliance on thinking about success……..	1	2	3	4	5	6	7
21. could interfere with the goal of winning the game……	1	2	3	4	5	6	7
22. helps me believe in my abilities……	1	2	3	4	5	6	7

TSCS:2

Directions: This scale asks you to describe how you feel about yourself. There are no right or wrong answers, so please just describe yourself as honestly as you can. When you are ready to begin, read each statement and decide how well it describes you according to the scale to the right. Read each statement carefully. Then circle the number that shows your answer. Circle only one number for each statement.

		1 = Always False	2 = Mostly False	3 = Partly False and Partly True	4 = Mostly True	5 = Always True
1.	I am an attractive person……...……	1	2	3	4	5
2.	I am an honest person……...…	1	2	3	4	5
3.	I am a member of a happy family……..…	1	2	3	4	5
4.	I wish I could be more trustworthy……..	1	2	3	4	5
5.	I do not feel at ease with other people……..	1	2	3	4	5
6.	Math is hard for me……..	1	2	3	4	5
7.	I am a friendly person……...	1	2	3	4	5
8.	I am satisfied with my moral behavior…….	1	2	3	4	5
9.	I am not as smart as the people around me……...	1	2	3	4	5
10.	I do not act the way my family thinks I should…	1	2	3	4	5
11.	I am just as nice as I should be…….	1	2	3	4	5
12.	It is easy for me to learn new things…….	1	2	3	4	5
13.	I am satisfied with my family relationships…….	1	2	3	4	5
14.	I am not the person I would like to be……..	1	2	3	4	5
15.	I understand my family as well as I should……..	1	2	3	4	5
16.	I despise myself……	1	2	3	4	5
17.	I don't feel as well as I should……..	1	2	3	4	5
18.	I do well at math……...	1	2	3	4	5
19.	I am satisfied to be just what I am……	1	2	3	4	5
20.	I get along well with other people……	1	2	3	4	5

ATSPPHS

Below are several statements pertaining to psychology and mental health issues. Read each statement carefully and indicate your level of agreement by circling the response that corresponds to your feelings toward each statement. Please express your frank opinion in rating the statement. There are no "wrong" answers, and the only right ones are whatever you honestly feel or believe. It is important that you answer every item. Use the scale below to assist you.

0	1	2	3
disagree	partly disagree	partly agree	agree

1.	I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family……...…	0	1	2	3
2.	There are certain problems which should not be discussed outside of one's immediate family…...	0	1	2	3
3.	Keeping one's mind on a job is a good solution for avoiding personal worries and concerns……	0	1	2	3
4.	I resent a person - professionally trained or not - who wants to know about my personal difficulties……	0	1	2	3
5.	There are experiences in my life I would not discuss with anyone…….	0	1	2	3
6.	It is probably best not to know *everything* about oneself……..	0	1	2	3
7.	It is difficult to talk about personal affairs with highly educated people such as doctors, teachers, and clergy…….	0	1	2	3

DIST

Directions: For each of the following statements, circle the response that best reflects your true feelings. There are no right or wrong answers. Please answer as truthfully as you can.

Some people are disturbed by the opinions, customs, and way of life of people different from themselves. To what extent do you personally, in your daily life, find disturbing the presence of people:

1.	from another racial, ethnic, or cultural group.	1 not at all	2	3	4 somewhat	5	6	7 very
2.	with different attitudes and values.	1 not at all	2	3	4 somewhat	5	6	7 very
3.	of the opposite gender.	1 not at all	2	3	4 somewhat	5	6	7 very
4.	with a lower level of athletic ability.	1 not at all	2	3	4 somewhat	5	6	7 very
5.	from a different socioeconomic level.	1 not at all	2	3	4 somewhat	5	6	7 very
6.	with different personalities.	1 not at all	2	3	4 somewhat	5	6	7 very
7.	with different life experiences.	1 not at all	2	3	4 somewhat	5	6	7 very

SCAT

Directions: Below are some statements about how persons feel when they compete in sports and games. Read each statement and indicate how you *usually* feel when you compete in sports and games. Using the scale provided, circle the number that best corresponds with your feelings toward each statement. There are no right or wrong answers. Do not spend too much time on any one statement.

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

SDS

Please circle the number under the column which best applies to each of the numbered statements. Circle 1 for 'true' or circle 2 for 'false'.

	True	False
1. It is sometimes hard for me to go on with my work if I am not encouraged……...	1	2
2. I sometimes feel resentful when I don't get my way..	1	2
3. On a few occasions, I have given up doing something because I thought too little of my ability..	1	2
4. There have been times when I felt like rebelling against people in authority even though I knew they were right…..……..	1	2
5. No matter who I'm talking to, I'm always a good listener……	1	2
6. There have been occasions when I took advantage of someone…….	1	2
7. I'm always willing to admit it when I make a mistake……...	1	2
8. I sometimes try to get even rather than forgive and forget……..	1	2
9. I am always courteous, even to people who are disagreeable……	1	2
10. I have never been irked when people expressed ideas very different from my own…….….	1	2
11. There have been times when I was quite jealous of the good fortune of others……..	1	2
12. I am sometimes irritated by people who ask favors of me……..	1	2
13. I have never deliberately said something that hurt someone's feelings…….	1	2

APPENDIX B

SPORT PSYCHOLOGY ATTITUDES QUESTIONNAIRE

SPAQ

Directions: Please indicate your beliefs about the following statements by circling the response that corresponds to your opinions toward each statement. There are no right or wrong answers. Using the scale below, please respond to each statement as truthfully as you can.

1 **Strongly Disagree**	**2** **Disagree**	**3** **Moderately Disagree**	**4** **Neutral**	**5** **Moderately Agree**	**6** **Agree**	**7** **Strongly Agree**

1.	A sport psychology consultant could help me fine-tune my sport performance…….	1	2	3	4	5	6	7
2.	I would work with a sport psychology consultant even though some people might label me a "mental patient" or "problem athlete"……...	1	2	3	4	5	6	7
3.	I would prefer working with a sport psychology consultant from a racial, ethnic, or cultural group similar to my own……...	1	2	3	4	5	6	7
4.	I would openly discuss my thoughts and feelings with a sport psychology consultant……	1	2	3	4	5	6	7
5.	A sport psychology consultant does *not* have the knowledge and skills to help me perform better……	1	2	3	4	5	6	7
6.	Working with a sport psychology consultant is bad for an athlete's reputation…….	1	2	3	4	5	6	7
7.	If I worked with a sport psychology consultant, I would want him/her to have attitudes and values similar to my own……...	1	2	3	4	5	6	7
8.	I do *not* have much respect for sport psychology consultants……..	1	2	3	4	5	6	7
9.	If I worked with a sport psychology consultant, I would want him/her to be of the same gender……...	1	2	3	4	5	6	7
10.	I respect athletes who seek help when they are unable to cope with their problems by themselves……	1	2	3	4	5	6	7
11.	I would follow the suggestions a sport psychology consultant gave to me…….	1	2	3	4	5	6	7

1 Strongly Disagree	2 Disagree	3 Moderately Disagree	4 Neutral	5 Moderately Agree	6 Agree	7 Strongly Agree

12. I would work with a sport psychology consultant despite some people's belief that athletes do not need that type of assistance…….	1	2	3	4	5	6	7
13. I would prefer working with a sport psychology consultant who has a competitive athletic background similar to my own…….….	1	2	3	4	5	6	7
14. If my emotions were negatively affecting my performance, working with a sport psychology consultant would be helpful…….	1	2	3	4	5	6	7
15. I would relate best to a sport psychology consultant who is from a socioeconomic level similar to my own..	1	2	3	4	5	6	7
16. If I thought I needed mental training to improve my sport performance, I would get help even if others knew about it……..	1	2	3	4	5	6	7
17. If I worked with a sport psychology consultant, I would want him/her to have a personality similar to my own……...	1	2	3	4	5	6	7
18. Considering the time and commitment involved in working with a sport psychology consultant, it would have little value for me…….….	1	2	3	4	5	6	7
19. If I worked with a sport psychology consultant, I would want him/her to have had life experiences similar to my own……...…	1	2	3	4	5	6	7
20. If I was stressed and overwhelmed about my sport performance, I would rather work it out myself than talk with a sport psychology consultant……	1	2	3	4	5	6	7
21. To help me better understand myself as an athlete, discussing personal matters with a sport psychology consultant would be helpful…….	1	2	3	4	5	6	7

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predictions, Gender X Race X SPC experience MANOVAs revealed no gender or racial differences in attitudes toward sport psychology consultation. It was concluded that the SPAQ is a valid and reliable instrument for assessing a set of important attitudinal dimensions with regard to seeking sport psychology consultation and a useful instrument for research and practice. Theoretical and empirical support for the interpretation of the SPAQ factor structure, directions for future research, and practical implications are discussed.