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Competitive anxiety and coping of female collegiate soccer goalkeepers

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COMPETITIVE ANXIETY AND COPING OF FEMALE COLLEGIATE
SOCCER GOALKEEPERS

A Thesis

Presented to

The Faculty of the Department of Human Performance
San Jose State University

In Partial Fulfillment

Of the Requirements for the Degree

Masters of Arts

By

Ellen K. Payne

May 2003

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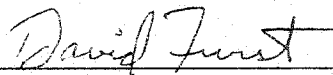
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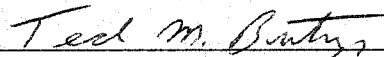
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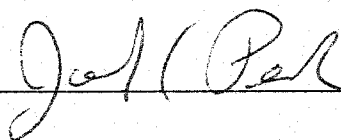


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ABSTRACT

COMPETITIVE ANXIETY AND COPING OF FEMALE COLLEGIATE SOCCER GOALKEEPERS

by Ellen K. Payne

The purpose of this study was to examine the competitive anxiety and coping strategies of female collegiate soccer goalkeepers through quantitative and qualitative measures. Twenty-four goalkeepers from 13 California NCAA Division I and II schools completed a demographic questionnaire, Competitive State Anxiety Inventory-2, and Athletic Coping Skills Inventory-28. Six goalkeepers with high state anxiety scores participated in short interviews about coping strategies. Four major themes developed from the interviews, including intervention strategies, communication, confidence, and ego protection. Intervention strategies had 3 subcategories develop including self-talk, visualization, and music. Communication was related to coping, maintaining focus and concentration, and control. Confidence was discussed relation to practice and abilities. Ego protection had 2 subcategories develop including avoidance and the idea of having nothing to lose. The themes were discussed in relation to results of quantitative measures and research on coping and competitive anxiety. Recommendations for future research and implications were also discussed.

Acknowledgements

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Chapter 1

INTRODUCTION

In today's world of competitive sports a lot of pressure is placed on athletes to perform at their best. The stress that athletes must deal with can seem unbearable at times, yet research suggests that only a portion of all athletes become highly anxious in competitive situations (Martens, Burton, Vealey, Bump, & Smith, 1990). The athlete's perception of the competitive situation is important in determining the amount and quality of the anxiety response in each individual (Martens, Burton et al., 1990). The coping strategies used by athletes in different situations may vary, but to successfully manage anxiety and stressful situations, coping strategies must be used. High levels of anxiety can have a negative affect on athletic performance (Burton, 1998). Streat (1998) stated that coping and stress management are "essential to any kind of performance" (p. 335).

A significant amount of research has been conducted on competitive anxiety in sports (Burton, 1998; Douthwaite & Armstrong, 1984; Dunn & Nielsen, 1993; Hanton, Jones, & Mullen, 2000; Hanton, Mellalieu, & Hall, 2002; Jones, 1995; Lewthwaite, 1990; Krohne & Hindel, 1988; Maynard & Howe, 1987; Maynard, Smith, & Warwick-Evans, 1995; Rodrigo, Lusiardo, & Periera, 1990; Sewell & Edmondson, 1996) and the coping strategies of athletes (Anshel, 1996, 2001; Anshel, Jamieson, & Raviv, 2001; Anshel & Kaissidis, 1997; Anshel, Kim, Kim, Chang, & Eom, 2001; Anshel, Porter, & Quek, 1998; Campen & Roberts, 2001; Gould, Eklund, & Jackson, 1993; Holt & Hogg, 2002; Krohne & Hindel, 1988; Pensgaard & Duda, 2002). The majority of studies examine only one

aspect of either anxiety or coping. The examination of the relationship between competitive anxiety and coping strategies utilized by athletes is lacking. For example, Burton (1988) investigated anxiety in swimmers, and did not assess how anxious athletes cope with increased anxiety during competition. A void in current research exists due to a lack of combined research on anxiety and coping strategies. Combined research would allow for the examination into the relationship between anxiety and coping strategies of athletes.

The majority of the research published in the areas of coping or anxiety use quantitative measure to examine each aspect. Recently there have been an increasing number of qualitative studies, including Anshel (2001), Gould et al. (1993), Holt and Hogg (2002), and Pensgaard and Duda (2002), in the area of competitive anxiety and coping strategies. However, compared to amount of quantitative research few qualitative studies exist, leaving a gap in the research investigating the thoughts, emotions, and feelings that athletes experience related to competitive anxiety and coping strategies. As Jones (1993) stated “there is need for the adoption of both quantitative and qualitative research methodologies in order to provide a more detailed and clearer perspective on the experience of competitive anxiety” (p. 470).

Soccer players have been the subjects of many studies on anxiety (Dowthwaite & Armstrong, 1984; Dunn & Nielsen, 1993; Hanton et al., 2002; Lewthwaite, 1990; Maynard et al., 1995; Rodrigo et al., 1990; Sewell & Edmondson, 1996). Anshel (1996), Anshel et al. (1998), and Anshel, Jamieson et al. (2001) also included soccer players as part of the sample population in their studies of coping strategies in sport. Junge, Dvorak,

Rosch, Graf-Baumann, Chomiak, and Peterson (2000) accounted for anxiety and coping strategies in their description of the psychological characteristics of soccer players. The recent works of Holt and Hogg (2002) and Pensgaard and Duda (2002) qualitatively examined the coping strategies of elite level women's soccer players. These studies are the first of their kind to use female participants and qualitative methodologies.

Within team sports, such as soccer and field hockey, the goalkeeper has been identified as a unique part of the team (Sewell & Edmondson, 1996). Research conducted by Sewell and Edmondson singled out goalkeepers while investigation of the relationship between state anxiety and field position in soccer and field hockey athletes. The goalkeepers in Sewell and Edmondson's study had higher levels of anxiety and lower levels of self-confidence than field players. Sharpe (1993) examined personality type of elite netball players and the association between personality and field position. Sharpe concluded that "the psychological makeup of competitive team players varies predictably depending on the role requirements of each position" (p. 962). The research of Sewell and Edmondson on soccer and field hockey athletes supports the results of Sharpe's study. Newman (1992) focused on goalkeepers during his research and provided a detailed qualitative description of anxiety and coping as part of his in-depth interviews with two of the world's best men's soccer goalkeepers.

One common trend in the previous quantitative research, soccer goalkeepers specifically, is that the studies were conducted on male athletes. Sewell and Edmondson's (1996) study of anxiety included both males and females in their sample, but other studies have been limited to research on male athletes. Currently no qualitative studies

exist that are similar to the in-depth interviews conducted by Newman (1992) involving female soccer goalkeepers. As stated before, the works of Holt and Hogg (2002) and Pensgaard and Duda (2002) were the first studies of their kind, involving female soccer players and qualitative methodologies. The need for research on female athletes was stressed by Anshel et al.'s (1998) study that found that male athletes preferred different coping strategies than their female counterparts. Anshel et al.'s work helps reiterate the importance of studying female athletes.

Statement of Purpose

While previous research has examined competitive anxiety and coping strategies of soccer players, quantitatively and qualitatively investigated competitive anxiety of female soccer goalkeepers, and the coping strategies utilized by the athletes has been lacking. Therefore, the primary purpose of this study was to examine the competitive anxiety and coping strategies of female collegiate soccer goalkeepers through qualitative measures. The secondary purpose was to quantitatively examine the state anxiety and coping strategies used by female goalkeepers. Quantitative information gathered on each goalkeeper was used to identify the goalkeepers selected to participate in the interviews and to develop the interview guide.

Delimitations

This study's participants were delimited to female collegiate soccer goalkeepers at selected universities. All participants were 18 years of age or older. This study was also delimited to the following instruments:

1. Demographic questionnaire.

2. Athletic Coping Skills Inventory-28 (ACSI-28, Smith, Schutz, Smoll, & Ptacek, 1995), which was used to assess the coping strategies used by the participants.
3. Competitive State Anxiety Inventory-2 (CSAI-2, Martens, Burton et al., 1990), which was used to assess the participants' pre-competition state anxiety.
4. Interview guide.

Limitations

The limitations of this study included:

1. The small number of participants may limit the generalizability of the findings.
2. The results of this study may also have been affected by the goalkeepers' ability to be truthful with themselves and the researcher during the interview.

Definition/ Description of Terms

1. Coping strategies: dynamic, conscious efforts used by the participants to eliminate or manage stressful situations (Cox, 1998).
2. Stress: imbalance between situations perceived as potentially threatening and the emotional response by the individual (Spielberger, 1989).
3. State anxiety: an immediate, situation-specific response to a threat (Cox, 1998). State anxiety is characterized by feelings of tension, apprehension, fear, nervousness, worry, and a heightened physiological arousal (Spielberger, 1989).
4. Cognitive anxiety: "the mental component of anxiety caused by negative expectations about success or by negative self-evaluation" (Martens, Vealey et al., 1990, p. 9). Cognitive anxiety is characterized by worry, unpleasant visual imagery, and negative self-talk (Burton, 1998).

5. Somatic anxiety: “the physiological and affective element of the anxiety experience that develops directly from autonomic arousal” (Martens, Vealey et al., 1990, p. 9). Somatic anxiety is characterized by physical responses like increased heart rate, shortness of breath, clammy hands, upset stomach, and muscle tension (Martens, Vealey et al., 1990).
6. Red-shirt athlete: in-active athletes on a team. Athletes eligible to participate in intercollegiate sports but for various reasons including, but not limited to, medical, needed skill development, and personal reasons choose not to participate for a year. These athletes are still able to practice with their team, but not participate in competitions. Taking a “red-shirt” year allows the athlete to maintain their athletic eligibility for an additional year.
7. True freshman: an active athlete that is in their first year of both school and athletic eligibility.

Importance of the Study

The purpose of this research was to examine the competitive anxiety of female soccer goalkeepers, and to qualitative examine coping strategies used by the goalkeepers during competition. This study examined women’s soccer goalkeepers filling a void in current research that had focused primarily on male soccer players (Dowthwaite & Armstrong, 1984; Junge et al., 2000; Rodrigo et al., 1990). The increase in women’s sports, especially the popularity of women’s soccer, has brought attention to female athletes. Now researchers must also shift their focus and increase the amount of research involving female participants.

In this study the use of the CSAI-2 questionnaire allowed for the quantitative analysis of the participants' state anxiety. In addition, administration of the ACSI-28 allowed for the interview guide questions to be tailored to the coping strategies used by each individual athlete. Data collected from the questionnaires and interviews provided information in the areas of anxiety and coping strategies pertaining to women's soccer goalkeepers.

The information obtained from this study can be used to help coaches, athletic trainers, and other professionals working female soccer goalkeepers identify common characteristics among anxious goalkeepers. Information collected from the ACSI-28 and the interviews helped identify the coping strategies used by various goalkeepers. These coping strategies then may be able to help other anxious goalkeepers better deal with the stresses they encounter on the soccer field

Chapter 2

REVIEW OF LITERATURE

This chapter reviews literature pertaining to competitive anxiety and coping strategies used in sport, specifically soccer and soccer goalkeeping. Related articles using the CSAI-2 and the ACSI-28 are reviewed, along with qualitative research articles in the area of sport psychology and specifically those related to coping. The primary purpose of this study was to examine the competitive anxiety and coping strategies of female collegiate soccer goalkeepers through qualitative measures. The secondary purpose was to quantitatively examine the state anxiety and coping strategies used by the goalkeepers.

Anxiety

Cox (1998) described state anxiety as an immediate, situation-specific response to a threat. State anxiety is characterized by feelings of tension, apprehension, fear, nervousness, worry, and a heightened physiological arousal (Spielberger, 1989). Trait anxiety is the stable personality predisposition aspect of anxiety (Spielberger, 1989). State and trait anxiety can each be divided into cognitive and somatic components. Cognitive anxiety is the mental component of anxiety and somatic anxiety is the physical component (Martens, Vealey et al., 1990). Cognitive anxiety is characterized by worry, unpleasant visual imagery, and negative self-talk (Burton, 1998). Somatic anxiety is characterized by physical responses like increased heart rate, shortness of breath, clammy hands, upset stomach, and increased muscle tension (Marten, Vealey et al., 1990). Somatic anxiety varies in intensity and fluctuates over time, where as cognitive anxiety is

more consistent over time (Spielberger, 1989) and is more often related to sports performance than somatic anxiety (Burton, 1998).

The measurement of competitive anxiety has been the focus of a substantial amount of research in the area of sport psychology (Burton, 1998; Campen & Roberts, 2001; Dowthwaite & Armstrong, 1984; Dunn & Nielsen, 1993; Hammermeister & Burton, 2001; Hanton et al., 2000; Hanton et al., 2002; Jones, 1995; Junge et al., 2000; Krohne & Hindel, 1988; Lewthwaite, 1990; Maynard & Howe, 1987; Maynard et al., 1995; Rodrigo et al., 1990; Sewell & Edmondson, 1996). While many instruments have been developed to assess competitive state anxiety in athletes, the CSAI-2 created by Martens, Burton et al. (1990) has frequently been used by researchers (Burton, 1998; Campen & Roberts, 2001; Dowthwaite & Armstrong, 1984; Dunn & Nielsen, 1993; Hammermeister & Burton, 2001; Hanton et al., 2000; Hanton et al., 2002; Junge et al., 2000; Maynard & Howe, 1987; Maynard et al., 1995; Rodrigo et al., 1990; Sewell & Edmondson, 1996). The Sport Competition Anxiety Test (SCAT), developed by Martens (1977), was created to measure competitive trait anxiety in athletes and is also frequently used by researchers (Dowthwaite & Armstrong, 1984; Junge et al., 2000; Krohne & Hindel, 1988; Maynard & Howe, 1987).

Competitive Anxiety in Soccer Players

The SCAT and Spielberger's State-Trait Anxiety Inventory (STAI) were used by Junge et al. (2000) in their examination of the characteristics of soccer players. The authors examined 588 European, male soccer players' (age 14 to 41) psychological and sport-specific characteristics including play experience, position, amount of training and

games, reaction time, injuries, and the results of the ACSI-28, SCAT, and STAI.

Although goalkeepers were included in the study, no positions were singled out in the reported results.

Junge et al. (2000) found that the soccer players included in the study had significantly higher levels of competitive anxiety ($M = 18.06$, $SD = 4.32$) when compared with the norms reported by Martens, Vealey et al. (1990). This difference may be attributed to the fact that the norms for soccer were developed from studies investigating state anxiety in youth soccer players only and that the participants completing the questionnaire for Junge et al. were older. Normative scores for the SCAT need to be researched at all levels for competitive soccer, for both male and female participants. Another pertinent result of the research was the association between competitive anxiety and injuries. The authors found that athletes with high competitive anxiety had a higher incidence of injury, which supports previous research.

Hanton et al. (2002) used a modified version of the CSAI-2 to measure competitive state anxiety and Smith, Smoll, and Schultz's Sport Anxiety Scale (SAS) to measure competitive trait anxiety in their examination of the trait-state relationship in collegiate male soccer players. From their research Hanton et al. found that the participants with high trait anxiety were also found to have higher levels of state anxiety. Hanton et al. also found correlations between trait worry and cognitive state anxiety and trait and state somatic anxiety. These findings support previous research on the relationship between competitive state and trait anxiety.

The role of the directional interpretations of competitive state anxiety symptoms was also examined in this study. Hanton et al. (2002) discussed the effect of having soccer athletes participate in this study because of the fact that soccer is an “open skilled sport that takes place in an unpredictable environment, requiring high attentional focus and perceptual motor ability” (p. 1132). From their research the authors concluded that “performers that reported relatively little dispositional problems with concentration disruption would therefore be expected to cope with state anxiety symptoms in a more positive manner and perceive the subsequent experience of such symptoms as facilitating to performance” (p. 1132).

The Spanish versions of both the CSAI-2 and the STAI were used by Rodrigo et al. (1990) in their investigation of anxiety and performance in professional soccer players. Fifty-one male soccer players, age 18 to 31, were administered the STAI 4 weeks prior to the competition being examined. The CSAI-2 was administered 1 hour before competition and then again immediately after the game. Participants' performance was evaluated by both an independent observer during the game and by player self-evaluation questionnaire immediately after the game.

The statistically significant results of this study included a relationship between cognitive anxiety and somatic anxiety at pre- and post-competition tests with game performance (Rodrigo et al., 1990). While Martens, Burton et al. (1990) did not provide norms for soccer player on the CSAI-2, the pre-competition results from Rodrigo et al.'s (1990) study can be compared with the norms for other elite athletes. The participants of Rodrigo et al.'s study had higher cognitive anxiety ($M = 23.15$, $SD = 5.14$) and self-

confidence ($M = 29.43$, $SD = 4.40$) scores than the norm reported by Martens, Burton et al. ($M = 19.29$, $SD = 4.80$ and $M = 26.21$, $SD = 4.81$, respectively) and a lower somatic anxiety ($M = 13.74$, $SD = 3.65$) than the norm ($M = 16.29$, $SD = 4.65$). Because the study only included male participants, the results may not be generalizable to female soccer players. Establishing the CSAI-2 norms for all levels of both male and female soccer players is an area open for future research.

Dowthwaite and Armstrong's (1984) study used both the CSAI (the original version of the CSAI) and the SCAT in their investigation of the anxiety levels of male collegiate soccer players. The purpose of the study was to examine the effects of various competitions on the anxiety levels of individual players. The CSAI was administered 10 minutes before, and immediately after, three games of different importance (two easy and the third crucial), and the SCAT was administered before the first and immediately after the third game.

The results of Dowthwaite and Armstrong's (1984) study revealed a significant difference in state anxiety levels of the soccer players depending on the importance of the game, the more important the game the higher the state anxiety of the players. The authors were also able to conclude that the result of the game affects state anxiety, winning causes lower state anxiety levels.

Competitive Anxiety in Goalkeepers

In Dowthwaite and Armstrong's (1984) study the authors discussed, in some detail, the results obtained for the goalkeeper. Dowthwaite and Armstrong noted that the goalkeeper was the only player whose results on the CSAI for the third match (the crucial

match) were higher after the match than before the match. The authors explained this difference in results to the fact that the goalkeeper was not satisfied with his own performance during the game, even though his team had won the game. This led Dowthwaite and Armstrong to conclude that personal success or failure may have a greater impact on state anxiety than team performance. These findings are important when the goalkeeper is thought of as an individual in a team sport. As the rest of the team plays as a whole, the goalkeeper is between the goal posts by himself or herself.

Sewell and Edmondson (1996) used the CSAI-2 to examine the relationship between field position and pre-competition anxiety in collegiate field hockey and soccer players. The CSAI-2 was administered to 121 male and female field hockey and soccer players, including 11 goalkeepers, 30 minutes prior to the start of a competition. Sewell and Edmondson found the goalkeeper group to have a significantly higher score in the cognitive anxiety component ($M = 24.64$) than the defenders ($M = 18.86$), midfielders ($M = 20.11$), and forwards ($M = 20.18$). There was also a significant position difference on the somatic anxiety sub-scale, with goalkeepers having a higher somatic anxiety score ($M = 19.64$) than the defenders ($M = 13.66$), midfielders ($M = 16.93$), and forwards ($M = 15.95$). There was a significant gender difference in the area of self-confidence, with males ($M = 23.46$) having a higher level of self-confidence than females ($M = 21.39$).

From the results of the CSAI-2, Sewell and Edmondson (1996) were able to conclude that field position had a significant influence on pre-competition anxiety in field hockey and soccer players. Their findings did not reveal any consistent relationship between gender, level of participation, or outcome of match and pre-competition anxiety.

The statistical results found that, in general, the goalkeepers had the highest levels of both somatic and cognitive anxiety and the lowest level of self-confidence compared to the field players. Sewell and Edmondson explained the difference between field players and goalkeepers by the nature of goalkeeping. Goalkeepers are singled out as individuals from the rest of the team by their treatment, training, and clearly defined responsibilities. A single error by the goalkeeper can cost a team the match.

The previous studies examined competitive trait and state anxiety in soccer players, specifically soccer goalkeepers. From the research we now know that soccer players must deal with a considerable amount of precompetitive anxiety (Dowthwaite & Armstrong, 1984; Junge et al., 2000; Rodrigo et al., 1990) and that anxiety levels, in general, vary by position (Dowthwaite & Armstrong, 1984; Sewell & Edmondson, 1996). With the exception of Junge et al., the previous studies do not investigate how athletes deal with their competitive anxiety. The following section reviews current literature on the coping strategies used by athletes. A combination of research in the areas of competitive anxiety and coping strategies used by athletes' will help to create a clearer picture as to how athletes handle anxiety.

Coping Strategies

Coping strategies are the dynamic, conscious efforts used to eliminate or manage stressful situations (Cox, 1998). Research conducted by Folkman and Lazarus (1985) on three stages of a college examination identified coping as a complex process. Lazarus and Folkman's (1984) book on coping also discussed the stages of the coping process. Coping strategies can be either problem or emotion focused (Cox, 1998). Problem focused coping

strategies are the cognitive-behavior efforts to change the problem, while emotion focused coping strategies regulate stress through the use of arousal control techniques (Cox, 1998). Although there are many different techniques that can be used reduce anxiety in athletes, Hammermeister and Burton (2001) stated that the “most effective coping resources will be the ones that are most compatible with the athletes’ threat and control profiles” (p. 88). Mahoney and Meyers (1989) identified some practical strategies for coping with performance anxiety including:

1. training and refinement of basic relaxation skills (via muscular, imaginal, respiratory, and other exercises);
2. training and refinement of coping skills (e.g., stress inoculation, self-instruction);
3. appraisal and refinement of personal meanings assigned to performance, anxiety, control, success, failure, etc;
4. training and refinement of concentration skills; and
5. practice/implementation of the foregoing in actual or simulated competitive situations. (p. 88)

Performance anxiety in athletics has been the focus of a great deal of research in relation to the coping strategies used by athletes (Anshel, 1996, 2001; Anshel & Kaissidis, 1997; Anshel, Kim et al., 2001; Campen & Roberts, 2001; Gould et al., 1993; Krohne & Hindel, 1988). These studies have used both quantitative and qualitative techniques to identify common coping strategies used by athletes. Strean (1998) stated that qualitative research techniques, such as in-depth interviews and observations,

“elucidate how coping mechanisms are employed and which processes are actually at work” (p. 335).

Coping Strategies in Sport

Campen and Roberts (2001) investigated the relationship between coping strategies naturally selected by athletes and dimensions of anxiety. The authors also examined the perceived effectiveness of the coping strategies. Fifty-two male and female recreational runners completed the CSAI-2, STAI, and a coping strategies questionnaire the night before a race. The coping strategies questionnaire, which was a 30-item survey created by Campen and Roberts, examined the somatic, cognitive, behavioral, and social modalities of coping. Some of the somatic coping strategies on the questionnaire included trying to relax, receiving a massage, getting more sleep, and listening to music.

Behavioral coping strategies included eating or drinking particular foods, trying to cut down on other responsibilities, and wearing particular clothes or shoes. Examples of the cognitive coping strategies listed on the questionnaire were rehearsal of their performance in their mind, giving themselves a positive message, reviewing past performances, and visualizing their performance. Some of the social coping strategies listed included having a support person near by, sharing feelings with other athletes or a coach, and sharing feelings with family and friends.

From the questionnaires, Campen and Roberts (2001) found that every athlete tried at least one coping strategy from each of the four groups and that social and cognitive strategies were the most frequently used by all participants. The female athletes in the study preferred to use social support strategies, which supports previous research.

Also, the more anxious an athlete was the more coping strategies the athlete tended to use. The reasons for this relationship could not be explained from the data collected. The authors did find a “match” between dimension of anxiety and the mode of coping strategies used by the participants of the study. Campen and Roberts found that the use of somatic coping strategies was a significant predictor of lower levels of somatic anxiety and that the use of cognitive coping predicted higher levels of cognitive anxiety in the participants. The authors presented several theories for the results, but no conclusions could be made because of the study’s design.

Campen and Roberts’ (2001) study provided a significant amount of information on the “match” between competitive anxiety and coping strategies in athletes, but many of the results can not be explained fully due to the research methods used. The use of qualitative research methods could have provided a means to better understand why athletes cope with anxiety the way that they do.

Research conducted by Anshel and colleagues (Anshel 1996; 2001; Anshel, Jamieson, & Raviv, 2001; Anshel & Kaissidis, 1997; Anshel, Kim et al., 2001; and Anshel et al., 1998) has provided a significant amount of information on coping styles in athletes. One of the major themes addressed in the research were the effects of situation on coping. In Anshel’s (1996) study 421 male athletes completed coping inventory examining approach and avoidance coping styles with problem focused and emotion focused coping strategies. From the results Anshel was able to conclude that “some stressors appear to be more predictive of coping style than others, suggesting that coping style is partly a function of specific stressful situations” (p. 319). In Anshel and

Kaissidis's study the authors were also able to confirm that the "approach and avoidance coping responses depend more on situational than on personal variables" (p. 272). The importance of situational factors was also confirmed in Anshel, Jamieson, and Raviv's study on cognitive appraisal and coping strategies.

Anshel et al. (1998) investigated coping as a function of gender in highly skilled competitive athletes. Two hundred and eighty-eight male and 189 female athletes completed a coping strategy survey developed by the authors. The survey included general and sport specific sources of stress, coping resources (approach or avoidance), and the individual's use of coping strategies. The stressors included in the study consisted of making a physical or mental error, being criticized by a coach, observing cheating by an opponent, injury or pain, a "bad" call from an official, an opponent's successful performance, and poor environmental conditions (Anshel et al., 1998). The results of the study support the assertion "that coping strategies could be predicted as a function of gender" (p. 373). Males and females in the study differed on prediction rates on selected items and the differences were unique to the type of stressful event. These findings again stress the influence of situation on coping strategies used by study participants. Male participants in the study showed a preference for using approach oriented coping strategies in response to each acute stress when compared with female participants (Anshel et al., 1998). The authors discussed the importance of gender differences in successful stress management programs.

Coping Strategies of Soccer Players

In Junge et al.'s (2000) investigation of the psychological and sport specific characteristics of soccer players, the authors used the ACSI-28 to examine the coping skills of the participants. All of the scores on the different scales of the ACSI-28 were significantly lower than the values obtain by Smith et al. (1995) with the exception of the "freedom from worries" scale. Junge et al. also found an association between a low score in the "freedom from worries" scale and a higher risk of injury. In Junge et al.'s study there was also a relationship between fair play and coping strategies. The article did not discuss the possible reasons why the ACSI-28 scores of the participants differed from the results obtained by Smith et al.

From the previous research we have learned that there is a "match" between the dimension of anxiety and the coping strategies utilize by athletes (Campen & Roberts, 2001) and that male and female athletes tend to utilize different coping strategies (Anshel et al., 1998). Also, the importance of situational variables on coping strategies was stressed by Anshel and colleagues (1996; Anshel & Kaissidis, 1997; Anshel, Jamieson, & Raviv, 2001). The previous research can not, however, explain why athletes choose certain coping strategies and why some coping strategies are effective for some athletes and not others. The use of qualitative research methods with quantitative methods can help provide a clearer picture of competitive anxiety and coping strategies.

Qualitative Research

Research using qualitative methodologies has provided a great amount of knowledge in the area of sport psychology and continues to become a more accepted

form of inquiry (Sparkes, 1998). With an increase in the amount of qualitative research conducted (Strean, 1998), there have been a considerable number of articles published defining and defending qualitative research in sport psychology (Bain, 1989; Dale, 1996; Krane, Anderson, & Strean, 1997; Lincoln, 1995; Locke, 1989; Pitney & Parker, 2001; 2002; Sage, 1989; Sparkes, 1998; Strean, 1998). Strean stressed the importance of qualitative research because “it can illuminate the previously unknown or tenuously known, provide familiarity through rich description, and explode faulty understandings” (p. 334).

Qualitative research, also known as interpretive, naturalistic, constructivist, phenomenological, or ethnography (Sparkes, 1998), has its roots in anthropology and sociology and has gone through many changes throughout its history (Denzin & Lincoln, 1994b). “Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry (Denzin & Lincoln, 1994b, p. 4). Strategies of inquiry consist of the skills, assumptions, and practices used by the researcher when moving from a paradigm and a research design to the collection of empirical materials (Denzin & Lincoln, 1994a). Qualitative research is an interpretive practice with no distinct set of methods all its own (Denzin & Lincoln, 1994b). Strategies of inquiry include case studies, ethnography, grounded theory, interpretive and phenomenological practices, and applied and action research among others. Data collection in qualitative research involves a variety of techniques including interviews, observations, document analysis, artifacts, and surveys. Interviews and observations are two of the most commonly used methods

for gathering data in qualitative research (Pitney & Parker, 2001). No matter what methodologies are used in qualitative research, the process involves rigorous, detailed data collection, data analysis, and interpretation.

The section below reviews recent relevant qualitative research articles in the area of sport psychology. Anshel (2001), Gould et al. (1993), Holt and Hogg (2002), Newman (1992), Pensgaard and Duda (2002), and Scanlan, Stein, and Ravizza (1989, 1991) used various strategies of inquiry for their research, but all used some form of qualitative methodology in their collection of data. All of the articles provided a detailed description of the methods selected and the trustworthiness criteria used in the study.

Qualitative Research in Sport Psychology

Scanlan et al. (1989, 1991) completed some of the first qualitative research in the area of sport psychology. In the first article, published by Scanlan, Ravizza, and Stein (1989), the need for qualitative research to better understand the sources of enjoyment and stress for elite level figure skaters is expressed. In this introduction article, the participants and interview procedures are described in detail. The second article by Scanlan et al. (1989), focused on the results of in-depth interviews with the participants, specific to sources of enjoyment for elite figure skaters. The major themes that developed from the interviews included social and life opportunities, perceived competence, social recognition of competence, and the act of skating. The third article in the series by Scanlan et al. (1991) described the five major sources of stress for the athletes in the study including negative aspects of competition, negative significant other relationships, demands or costs of skating, personal struggles, and traumatic experiences. The research

of Scanlan et al. (1989, 1991) is important because it is one of the first qualitative research project of its kind and because the participants are elite level athletes. The majority of the previous research on sports enjoyment had only used youth sport participants. The works of Scanlan et al. paved the way for future researchers choosing to use qualitative methods.

Gould et al. (1993) used a qualitative approach in their analysis of the coping strategies used by Olympic wrestlers. In-depth interviews were conducted with the 20 athletes after the Seoul Olympics in regards to the athletes' ability to cope with the stresses of competition. An interview guide was developed by Gould et al. to facilitate and standardize the data collection process. Data analysis consisted of an eight-step procedure that involved identifying raw data themes, using inductive analysis to identify higher order themes, and obtaining a triangular consensus.

The four general dimensions that emerged from the data analysis were thought control, task focus, emotional control, and behavioral based strategies (Gould et al., 1993). Gould et al. stated that the "dimensions are not considered mutually exclusive. Rather they were distinct, albeit intertwined, threads of the larger fabric of coping..." (p. 86). Thought control strategies appeared in 80 percent of the interview transcriptions and represented higher order themes including blocking distractions, perspective taking, positive thinking, coping thoughts, and prayer. The three other dimensions identified in the research were each represented in 40 percent of the interview transcripts. The task focus strategies dimension included a narrow focus and concentration on goals, while emotional control strategies included arousal control and visualization. The behavior

strategies included environment changes or control and the use of a routine. The authors reasoned the difference between the use of thought control strategies and the other dimensions to the fact that the wrestlers more often experienced cognitive (as opposed to somatic) stress and therefore employed cognitively based coping strategies more often. The research of Gould et al. is important to both the understanding of coping strategies in elite competitive athletes and to the area of qualitative research in sport psychology.

Anshel (2001) used a qualitative approach in validating a model for coping with acute stress. Twenty-eight professional rugby players were interviewed within 3 days after their previous game and asked to discuss two stressful events they perceived as most intense. Anshel asked the athletes questions to identify their thoughts and actions immediately following stressful competitive events. A structured interview technique with five questions and a limited number of probing questions was used for data collection. The technique was used to reduce the possibility of interviewer bias in guiding the athletes' answers to support validation of the model (Anshel, 2001).

Anshel (2001) stated that "because the coping model was conceptually based, data were analyzed using deductive content analysis" (p. 235). Athletes' statements were assigned to predetermined categories based on the theoretical concepts. Triangular consensus, agreement between the researcher and two trained graduate assistants, was reached before assigning each statement into a category. Coping strategies were categorized as either approach or avoidance with cognitive and behavioral subcategories. The results of the deductive data analysis showed that each category and subcategory were represented within the data. The results of the research confirm the belief that

coping is a process in sport, and provide the framework for additional studies on coping in sport (Anshel, 2001).

Qualitative Research with Female Soccer Players

Holt and Hogg (2002) used a case study approach to examine female soccer players' perception of stress and coping strategies as the athletes prepared for the world cup finals. This research is the first of its kind to use qualitative measures to examine the stress and coping strategies of elite athletes in a team sport environment. Seven athletes, representing various field positions including one goalkeeper, participated in the study. The athletes also represented both starting and nonstarting players on the team. Three additional players were recruited to participate in the post-tournament member-checking portion of the study. Data collection was done through semi-structured interviews at the mid-point of the training camp. The interviews began with background questions about the athlete's soccer career and experiences at the training camp. The main questions focused on the athletes' concentration, self-confidence, motivation, and anxiety management strategies (Holt & Hogg, 2002). Along with the information obtained during the interviews, a separate researcher attended all training sessions and recorded his observations about the psychological readiness of the athletes. The second researcher also served as the team's sports psychology consultant.

Data analysis began with verbatim transcription of the interviews, then individual meaning units were identified, and then similar meaning units were grouped together and analyzed (Holt & Hogg, 2002). The interviewer and the team's sport psychology consultant discussed themes together and then an external researcher experienced in both

sport psychology and qualitative research methodologies audited the themes. Goodness criteria for this study included the use of post-tournament member-checking, peer review, using multiple data sources, and the utilization of an external auditor (Holt & Hogg, 2002).

From the data analysis, Holt and Hogg (2002) were able to identify four main categories of sources of stress including coaches' communication, demands of international soccer, competitive stressors, and distractions. The subcategories of competitive stressors identified by Holt and Hogg were pre-game anxiety, game anxiety, making mistakes, coming off the bench, fear of being dropped from the team, and performance evaluation. The researchers also identified four main categories of coping strategies. These included reappraising, using social resources, performance behaviors, and blocking. The researchers identified three cognitive reappraisal strategies used by the athletes, specifically positive self-talk, problem solving, and remembering past success (Holt & Hogg, 2002). Encouragement from teammates, family support, and support from significant others were the three subcategories of social resources identified by Holt and Hogg. The two on the field performance behaviors that helped the athletes cope with stress were identified as on-field task communication and a good warm-up or start (Holt & Hogg, 2002). Lastly, Holt and Hogg identified blocking out irrelevant stimuli and blocking out coaches as the two subcategories of the blocking coping strategy.

The results of Holt and Hogg's (2002) research support previous research on the stress and coping strategies of elite athletes in individual sports. The two main differences that were identified by the researchers as apposed to the previous research were the use of

on-field communication and the coach as a source of stress. The differences were explained as a result of the uniqueness of the study in examining a team sport. From their results, Holt and Hogg discussed the need for future qualitative research examining stress and coping strategies of athletes and the importance of psychological training and education for athletes.

Pensgaard and Duda (2002) examined the perceived stress and coping strategies of one female soccer player as she prepared and competed in the 2000 Olympic Games in Sydney. The athlete was asked to write in a journal daily, address nine broad topics provided by the research and then reflect on any other topics she wanted. The athlete's general mood each day was also quantified with the use of a 6-point scale (from (1) a bad day to (6) an excellent day). The researcher's observations of the athlete during the study were also used to provide a clearer picture of the athlete. A detailed description of the data analysis is not provided but the authors did state that "the journal was read and re-read numerous times by the first author and the themes that emerged were discussed with both the player and the co-author and agreed upon with these two individuals" (p. 225).

From the athlete's journal, Pensgaard and Duda (2002) identified some of the sources of stress for the athlete including doubting her own ability and dissatisfaction in her own performance. To cope with her anxieties the athlete used both emotion and problem focused coping strategies. The authors did note that the athlete usually used a person outside the team to vent frustrations and seek advice. Overall, the athlete's mood remained positive before the Olympics and during competition. Pensgaard and Duda also

discussed the effect training sessions had on the athlete's self-confidence and purposed that as an area for future research.

Qualitative Research with Soccer Goalkeepers

Newman (1992) published a qualitative study of the psychological dimension of goalkeeping using interviews with two of the world's best soccer goalkeepers, Pat Jennings and Tony Meola. These case studies, along with the researcher's interpretations, focused on the athletes' thoughts, perceptions, and beliefs about goalkeeping. Newman used an open-ended interview method with an interview guide to assure that all relevant topics were covered. He obtained follow-up information by telephone to clarify the original information. Newman used inductive analysis to identify, code and organize themes from the raw data. Each case study contained three parts including the goalkeeper's biography, the goalkeeper's mentality, and the researcher's reflections. Newman addressed the trustworthiness concepts of credibility, transferability, dependability, and conformability. Newman's work also contained a "Person-As-Instrument Statement" where he provided information on his own background, qualifications, and training. Newman provided a detailed description of the qualitative methodology used throughout data collection and data analysis.

Coping strategies, along with anxiety, were two of the emergent themes that developed from the research (Newman, 1992). Some of the strategies that the goalkeepers talked about using to handle competitive anxiety included concentration on the task at hand, the use of a pre-game routine, visualization, and mental imagery. Newman's research provides a rich, detailed look into the psychological characteristic of two elite

soccer goalkeepers. The results may not be generalizable to all goalkeepers, but the study does contribute valuable information about the psychological aspects of soccer goalkeepers. Newman intended this work to both provide insight into the world of soccer goalkeeping and to serve as a tool for other athletes and performers.

Summary of Literature Review

The review of the current literature in both the areas of competitive anxiety and coping strategies indicates a need for further research. First, there is a need for more quantitative research investigating the competitive anxiety of female soccer players. Only the study by Sewell and Edmondson (1996) included female soccer players in their research. There is also a need for normative data for the CSAI-2 for female collegiate soccer players. Second, while Anshel (2001), Gould et al. (1993), Holt and Hogg (2002), Newman (1992), and Pensgaard and Duda (2002) used a qualitative approach to describe the coping strategies of athletes, there were no quantitative measures used. The use of both qualitative and quantitative approaches may allow for a clearer, more detailed picture of the coping strategies used by athletes. The “match” between anxiety dimensions and modes of coping was investigated by Campen and Roberts (2001), however it was done quantitatively, and so the results do not allow for the explanation of why certain coping strategies are used as opposed to others.

The recent works of Holt and Hogg (2002) and Pensgaard and Duda (2002) have allowed for an increased understanding into the thoughts and feelings of elite level female soccer players using qualitative measures, but their work is only the beginning. The information gathered from this study will help fill some of the gaps in the current

research, and utilized both the quantitative and qualitative approaches in the examination of competitive anxiety and the coping strategies in collegiate women's soccer goalkeepers.

Chapter 3

METHODS

The purpose of this study was to quantitatively examine competitive anxiety and coping strategies of female soccer goalkeepers, and then to qualitatively describe the coping strategies used by the selected goalkeepers with high state anxiety scores. This chapter provides a description of the methods and materials used in this study. The participants of the study, questionnaires used to gather the initial data, and the interview techniques used with the selected goalkeepers are described within this chapter. In addition, outlined in this section are the data management and data analysis procedures, along with the criteria used to establish trustworthiness.

Participants

The participants for this study were recruited from selected National Collegiate Athletic Association (NCAA) Division I schools in the San Francisco Bay Area and NCAA Division II schools in the California Collegiate Athletic Conference (CCAA). The Division I schools selected include San Jose State University, Santa Clara University, University of San Francisco, University of California (UC) – Berkeley, and Stanford University. The schools in the CCAA include UC – Davis, San Francisco State University, Sonoma State University, California State University (CSU) – Chico, CSU – Dominguez Hills, CSU – Stanislaus, CSU – Los Angeles, UC – San Diego, California State Polytechnic University – Pomona, CSU – San Bernardino, CSU – Bakersfield, and Grand Canyon University. The schools were selected to allow the researcher access to the participants for the interview portion of the data collection process.

In-active or “red-shirted” goalkeepers were not included in the sample. Red-shirted athletes are eligible to participate in intercollegiate athletics, but for various reasons choose not to participate for a year which allows them to maintain their eligibility for an additional year. Red-shirted athletes may practice with their team, but can not participate in games. Since red-shirted athletes do not participate in games, there was no way to measure their precompetition state anxiety levels or interview them about the coping strategies used during games.

All participants in both the questionnaire and the interview portions of the study were 18 years of age or older. All participants in both portions of the study completed a consent form approved by San Jose State University’s Human Subjects Institutional Review Board (see Appendices A & B). A separate consent form was used for each part of the study. Consenting to the questionnaire portion of the study did not obligate an athlete to participate in the interview portion.

Procedures

At the beginning of the soccer preseason the demographic questionnaire, CSAI-2, and ACSI-28 were given to a male collegiate goalkeeper to assess the time needed to complete the questionnaire, readability, and ease of completion. Minor grammatical and formatting revisions were made from the male goalkeeper’s feedback.

The researcher then contacted the head women’s soccer coaches of the selected schools via telephone during the first 2 weeks of preseason practice to inform the coaches about the study and its importance. After the initial contact was made with the coaches, three copies of the demographic questionnaire (see Appendix C), CSAI-2 (see Appendix

D), ACSI-28 (see Appendix E), and the Anti-Social Desirability Instructions (see Appendix F) were mailed to either the head coach or the goalkeeper coach of all the selected schools who agreed to participate. Distribution of the packets took place during the second week of the preseason or as soon as the initial contact had been made with the coaching staff. The coaching staff of one of the schools did not respond after multiple attempts to contact by phone, therefore, were not included in the mailing of packets. The packets also contained detailed instructions for both the coaches (see Appendix G) and the goalkeepers (see Appendix H) and an informed consent form (see Appendix A) for the goalkeepers to read, sign, and return with the completed questionnaires. Follow-up phone calls and/or emails to each coach were completed prior to each team's first home game in the beginning of September reminding the coaches of the importance of the study and the need for the questionnaires to be returned in a timely manner. Approximately half of the questionnaires were returned to the researcher by the goalkeepers in individual pre-paid envelopes. The researcher collected the remaining questionnaires from the goalkeepers upon visitation to the athletes' respective schools. All questionnaires were returned before the end of the regular soccer season.

After the questionnaires were returned and scored, the goalkeepers with the highest combined cognitive and somatic competitive state anxiety scores were identified. Based on the results of the CSAI-2, eight goalkeepers were contacted via telephone about completing an interview. Six goalkeepers consented to complete the interview portion of this study. Taped interviews took place at each of the goalkeepers' schools before the end of the regular competition season.

Instrumentation

Three questionnaires were used to collect data about the goalkeepers for the quantitative part of the study.

Demographic Information Questionnaire (Appendix C)

The author designed the demographic questionnaire with assistance from three researchers experienced with questionnaire design and survey based research. Two collegiate soccer coaches, not involved with the study, and a male collegiate soccer goalkeeper also reviewed the demographic questionnaire. From their feedback minor grammatical revisions were made.

The final demographic questionnaire contained questions pertaining to the goalkeepers' age, school, year in school, and year of eligibility. The questionnaire also asked soccer and goalkeeping specific questions including years of experience as a goalkeeper, previous play experience, and whether the athlete was a starter or back-up goalkeeper on the team. Finally, this questionnaire asked if the goalkeeper would be interested in participating in the second part of the study.

The goalkeepers were asked to provide their name and school name on the top portion of the demographic questionnaire, which was removed and separated from the other returned material by the researcher. This allowed for coding of the all the material by the researcher to protect the confidentiality of the participants.

Competitive State Anxiety Inventory-2 (Appendix D)

The Competitive State Anxiety Inventory-2 (CSAI-2, Martens, Burton et al., 1990) was administered under the title "Pre-Competition Questionnaire". Anti-Social

Desirability Instructions (see Appendix F) recommended by Martens, Burton et al. accompanied the instructions on the test. The goalkeepers were instructed to complete the CSAI-2 1 hour before a regular season home game.

The CSAI-2 consists of three 9-item subscales that measure competitive cognitive state anxiety, somatic state anxiety, and self-confidence. Each of the 27 items is rated on a four-point Likert scale ranging from 1 (not at all) to 4 (very much so). The possible subscale scores range from 9 to 36. The higher the subscale score, the greater the cognitive or somatic state anxiety or the lower the athletes self-confidence. High validity and reliability of the CSAI-2 has been demonstrated by Martens, Burton et al. (1990).

Athletic Coping Skills Inventory-28 (Appendix E)

The Athletic Coping Skills Inventory–28 (ASCI-28, Smith et al., 1995) was administered under the title “Survey of Athletic Experiences”. The ACSI-28 was completed with the CSAI-2 prior to a regular season home game. The ACSI-28 contains seven sports specific subscales that are summed to get the Personal Coping Resource Scale. The subscales included coping with adversity, peaking under pressure, goal setting/ mental preparation, concentration, freedom from worry, confidence and achievement motivation, and coachability. The items are scored on a four-point Likert scale from 0 (almost never) to 3 (almost always). The high validity of the ASCI was demonstrated by Smith et al.

Interview

Eight goalkeepers, who completed all of the questionnaires and were found to have high combined cognitive and somatic competitive state anxiety scores on the CSAI-

2, were asked to participate in the second part of the study. Six of the eight goalkeepers contacted agreed to participate in the second portion of the study.

An interview guide (see Appendix I) was used to make sure that all relevant topics are addressed. Patton (1990) stated that the interview guide should “provide a framework within which the interviewer would develop questions, sequence those questions, and make decisions about which information to pursue in greater depth” (p. 284). The interview guide was the same for all participants, but the interview was individualized for each of the goalkeepers depending on their answers to the questionnaires and the topics discussed during the interview. The researcher also asked about specific anxiety producing situations from games, and the coping strategies used by the goalkeeper to handle those types of situations.

A university faculty member trained in qualitative methods and with previous experience interviewing conducted a bracketing interview prior to the researcher’s interviews with the goalkeepers. The completed interview guide was used for the bracketing interview. The bracketing interview allowed the researcher’s biases to be accounted for prior to conducting the interviews with the goalkeepers. The bracketing interview also allowed the researcher to examine the flow of the interview guide and make any changes to the interview guide prior to the meetings with the goalkeepers.

After the participant signed the consent form (see Appendix B) the entire interview was taped recorded with the athlete’s permission. The researcher also took notes during the interview to help the researcher formulate additional questions during the interviews and to facilitate later analysis (Patton, 1990).

Data Analysis

The CSAI-2 and ASCI-28 were scored following the developers' directions. The cognitive and somatic anxiety scores on the CSAI-2 were added together for each of the athletes. The information obtained from the CSAI-2 was used to identify the six goalkeepers selected to participate in the second portion of the study. The information gathered from both questionnaires, especially the ACSI-28, was also used to formulate the interview guide.

Data analysis of qualitative research was a continuous and ongoing process. Huberman and Miles (1994) stated that the processes involved in data analysis occur "before data collection, during study design and planning; during data collection as interim and early analyses are carried out; and after data collection as final products are approached and completed" (p. 429). In a qualitative study the researcher uses inductive analysis, allowing the themes, categories, and patterns to come from the data (Janesick, 1994). Categories are not preplanned, but rather emerge from the data.

Data analysis for the second part of this study involved reviewing the tape recording of each interview thoroughly. The researcher transcribed all interview tape recordings verbatim. Content analysis of the data involved identifying, coding, and categorizing the primary patterns in the data (Patton, 1994). The transcriptions were read and re-read until the researcher was familiar with the information. Open coding was used first to inductively analyze the data, then to develop higher order themes. A code and retrieve process was used to manage the data (Richards & Richards, 1994). This involved using a cut and paste method to organize the raw data using Microsoft Word software on

computer. Separate Word documents were created to group related individual meaning units together and then files were created to categorize the higher order themes together. The transcripts were reviewed multiple times by the researcher and the contents of the higher order theme files were reviewed by an external researcher as described below.

Establishing Trustworthiness

Trustworthiness of the data analysis and interpretation was established using triangulation of data sources and peer review with a university faculty member trained in qualitative research. Obtaining data from the questionnaires and interviews helped ensure the credibility of the study (Lincoln & Guba, 1985). Peer review was also used to help establish credibility in qualitative research (Huberman & Miles, 1994). During the peer review process, an external researcher examined the interview transcripts, concepts, and categories. The peer review process took place during seven separate meetings between the primary researcher and the external researcher. During these meetings both researchers discussed the interviews, the individual meaning units, and the higher order themes that developed. A consensus was reached between researchers prior to assigning meaning units to higher order themes. This process helped ensure that the information was organized in a logical manner and that the insights and discoveries of the researcher are credible (Pitney & Parker, 2001).

Chapter 4

RESULTS AND DISCUSSION

This study examined the competitive anxiety and coping strategies used by female collegiate soccer goalkeepers. Quantitative data were collected using the CSAI-2 and the ASCI-28 to describe the participants and to identify the goalkeepers selected to be interviewed. After the six goalkeepers had been selected, the researcher conducted short semi-structured interviews with each of the six goalkeepers. During the interviews the goalkeepers' thoughts and feeling about soccer participation, specifically with regards to anxiety and coping, were discussed.

This chapter presents the demographic information and the results from the CSAI-2 and the ASCI-28 for the entire sample population of the study, along with the results of both the quantitative and qualitative data from the selected six goalkeepers. A discussion of the results is also provided in this chapter.

Quantitative Results

Demographic Information Questionnaire

Thirteen of the 16 schools that were mailed packets returned the questionnaires. Twenty-five goalkeepers completed the questionnaires, with one goalkeeper eliminated from the study for not meeting the age criteria. Thus, 24 goalkeepers met all the criteria of the study including age requirements, being on the active team roster, and completing the questionnaires prior to the end of the regular season. The questionnaires were completed between August 17, 2002 and October 28, 2002. The goalkeepers were between 18 and 24 years of age with the average age being 20 years. Of the goalkeepers

who completed the questionnaires there were four freshman, five sophomores, seven juniors, six seniors, and two fifth-year seniors. Five goalkeepers identified themselves as in their first year of athletic eligibility, six in their second year, eight in their third year, and five were in their fourth year of eligibility. The average number of years of goalkeeper experience for the participants was 10.39 years with a range of 4 to 17 years. Fifteen of the 24 goalkeepers were returning to their team, five were from high schools, and four were junior college transfer students. Thirteen of the participants identified themselves as starting goalkeepers, seven as back-up goalkeepers, and four either shared time with the other goalkeepers or were not sure of their position on the team.

The six goalkeepers selected to participate in the interview portion of the study completed their questionnaires between September 14, 2002 and September 27, 2002. Goalkeepers in this group were selected based on their higher combined cognitive and somatic anxiety scores from the CSAI-2, expressed interest in participating in the second portion of the study on their demographic questionnaire, and the ability of the research to contact them to schedule an interview. The average age for this group was 19 years old, with an age range between 18 and 20 years. Two of the selected six goalkeepers were freshman, three were sophomores, and one was a senior academically. Three of the selected goalkeepers were in their first year of athletic eligibility and one of each of the remaining three were in either their second, third, or fourth year of eligibility. The average amount of goalkeeping experience for this group was 10.67 years, with four of the goalkeepers having 10 years of experience and two having 12 years. Three of the goalkeepers identified their previous playing experience as returners on the team, two

were from high schools, and one was a junior college transfer student. Three of the goalkeepers selected marked that they were the starting goalkeepers on their team, two marked that they were the back-up goalkeepers, and one stated that she was unsure of her position on the team.

The six goalkeepers represented all of the groups of previous play experience and both groups had approximately 10 years of playing experience. Both starting and back-up goalkeepers were included in the six selected for interviews. The goalkeepers selected to be interviewed including more freshman and goalkeepers' in their first year of eligibility compared to the large group, which tended to be older and more experienced. The possible implications to the study from the age and experiences of the selected goalkeepers will be discussed with the interview results.

Competitive State Anxiety Inventory-2

Martens, Burton et al. (1990) provided normative data for the CSAI-2 for various populations, including female college athletes. Based on over 200 responses Martens, Burton et al. found that the mean score on the cognitive anxiety subscale was 18.40, the somatic anxiety subscale was 16.85, and the self-confidence subscale was 24.67 for female college athletes. No normative data were provided for female collegiate soccer players specifically.

Each of the subscales of the CSAI-2 was scored for the 24 goalkeepers participating in the first portion of the study. Scores in each subscale had the possible range from 9 to 36. The mean for the cognitive anxiety subscale was 18.29 with a range of answers from 10 to 28. The mean of the somatic anxiety subscale was 17.96 with a

range of answers from 10 to 31. On the cognitive and somatic anxiety subscales the higher the score relates to higher levels of precompetitive state anxiety. The mean of the self-confidence subscale was 26.96 with a range of answers between 19 and 34. High scores on the self-confidence subscale relates to lower levels of self-confidence for the athlete.

The six goalkeepers participating in the interview portion of the study were selected based on their higher combined scores on the cognitive and somatic anxiety subscales. The mean score on the cognitive anxiety subscale for this group was 22.83 with a range of scores between 19 and 26. On the somatic anxiety subscale the mean subscale score was 20.00 and the range of answers was between 14 and 24. The selected six had a mean self-confidence score of 23.00 with range between 21 and 25. The mean scores of the selected six goalkeepers' cognitive and somatic anxiety subscales were higher than both the large group and the published norms. The mean of the selected six's self-confidence subscale scores were also lower than both the large group and the normative data.

Athletic Coping Skills Inventory-28

Scores for each of the seven components of the ACSI-28 could range from 0 to 12. For this questionnaire higher, scores are better and contribute to a higher Personal Coping Resource Scale. On the first component, coping with adversity, the large group had a mean score of 7.63, while the selected six goalkeepers had a mean score of 7.00 with a range of scores from 3 to 8. The mean score for the peaking under pressure component was 9.75 for the large group and the selected six had a mean score of 11.17

with a range from 8 to 12. The mean for goal setting was 6.67 for the large group and the selected six had a mean of 5.67 with the range of scores between 1 and 8. In the concentration component, the large group had a mean score of 8.95 and the mean score for the selected six goalkeepers was 8.33 with a range was from 5 to 10. The mean score for the freedom from worry component was 7.00 for the large group and 6.17 with the range of scores between 1 and 9 for the selected six. In the confidence component, the mean was 9.41 for the large group and 9.17 for the selected six with a range from 6 to 12. In the last component, coachability, the mean score for the large group was 9.97 and was 8.67 for the selected six with a range between 6 and 12. There are no norms published for the ACSI-28.

Qualitative Results

The following section provides a description of the six selected goalkeepers and the themes that developed from their interviews. Fictitious names were assigned to the six goalkeepers. The pertinent results of the quantitative measures are also reviewed for each of the six goalkeepers.

Participant Profile

Abby. Abby is a 20 years old sophomore in her third year of athletic eligibility. She has been playing soccer since she was 4 years old. To Abby soccer has always been a very important part of her life, but she now believes that soccer is becoming a less important aspect of her life after recently taking some time off. Abby does not see a future in soccer for herself after college, other than playing for fun. Abby's cognitive anxiety score on the CSAI-2 was 25 and somatic anxiety score was 14, her self-

confidence score was 24. On the ACSI-28, Abby had a combined score of 61. Of interest, she had a score of four on the goal setting component and 12 on the peaking under pressure component.

Becky. Becky is 18 years old and is a true freshman. She started playing soccer about 12 years ago and stated that she liked playing goalkeeper better than being in the field because she “can pretty much get away with anything.” Becky’s ultimate goal for soccer is to play in the Women’s United Soccer Association (WUSA), but right now she is using this year as a building block for next year when she will most likely have the starting goalkeeper position on her team. Becky CSAI-2 scores on each subscale were the following: 24 for cognitive anxiety, 23 for somatic anxiety, and 23 for self-confidence. On the ACSI-28, Becky had a combined score of 62 and on the freedom from worry component she only scored a one.

Chris. Chris is also an 18 years old true freshman. She has been playing soccer for about 12 years, but only started playing goalkeeper within the last few years. One of the reasons Chris really likes playing goalkeeper because of the appreciation she gets from her teammates, but she still really misses playing in the field. Chris’s long-term goals for soccer include coaching high school soccer after she finishes college. On the CSAI-2 Chris scored a 20 on the cognitive anxiety subscale, a 24 on the somatic anxiety subscale, and a 24 on the self-confidence subscale. Chris’s combined score on the ACSI-28 was 55 and she scored a one on the goal setting component and a 12 on the peaking under pressure component.

Holly. Holly is a 19 year old sophomore who red-shirted her first year. She has been playing soccer for over 12 years, but truly started to love the sport when she began high school. Right now Holly feels torn between her love of soccer and the path she has chosen to study at college. She feels that she does not have enough time to devote to both soccer and school and currently soccer gets more of her time. Holly is open to the possibility of a future in soccer, but she wants to see how her experience playing collegiate soccer progresses. Holly scored a 26 on the cognitive anxiety subscale, a 16 on the somatic anxiety subscale, and a 21 on the self-confidence subscale of the CSAI-2. Holly's combined score on the ACSI-28 was a 54, she scored a three on the freedom from worry component, and like some of the others she scored a 12 on the peaking under pressure component.

Martha. Martha is a 20 year old senior in her last year of eligibility. For Martha soccer has really involved her family and friends and she believes that soccer has truly helped her prepare for life after college. Soccer has always been a very important part of Martha's life, but she is unsure of what role soccer will play in her future since she plans on continuing her education after she graduates in the spring. Martha believes that is a trade-off she has to make in order to pursue her other goals. On the CSAI-2, Martha scored a 19 on the cognitive anxiety subscale, a 22 on the somatic anxiety subscale, and a 25 on the self-confidence subscale. On the ACSI-28, Martha had a total score of 48. Her lowest score was a three on the coping with adversity component, and she had no score on any component higher than a nine.

Sarah. Sarah is a 19 year old sophomore in her second year of eligibility. To Sarah, soccer is the most important thing in her life because it has allowed her to attend her current university. Because of this, Sarah feels obligated to take soccer seriously and to put forth as much effort as she can. Sarah's goals for soccer include improving her own skills, helping her team to achieve success, and to maintain her starting position during the rest of her college career. Sarah scored a 23 on the cognitive anxiety subscale of the CSAI-2, a 21 on the somatic anxiety subscale, and a 21 on the self-confidence subscale. On the ACSI-28, Sarah's combined scores was 48. She had no score lower than a five on the ACSI-28 and her highest score was an 11 on the peaking under pressure component.

Coping Strategies

Four major themes emerged from the interviews with the six selected goalkeepers. These themes were intervention strategies, communication, confidence, and ego protection.

Intervention Strategies. Within the theme of intervention strategies, three different strategies were identified, including self-talk, visualization, and listening to music. All six of the goalkeepers used one or more of these intervention strategies before or during competition to cope with anxiety.

Self-talk was used by all six of the goalkeepers in various ways, including calming down, psyching up, maintaining focus, and task-specific goal setting during the game. Martha discussed her use of self-talk to set specific goals for herself during the

game and how she tries to make sure that what she is saying to herself is framed in a positive way. She stated:

Sometimes I tend to hear the 'not' and the negative part of the sentence and I just don't think that's healthy for me, so I try to say everything I say to myself as positive.... So when I talk to myself it's mainly positive words and nothing that's even negative, even if I'm trying to say something positive.

The use of self-talk during high pressure situations to maintain focus can be illustrated by how Martha says the word "ball" in her head to allow her to focus on the ball and not be distracted by the other players around her. In relation to self-talk, Holly talks about her use of prayer to prepare for a game and to cope with anxiety during the games. Holly described herself as a very faithful person during her interview, so it is understandable that prayer is one way she utilizes self-talk. Becky used statements like "let's go" or "you've got to do better than this" to psych herself up during games, while Holly and Chris used statements like "calm down" and "stay calm" for the opposite effect during games. Holly said she would even hum or sing to herself during games to help herself stay calm.

Since the goalkeeper may not be able to have direct communication with her team throughout the entire game, self-talk is a way to maintain focus and concentration. The use of self-talk was also used by the goalkeepers to control their emotions and psych themselves up. Positive self-talk was an important coping strategy for the soccer players in Holt and Hogg's (2002) study. Like some of the goalkeepers in the present study, the goalkeeper in Holt and Hogg's study used self-talk to reassure herself about her abilities.

Other researchers have identified self-talk as a frequently used coping strategy, for example, 95 percent of the female runners in Campen and Robert's (2001) study used positive self-talk to cope with anxiety.

Sarah, Holly, and Abby talked about their use of visualization to help them cope with their anxieties before and during games. Sarah stated that "I really do believe ... if you think about the game and stuff and imagine making saves or whatever, that you're gonna like do it." Sarah visualized specific situations like shots from the 18 yard line and making the save or coming out of the box to make a tackle, and doing everything tactically right. Sarah also discussed how her coach stressed the importance of using visualization, which could help explain why it was one of the intervention strategies she used frequently. Abby also relied on visualizing past experiences to help her cope with the anxiety of high pressure situations like penalty kicks and corner kicks.

The goalkeepers' use of visualization is important because of the particular skills required for successful goalkeeping. Skills such as goal kicks and organizing a defense for a corner kick must be executed in a precise way for optimal success. In this study, the goalkeepers used visualization to mentally practice these skills and to increase their confidence. They visualized doing everything correctly to help cope with the anxiety produced by high pressure situations. The selected six goalkeepers had high scores on the peaking under pressure component of the ACSI-28, and high pressure situations are when they could use an intervention strategy like visualization. Eighty-five percent of the female athletes in Campen and Robert's (2001) study said they used visualization to cope with their anxiety and 95 percent rehearsed their performance in their mind.

Listening to music was an important coping strategy for three of the six goalkeepers. Martha and Holly discussed listening to music before games as a way to help control their emotions. Martha stated:

I think that something that helps me is listening to music. That tends to calm me down and helps me deal with my emotions, it just kind of like, I think it diverts my attention from being scared of doing something wrong.

Martha described herself as a perfectionist, and her fear of making a mistake was one of the things that really made her anxious. She had realized this problem and was really trying to control this fear. Music enabled her to be distracted from her fear.

Holly said that she would listen to classical music to help calm herself down before games. She discussed how she did not need to increase her arousal level because of her personality, but she felt that she actually needed to calm down prior to competition. Holly used both self-talk and music for controlling her emotions. Sarah said that she and her teammates used music for the opposite effect, arousal. She discussed how her team would listen to “pump-up” music during their pre-game routine.

Communication. The theme of communication is related to how the goalkeepers use communication to cope with anxiety and maintain their focus and concentration during games. The use of communication is also connected to the goalkeepers' ability to control various situations and stay connected with their teammates during the game. All six of the goalkeepers thought that communication was a very important part of the game and Holly even stated that she thought, “communication is the key to a successful defense

and goalkeeper situations....” All six goalkeepers described themselves as very vocal in their position.

When the goalkeepers were asked how they maintained their focus during a game all six responded that their primary way to stay focused was through communication. The goalkeepers thought that talking to their teammates kept them focused and concentrating on the task at hand. The goalkeepers believed that even if their team was on their opponents half of the field that it was still important to continue to talk to the field players. When the goalkeepers found themselves not paying attention to the game they would start communicating with the team more in an effort to refocus. Chris illustrated this point when she said, “I usually start talking more to my players, it kind of keeps me going, it makes sure I’m staying on track with what I should be doing.” Chris and some of the other goalkeepers believed that if they stopped communicating with the field players for too long that they would lose their focus.

The goalkeepers used task-specific communication during the game to move their defensive players and allow themselves to have some sense of control over the situation. Becky described how she used communication to cope with her anxiety by controlling the situation when she stated, “if I communicate then it gets everything else in place. So I’m thinking ‘get my team in order’, because they’re going to end up helping me out.” Some of the goalkeepers also mentioned how their ability to see the field allowed them to communicate to the field player where they should move field to have an advantage over their opponent.

Communication with the coach during the game was of lesser importance for the goalkeepers in this study than communicating with their teammates. Martha stated:

I don't really communicate with coach on the field cause I'm so far away from them. I really, honestly do not hear a lot of what she says, the only thing that effects me are the choices she makes in substitutions.... So I don't really communicate with her during the game at all, rarely will she say anything to me at all. I think I had a conversation with her last year where we decided it was better for her not to talk to me then for her to say anything to me cause it was effecting the way I was playing, in a negative way.

Blocking of the coaches during games was a coping strategy identified by the athletes' in Holt and Hogg's (2002) study because of the coaches' negative communication style. Holt and Hogg believed that blocking coaches was easier for experienced player. This may help explain why Martha, as a senior, was actually able to make an agreement with her coach not to communicate with each other during games. Martha did explain that her agreement was with the head coach and that she was usually more receptive to communication with the goalkeeper coach during games because the goalkeeper coach's feedback was very tactical in nature.

Becky, a freshman, thought that communication with her coach in the form of the negative feedback helped her with goal setting during the game and giving her specific tasks and skills to focus on at practice. She illustrated this point when she stated:

If he [the head coach] says something like 'Becky you've gotta do this better,' then you know, it makes me do better. If I were to make a bad kick or something

and he said 'Becky get under it' or 'better goal kicks' or something, that helps me out, but if he were to say 'oh, good job Becky, you did great today,' then its like I have nothing to work on.

Other goalkeepers agreed with the idea of negative feedback from their coaches giving them something to work towards, but the goalkeepers also like occasionally getting positive feedback to let them know that their efforts were appreciated.

Communication was an important coping strategy for the goalkeepers in this study in many different ways. Communication allowed the goalkeepers to keep their focus and connection with their teammates. On-field task communication permitted the goalkeepers to have some perceived control over uncontrollable situations. Holt and Hogg (2002) also identified on-field task communication as an important coping strategy for the soccer players in their study. Further, the goalkeeper in their study discussed how communication was important for her ability to focus during games.

Confidence. The goalkeepers believed that having confidence in themselves was very important during games. Confidence was mentioned by all six of the goalkeepers. The goalkeepers thought that in their position it was important to at least appear confident, if even if they were not. Chris illustrated this when she stated:

Just for the penalty kicks, for example, if you are nervous inside you have to appear that you're really strong, almost powerful, so that you try and make them [the shooter] more nervous than you when they're taking the shot.

Since Chris is a freshman and the back-up goalkeeper for her team, it is possible that she has had less experience with high pressure situations, especially at the collegiate level.

Therefore, she may not have the past successes to draw from like more experienced goalkeepers, like Abby. Martha and Becky also discussed the idea of appearing confident during high pressure situations.

Many of the goalkeepers also relied on past success with high pressure situations and fundamental training to help cope with their anxieties during games. Because of the goalkeepers' reliance on past success and training, the goalkeepers felt that they were able to increase their confidence in their abilities during high pressure situations. Abby said that she really liked high pressure situations and that she performed better during them because she had to rely on her reactions and what she had been taught. Abby stressed that during high pressure situations she would look back to the fundamental training she had received at goalkeeper camp when she was younger and try to do skills the proper way. Martha also looked back to her past experiences, especially a time when she was not successful, when trying to decide how to deal with different situations.

The goalkeepers also felt that their confidence during the game would increase as a result of successful play. Abby stated:

During the game it's really easy, once after the first time you touch the ball, after the first save or anything like that, the first one really builds your confidence....

Each ball that you save or you get to or anything like that is more and more confidence.

The goalkeepers used practice sessions to become more comfortable with different situations that could arise during a game, such as penalty kicks and corner kicks.

Many of the goalkeepers thought that practicing corner kicks and penalty kicks really helped them become more comfortable and familiar with game situations. As Holly stated “practice helps under pressure.” Martha stated:

I've really been focused at practice and stuff and like I've been doing things well at practice so it's relieved some of the tension, maybe, I'm carrying with me into a game. I think before, maybe, I didn't have a lot of confidence so I would drag all the bad things I did at practice with me on the field and I was like 'oh, God I feel awful right now cause I'm really scared that I'm going to make the same mistakes I did at practice on the field.'

Martha now feels that with her increased focus at practice she is able to increase her confidence and decrease her fear of making mistakes during games. Chris believes that the reassurance that has come from practicing penalty kicks over time now makes them less intense when the situations happen in a game. Chris illustrated this point when she stated:

When you see it over and over again you get so used to it, it's not as intense....

You're told as goalkeeper you can only usually make like 1 out of 10 saves, so you're not even expected to do it, but over the time it's not a big any more.

You've just done it so many times, you get used to it.

Many of the goalkeepers also believe that they were not really expected to save penalty kicks, so any time that they were able to make a save was a great success for themselves, which increased their confidence.

The trust the goalkeepers had in their own abilities allowed them to be confident that they would make the right decision and perform well under pressure. Practice and relying on past experience help them increase their confidence. Martha thought that her coach's choice to let her make her own decisions on the field was like "taking off the training wheels."

All of the goalkeepers interviewed stressed the importance of confidence during games, but the selected six goalkeepers had, on average, lower scores on the CSAI-2 self-confidence component than the published norms and the larger group of goalkeepers. The selected six goalkeepers also had a lower average score on the confidence component of the ACSI-28 than the large group. What this means in this study can be interpreted in many ways. The goalkeepers could possibly have lower self-confidence before the game, when they took the CSAI-2 and ACSI-28, and as the game progresses their confidence built, like Abby described. Another possibility is that the goalkeepers were not really confident during the game, and that they only wanted their opponents to perceive them as confident, as Chris mentioned.

Sewell and Edmondson (1996) found that field position had significant influence on pre-competitive anxiety and that goalkeepers had higher anxiety scores than the field player. The goalkeepers in the present study felt as they were the last line of defense and that any mistake that they make could have a critical impact on the outcome of the game. This could explain why the goalkeepers had higher pre-competitive anxiety, and why they felt it was important to be confident in their abilities.

The athletes included in Holt and Hogg's (2002) study used remembering past success to help build their confidence and allow themselves to better cope with anxiety. Eighty-five percent of the female athletes in Campen and Robert's (2001) study identified reviewing past performance as a coping strategy they used. A good warm-up and/ or start to the game was also important for the athletes in Holt and Hogg's study. This can be looked at as a way for athletes to start to build their confidence. The soccer player in Pensgaard and Duda's (2002) case study was more confident after successful practice sessions, similar to the athlete in the current study.

Ego Protection. Another one of the major themes that developed from the interviews was the goalkeepers' use of ego protection to cope with competitive anxiety. Ego protection for these goalkeepers involved the used avoidance and letting themselves believe that they had nothing to lose to deal with precompetitive anxiety, competitive anxiety, and coping with a loss after the game.

Avoidance was a popular way for many of the goalkeepers to cope with their anxieties. For these goalkeepers, ways of avoiding anxiety included using humor, letting things roll off their backs, and not dwelling on the situation. Sarah explained that during games she usually does not dwell on her mistakes or her teammates' mistakes too long. Abby also used this coping strategy during the game. She stated that "I just don't let myself get too frustrated, if they score you just kind of have to let it go and try not to let it happen again.... Just whatever happens let it roll off your back." When asked how she dealt with high pressure situations, Sarah stated:

I guess just try as hard as I can not to think about like what's on the line, you know, and just know that your team's gonna step-up and play well and that you're gonna step-up and play well and just keep being positive with myself.

Sarah said that after a loss she would also try not dwell on it and move on with her life and look to the next game. Abby described how she let things go after when she stated:

I don't know, I'm really weird with that kind of stuff. I have a real easy time leaving stuff on the field, even if it is a real devastating game and everything, like 5 minutes after the game I can be just as happy, like joking around with people and stuff again. It's always great if we win and everything, it's like a bonus, but if we lose it always like 'well, what can we do now'? So there's no point in sitting and dwelling on it. I just go back to my life, like how I was before.

Many of the goalkeepers mentioned about just moving on after a loss and focusing on the next game to come.

The idea of having nothing to lose during the game helped some of the goalkeepers cope with their anxieties. Becky exemplified this idea when she stated:

Penalty kicks... its like a no lose situation. If you miss it, it's okay, cause they're supposed to score off most of them, but if you save it, you know, it's a plus, because they're not expecting you to save it.

Holly also relied on the idea of having nothing to lose during a game, especially coming from the position as a back-up goalkeeper. She felt that she was very anxious before games, but during games the coaches and her teammates were not expecting much from

her so no matter what happened she had nothing to lose. She called it an “underdog mentality” and felt that whatever success she had in goal was really a bonus for her.

Ego protection for the athletes in this study was their attempt to play soccer without allowing themselves to risk some of the emotional pain that can be involved with sport. These athletes let various situations “roll off their backs” and “joked around” to avoid some of the emotional commitment that could lead to a bruised ego if they failed. The ego protection strategies that these athletes used can also be related to the blocking strategies used by the soccer players in Holt and Hogg’s (2002) study. In Campen and Robert’s (2001) study 95 percent of the female athletes identified that they told themselves that the event was not important to help cope with their anxiety and 45 percent used distraction to help themselves cope.

Discussion

Many of the coping strategies identified by the goalkeepers in this study could be coping strategies identified by any athlete, not just soccer goalkeepers or even soccer players. The reason these were the specific coping strategies mentioned could be related to the particular demands placed on the goalkeepers in their position. Goalkeepers are individual athletes in a team sport and the stresses placed on them are different than the stresses placed on the field players (Sewell & Edmondson, 1996).

Various intervention techniques have been identified in the current research related to coping strategies (Anshel, 1996, 2001; Anshel & Kaissidis, 1997; Anshel, Kim et al., 2001; Campen & Roberts, 2001; Gould et al., 1993; Holt & Hogg, 2002; Newman, 1992; Pensgaard & Duda, 2002). The interventions selected by the goalkeepers in this

study, include self-talk, visualization, and listening to music. These are not specific to soccer goalkeepers, but when examining the requirements of the position one can speculate why the goalkeepers in this study frequently mentioned these particular intervention techniques. The other major themes that developed included communication, confidence, and ego protection could also be related back to the previous research (Campen & Roberts, 2001; Gould et al., 1993; Holt & Hogg, 2002; Newman, 1992; Pensgaard & Duda, 2002). These themes seem to be more specific to soccer goalkeepers because of the demands of a team sport and the nature of goalkeeping itself.

Exactly why these four themes developed from the interviews can only be speculated based on the details of the interviews and the previous research in the areas of competitive anxiety and coping. While qualitative methodologies involve rigorous, detailed data collection, data analysis, and interpretations the ability to draw conclusions based on the results are not as easy as compared with quantitative methods. The methods used in this study allow the results to be interpreted by the researcher and the meanings to be developed through the researcher. This study provides research in an area of sport psychology that had been lacking and provides ideas and direction for future research in related areas.

Chapter 5

CONCLUSION

The primary purpose of this study was to examine the competitive anxiety and coping strategies of female collegiate soccer goalkeepers through qualitative measures. The secondary purpose was to quantitatively examine the state anxiety and coping strategies used by the goalkeepers. From the interviews, four major themes developed related to the coping strategies of the goalkeepers. These themes included intervention strategies, communication, confidence, and ego protection. The goalkeepers used a variety of coping strategies before, during, and after competition, similar to those identified in previous research. Many of the coping strategies that these athletes identified are not limited to soccer goalkeepers, but the reason that the goalkeepers mentioned these specific coping strategies can be better understood after looking at the position requirement of goalkeeping. Ironically, the goalkeepers discussed the importance of confidence during game, while they actually had low self-confidence scores on the CSAI-2 and ACSI-28.

Recommendations for Further Study

Recommendations can be made for further investigation of competitive anxiety and coping strategies in female collegiate soccer goalkeepers based on the procedures used in this study. First, intermediaries should not be used when distributing and collecting the questionnaires. Introducing a third party to this process only complicates the procedures by not allowing the research direct contact with the participants early in the study. After gaining approval from the coaches, the researcher should contact the

potential participants directly. In doing this, the turn around time for the questionnaires could possibly be decreased and the return rate increased.

Second, the researcher should make sure that all of the questionnaires are completed and returned during the same point in the season. The elimination of the coaches in the distribution and return process could help with this. Having the goalkeepers complete the questionnaires at the same point in the season would help remove the possible difference in anxiety and confidence based on time in the season. For example, games towards the end of the season may be interpreted by the goalkeepers as more important because the upcoming play-offs and therefore could cause the athletes to have increased anxiety scores on the CSAI-2.

Third, the ACSI-28 should be eliminated from the procedures and the information on coping strategies should come directly from the interviews with the participants. The ACSI-28 was used to gain some background information on the goalkeepers and then in the interview process. This step could be removed and the information on coping could be obtained solely from the interviews.

Finally, the pilot testing of the questionnaire should be followed by practice interviews with male goalkeepers or female field players. This would help the researcher gain a feel for the interview process and some of the potential responses. The interview guide could be tested in the practice interviews along with various probing questions. Practice interviews would allow for smoother, richer interviews with the study participants.

Areas for Future Research

As Newman (1992) stated in his conclusion, "As for the future of qualitative research in the world of sport psychology and performance enhancement, the possibilities for this type of inquiry are seemingly limitless" (p. 104). The present research helped fill the gap in the current research involving female athletes, but while the research involving female athletes is increasing there is an ongoing need for more. Studies like Newman's (1992) and Pensgaard and Duda (2002) could be modeled for additional research on female soccer goalkeepers or any other female athlete. Additional research addressing the norms for the CSAI-2 should also be completed for female athletes at different levels of competition and in various sports.

Researchers could also qualitatively examine anxiety and coping strategies of male soccer goalkeepers or of both male and female field players and study the relationship between male and female athletes. This study selected participants for the interview portion based on the athlete's higher scores on the CSAI-2, an additional follow-up study could involve interviewing not only the goalkeepers with high scores on the CSAI-2 but also the goalkeepers that had lower CSAI-2 scores and then comparing the two groups.

Implications

The results of this study cannot be generalized to all soccer goalkeepers, but any goalkeeper could possibly benefit from the coping strategies identified by the goalkeepers in this study. These coping strategies could be taught to a goalkeeper that is having a difficult time managing his or her competitive anxiety. Coaches, athletic trainers, and

other professionals working with highly anxious goalkeepers may be able to recommend these coping strategies to help their athlete better deal with the stresses they encounter on the soccer field.

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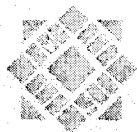
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Appendix A: Consent Form for Questionnaires



San José State
UNIVERSITY

**College of Applied
Sciences and Arts
Department of Human
Performance**

One Washington Square
San Jose, CA 95120-0054
Voice: 408-924-3010
Fax: 408-924-3050

Agreement to Participate in Research

Responsible Investigator(s): Ellen K. Payne

Title of Protocol: The Thoughts and Feelings of Female Collegiate Soccer Goalkeepers

1. You have been asked to participate in a research study investigating the thoughts and feelings of female collegiate soccer goalkeepers.
2. You will be asked to complete a demographic questionnaire, the Pre-Competition Questionnaire, and the Survey of Athletic Experiences during the beginning of the soccer season and return them to the researcher.
3. There are no risks anticipated to participants of this study anticipated.
4. Participants may request their individual results to any of the questionnaires after the completion of the study.
5. Although the results of this study may be published, no information that could identify you will be included.
6. There is no compensation for participation in this study.
7. Questions about this research may be addressed Ellen K. Payne, ATC at 408-348-7448. Dr. David Furst, Professor and Faculty Advisor, Department of Human Performance, also may be reached for questions at 408-924-3039. Complaints about the research may be presented to Dr. Gregory Payne, Department Chair, Department of Human Performance, 408-924-3010. Questions about research subjects' rights, or research-related injury may be presented to Nabil Ibrahim, Ph.D., Associate Vice President, Graduate Studies and Research, at 408 924-2480.
8. No service of any kind, to which you are otherwise entitled, will be lost or jeopardized if you choose to "not participate" in the study.
9. Your consent is being given voluntarily. You may refuse to participate in the entire study or in any part of the study. If you decide to participate in the study, you are free to withdraw at any time without any negative effect on your relations with San Jose State University or with any other participating institutions or agencies.

Signature

Date

Investigator's Signature

Date

The California State University
Chico, Colton, Fullerton,
Hayward, Modesto, Stanislaus, Ukiah,
Los Angeles, Northridge, Pomona,
San Bernardino, San Diego,
San Francisco, San Jose, San Luis Obispo,
San Marcos, Sonoma, Stanislaus

Appendix B: Consent Form for Interviews



**College of Applied
Sciences and Arts
Department of Human
Performance**

One Washington Square
San José, CA 95192-0054
Voice: 408-924-3010
Fax: 408-924-3063

Agreement to Participate in Research

Responsible Investigator(s): Ellen K. Payne

Title of Protocol: The Thoughts and Feelings of Female Collegiate Soccer Goalkeepers

1. You have been asked to participate in a research study investigating the thoughts and feelings of female collegiate soccer goalkeepers.
2. You will be asked to complete a short interview conducted by the researcher.
3. There are no risks anticipated to the participants of this study anticipated.
4. There are no benefits to participating in this study.
5. Although the results of this study may be published, no information that could identify you will be included.
6. There is no compensation for participation in this study.
7. Questions about this research may be addressed Ellen K. Payne, ATC at 408-348-7448. Dr. David Furst, Professor and Faculty Advisor, Department of Human Performance, also may be reached for questions at 408-924-3039. Complaints about the research may be presented to Dr. Gregory Payne, Department Chair, Department of Human Performance, 408-924-3010. Questions about research subjects' rights, or research-related injury may be presented to Nabil Ibrahim, Ph.D., Associate Vice President, Graduate Studies and Research, at 408 924-2480.
8. No service of any kind, to which you are otherwise entitled, will be lost or jeopardized if you choose to "not participate" in the study.
9. Your consent is being given voluntarily. You may refuse to participate in the entire study or in any part of the study. If you decide to participate in the study, you are free to withdraw at any time without any negative effect on your relations with San Jose State University or with any other participating institutions or agencies.

Signature

Date

Investigator's Signature

Date

The California State University:
Chico State, Chico
Colusa State, Colusa
Eureka State, Eureka
Fresno State, Fresno
Hayward State, Hayward
Los Angeles State, Los Angeles
Maritime State, Marina del Rey
Monterey Bay State, Monterey
Northridge State, Northridge
Pomona State, Pomona
San Bernardino State, San Bernardino
San Diego State, San Diego
San Francisco State, San Francisco
San Jose State, San Jose
Stanislaus State, Stanislaus

Appendix D: CSAI-2

Pre-Competition Questionnaire

DIRECTIONS: A number of statements which athletes have used to describe their feelings before competition are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel right now- at this moment. There are no right or wrong answers. Do not spend too much time on any one statement, but choose the answer which describes your feelings right now.

	Not at All	Somewhat	Moderately So	Very Much So
1 I am concerned about this competition.	1	2	3	4
2 I feel nervous.	1	2	3	4
3 I feel at ease.	1	2	3	4
4 I have self-doubts.	1	2	3	4
5 I feel jittery.	1	2	3	4
6 I feel comfortable.	1	2	3	4
7 I am concerned that I may not do as well in this competition as I could.	1	2	3	4
8 My body feels tense	1	2	3	4
9 I feel self-confident.	1	2	3	4
10 I am concerned about losing.	1	2	3	4
11 I feel tense in my stomach.	1	2	3	4
12 I feel secure.	1	2	3	4
13 I am concerned about choking under under pressure.	1	2	3	4

	Not at All	Somewhat	Moderately So	Very Much So
14 My body feels relaxed.	1	2	3	4
15 I'm confident I can meet the challenge.	1	2	3	4
16 I'm concerned about performing poorly.	1	2	3	4
17 My heart is racing.	1	2	3	4
18 I'm confident about performing well.	1	2	3	4
19 I'm worried about reaching my goal.	1	2	3	4
20 I feel my stomach sinking.	1	2	3	4
21 I feel mentally relaxed.	1	2	3	4
22 I'm concerned that others will be disappointed with my performance.	1	2	3	4
23 My hands are clammy.	1	2	3	4
24 I'm confident because I mentally picture myself reaching my goal.	1	2	3	4
25 I'm concerned I won't be able to concentrate.	1	2	3	4
26 My body feels tight.	1	2	3	4
27 I'm confident of coming through under pressure.	1	2	3	4

Appendix E: ACSI-28

Survey of Athletic Experiences

Directions: A number of statements that athletes have used to describe their experiences are given below. Please read each statement carefully and then recall as accurately as possible how often you experience the same thing. If your choice is ALMOST NEVER, circle number 0, if your choice is SOMETIMES, circle number 1, if your choice is OFTEN, circle number 2, if your choice is ALMOST ALWAYS, circle number 3. Remember there are no right or wrong answers. Do not spend too much time on any one statement.

	Almost Never	Sometimes	Often	Almost Always
1 On a daily or weekly basis, I set very specific goals for myself that guide what I do.	0	1	2	3
2 I get the most out of my talent and skills.	0	1	2	3
3 When a coach tells me how to correct a mistake I've made, I tend to take it personally and feel upset.	0	1	2	3
4 When I am playing sports, I can focus my attention and block out distractions.	0	1	2	3
5 I remain positive and enthusiastic during competition, no matter how bad things are going.	0	1	2	3
6 I tend to play better under pressure because I think more clearly.	0	1	2	3
7 I worry quite a bit about what others think about my performance.	0	1	2	3
8 I tend to do lots of planning about how to reach my goals.	0	1	2	3
9 I feel confident that I will play well.	0	1	2	3
10 When a coach criticizes me, I become up-set rather than helped.	0	1	2	3

	Almost Never	Sometimes	Often	Almost Always
11 It is easy for me to keep distracting thoughts from interfering with something I am watching or listening to.	0	1	2	3
12 I put a lot of pressure on myself by worrying how I will perform.	0	1	2	3
13 I set my own performance goals for each practice.	0	1	2	3
14 I don't have to be pushed to practice or play hard; I give 100%.	0	1	2	3
15 If a coach criticizes or yells at me, I correct the mistake without getting upset about it.	0	1	2	3
16 I handle unexpected situations in my sport very well.	0	1	2	3
17 When things are going badly, I tell myself to keep calm, and this works for me.	0	1	2	3
18 The more pressure there is during a game, the more I enjoy it.	0	1	2	3
19 While competing, I worry about making mistakes or failing to come through.	0	1	2	3
20 I have my own game plan worked out in my head long before the game begins.	0	1	2	3
21 When I feel myself getting too tense, I can quickly relax my body and calm myself.	0	1	2	3
22 To me, pressure situations are challenges that I welcome.	0	1	2	3
23 I think about and imagine what will happen if I fail or screw up.	0	1	2	3

	Almost Never	Sometimes	Often	Almost Always
24 I maintain emotional control no matter how things are going for me.	0	1	2	3
25 It is easy for me to direct my attention and focus on a single object or person.	0	1	2	3
26 When I fail to reach my goals, it makes me try even harder.	0	1	2	3
27 I improve my skills by listening carefully to advice and instructions from the coach.	0	1	2	3
28 I make fewer mistakes when the pressure's on because I concentrate better.	0	1	2	3

Appendix F: Anti-Social Desirability Instructions

Instructions for the Pre-Competition Questionnaire

The effects of highly competitive sports can be powerful and very different among athletes. The inventory you are about to complete measures how you feel about this competition at the moment you are responding. Please complete this inventory as honestly as you can. Sometimes athletes feel they should not admit any nervousness, anxiety, or worry they experience before competition because this is undesirable. Actually, these feelings are quite common, and to help us understand them we want you to share your feelings with us candidly. If you are worried about the competition or have butterflies or other feelings that you know are signs of anxiety, please indicate these feelings accurately on the inventory. Equally, if you feel calm and relaxed, indicate those feelings as accurately as you can. Your answers will not be shared with anyone.

Appendix G: Letter to Coaches

August 26, 2002

San José State
UNIVERSITY

College of Applied
Sciences and Arts
Department of Human
Performance

Coach Jack Hyde
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132

Dear Coach Hyde,

I would first like to thank you for your interest and support of this research project. This study will help the coaches, athletic trainers, and other professionals working with women's collegiate goalkeepers better understand how different goalkeepers cope with various stressors. By taking the time to help me distribute and return the surveys you are showing your interest in the future of Women's Soccer.

The envelope you have received contains three separate packets for each of your goalkeepers. Please be aware that only active goalkeepers are eligible to complete a packet. No red-shirt goalkeepers please. The goalkeeper packet contains a direction sheet, consent form, and demographic questionnaire, along with the Pre-Competition Questionnaire and the Survey of Athletic Experiences. There is also an envelope attached so each athlete can return her completed survey to you.

Please follow the procedures listed below for distributing the packets to the goalkeepers and returning them to me.

- 1) Distribute the packets to the goalkeepers 1 hour prior to any HOME game of your choice between the September 8th and September 29th.
- 2) Instruct the goalkeepers to keep their packet together, read all the directions, and to put all completed papers in the envelope attached to the packet prior to returning the sealed envelope to you.
- 3) After the athletes have completed the packets and returned the sealed envelopes to you, simply place all the envelopes in the large prepaid envelope and drop them in the mail as soon as they are completed. Please return all the packets no later than September 30th.

After all the questionnaires have been returned and the answers assessed, a few goalkeepers will be asked to participate in the second part of the study that involves a short interview. The goalkeepers who participate in the questionnaire portion of the study do not have to participate in the interview portion, it is completely voluntary.

If you have any questions or you need additional packets please feel free to contact me at 408-348-7448 or at LN4406@yahoo.com. Thank you for your support on this project and good luck with your season.

Thank you,



Ellen K. Payne, ATC

Appendix H: Letter to Goalkeepers



**College of Applied
Sciences and Arts
Department of Human
Performance**

One Washington Square
San Jose, CA 95192-0064
Voice: 408-924-3610
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The California State University,
Chico State, Chico
Bakersfield, Bakersfield
Canaleta, Fullerton, Fullerton
Hayward, Hayward
Los Angeles, Los Angeles
Merced, Merced
San Bernardino, San Bernardino
San Diego, San Diego
San Francisco, San Francisco
San Jose, San Jose
San Marcos, San Marcos
Stanislaus, Stanislaus

August 26, 2002

Dear Goalkeeper,

I would like to start by thanking you for taking the time to complete the attached questionnaires. From the information you return to me I hope to better understand how goalkeepers like you deal with stress. Please be ensured that **all information collected is confidential. NO ONE WILL HAVE ACCESS TO YOUR ANSWERS EXPECT ME.**

Please follow the instructions below when completing the packet.

- 1) You should complete the packet 1 hour prior to the game selected by your coach.
- 2) Please read and sign the consent form.
- 3) Please completely fill out the demographic questionnaire, Pre-Competition Questionnaire, and the Survey of Athletic Experiences. Please keep all the papers together.
- 4) After you have completed the packet please place all the papers in the envelope provided and return the sealed envelope to your coach. Your coach will return the sealed envelopes to me.

After I have received all the information from each of the goalkeepers you may be contacted and asked to participate in the second part of this study. The second part of the study is completely voluntary. The second portion of this study involves a short interview.

If you have any questions please feel free to contact at 408-348-7448 or at LN4406@yahoo.com. Thank you and good luck with your season.

Thank you,

Ellen K. Payne, ATC

Appendix I: Interview Guide

Interview Guide

1. Tell me about soccer participation to you?
 - History
 - Importance
 - Goals
 2. How do you keep focused during a game?
 - Specifics
 - Time when you were not able to focus
 - Time when you were able to refocus
 3. How do you control your emotions during a game?
 - Pregame feelings/ emotions
 - Teammate communication dynamics
 - Coach
 - Specific positive and negative experiences
 4. How do you feel during high pressure situations?
 - Specific experiences
 - Changes over time
 - Coping
 5. Any other comments about times when you were anxious?
-