Mental Skills Training Experience of NCAA Division II Softball Catchers

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Dedication

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Abstract

Athletes competing at all levels of sport are constantly working on ways to enhance their physical performance. Sport psychology research insists there are higher performance results among athletes who incorporate mental skills training into their practice and competition settings. In order to use the mental skills strategies effectively, athletes must be educated about how and when to implement them. Athletes who have a positive experience with mental skills training and strategy use will most likely continue to use them throughout their athletic career. This qualitative phenomenological study describes the mental skills training experiences of NCAA Division II softball catchers and their performance in sport. Ten female collegiate softball catchers (aged 18-22) participating at six universities in the Central Region of softball competition, agreed to participate in this study. Findings from this study revealed themes of mental skills training strategies and factors that contributed to the use of mental skills training strategies to enhance performance. The findings of this study resulted in suggestions for those who concern themselves with the education and development of student-athletes to improve their performance, as well as recommendations for future research.
Table of Contents

Acknowledgements.............................................................................................................. i

Dedication........................................................................................................................... ii

Abstract .............................................................................................................................. iii

Chapter 1. Introduction .......................................................................................................1

Statement of the Problem.................................................................................................3

Significance of the Study .................................................................................................4

Research Questions .........................................................................................................5

Operational Definition of Terms....................................................................................5

Nature of the Study ..........................................................................................................7

Organization of the Remainder of the Study .................................................................7

Chapter 2. Literature Review ..............................................................................................9

History of Women’s Sports and Title IX .........................................................................9

Pre/Post-Title IX Summary ............................................................................................17

Brief History Overview of Sport Psychology ..................................................................18

Mental Skills Training .....................................................................................................21

Psychological Factors Present with Performance .........................................................23

Mental Training Strategies .............................................................................................32

Sport of Softball ..............................................................................................................41

Summary .........................................................................................................................44

Chapter 3. Methodology ...................................................................................................47

Design of the Study .........................................................................................................47
C. Interview Guide .................................................................110
D. Informed Consent ............................................................112
List of Tables

Table ........................................................................................................................................ Page

1. Mental Skills Strategies ........................................................................................................... 72
2. Mental Skills Training Sources of Education ......................................................................... 74
Chapter 1. Introduction

For many collegiate student-athletes the absence of psychological preparation to control performance anxiety levels and build confidence could be the ultimate barrier and impede specific physical skill execution. Despite endless hours of practicing and strength and conditioning training, many athletes fail to utilize psychological techniques that could ultimately control performance anxiety and lead to an ideal performance state. Unless facilitated by coaches, many collegiate student-athletes do not know how to effectively incorporate mental skills training into their practice and competition regimen. Researchers in the area of sport psychology have discovered the majority of athletes who are educated about the benefits and techniques of mental skills training are more likely to implement the techniques into their practice and competition routines (Barr & Hall, 1992; Frey, Laguna, & Ravizza, 2003; Weinberg & Gould, 2011).

The development of psychological skills through mental training practices assists athletes in managing various obstacles to success. The common obstacles hindering performance include lack of concentration and motivation, competitive anxiety, low self-confidence, and negative self-talk (Murphy, 2005; Taylor, 1995; Weinberg & Gould, 2011). Through a systematic practice routine, mental skills training will allow the athletes to gain more control over their thoughts and ultimately improve physical performance (Hacker, 2000; Janssen, 2002; Murphy, 2005). Mental skills training programs specifically target areas such as concentration, motivation, performance anxiety, confidence, mental imagery, goal setting, visualization, self-talk, and relaxation during competition (Behncke, 2004; Taylor, 1995; Voight, 2005; Weinberg & Gould, 2011). To create and implement an effective mental training program for athletes a coach
must identify and recognize the needs of each individual player (Hacker, 2000; Taylor, 1995; Weinberg & Gould, 2011). As well as tailoring mental training strategies for each athlete, a coach must tailor training strategies for the specific skill demands of the sport (Janssen, 2002; Taylor, 1995; Wood, 2010). Icebox Athlete, a comprehensive mental training program, founder Spencer Wood (2010) suggests that for a coach with a limited background in sport psychology, this can become a daunting task during practice and game preparation. Specific factors such as limited access to comprehensive mental training programs, sport psychologists, and time constraints can force coaches to avoid mental training all together (Wood, 2010). Furthermore, coaches’ and athletes’ perceptions for the need of physical skill practice and conditioning can limit the amount of time a coach will focus on mental skills development. For example, in a study conducted by Creasy, Rearick, Burkiak, and Wright (2009), 22 National Collegiate Athletic Association (NCAA) coaches were interviewed regarding their beliefs as to the importance and implementation of mental skills training. Although 100% of the coaches interviewed agreed that mental skills are just as important as developing physical skills of their athletes, only 9% responded to working with their athletes to develop their mental skills (Creasy et al., 2009). These same coaches also indicated lack of knowledge and time constraints as playing a major influence on the lack of mental skills training (Creasy et al., 2009). The results from the study suggest the need for a comprehensive mental skills training program for coaches and athletes, but it is still up to the coaches to assess their athletes’ needs along with implementing and reinforcing such a program. The athlete also needs to be receptive to the program and practice mental skills just as routinely as the physical skill practice (Behncke, 2004; Jarvis, 2006). Athletes’
experience and perceptions of mental skills training can have an influence on whether or not they incorporate mental skill development into their practice regimen.

**Statement of the Problem**

Athletes from all levels of sport and competition train to perform physical skills to their highest ability. With much of the concentration on physical skill development, collegiate coaches may be unable or unwilling to devote necessary time to provide a consistent mental training regimen for their athletes based on their perceptions of mental training practices. The National Collegiate Athletic Conference (NCAA, 2011) allows college athletic teams no more than 20 hours of practice time per week. This limited time forces coaches to carefully consider how they will spend time with their student-athletes, but it does not restrict how student-athletes develop their skills outside the 20-hour time frame. In a study conducted by Gould, Medbery, Damarjian, and Lauer (1999) coaches indicated limited time, money, and resources available to provide mental skills training to the athlete. The absence of mental training can affect an athlete’s ability to cope with performance anxiety and limit the development of confidence and concentration which can ultimately hinder physical skill performance in competition settings (Cox, 1998; Gould et al., 1999). Practice planning time and providing resources for mental skills training with physical skill practice can allow the student-athlete to develop strategies to cope with anxiety and perform physical skills at ideal performance levels (Cox, 1998; Devonport, 2006; Gould et al., 1999). Educating student-athletes about mental training strategies will also give them the resources to work on developing their mental game outside of the 20-hour practice time frame. Softball coaches at the NCAA Division II level specialize in teaching physical skill development of the student-athlete and
analyzing offensive and defensive strategies of the game but little is known about the student-athletes’ background in mental skills training and their use of mental training strategies. The purpose of this study is to describe the experiences of NCAA Division II softball catchers’ use of mental training strategies to strengthen mental skills that will enhance physical skill performance.

**Significance of the Study**

Little is currently known about the sport psychology background and mental training experience of NCAA Division II softball student-athletes. Student-athletes’ perception and experience with mental skill development can encourage or deter them from using common mental training strategies to regulate mental skills to assist in physical performance. Research indicates optimal skill performance can be reached more often when an athlete has received and can execute a combination of physical and mental skills during performance (Dorfman & Kuehl, 2002; Jarvis, 2006; Taylor, 1995; Weinberg & Gould, 2011). Exploring the common mental skills and strategies being used at the Division II competition level in the sport of softball will help determine what resources and needs the coaches have in providing the best possible mental training sessions for their student-athletes to enhance their overall physical skill performance. The purpose of this phenomenological study is to describe the experiences of NCAA Division II softball catchers’ use of mental training strategies to enhance physical skill performance in competition settings. Understanding the mental skills side of Division II collegiate softball catchers will give psychologists, coaches, managers, educators, and athletes a view into the psychological world of collegiate softball athletes. Extending the limited database on Division II softball student-athletes’ experience with mental training
strategies will be performed by the collection of qualitative data through in-depth interviews with NCAA Division II collegiate softball catchers.

**Research Questions**

The following research questions will guide this study:

1. What is the experience of NCAA Division II softball catchers in utilizing mental training strategies to enhance overall physical performance in competition settings?

2. What factors or combination of factors influence the softball catchers’ use of mental training strategies to control and develop mental skills associated with physical skill performance in softball competition?

**Operational Definition of Terms**

- **Sport Psychology** - the study of psychological factors, such as the mind, emotions, and behavior that affect participants and performance in sport (Jarvis, 2006; Weinberg & Gould, 2011).

- **Mental Skills Training** - a systematic and consistent practice of mental or psychological skills for the purpose of enhancing performance; includes an interaction with a sport psychology consultant, coach, or teacher in which mental skills are being taught (Frey et al., 2003; Weinberg & Gould, 2011).

- **Mental Training Strategies** - techniques or interventions such as goal setting, imagery, self-talk, and relaxation used to assist and strengthen mental skills such as motivation, confidence, anxiety, stress, and arousal (Jarvis, 2006; Taylor, 1995; Vealey, 2007; Weinberg & Gould, 2011)
Sport Performance - an athlete’s integration of mental, emotional, and physical functions during execution of sport related skills and exercises; includes varying levels of motivation and confidence in practice or competitive settings (Murphy, 2005; Williams, 2001).

Ideal Performance State - optimal performance in sport (Harmison, 2006).

Concentration - in sport is the athletes’ ability to focus their attention on a task or on a skill being performed (Dorfman & Kuehl, 2002).

Confidence - how strongly athletes believe in their ability to learn or execute a skill, compete at a certain level, or succeed in competition (Taylor, 1995).

Focus - the aiming of attention on an object such as a ball or target (Dorfman & Kuehl, 2002).

Goal setting - measureable and specific tasks about performance set by an individual to be met in the short-term or long-term time frame.

Imagery - an exercise that uses all the senses to create and experience in the mind (Ungerleider, 1996; Weinberg & Gould, 2011).

Self-Talk - verbalizations and affirmations to the self, positive or negative thoughts and statements (Sadeghi, Omar-Fauzee, Jamalis, Ab-Latif, & Cheric, 2010; Undergleider, 1996; Vealey, 2007).

Relaxation - decreasing unwanted muscle tension and a calming of the mind (Onestak, 1991; Vealey, 2007).

Motivation - the direction of effort and intensity one seeks out or puts forward while facing a situation (Sage, 1977).
**NCAA Division II** - National Collegiate Athletic Conference, Division II which has maximum financial awards for each sport that cannot be exceeded. Division II institutions must sponsor at least five sports for men and five for women, with two team sports for each gender (NCAA, 2010).

**Nature of the Study**

The purpose of this phenomenological study will be to describe the experience of NCAA Division II collegiate softball catchers and their use of mental skills and strategies to enhance performance. Understanding the mental experience of collegiate student-athletes will give coaches, sport psychologists, educators, and student-athletes an awareness of the psychological make-up of the collegiate athlete where current research is lacking. The results of the study also may increase the knowledge about mental skills and strategies utilized by collegiate student-athletes participating in a team sport specifically at the NCAA Division II level where a void currently exists in literature regarding the collegiate softball population.

**Organization of the Remainder of the Study**

Chapter 2 presents a literature review beginning with a brief history overview of sport psychology and its evolution to enhance sport performance. A focus is on the major common themes that provide context for this study. Examined themes from sport psychology research include (a) history of women in sports and access to resources, (b) history and development of sport psychology, (c) mental training skills and performance, (d) mental training intervention and strategy implementation, and (e) skills specific to the sport of softball.
Chapter 3 delineates the methodology chosen to complete this study. The framework for this research is a qualitative phenomenological study. The third chapter provides procedures for the interviews with athletes, procedures for validation, and processes for analysis of the information collected.

Chapter 4 presents the context, analysis of the interviews collected and findings from the study. Data obtained from the interview questions are organized into themes that emerged through the process. Experience of the participants will be presented in this chapter.

Chapter 5 provides a summary of the findings and identifies possible implications for coaches, sport psychologists, educators, and student-athletes. This chapter will also identify areas for future research.
Chapter 2. Literature Review

History of Women’s Sports and Title IX

Many high school girls and college women in sport today have heard the stories of older women and their challenges to participate in sport and physical activity. Some stories come directly from grandparents and even mothers who were denied the benefits of sports participation when growing up simply because society felt the role of the woman was to be in the home. Although participation in physical activity for women went against societal norms, many women continued to pursue their interests in sport to reap the physical, emotional, and social benefits of participation. The persistence of women and their increased participation efforts led to a mission for equal rights and an addition in legislative policy. The Office for Civil Rights of the Department of Education acknowledged discrimination and denial of participation opportunities for women in education, the work force, and sport. With influence stemming from the Civil Rights Act of 1964, educational amendments were made and evolution of Title IX began to take shape (Mak, 2006).

Title IX of the Education Amendments of 1972 was signed into law by President Richard Nixon with hopes to prohibit discrimination on the basis of sex in federally funded education programs (Edwards, 2010; Mak, 2006; Rhoads, 2004; Yuracko, 2002). Title IX law specifically reads: “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance” (U.S. Department of Labor, 2012, n.p.). As originally written the Title IX
legislation did not reference sport or athletics but later was redefined to include not only gender equity in education but also gender equity in sport (Edwards, 2010). The shift for policy change was necessary based on social pressures and the interest of women’s participation in sport continually on the rise.

**History pre-Title IX.** Even before the late 1800s competitive physical activity for women was limited and the culture of sport focused on male dominance and masculinity. Society and the culture of sport recognized women who were physically active as demonstrating masculinity and going against their feminine nature and roles of being the childbearer and homemaker (Hogshead-Makar & Zimbalist, 2007). During the 1860s and 1870s physical activity for women was termed recreational. Women participated in play days or noncompetitive activities that did not include rules or organized sporting activities (Bell, 2006; Carpenter & Acosta, 2005). This type of activity was depicted to be part of educational experience rather than participation in sport competition. Through living out their roles of childbearing and taking care of the home, women’s health was deteriorating (Hogshead-Makar & Zimbalist, 2007; Shattuck, 2011). Women were figuring out that they could reap the benefits of physical exercise just as men do. The persistence to participate was forcing society to label women as being masculine, and even making references that physical activity was damaging to the reproductive system (Edwards, 2010; Hogshead-Makar & Zimbalist, 2007, Shattuck, 2011). Despite the social dilemmas women were facing with family traditions, the 1890s brought an influx of the professional woman in the work force and women attending college. During this time college-aged and middle class women took advantage of
Due in part to positive experiences participating in physical activity, competitive opportunities for women began to grow. Competitive sport participation was helping women obtain fitness and health benefits so women’s interest levels in sport were increasing. By 1892, the first women’s intercollegiate basketball program was started at Smith College in Massachusetts by a college instructor named Sendra Berenson (Bell, 2006; Carpenter & Acosta, 2005). A documentary provided by Smith College depicts Berenson’s experience and how she used the sport of basketball in her physical education programs to help women build physical strength and character (Smith College, 2011). Four years later in 1896, the first women’s intercollegiate game was played involving the University of California-Berkeley and Stanford (Bell, 2006; Smith, 1998). During the same year a Greek woman nicknamed Melpomene (Stamata Ravithi) was denied entrance in the first modern Olympics as a marathon runner (Carpenter & Acosta, 2005; Lovett, 1997; Smith, 1998). Although she was denied participation she started the race anyway and finished with a full marathon time of four and a half hours, even after many male marathon runners had dropped out. This accomplishment made a statement that women could compete in vigorous physical events just as well as their male counterparts.

As the surge for women wanting to participate increased so did the establishment of athletic organizations and associations. By 1899 the Women’s Basketball Committee, later known as the National Association for Girls and Women in Sport, was established to improve the quality and respect of women’s sports (Carpenter & Acosta, 2005). Despite the push for equality for women in sport by the establishment of organizations, there still
remained a general lack of support for women participating in competition. Participation rates remained relatively low due to factors such as limited amount of funds for travel and equipment, lack of scholarship opportunities, and a general discouragement publicly supporting female athletes (Bell, 2006). The early 1900s brought forth new women’s freedoms just as the onset of the 1930s depression was forcing women back into the home. Although conflicting views were present, promotion of women’s sport opportunities continued with the development of the National Amateur Athletic Federation (NAAF). This organization highlighted the benefits women were receiving through sport participation, mainly through organization of intercollegiate competition (Park & Hult, 1993). Early college sports for women included participation among sororities and intramural clubs prohibiting participation in contact sports such as boxing, wrestling, rugby, ice hockey, and football (Bell, 2006; Carpenter & Acosta, 2005).

Despite the restrictions and modifications being made to sport rules and competition for women, women continued to pursue the psychological and physical benefits participation had to offer. Established organizations supported women and pushed for equal opportunity in competition.

By the 1940s significant gains in competition for women included the first Women’s Softball League established in 1942 (O’Reilly & Cahn, 2007). To offset the societal claims that athletic women were viewed as being masculine in nature, women playing softball portrayed themselves as feminine girls with masculine skills wearing skirts, having long hair, and even attending beauty classes in hopes of changing perceptions of women competing in sport (O’Reilly & Cahn, 2007). With the cancellation of Major League Baseball due to men serving in the military, the name of the
organization was changed to the All-American Girl’s Professional Baseball League (AAGPB) in 1943 (Bell, 2006). The intended purpose of the league was to maintain the sport of baseball in the public eye while the United States was at war. Although the AAGPB was the first recorded league for women, Shattuck (2011) reports women playing baseball since the 1850s with over 20 known teams organized by women participating in over 10 different states. The development of the league allowed women in sport to be recognized publically as athletes. While this was a major accomplishment in women’s sports, expectations of portraying their femininity while playing a masculine sport still existed (Shattuck, 2011). Women could not have short hair, their uniforms were pastel dresses or skirts, and they had to display manners appropriate to the female gender. Once again the purpose of women participating in competition—enjoyment of the outdoors, development of physical strength and confidence, and pleasure for the mind and body—was stifled by the norms and expectations from society (O’Reilly & Cahn, 2007).

As the push for greater opportunities for women in sport continued to increase, the 1950s-1960s brought forth a movement in social change. Feminist groups and sport organizations were highlighting the debate of equal rights in America. By 1966 the Division for Girls’ and Women’s Sports (DGWS) advocated for the establishment of the Commission on Intercollegiate Athletics for Women (CIAW), which scheduled national collegiate championships paralleling the opportunities offered in male collegiate sports being operated under the NCAA (Bell, 2006; Carpenter & Acosta, 2005). With this being a prominent move in history the opportunities were still limited to sports such as gymnastics and track and field. The CIAW was renamed the Association for
Intercollegiate Athletics for Women (AIAW) by 1971 and established the main goals for women’s athletics to include student-centered education, competition, leadership development, and performance enhancement opportunities for women participants in sport (Hult, 1994). The AIAW focused specifically on women in sport and sponsoring event participation for women. Through increased sponsorship of women’s sports and support by established organizations, women’s participation was on the rise. With influence from the Civil Rights Act of 1964 and the push for equal opportunity for women, Title IX was established. Although the enactment of Title IX in 1972 did not specifically state equal opportunities in sport and athletics, a dramatic change for women’s participation was on the forefront.

**History post-Title IX.** The enactment of Title IX in 1972 forced institutions receiving federal funding to evaluate and reconstruct educational opportunities for underrepresented groups of people. The shift to sport, however, did not take place until after 1973 and institutions had six years to implement a plan of action (Edwards, 2010). The prominence of this shift was facilitated by increased political and social awareness of women in sport. Women participating in televised public sporting events facilitated the challenge to change negative stereotypes of women in competition. With 50 million television viewers and over 30,000 sport spectators, the 1973 tennis match of Billie Jean King and Bobby Riggs became one of the most significant events in women’s sports history contributing to the social change (Edwards, 2010). Billie Jean King, a top female tennis player at the time, went on to defeat Bobby Riggs with millions of people watching. Although this event was very significant in the promotion of women in sport, Bobby Riggs’ response confirmed longtime beliefs of women’s participation in
competitive athletics. Edwards (2010) article reported a quote from Bobby Riggs obtained from a public news source prior to the event:

Hell, we know there is no way she can beat me. She’s a stronger athlete than me and she can execute various shots better than me. But when the pressure mounts and she thinks about fifty million people watching on TV, she will fold. That’s the way women are. (p. 304)

Riggs’ statement confirmed what Title IX advocates were battling as far as equal status rights for women in sport. Perception changes were at the forefront of policy implementation but debates about Title IX policy requirements were on the rise. Rather than people recognizing that policy implementation was about gender equality, increased opportunities for women, and fostering social development of younger girls and boys, many argued that Title IX was also decreasing opportunities for males (Rhoads, 2004; Yuracko, 2002). In order for institutions to provide adequate resources and equivalent experiences for women, male athletic programs were being cut or downsized, increasing the debate and controversies of Title IX’s purpose. Eliminating male sports was not the intention of the Title IX policy; therefore a need for policy interpretations took place in 1979 in regards to athletics.

The policy interpretations, issued by the Department of Education’s Office of Civil Rights, guided institutions to meet or satisfy one of three benchmarks also referred to as a three-prong compliance test (Carpenter, 2010; Kennedy, 2010; Mak, 2006). The three-prong test included:

1. An institution is in compliance if athletic opportunities for male and female students are in substantial proportion to student enrollments;

2. An institution is in compliance if they can demonstrate a continuing practice or history of program expansion for the underrepresented gender;
3. An institution is in compliance if it can provide evidence of meeting the interests and abilities of the underrepresented gender (Carpenter, 2010; Kennedy, 2010; Rhoads, 2004).

In addition to the benchmarks, specific areas addressed are athletic scholarship allocations, scheduling of games and practices, travel and daily food allowance, facilities and medical care, equipment and team supplies such as uniforms and practice gear, coaching resources, opportunities for tutoring services, and housing for the athletes (Carpenter, 2010; Mak, 2006).

To comply with benchmark requirements, institutions need to demonstrate evidence of effective accommodation and equality in each of the areas listed representing both male and female genders. For example, Mak (2006) explains that in order for an institution to comply with financial assistance and scholarship, athletic awards should be substantially proportionate: “If a college gave $500,000 of athletic scholarships and had 300 male and 200 female athletes, then $300,000 would go to the male athletes and $200,000 would go to the female athletes” (p. 35). This ratio would comply with a benchmark test; however, there has been much controversy of some institutions eliminating or cutting male sports or downsizing team rosters to meet the established policy requirements. Arguments against Title IX objectives stem from the downsizing of men’s teams to meet the proportionality requirement. Some intercollegiate athletic institutions eliminate men’s programs to be in compliance with the male/female ratio referenced earlier but that means participating institutions are not increasing opportunities for women (Carpenter, 2010). This practice or manipulation of compliance standards defeats the purpose of the Title IX policy. Federally funded institutions have
demonstrated a gradual move towards compliance over the last 40 years, but increasing litigations continue to impact and strengthen the enforcement of the policy to ensure equality for athletes.

Pre/Post-Title IX Summary

Prior to 1972 and the enactment of Title IX, fewer than 295,000 high school girls and over 30,000 college women were reported to be participating in organized school athletic programs, demonstrating an increase by the year 2001 to be over 2.8 million high school girls and 150,000 women (Kennedy, 2010; Ware; 2006). By 2010, reports of participation levels in sport are over three million girls for high school and over 200,000 women in intercollegiate athletics (Kennedy, 2010). To put these participation numbers in perspective Acosta and Carpenter (2012) conducted a longitudinal national study of women in intercollegiate sport from 1977-2012. The results of the report broke down the numbers to include participation rates for women prior to and after the enactment of the Title IX law. In 1971, the ratio of girl to boy participation in high school organized sports was one girl for every 12 boys and by 2012 the participation number was one girl for every 1.4 boys participating in high school athletics (Acosta & Carpenter, 2012). Participation rates for women competing at the collegiate level also demonstrated significant growth since the enactment of Title IX. In 1970, institutions offering collegiate level athletics reported having an average of 2.5 women’s teams per school, increasing to 5.61 teams by 1978 and currently, in 2012, reporting an average of 8.73 women’s teams per school (Acosta & Carpenter, 2012). According to Acosta and Carpenter (2012), the participation numbers are at their highest and can be attributed to society’s ability to accept a female as an athlete. Organizations supporting women in
Almost 40 years in existence, Title IX enforcement continues to be an issue. Many high schools and institutions continue to make adjustments to their education and athletic programs to ensure that equality for women is being provided (Mak, 2006). Title IX is not just about increasing participation opportunities for women and girls. Title IX compliance specifically addresses gender discrimination, equality in facilities, practice and competition times, academic and coaching resources, uniforms for practice and competition, scholarship allocations, housing and travel accommodations, medical services, and publicity (Carpenter, 2010; Edwards, 2010; Mak, 2006). Although significant accomplishments have been made for participation opportunities for girls and women, closing the gap in all compliance areas to demonstrate equality have been moving slowly. People in opposition of Title IX, lack of understanding of the policy, and lack of money for resources and facility improvement contribute to the struggles institutions have with compliance and closing that existing gap (Edwards, 2010; Mak, 2006).

As obstacles to reaching equality in all areas of athletics exist, Acosta and Carpenter (2009) expressed that some obstacles are beyond the reach of Title IX, enforcement and lawsuits; it is an individual and institutional change that will facilitate full equity to become a reality.

**Brief History Overview of Sport Psychology**

Mental skills training is a practice derived from the area of sport psychology. Sport psychology can be generally defined as the study of specific psychological factors
that affect a participant’s performance in sport (Jarvis, 2006; Murphy, 2005; Weinberg & Gould, 2011). The psychological factors vary from athlete to athlete and can have a wide range of impact on an athlete’s physical performance. In the development of sport psychology, Triplett (1898, as cited in Jarvis, 2006; Kremer & Scully, 1994; Murphy, 2005; Weinberg & Gould, 2011) from Indiana University was the first to investigate the phenomenon of social facilitation where performance is said to be affected by the presence of others. His experiment concluded that cyclists would perform faster when racing amongst other cyclists. From Triplett’s experiment in the late 1890s, the history of sport psychology continued to evolve with the work of Griffith during the 1920s in the area of psychology of coaching (Jarvis, 2006; Weinberg & Gould, 2011). With his established work in coaching psychology, Griffith was hired by the Chicago Cubs baseball organization to assist in the mental development of professional baseball players (Vealey, 2007). Between 1930 and 1960 minimal research was conducted in the area of the development of sport psychology. Beginning in the 1960s, spurred by the European Olympic teams and elite athletes, the area of sport psychology became an area of great interest for ways to improve performance (Jarvis, 2006; Kremer & Scully, 1994). Ogilvie became one of the first known psychologists from San Jose State University to work specifically with sport teams during this time on counseling services to improve performance (Greenspan & Anderson, 1995).

The 1970s introduced sport psychology curriculum within kinesiology and physical education programs (Jarvis, 2006; Weinberg & Gould, 2011). Sport psychology emphasized the use of cognitive and behavioral techniques by athletes. It was not until the 1980s that researched-focused sport psychology development was directly applied to
athletic performance, and training programs began to evolve (Vealey, 2007). Studies performed over the last two decades identify an increase in attention to psychological skill development by high level athletes and coaches in the areas of concentration, motivation, imagery, focus, anxiety control, self-talk, and mental toughness (Jarvis, 2006; Weinberg & Gould, 2011). Coaches, athletes, and athletic programs from around the world continue to experiment with mental skills training programs. These programs vary in theoretical concepts and framework but all focus on bringing individual athletic performance to the highest possible level.

Over the past decade, extensive research in the area of sport psychology indicates the importance of mental skills training to enhance the physical performance of the athlete during practice and competition settings (Frey et al., 2003; Jarvis, 2006; Taylor, 1995; Thelwell, Greenless, & Weston, 2006; Weinberg & Gould, 2011). Although positive results have been reported, it is essential that the athlete understands how and when to apply mental skills to various competitive situations (Thelwell et al., 2006). Coaches play a significant role in the process of teaching the athlete mental training skills and strategies; however, coaches are not necessarily essential in the mental training process of athletes as some athletes utilize self-education with Internet sources and reading material on the mental training process (Ungerleider, 1996). Hacker (2000), mental skills coach of the United States Women’s National Soccer Team, indicates athletes must be active in their own implementation of their performance techniques since they are the best judge of what issues and needs they face during competition. In contrast, to facilitate successful results, a study conducted by Frey et al. (2003) supports a
need for sport psychology consultants and educators to work with coaches on training athletes to apply mental training skills rather than just explain mental skills to them.

Today, collegiate softball coaches and student-athletes are beginning to see an influx of mental skills training packages and resources to help incorporate strategies into their training and competition schedules. With resources available, coaches need to evaluate what best practice strategies will suit the individual student-athlete’s mental training and performance. Despite the extensive literature on the importance of mental skills training and best practices, little is known about the experiences of NCAA Division II softball catchers with the use of mental training strategies to develop and strengthen their physical performance.

Mental Skills Training

Mental skills training in sport addresses various obstacles athletes face in practice and competition settings. Psychological skills and obstacles addressed throughout this research will include, but are not limited to, lack of concentration, motivation, competitive anxiety, low self-confidence, and negative self-talk (Hamstra, Burke, Joyner, & Hardy, 2004; Taylor, 1995).

Athletes performing at all levels of competition are constantly affected by psychological factors which have a negative impact on physical performance (Creasy et al., 2009). As a result of research, the identified negative impact on physical performance justifies the need for athletes to include mental skills training as part of their daily routine to help cope with the effects of psychological factors. Just as athletes spend countless hours preparing for physical skill performance, it is equally important to develop the mental aspect of their game through participation in mental skills training.
Mental skills training is an athlete’s interaction with a sport psychology consultant or coach in which mental training strategies are taught to the athlete. A 2009 study conducted by Wrisberg, Simpson, Loberg, Withycomb, and Reed reported results of several previous studies indicating that 30-50% of NCAA Division I athletic departments have full- or part-time sport psychologists on staff. Unfortunately not all athletic programs have access or the resources to employ a sport psychology consultant, leaving the responsibility of providing mental skills training up to the coaching staff or athlete (Ravizza, 1993; Taylor 1995; Ungerleider, 1996).

In a qualitative study, Creasy et al. (2009) interviewed coaches to determine how they implemented mental skills training with their student-athletes. The coaches defined limited time and lack of knowledge as the two key factors affecting their use of mental training techniques. The results of the study paralleled survey results of tennis coaches conducted by Gould et al. (1999), in which lack of resources and time affected mental skills training with junior tennis athletes. Furthermore, study results identified a coach’s need for practical mental skills training programs that could be implemented in 10-15 minute sessions (Creasy et al., 2009; Gould et al., 1999). Another factor contributing to the lack of mental skills training implementation includes student-athletes’ receptiveness to mental training practices. In a recent survey study conducted by Wrisberg et al. (2009), NCAA Division I athletes surveyed indicated receptivity to mental skills training was dependent on previous experience with mental training practices and their confidence level to use the strategies effectively. Individual successes and past experience contributed to the receptiveness of mental skills training revealing athletes
with little to no experience would be less receptive to mental skills training (Wrisberg et al., 2009). Furthermore, mental skills training is based on the student-athletes’ need to develop an awareness of their mental life during performance to improve emotional, mental, physical, and behavioral responses (Ungerleider, 1996; Voight, 2005). An important factor for mental training to be effective is the student-athletes’ ability to sustain patience as performance results may be difficult to attain at first, which could be a factor in determining how mental training skills are utilized or not utilized by student-athletes (Behncke, 2004). In conclusion, the student-athlete must invest time to learn mental training skills and practice the skills over time just as they would practice physical skills to improve performance.

**Psychological Factors Present with Performance**

Throughout the body of research on sport literature, there are psychological factors identified as having an influence on sport performance. This literature review will focus on the following psychological factors: concentration, motivation, confidence, competitive anxiety, and self-talk. It is commonly agreed that these psychological factors can have a negative or positive impact on physical performance of athletes competing at all levels in sport (Hamstra et al., 2004; Taylor, 1995; Voight, 2005). Other factors such as self-efficacy, arousal levels, athlete’s attitudes, and emotional control are also terms and psychological factors addressed in literature but will be combined or delineated with other factors in this literature review.

**Concentration/focus.** Concentration in sport is the athlete’s ability to focus their attention on a task or on a skill being performed (Dorfman & Kuehl, 2002). Just like physical skills, concentration is a skill that can be learned and improved over time with
practice. An athlete first has to identify internal (feelings and thoughts) and external (environment such as object, fans, or coach) factors that may affect their ability to concentrate and focus on the task or the skill being performed (Dorfman & Kuehl, 2002). Researchers and coaches often reference concentration and focus interchangeably to describe an athlete’s overall attention on a task or skill performance. More specifically defined, concentration is the attention on a task or skill without distraction and focus is the aiming of that attention on an object such as a ball or target (Dorfman & Kuehl, 2002). For a softball athlete these tasks include concentration from a defense player to be ready to field a ball when hit to them, or a hitter focusing on what pitch the pitcher will throw next during their at bat. The skill of concentration is used when an athlete needs to pay attention over a longer period of time, whereas focus is short-term attention and in the moment.

According to a study conducted by Vast, Young, and Thomas (2010) an athlete’s emotions can have an influence on the physical performance process of concentration. More specifically, Vast et al. (2010) utilized a Sport Emotion Questionaire (SEQ) with 69 female softball athletes asking them to rate their perceived effects of emotion on focus and concentration during competition. The results indicated that personal emotions such as uncontrolled anger can lead performance towards irrelevant factors such as negative self-talk, or thinking about the previous play instead of playing in the moment, or environmental factors playing a part on performance, whereas positive emotions could lead to better concentration and enhance focus on the performance process. In a survey study of junior tennis coaches conducted by Gould et al. (1999), the coaches rated focus and concentration as the most important mental skills needed for competition and practice.
settings. As referenced by Howland (2007) athletes may be told by their coaches to focus or concentrate several times during competition and this level of attention could vary from athlete to athlete, therefore confirming coaches’ knowledge of each athlete’s mental training needs as being an essential component to personal development. Athletes also need to be aware of how to develop their concentration and focus skills. One way for an athlete to assess concentration levels is through the use of the Mental Skills Inventory for Sports (MSIS) which was adapted from Loehr (1986). This inventory allows athletes to gain awareness of their strengths and needs for development in the areas such as concentration, focus, attitude, dealing with environmental distractions, motivation, and anxiety control. Assessment tools in sports such as the MSIS model can facilitate the direction of mental training strategies for coaches and give athletes a better understanding for self-directed mental training by identifying their strengths and weaknesses in the areas of concentration and focus.

Motivation. Various components exist when addressing motivational traits of an athlete. Motivation, specifically defined by Sage (1977) and used today by researchers, is the direction of effort and intensity one seeks out or puts forward while facing a situation. For example, an athlete may stay after practice to work individually on developing a skill, or an athlete may attend practice but not work hard at all. This example describes the situation an athlete participated in but put forth varying degrees of intensity and effort while participating in that situation. According to Weinberg and Gould (2011), motivation can also be defined as an internal personal characteristic, where a person sees themselves as a highly motivated individual; an external influence, a person needing something to motivate them to perform; and as a consequence or explanation for a
behavior, such as a person expressing a want or an outcome so much they were overly motivated trying to achieve it.

Motivation of athletes can be acquired by different approaches. Some individuals are motivated by focusing on individual personality traits or by the environment and situation in which they are placed. Two forms of motivation, known as intrinsic and extrinsic motivation, extend beyond the world of athletics and competition. Intrinsic motivation is when a person participates or engages in a behavior for personal or internal reasons and positive feelings often become the result; whereas extrinsic motivation is engaging in a behavior or task to attain something external and tangible, such as a reward or social recognition (Amorose & Horn, 2000; Deci & Ryan, 2008).

According to Weinberg and Gould (2011), an athlete’s competitive success can increase their intrinsic motivation. In contrast, failure in competition can have a negative impact or decrease the levels of intrinsic motivation in regards to performance. Intrinsic motivation is generally facilitated by the athlete themselves and can fluctuate daily based on performance. A coach is unable to provide intrinsic motivation for athletes but a coach’s behavior can foster an environment for an athlete to learn and improve which can reinforce intrinsic motivation levels for the athletes (Amorose & Horn, 2000; Weinberg & Gould, 2011). Examples of a coach’s behavior to facilitate intrinsic motivation is providing verbal and non-verbal feedback to the athlete, changing the environment, or providing extrinsic rewards such as trophies or money (Weinberg & Gould, 2011). Coaches need to have an understanding that their behaviors can affect motivation levels of their athletes. Taylor (1995) further supports the idea that motivation levels can vary for each athlete indicating the athlete with low levels of motivation may not work hard
and the athletes with high levels of motivation may train to injury, which could affect overall physical skill performance.

A study conducted by Amorose and Horn (2000) specifically addressed motivation levels of male and female NCAA Division I collegiate athletes based on their scholarship status. The results indicated that athletes on scholarship (extrinsic factor) scored lower on intrinsic motivation levels than the athletes receiving little or no scholarship for participation (Amorose & Horn, 2000). The results can be explained by the coaches’ behaviors using scholarship status as a way to control an athlete, therefore decreasing intrinsic motivation based upon the perception they have to work to obtain the scholarship rather than participate for pleasure and enjoyment (Amorose & Horn, 2001; Weinberg & Gould, 2011). In NCAA Division II athletic institutions, a softball team may have a roster with some student-athletes receiving full scholarship to some student-athletes receiving no scholarship awards. This discrepancy could result in varying degrees of motivational levels between athletes. Middleton, Marsh, Martin, Richards, and Perry (2004) also delineated mental toughness research highlighting self-determination theory by defining intrinsic motivation as a way for an athlete to participate in an activity for pure enjoyment to obtain personal best or success during competition. Deci and Ryan (2008) developed the self-determination theory identifying that people are motivated to fulfill needs such as feeling competent, autonomous, and social connectedness. For example, a softball athlete needs to feel competent as a hitter, a pitcher wants to control the game by determining what pitches to throw, and the social aspect for an athlete is being a participant on a team. Extrinsic and intrinsic motivational factors are placed on a continuum of athlete behaviors; therefore a coach needs to
understand each individual athlete to facilitate motivation levels that may vary from day
to day.

**Confidence.** Confidence is another common psychological factor often addressed in
sport among coaches and athletes. Self-confidence is often a mental skill cited in
research as having a significant impact on performance. On a daily basis a person’s
confidence levels can change based on the environment or the feedback one is receiving
from others or themselves. In Taylor’s 1995 article addressing athletes’ needs and sport
demands, he defines confidence as “how strongly athletes believe in their ability to learn
or execute a skill, compete at a certain level, or succeed in competition” (p. 342).
Furthermore an athlete’s performance can have an impact on their self-confidence daily
by strengthening it through a successful performance and lowering it due to an
unsuccessful event. Athletes with extremely low confidence levels and overconfident
attitudes can both result in inconsistent or low performance based on their individual
ability (Taylor, 1995; Ungerleider, 1996). Due to athletes’ confidence levels consistently
shifting from high levels of confidence to low levels of confidence it is important for
coaches and athletes to research and utilize mental training strategies to help develop
coping strategies to build and maintain their confidence appropriate for performance.

**Competitive anxiety.** Competitive anxiety, also referenced as arousal or stress
levels in the area of sport psychology, can have an influence and impact on a student-
athlete’s cognitive functioning (Howland, 2007). Cognitive functioning behaviors can
vary from athlete to athlete based on the competitive situation they are experiencing and
can positively or negatively have an effect on their feelings (Hatzigeorgiadis & Biddle,
anxiety includes two components with very distinct characteristics in relations to athletic performance. These two components are identified as (a) somatic anxiety which relies on the athlete’s perceptions of arousal such as increased heart rate, sweaty palms, muscle tension, and unpleasant feelings in the stomach; and (b) cognitive anxiety which involves feelings of being worried about performance, lack of concentration, and inability to pay attention to the task being performed (Martens et al., 1990). Hatzigeorgiadis and Biddle (2008) suggest sport researchers need to take consideration of the direction and intensity of anxiety experienced by their athletes prior to mental training implementation. In sport, not all anxiety symptoms are considered to have a negative effect on performance. Some athletes perceive anxiety levels to be “facilitative (helpful to performance) whereas other athletes can experience anxiety as debilitative or detrimental to their overall performance” (Hatzigeorgiadis & Biddle, 2008, p. 240). In a study of elite and non-elite male swimmers, Hanton and Jones (1999) discovered elite athletes acquired mental coping skills and strategies through natural learning and various educational methods throughout their careers. The coping skills developed helped the athletes interpret cognitive and somatic anxiety symptoms to be more facilitative to their performance as opposed to the non-elite athletes having a more detrimental effect on performance outcomes (Hanton & Jones, 1999). This conclusion might suggest that elite athletes have had more experience and opportunity to receive educational resources to cope with their mental skills than non-elite athletes (athletes with little resources or experience with mental training strategies).

In a study conducted by Krane, Joyce, and Rafeld (1994), 11 NCAA Division I softball student-athletes’ anxiety and performance levels were examined throughout the
duration of a softball tournament. The anxiety levels examined were specifically associated with batting performance as each time the student-athlete bats the situation may be different with the athletes experiencing different levels of competitive anxiety in relation to the situation (Krane et al., 1994). The results identified that as the competitive situation demands became more critical, such as runners on base for potential scoring opportunities, the batter’s level of anxiety increased ultimately having a negative effect on physical performance (Krane et al., 1994). The negative effect on performance could be related to lack of skills to cope with cognitive and somatic feelings during the competitive situation. Furthermore, a second study conducted with female softball athletes on the emotional effects on attention, concentration, and physical performance concluded high anxiety as having a negative correlation with smooth and automatic movements during physical performance, thus supporting that the factor of anxiety may interfere with automaticity of physical skill performance (Vast et al., 2010). Such negative outcomes or results could be the identifying factor in which athletes are not educated or trained properly to cope with rapid changes in feeling and behaviors about their performance during competition settings.

**Self-talk.** The mind-body connection with all levels of athletes can be very powerful in enhancing or inhibiting an athlete’s performance in competition. Just as other psychological factors of performance such as motivation, confidence, and concentration vary from athlete to athlete in various competitive situations, the process of thoughts and feelings vary as well (Ungerleider, 1996). The process of self-talk has been defined as a “multi-dimensional phenomenon concerned with athletes’ verbalizations addressed to themselves” (Hardy, Hall, & Hardy, 2005, p. 905). Self-talk behaviors for
an athlete can be identified as verbal or non-verbal when an athlete is confronted with obstacles or successes in a competitive situation (Amirault, 2000). Such verbalizations allow athletes to interpret feelings, regulate conditions, and allow them to instruct themselves for reinforcement. If an athlete does not want others to hear what they are thinking, they tend to keep thoughts to themselves which represents non-verbal self-talk. The review of literature also indicates there are two forms of self-talk in relation to athletic performance: positive self-talk and negative self-talk (Amirault, 2000; Hardy, Gammage, & Hall, 2001; Hardy et al., 2005). Athletes’ thoughts and feelings can be directed through use of positive self-talk and affirmations to build confidence or foster motivation to enhance their competitive performance (Hardy et al., 2001; Ungerleider, 1996). Furthermore, in a comparison of mental training strategies, researchers continue to state participation in positive self-talk behaviors by athletes is used to increase concentration and motivation in relation to performance (Peluso, Ross, Gfellar, & LaVoie, 2005).

A recent article written by Candrea (2010), head softball coach of the USA National Team and the University of Arizona softball teams, illustrates positive self-talk including statements such as, “Yes, this is a great opportunity,” and “I am ready,” helps facilitate a confident and focused athlete and result in successful performance outcomes. In contrast, negative self-talk or no self-talk behaviors performed by athletes can have a reverse effect on performance. Candrea (2010) identified that negative self-talk in the form of statements such as, “Just don’t strike out,” “I am so nervous,” can create a tense and unfocused athlete and ultimately hinder physical performance.
Hardy et al. (2001), in a review of literature on self-talk and athletic performance, reports negative self-talk behaviors consistently results in poor performance outcomes. In contrast other research reports athletes who use self-talk strategies effectively demonstrate an increase of concentration levels while reconstructing negative thoughts about performance (Peluso et al., 2005). Empirical research on self-talk strategies consistently reports proper implementation of self-talk strategies by athletes will improve their concentration and focus during practice sessions and game performance.

**Mental Training Strategies**

The psychological factors present during an athletes’ performance can have a positive or negative outcome on physical skill execution and athletic performance during competition. Often referred to as interventions, common mental or psychological training strategies such as relaxation, imagery, goal setting, visualization, and positive self-talk have been supported through research to increase an athlete’s performance state (Behncke, 2004; Hacker, 2000; Howland, 2007; Taylor, 1995; Thelwell et al., 2006; Voight, 2005; Weinberg & Gould, 2011; Williams & Harris, 2001). As research supports positive outcomes with the use of mental training strategies to improve performance, it further suggests that one intervention alone does not produce significant results in the development of an athlete’s psychological preparation. According to Taylor’s (1995) conceptual model for integrating athletes’ needs and sport demands, mental training interventions are most effective when presented in a systematic delivery program including multiple interventions focusing on behavioral and cognitive development. As athletes may prefer one strategy over another to strengthen specific mental skills, a
combination of two or more interventions is recommended to increase overall performance in competition and skill practice sessions.

**Relaxation.** Whether it is in a practice environment or competitive game play situations collegiate softball athletes are often expected to perform under high-stress pressured situations. These pressure situations could involve fielding a ball without an error, striking out a team’s best hitter, or executing a hit to score the game winning run. Regardless of the situation, a student-athlete must be able to control or regulate competitive anxiety and arousal levels to perform at appropriate intensity rates. Muscle tension can result from fear, worry, or excitement and can negatively affect physical skill performance including coordination tasks, rhythm, speed, power, and accuracy (Dorfman & Kuehl, 2002). Relaxation in sport is a technique used to help an athlete lower their anxiety and arousal levels in preparation for competition. Increased anxiety and arousal results in increased muscle tension of the athlete (Dorfman & Kuehl, 2002; Vealey, 2007). According to Orlick (1980), relaxation is the first step to stress and anxiety control. A technique that is usually performed prior to competition, Progressive Muscle Relaxation (PMR) is one form of relaxation used where the athlete is relaxing muscle groups throughout the whole body and eventually will combine with deep breathing techniques (Behncke, 2004; Ortiz, 2010; Weinberg & Gould, 2011). The muscle relaxation process is performed by tensing and relaxing muscles so the athlete can recognize the difference between the two muscle states. Eventually the athlete will learn how to recognize their muscle tension and incorporate the techniques to reduce it (Behncke, 2004; Orlick, 1980; Sadeghi et al., 2010). In a qualitative study conducted with major league baseball players, interviews were used to explore their experiences
with mental training strategies (Wagner, 2010). The major league baseball players identified using relaxation as part of their training techniques but the results of the study found relaxation being most significant when coupled with another mental training intervention such as positive self-talk or imagery (Wagner, 2010).

In a study conducted by Sadeghi et al. (2010), relaxation techniques emerged as one of the top four strategies needed for psychological training purposes to enhance performance of university soccer players. This study utilized university football players to identify specific mental training strategies most needed for soccer players competing at the same level. The participants described their experience with relaxation strategies as a way to control their energy levels by decreasing physical and mental stress and increasing confidence (Sadeghi et al., 2010). Further studies reviewed by Ortiz (2006) summarized the use of progressive relaxation techniques utilized by female golfers had a positive effect on performance by reducing stress and anxiety. Although relaxation strategies proved to result in positive outcomes on athletic performance it is important to acknowledge that some other form of intervention such as self-talk and imagery were also reported to be used in preparation for competition.

Mental imagery/visualization. Ungerleider (1996) describes imagery as a technique created in our mind where one can feel, smell, taste, hear, and touch the experience without movement from the body. An athlete reconstructs external physical performances in their mind by taking a mental picture or mental movie of the event. An athlete can create this mental picture or movie in their mind viewing it from the outside, seeing themselves perform the skill or task, or from the inside where they actually feel their way through the performance of the skill or task prior to performance (Gordon &
In a survey study of Olympic athletes conducted by Ungerleider (1996), one fifth of the participants responded with using mental imagery from an inside view, experiencing themselves performing, and a similar amount of participants viewed themselves from the outside as if they were watching a video of their performance. The mental imagery technique allows the athlete to experience a skill or task before it happens therefore allowing the athlete to respond with more confidence when the real action needs to occur during competition. Orlick (1980) refers to this process of the athlete entering the competitive situation with a feeling of “been there before” so the athlete will be more relaxed and in control during skill performance (p. 88).

In a single-subject study conducted by Nicholls, Polman, and Holt (2005), four high-performing golfers received training on mental imagery interventions. The athletes reported positive outcomes with the imagery intervention experience concluding there was a reduction in competition stress, anxiety, and increased focus on their physical performance in competition. Calmels, Holmes, Berthoumieux, and Singer (2004) examined the effects of an imagery training program which also resulted in having positive effects on improving overall performance with national softball players. The imagery intervention facilitated attention focus for the athletes in which behavioral changes were made prior to skill performance. The softball athletes utilizing the imagery intervention self-reported an increase in their vividness scores which transferred to a positive outcome to their physical skill performance. As studies report positive outcomes with performance, Romero and Silvestri (1990) indicate imagery practice is an effective technique at reducing precompetitive anxiety which could result in the improved
performance outcomes. Nordin and Cumming (2005) examined the influence of imagery while 75 students performed a motor task of dart throwing. The conclusion of the study indicated the students who employed imagery techniques of performing confidently and performing the skill correctly had positive outcomes on performance, whereas the students who used imagery techniques including one of the factors (cognitive or physical) had no change or negative results in the performance outcome (Nordin & Cumming, 2005). Negative performance can result from imagery as well if the athlete is inexperienced with the intervention or if they have difficulty creating vivid images executing a skill (Nordin & Cumming, 2005; Orlick, 1980; Ungerleider, 1996). Just as physical skill requires practice, imagery techniques need to be practiced in order for athletes to effectively develop the skill. Most studies reviewed recommended mental imagery techniques to be employed or practiced the night before or immediately prior to competition settings. Several studies support positive performance outcomes with the use of imagery to reduce levels of anxiety and stress, and increase confidence and focus, but imagery is most effective when practiced consistently with other mental training interventions (Calmels et al., 2004; Nicholls & Polman, 2005; Orlick, 1980; Underleider, 1996).

**Goal setting.** Goal setting techniques in sport have been reported to improve overall athletic performance by increasing an athlete’s motivation and confidence levels (Burton, Naylor, & Holliday, 2001; Gould, 1998; Locke & Latham, 1985; Weinberg, Butt, Knight, & Perritt, 2001). Goal setting continues to be a technique known by many coaches, psychologists, and athletes in the field, and is determined to be most effective when the goals are specific to an outcome, performance, and/or process in which the
athlete is engaged (Filby, Maynard, & Graydon, 1999). More specifically, the athlete measures success in comparison with other athletes, identifies an outcome of individual performance, and practices behaviors needed for successful performance (Filby et al., 1999). Locke and Latham (1985) concur that short-term goal setting sets the stage for long-term goal achievement for the athlete. Coaches can facilitate effective goal setting strategies by ensuring that the athlete establishes goals with specific characteristics such as presenting a challenge but are realistic, outcome specific and measurable, and positive in nature. Athletes who set challenging, more specific goals are identified as performing at a higher level than those athletes who just set do-your-best goals, general goals, or no personal goals setting at all (Locke & Latham, 1985). Weinberg, Burton, Yukelson, and Weigand (1993) conducted a study with collegiate athletes and their perceptions of the importance of goal setting to enhance overall performance. The results of the questionnaire revealed nearly all athletes utilized goal setting strategies to improve their performance with their perceptions of the process rating as moderately to highly effective. Weinberg et al.’s (2001) review of literature summarized how athletes set goals but stressed it is the coaches who are in charge of setting up the formal and informal goal setting programs for the athletes. To investigate this process further, Weinberg et al. (2001) interviewed 14 NCAA Division I coaches in various sports on their use of goal setting. The results of the study supported the notion that short-term goals were essential in achieving long-term goals. Although outcome goals were thought to be important, most coaches focused on performance and process goals in the belief they enhanced performance and improved overall concentration and anxiety control (Weinberg et al., 2001). Sadeghi et al.’s (2010) study also discovered the use of goal
setting by university football players prior to competition was believed to have a positive influence on player motivation, attention, and self-confidence. Vealey (2007) further supports the notion that proper goal setting techniques enhance physical skills and performance as well as strengthening an athlete’s focus and concentration on performance tasks. Implementation of goal setting techniques can be very daunting and ineffective if guidelines are not set. Goal setting interventions are best facilitated by coaches so an athlete can understand the guidelines to an effective, specific goal setting process.

**Positive self-talk.** Self-talk is a way for a person to sort through challenging situations in their mind. On a daily basis people in general are known to talk to themselves. More specifically, a person can use self-talk by constructing thoughts in a positive, motivating way or in a negative, self-defeating way as a coping process. In relation to sport performance, self-talk literature reports positive self-talk statements facilitate successful performance outcomes whereas negative self-talk has hindering affects on performance. Ungerleider (1996) describes how tennis great Pete Sampras used self-talk and positive affirmations (very specific individualized self-talk) to reframe his focus when he was down or being defeated or down when playing an opponent. This practice helped build his confidence and motivation to step up his level of performance. One participant’s report in Sadeghi et al.’s (2010) study with football players reported on self-talk during competition stating, “Positive self-talk will increase self-confidence and motivation but negative self-talk decreases self-confidence and motivation” (p. 86). The results of a self-talk study performed with 125 university students completing a balance task supported previous literature linking self-talk to performance outcomes (Araki et al.,
Participants reporting positive self-talk techniques constructed it in ways to motivate, focus, instruct, and calm themselves, whereas the participants reporting negative self-talk reflected worry statements, self-doubt, and frustration (Araki et al., 2006). Positive self-talk resulted in improved performance and negative self-talk hindered the performance of the participants. In a study conducted by Peluso et al. (2005), participants using positive self-talk strategies while engaging in golf putting tasks improved their overall performance when they combined the strategy with imagery techniques. Athletes who incorporate positive self-talk strategies prior to and during performance reported higher performance due to increased focus, concentration, motivation for the task, and as an instructional guide to execute the skill properly (Araki et al., 2006; Hardy et al., 2001; Hardy et al., 2005; Peluso et al., 2005). Coaches from a NCAA Division I cross country program identified six female runners displaying confidence and motivational deficits prior to performance observing negative statements such as, “We don’t deserve to be here,” and “We are going to get killed today” (Donohue, Barnhart, Covassin, Carpin, & Korb, 2001, p. 22) The study conducted with the small sample of collegiate female runners employed mental preparation strategies focusing on motivational and instructional statements by a facilitator (such as a coach or sport psychologist) and athlete prior to competition. Motivational statements included positive affirmations by coaches such as, “You worked hard for this,” and “You will dominate today,” and instructional strategies such as, “Getting an explosive start,” and “Pointing toes straight forward,” to change the athlete’s mindset upon performance (Donahue et al., 2001, p. 23). Implementation of one or more of the mental training strategies resulted in positive performance outcomes for the athletes. The data obtained
from the study support positive self-talk by athletes and instructional affirmations by facilitators have a positive impact on confidence and motivational levels of the performer. Other sport literature continues to report positive self-talk facilitates the increase of self-confidence and helps the athlete focus on strengths rather than weaknesses during performance (Candrea, 2010; Sadeghi et al., 2010). In addition, Hatzigeorgiadis and Biddle (2008) hypothesized a relationship between negative self-talk and pre-competition anxiety. The researchers identified 38 cross country runners perceiving their precompetitive anxiety as debilitative had higher incident rates of negative self-talk about performance, therefore affecting confidence levels during performance. A second study with competitive tennis players reported athletes using negative self-talk behaviors when game circumstances changed. Incidents such as lost points or bad serves increased the athletes’ negative thoughts and talk throughout the match, therefore impairing their overall performance (VanRaalte, Cornelius, Brewer, & Hatten, 2000). Furthermore, Bird and Horn’s (1990) study with high school softball players facilitated the similar results with negative self-talk behaviors. Softball athletes were categorized by two levels based on physical errors during performance. The group of softball athletes with higher levels of physical errors reported increased levels of negative self-talk during performance (Bird & Horn, 1990). Negative self-talk behaviors interfered with their ability to filter anxiety levels to improve performance.

Hardy and colleagues’ (2001) evaluation of self-talk literature concludes with identifying a strong relationship between an athlete’s positive or negative self-talk and performance. Just like physical skills, positive self-talk is learned through consistent, meaningful practice and should be incorporated in an athlete’s daily routine. Self-talk
constructed in a positive manner can assist an athlete with skill instruction and enhance their ability to cope with the various challenges and situations that may cause them stress or anxiety prior to performance.

**Sport of Softball**

The enactment of Title IX policy in 1972 brought forth a tremendous change and increase in females participating in intercollegiate athletics in the United States. The sport of softball experienced that growth and continues to be one of the most popular sports for girls and women participating in competition today. In a longitudinal report published by Acosta and Carpenter (2012), softball was ranked fifth out of 25 sports offered at the varsity collegiate level for women. Today there are currently 9,274 women’s intercollegiate teams across the nation with 88.7% of colleges offering a varsity softball program for women, which has increased from 48.4% colleges offering softball programs back in 1977 (Acosta & Carpenter, 2012). Softball at the intercollegiate level can have a roster of 10-25 players based on the interest level and need for athletes on a team. The NCAA is divided up into three divisions and has a mandate per team on how many scholarship offers can be made at each level. In the Division I level of sport, softball is allotted 12 full-time scholarships, Division II is allotted 7.2 full-time scholarships, and the Division III level of play does not offer any scholarships to their athletes (NCAA, 2011). Intercollegiate teams, under the regulation and guidelines of NCAA, can offer athletes full to partial (divided amongst athletes) scholarships usually based on talent levels or position needs to complete the roster. In 2012, it was reported that of the 1,600 collegiate softball teams, 81.3% of schools offered softball programs at the Division I level, 91.4% of the schools at the Division II level, and 92.5% at the
Division III level of competition (Acosta & Carpenter, 2012). With participation numbers for women in sport at an all-time high, it is important for coaches and athletes to be involved in programs and practices that are intended to enhance sport-specific performances to meet the demands of the competition levels in which they are playing.

Softball, the female sport equivalent to baseball, is a sport that has received little attention in research in regards to physical skill and mental training development. Although studies do currently exist, most information is related to the physical performance of the athlete and is attributed to the information derived from the sport of baseball, comprised of the development of male athletes. Despite the correlation and similarities of skills performed in softball and baseball, the sport-specific skills and gender needs still need to be addressed independently to obtain optimal performance in sport.

Weinberg and Gould (2011) summarized a personality profile report stating that women athletes differed from nonathletic women displaying personality characteristics of assertiveness, independence, balanced emotions, aggressiveness, and goal oriented traits. Similar characteristics were relevant with men, but each person is unique with the characteristics they possess, therefore specific training needs for the individual is essential. From a mental training perspective, athletes deal with situational factors (environment or skill they are performing) and personality factors (needs, goals, or motivational levels) that may have an impact on their performance during competition (Weinberg & Gould, 2011). In the sport of softball, athletes have different needs and pressures based on the position or situation they are playing (Janssen, 2002). Pitchers and catchers, for example, are involved in every play which creates a high pressure
atmosphere, whereas infielders and outfielders may only have one opportunity to make a play in a game. To a softball athlete one play in a two-hour game could lead to a 100% success or failure rate which increases pressure and tensed muscles of an athlete. According to Janssen (2002), the mental game of a softball athlete is just as critical as performing proper hitting and fielding mechanics, utilizing strength, speed, and agility, and implementing game strategy.

Dorfman and Kuehl (2002) specialize in breaking down the mental game for baseball athletes by player position and game situations such as fielding, hitting, pitching, and baserunning. Although their breakdown is specific to the sport of baseball, the performance requirements of the softball athlete are similar to those used to develop the baseball athlete. The pace of play for a softball athlete consists of short intervals of high intensity activity, where athletes rely on their physical skills and mental abilities to adjust and perform with precision and quick thinking abilities. Janssen (2002) indicates that a great softball athlete needs to have control of themselves to handle pressure situations or muscle tension, frustration, and playing with fear can hinder the physical skill outcome and interrupt routine plays of the game. Sport-specific skill execution in softball depends on mental skill preparation by each athlete regardless of their physical skill ability. The duration of a game requires a fielder to concentrate for up to 150 pitches a game assuming that every time that ball might come to them when hit, and a hitter needs to focus on an average of 25 pitches a game to try and execute a positive outcome (Dorfman & Kuehl, 2002). For some athletes it can become very difficult to keep their mind in the game as the environment and previous performances in the game can affect their thought process and concentration levels. Confidence and motivation levels become a factor and
an athlete’s ability to use mental skills becomes relevant for success. Literature on mental factors such as confidence, focus, concentration, muscle tension, and attitude is consistent with the development of athletes and is relevant to the softball athlete and the skills they perform in practice and competition (Dorfman & Kuehl, 2002; Janssen, 2002; Weinberg & Gould, 2011).

At the collegiate level softball competition can last over two hours in length and most contests are played as double-headers, meaning two back-to-back games in a day. Softball is considered a sport where physical movements are anaerobic, face paced in nature. With the duration of an athletic contest being unpredictable and timely, a softball athlete has significant amounts of time to allow their mind to affect their physical skill performance. Spending time developing the mental skills of an athlete will allow an increased opportunity to reach optimal physical performance during skill execution.

**Summary**

This review of literature has considered major themes that evolved throughout sport psychology research for performance enhancement in sport. Research supports the utilization of specific mental skills training combined with physical skill practice does in fact facilitate positive performance outcomes for athletes competing at all levels of sport. Although sport psychology terminology varies throughout research, mental skills training or psychological skills training consistently addresses cognitive and behavioral areas such as motivation, self-confidence, concentration, focus, self-talk, and anxiety traits. In order for an athlete to reach optimal levels of performance, using a combined method of mental training interventions has proved to be successful in the athlete’s development (Calmels et al. 2004; Nicholls et al., 2005; Orlick, 1980; Taylor, 1995; Underleider, 1996; Wagner,
MENTAL SKILLS TRAINING EXPERIENCE OF SOFTBALL CATCHERS

Common mental training interventions practiced by athletes or taught by coaches include relaxation, mental imagery, goal setting, and positive self-talk. Much of the research focuses on testing the effectiveness of one or two interventions at a time rather than a comprehensive mental training program. Proper implementation of mental training interventions assists an athlete with the ability to develop coping skills with the mental challenges faced during performance. More specifically, research supports goal setting interventions as a way to increase an athlete’s motivation levels (Burton et al., 2001; Gould, 1998; Locke & Litham, 1985; Sadeghi et al., 2010; Weinberg et al., 2001), develop self-confidence for performance (Sadeghi et al., 2010), and improve focus and concentration on physical tasks (Vealey, 2007). Positive self-talk interventions have been proven to have similar results. When athletes implement self-talk strategies with positive statements or affirmations about performance, motivational levels (Araki et al., 2006; Donohue et al., 2001; Peluso et al., 2005; Sadeghi et al., 2010), self-confidence (Sadeghi et al., 2010; Underleider, 1996), and self-instruction techniques (Araki et al., 2006; Donohue et al., 2001; Peluso et al., 2005) resulted in overall improvement on performance.

Mental imagery interventions were often combined with self-talk or relaxation interventions. Research on mental imagery interventions in sport reported that when performed properly mental imagery was most effective in relaxing the athlete (Orlick, 1980), reducing stress and anxiety levels (Nicholls et al., 2005; Romero & Silvestri, 1990), and increasing an athlete’s self-confidence (Nordin & Cumming, 2005; Underleider, 1996). Mental imagery interventions were also effective in facilitating behavioral changes with an athlete prior to and during performance (Calmels et al.,
2004). Studies identified relaxation interventions as one of the most common interventions utilized by athletes competing at all levels in sport. Relaxation interventions are most successful when an athlete combines deep breathing techniques with the athlete relaxing tensed muscle groups (Behncke, 2004; Ortiz, 2006; Weinberg & Gould, 2011). Studies described athletes who used relaxation before, during, and after competition displayed higher levels of confidence (Sadeghi et al., 2010), reduced stress and anxiety levels (Orlick, 1980; Ortiz, 2006), and a reduction of muscle tension to improve physical skill execution (Dorfman & Kuehl, 2002; Vealey, 2007). Faced with high pressure situations during competition, it can be crucial for athletes to successfully implement proper relaxation interventions to have an impact on their overall performance.

Although the results of each intervention examined proved to enhance coping skills with mental obstacles and performance outcomes, athletes could benefit further through the development and use of multiple interventions and strategies. Most studies explore the effects of two or fewer mental training interventions on performance and at the Division I level or higher of competition. Literature also suggests that identifying the athlete’s mental needs and educating them on how to use mental training strategies is the key for effective implementation of the strategies to enhance performance outcomes. Very few studies focus on the needs and experiences of the female collegiate athlete at the Division II level of competition. An awareness of this athletic population will assist sport psychologists, educators, coaches, and athletes how to properly provide mental skills training to enhance the development of mental and physical skill performance.
Chapter 3. Methodology

This chapter provides information on several aspects of the study, including the research methodology, the research design, participants and how they were selected for the study, how the study was conducted, and ways in which the data were analyzed. The purpose of this phenomenological study was to gain insight into student-athletes’ experiences with mental skills training to enhance physical performance in the sport of softball, specifically at the NCAA Division II level of competition. Phenomenological research attempts to describe “the meaning for several individuals of their lived experiences of a concept or phenomenon” through a “focus on describing what all participants have in common as they experience a phenomenon” (Creswell, 2007, p. 57).

Data were collected by conducting interviews with Division II softball student-athletes to gain insight into their subjective experience with mental skills training in sport. The data were analyzed to detect themes and meanings that emerged from the interviews. The proposed research attempted to answer the following questions:

1. What is the experience of NCAA Division II softball catchers in utilizing mental training strategies to enhance overall physical performance in competition settings?

2. What factors or combination of factors influence the catchers’ use of mental training strategies to control and develop mental skills associated with physical skill performance in softball competition?

Design of the Study

A qualitative phenomenological research approach was used in this study and was based on the theoretical works of Moustakas (1994) and Creswell (2007). The
methodology used interviews to obtain information on the lived experience of the participants. The qualitative research method studies phenomena in their natural environment and then attempts to make sense of the phenomena in terms of the meanings people associate to them (Creswell, 2007). The phenomenological interview has been given little attention in the area of sport and allows the researcher to obtain information on the experiences of the participant. In order to fully understand a phenomenon, Denzin and Lincoln (2003) describe that a wide range of “interconnected interpretive practices” are used by researchers to conduct qualitative research (p. 5). The interpretive practices allow researchers to “attempt to make sense of, or to interpret, phenomena in terms of the meanings people bring to them” (Denzin & Lincoln, 2003, p. 5). This study used the method of phenomenology to describe the lived experience, or the essence of mental training experience of collegiate softball student-athletes playing the catcher position (Creswell, 2007; Moustakas, 1994). A research method presented by Moustakas (1994), referred to as the transcendental phenomenological approach, is “focused less on the interpretations of the researcher and more on the description of the experiences of the participants” (Creswell, 2007, p. 59). Moustakas (1994) further defines the process of transcendental approach:

The researcher engages in disciplined and systematic efforts to set aside prej Ludgments regarding the phenomenon being investigated (known as epoche process, where the researcher brackets the study) in order to launch the study as far as possible free of pre-conceptions, beliefs and knowledge of the phenomenon from prior experience and professional studies—to be completely open, receptive, and naive in listening and hearing research participants describe their experience of the phenomenon being investigated. (p. 22)

In an effort to describe the essence of the mental training experience, the researcher used the transcendental phenomenological procedures put forth by Moustakas
(1994) and described by Creswell (2007). The procedures for this study included
(a) identifying the phenomenon to study; (b) bracketing out the researcher’s experiences,
(c) collecting data from multiple college student-athletes who participate in collegiate
softball; (d) analyzing the data by reducing the information to significant statements or
quotes, then combining the statements into themes and meanings; and (e) developing
both textural and structural descriptions of the student-athlete experiences to develop a
synthesis of the meanings and essences of the phenomenon (Creswell, 2007).

This research design was determined to be the best method for this topic for
several reasons. First of all, this specific research methodology and design was chosen to
capture the lived experience of NCAA Division II softball catchers and their use of
mental skills training and strategies. Interviews provided detailed information and an
understanding of the participant’s experience. A survey or predetermined measure might
not have identified critical variables that the participant expressed as important.
Secondly, there are few studies that address the experience with mental training skills and
strategies that could enhance a collegiate student-athlete’s performance in the sport of
softball. This type of interview may prove to be useful to coaches, educators or
practitioners who individualize their interventions in sport development.

Participants

The participants for this study included 10 female student-athletes in the age
range of 18 to 22 years old competing in the collegiate sport of softball at the NCAA
Division II level. The participants were selected through a purposive sampling technique
from multiple teams participating in the North Central Region competing at the Division
II level affiliated with the National Collegiate Athletic Association. The researcher selected participants playing specifically in the catcher position for their current team. Permission for the participants in the interview process was first obtained by the coaches in charge of the teams selected. A letter of introduction explaining the purpose of the research and inviting participation was sent to the head coach of the selected collegiate institutions (see Appendix A). Upon receipt of permission, the researcher obtained participants’ contact information to schedule face-to-face interviews. Participation in this study was on a voluntary basis and at no risk to the participants.

**Data Collection**

The purpose of this study was to understand the essence of the collegiate student-athletes’ experience related to mental training strategies to enhance performance in the sport of softball. After approval was obtained from the Institutional Review Board, potential student-athlete participants were identified for the study. After obtaining permission from the coach from the selected institutions, a letter through email contact was sent to the student-athletes informing them of the study and inviting them to participate (see Appendix B). The researcher followed up with the potential participants by telephone seeking their participation. The participants were sent an informational letter consisting of a consent form, background, and purpose of the study (see Appendix C). After receiving the participants’ consent to participate, interviews were scheduled by phone and email contact. The participants’ availability was determined by time and location and the researcher traveled to meet them at their designated location (institution of participation).
To obtain the experiences of the participants, data were collected through face-to-face, in-depth interviews ranging from 45 to 60 minutes in length. In-depth interviews were used and collected information on the participants’ thoughts, feelings, and opinions regarding their experiences in the use of mental training strategies to enhance performance.

The instrumentation was a researcher designed interview protocol (see Appendix D), developed to standardize all interviews and minimize bias. The lead-in to the interview guide asked participants to provide demographic information (e.g., age, years of playing experience, years of playing the catcher position). This strategy assisted the researcher in developing a rapport with the participants. The interview questions were open-ended regarding their experience with mental training as an athlete. Throughout the interview process, follow-up probing questions were asked by the researcher to encourage the participant to elaborate or to clarify their experience. Some examples included, “Could you say more about that?” “How did that come about?” “What were you thinking at that time?” “How did you feel then?” The interviews concluded with the researcher asking the participant if there is anything further to say. Additional comments were recorded and the audio recorder was turned off to conclude the interview session with the participants.

**Data Analysis**

A phenomenological approach was used to analyze the completed interviews. Moustakas (1994) describes that through repeated reflection the phenomenal experience becomes more clarified and expanded in meaning. Participants’ interviews were analyzed individually and analyzed with the other interviews as a group to search for the
reoccurring themes of the experience. The interviews were transcribed verbatim by the researcher for further analysis. After transcribing the interviews, the interview data were analyzed for “significant statements, sentences, or quotes that provide an understanding of how the participants experienced the phenomenon” (Creswell, 2007, p. 61).

Moustakas (1994) defined this data analysis process as horizontalization. He advised the researcher to list each relevant expression of the phenomenon, also known as invariant constituents: identifying themes that capture a part of the phenomenon that aids in understanding the experience and the ability to label the expression (Moustakas, 1994).

Prior to formal analysis, each participant was asked to member-check the transcription for accuracy and make any additions that are important to them. The researcher read the transcripts over several times to identify emerging themes and meanings from the information obtained. The data analysis process followed procedures presented by Moustakas (1994) and included:

1) horizontalization, listing and grouping every relevant experience;
2) reduction and elimination, testing each experience by relevancy and identification;
3) clustering and thematicizing, identifying core themes of the experience;
4) validation, checking for consistency;
5) construct an individual textural description;
6) construct individual structural descriptions. (pp. 120-121)

Themes were identified through reviewing, analyzing, and discussing clusters of meanings and expressions (Hycner, 1985; Moustakas, 1994). Expressions that were not clearly communicated were eliminated. Significant statements and themes were used to write thick, rich descriptions of what the participants experienced, described by Creswell (2007) as textural and structural descriptions. Textural and structural descriptions are presented in Chapter 4 as a composite description that describes the essence of the
common experiences of the participants related to their experience with mental training skills to enhance sport performance.

The final step in the data analysis process established the essence of the phenomenon through a combined description that Creswell (2007) refers to as an essential invariant structure. The process focused on the participants’ common experiences related to the phenomenon of their experience with mental skills training to enhance softball performance at the Division II level. The themes and trends that emerge from the data analysis are presented in Chapter 4.

**Trustworthiness**

Verification of the research process is important to presenting strong qualitative research studies. Creswell (2007) suggested that verification is the process that occurs through the collection of data, analysis, and reporting of the study which aids in the “trustworthiness” and “accuracy” of the qualitative research (p. 191). The researcher used the Interview Guide (see Appendix D) to lead the interviews with the student-athletes. The Interview Guide assisted the researcher in establishing reliability between interviews, and validity in focusing questions specifically on the research questions. The following strategies were implemented during the study to ensure the verification process: (a) description of the researcher role and potential bias, (b) identification methods for data collection and analysis, (c) evidence of member checking by participants in the study, (d) peer review, and (e) thick descriptions of participant interview responses (Creswell, 2007). By employing these procedures the researcher ensured consistent and accurate findings of the study that was conducted.
Ethical Considerations

Participants interviewed for this study were selected from multiple institutions participating in the NCAA Division II level of sport. The participants were volunteer adults with no special characteristics, and did not fall under any category of protected subjects. Institutional Review Board approval was obtained before the study and data collection began. The safety and welfare of the participants was a primary consideration in conducting this phenomenological research. A letter of introduction was provided explaining the purpose of the research and inviting participation upon permission of the coach of the selected participants. All student-athlete participants were referred to as Participant A, B, C, and so on in the notes, recordings, and during the interviews to establish and maintain confidentiality. The participants were given the opportunity through an email attachment of their transcribed interviews to member-check the findings and had the option to withdraw from the study at any time.

Summary

This qualitative, phenomenological study described the mental skills training experiences of collegiate softball catchers competing at the Division II level. The study was conducted with student-athletes competing in the sport of softball in the Central Region Conference, at institutions affiliated with the NCAA. Data collection occurred through open-ended interviews. Coding and categorizing statements in order to find similarities within the results completed the analysis of the data. The remainder of the study discussed the outcomes of the interviews. The results of the analysis and findings will comprise Chapter 4. Chapter 5 will summarize the study and the findings, present conclusions, and provide discussion and possibility for further study.
Chapter 4. Data Collection and Analysis

The purpose of this phenomenological research study was to more clearly understand Division II collegiate softball catchers’ experiences with mental skills training and their performance in sport. Specifically the research questions were:

1. What is the experience of NCAA Division II softball catchers in utilizing mental training strategies to enhance overall physical performance in competition settings?

2. What factors or combination of factors influence the softball catchers’ use of mental training strategies to control and develop mental skills associated with physical skill performance in softball competition?

The study focused on the descriptive responses of mental skills training experiences of Division II collegiate softball players specifically playing in the catcher position. The study was conducted at six institutions affiliated with the NCAA, specifically competing at the Division II level in sport and limited to the teams in the Central Region of the United States, including institutions from Minnesota, North Dakota, South Dakota, and Nebraska.

Demographic Context

For this study, a purposeful sample was used. The softball catchers were participating athletically and academically at universities and colleges affiliated with NCAA at the Division II conference level. All of the participants were female, full-time athletes, and students classified as freshman, sophomores, juniors, and seniors, and between the ages of 18 and 22. The student-athletes selected for this study specifically participate in the Central Region of competition comprised of two athletic conferences
which sponsor 28 institutions combined. The student-athlete participants were selected from six out of the 28 institutions from the Central Region. Throughout the collegiate playing season each softball team has the opportunity to compete against each other and can often end up competing against each other at the end of the year during tournament play. Pre-season and post-season schedules also allow the softball teams to compete against other Division II softball teams from various regions of the United States. Each of the six institutions affiliated with the student-athlete participants had been recently ranked in the top 10 in their conference and have participated in post-season tournament play based on their winning success.

This phenomenological study elicited responses through the use of semi-structured interviews with 10 participants, all student-athletes playing the catcher position for their team. Participants interviewed in this study were all volunteer adults with no special characteristics, and did not fall under any category of protected subjects.

Once IRB approval was obtained, head coaches from the selected institutions were contacted to obtain permission to contact their student-athletes. When permission was received from the coaches the participants were contacted and data from interviews were collected from each participant. The interview questions were semi-structured with the use of prompt questions when necessary. Prior to meeting with the participants, the interview protocol was reviewed by the researcher’s professional committee. The committee consisted of three individuals who have a background in qualitative research methods.

A letter of introduction explaining the purpose of the research and asking for permission to contact their student-athletes was sent to the head coach of each of the
selected institution (see Appendix A). Once permission was received from the head coach the researcher contacted the student-athletes. A letter of introduction explaining the purpose of the research and inviting participation was then sent by email to the student-athletes identified by the head coach (see Appendix B). Face-to-face interviews were conducted by appointment at the identified student-athlete’s institution beginning in April and continuing through May. All interviews utilized the established interview guide protocol, were conducted by the researcher, and were digitally recorded. The researcher transcribed the recorded interviews. Upon completion of the transcriptions, the researcher began manual analysis of the data. The researcher used a process to code one transcription document at a time highlighting significant statements from the participant responses (Creswell, 2007). Content analysis was used to categorize transcribed text and develop themes and common responses from the documents for further interpretation. The use of color-coding the participants’ responses was used to identify categories and themes to further reduce the data. The researcher created charts in several word documents using the color-coded information from the transcriptions. Categories and themes were further reduced by identifying individual participant responses and the frequency determined which themes were of importance and which themes were to be eliminated. Direct quotes were used to establish textural descriptions of the participants’ experiences throughout the data analysis and presentation of the results. The categories and themes were further analyzed with the research questions for this study.
Study Participants

Ten female student-athletes participated in this study. One participant was age 18; three participants were age 19; four participants were age 20; and two participants were age 22. The student classification consisted of three freshman, three sophomores, two juniors, and two seniors. All of the participants stated they began playing sports and specifically the sport of softball at an early age during childhood, ranging from a starting age of four to six years old. The total playing years of softball for the 10 participants ranged from 10 to 16 years of experience, with three participants playing the catcher position at age 10, three starting the catcher position at age 12, two starting at the age of 14, and two not experiencing the catcher position until their transition to their college years. There was some diversity in the participants playing one or more positions other than catcher throughout their playing career.

Each participant in the study was assigned a letter pseudonym: Participant A, B, C, D, E, F, G, H, I, and J, and was referred to when describing their experiences.

Participant A. Participant A is a junior in college and is 20 years of age. She started playing softball when she was six years old with a total of 14 years playing experience in the sport. At the age of 10 is when she began playing in the catcher position and has been playing that position full time ever since.

Participant B. Participant B is a freshman in college and is 19 years of age. She started playing the sport of softball at the age of four with 15 total years of playing experience. She played the third base position most of her playing career and became a utility catcher (playing multiple positions when needed) when she was recruited for
Participant C. Participant C is a sophomore in college and is the age of 19. She started playing the sport of softball at the age of nine and began playing the catcher position at the age of 10. She has 10 years of playing experience and has been playing the catcher position for all 10 years.

Participant D. Participant D is a senior in college and is the age of 22. She has been playing the sport of softball since the age of seven with a total of 15 years experience. She started playing the catcher position at the age of 10.

Participant E. Participant E is a freshman in college and is 18 years old. She began playing the sport of softball since she was four years old with a total of 14 years of playing experience. She started playing the catcher position at the age of nine years old and has been playing the catcher position ever since.

Participant F. Participant F is a sophomore in college and is 20 years of age. She began playing the sport of softball when she was five years old with a total of 15 years playing experience. She started playing in the catcher position at the age of eight but also played the pitcher and third base position prior to her college years.

Participant G. Participant G is a sophomore in college and is 20 years old. She has been playing the sport of softball since the age of six years old with a total of 14 years of experience. She began playing the catcher position at age eight. During her youth playing years she also alternated playing the shortstop and third base positions.

Participant H. Participant H is a senior in college and is 22 years of age. She started playing the sport of baseball at the age of six switching over to the sport of
softball at the age of 14 with a total 16 years playing experience. She played various
positions as an infielder throughout her career and did not become a softball catcher until
her college years.

**Participant I.** Participant I is a freshman in college and 19 years of age. She
started playing the sport of softball at the age of seven with a total of 12 years playing
experience. She began playing the catcher position at the age of 10 while also spending
some time at the pitcher position.

**Participant J.** Participant J is a junior in college and 20 years of age. She started
playing the sport of softball at the age of five with a total of 15 years playing experience.
She played second base and shortstop during her youth years and began playing the
catcher position as a junior in high school.

**Categories and Emergent Themes**

In this section there is detailed description of categories and themes that emerged
from the data. The themes are a result of the data analysis in which units of meaning
were identified from the participant’s responses, put into categories and named. The first
category highlights the participant’s descriptions of the meaning of mental skills training
to them. The second category, named mental skills strategies, identified six major
themes: self-talk, routines, reflection, visualization/mental imagery, goal setting, and
relaxation. The third category of education identified three additional themes: coaches,
parents, and other sources. Direct quotes from the participants are included to further
illustrate the themes identified and the experience of the participants.

**Meaning of Mental Skill Training**
To begin the interview process the researcher collected demographic information about each participant to gain an understanding of the softball catcher’s playing background and years of experience in the sport. This specific information does not directly contribute to the results of data in relation to the research questions but provides a foundation on their exposure to various skills and development. The softball catcher is involved in almost every play on the field defensively and is responsible for making several decisions on the field with some of them being made under significant pressure and stress. The decisions on what pitch to call for each hitter, what play to make on the bunt, and directing the fielders on where to make the play requires a catcher to think and react quickly. Softball catchers not only need to have the physical skills for successful outcomes, they also need to be able to apply mental strategies to cope with various obstacles such as stress, pressure, anxiety, and environmental factors that could have an impact on the decisions they make. To gain insight on how softball catchers cope with various mental aspects of the game, the researcher had to find out what mental skills training in sport means to them. Participant A responded,

Mental skills training in sport means to me the whole mental aspect of softball. It’s ways to prepare your mind and your body before a game, before a practice so you can be your best. It is the stuff like relaxation, so you can perform at your best.

Many of the participant responses focused on preparing oneself for competition while others responded with utilizing mental training strategies during the game to maintain control of stress and to keep confidence levels high. Participant C responded,

Mental skills training and strategies is a big part of sport because you have to control your actions, be a leader out there by how you react to plays and situations on the field. As a catcher, you have to be a role model to your teammates on how you deal with stressful situations on the field.
Three participants responded by identifying specific mental training strategies such as self-talk, visualization, and relaxation to control psychological aspects that could affect physical performance such as anxiety, stress, muscle tension, and lack of confidence. Participant G responded, “It is also how you talk to yourself, before an at bat, before a pitch comes to you, how you prepare yourself mentally to build confidence to perform that skill.”

The reference to being prepared mentally helped facilitate the participant’s confidence levels prior to skill performance in competition settings. Using visualization and self-talk in these instances was the primary strategies to building confidence. When participants described “seeing themselves” perform a skill ahead of time through visualization their confidence levels increased. Participant H responded, “Confidence plays a key role in shifting your game one way or the other, especially when at bat you have seen yourself being successful in that position before your confidence levels are higher when performing that skill again.”

Getting oneself in the right mindset was a common response by the participants; however, one participant addressed strategies she sometimes uses as self-talk and visualization, but had an opposite response on her view of mental skills training. Participant F responded,

To me I understand it [mental skills training], I know other people who use it, but there are some days that I am really not a thinker. I like to keep my mind clear, mental is not too much part of my game.

Through their playing experience the participants have a basic understanding and exposure to mental skills training; however, the researcher’s probing questions could not elicit more descriptive responses on how the participants specifically apply these
strategies to their performance other than the typical response of getting in the right “mind set.”

Mental Training Strategies

**Self-talk.** Self-talk behaviors for an athlete can be identified as verbal or non-verbal when an athlete is confronted with obstacles or successes in a competitive situation (Amirault, 2000). When discussing mental training strategies throughout the interviews, seven of the participants addressed using self-talk behaviors during practice and competition settings in relation to their performance. Most of the participants identified their self-talk as instruction or positive messages to themselves while others insisted rarely using self-talk because they tend to be too hard on themselves with their words and thoughts. Participant I provided an example of instructional self-talk while in practice; she stated, “I will talk to myself in my head and be like, ok, keep my back shoulder up, focus on hitting the center of the ball. I will instruct myself positively when talking to myself.” Participant F had a similar response in using self-talk positively but utilized an affirmation approach towards her performance. She responded,

Sometimes I will talk, I know it sounds stupid but I would say stuff like, I am the best player ever, I am the best out here, try and strike me out and that sort of thing. Also I will say things like, I own this pitcher, I will go in there and do just fine. I do positive self-talk cause I know it will help, negative self-talk doesn’t help so I know positive will keep me focused.

Another participant felt that keeping herself positive is important to keep the rest of the team positive. A catcher can be seen as a leader on the field so response to game situations is important and the outcome can have an effect on other teammates. Participant E described her self-talk in a game,

During the game I have a lot of positive self-talk, cause you gotta keep yourself up. Once you get down, everybody else sees you get down and everybody looks
to you as the catcher, so you really gotta stay up for the team’s sake. I felt I have
done a really good job of this personally, cause when I was a kid I used to get
really frustrated and make error after error, I just want to make myself better so I
started doing more positive self-talk and more mental aspects and just use it to
keep myself under control at all times.

Some participants also addressed self-talk in relation to their performance but had
different views on their experience with this strategy. Participant A reflected on the self-
talk strategy,

Positive self-talk for me is very hard. There is a lot that goes on, that’s one of the
hardest things to transfer thoughts from negative to positive, and that is one of the
things I have been working on the most.

Participant B stated, “Self-talk, I am aware of it, sometimes I try to push myself away
from it cause I know I can be too hard on myself, so it has either a positive or negative
outcome for me.”

Six of the participants also addressed the use of self-talk outside of the practice
and competition environment. Four of the six participants directly related using self-talk
strategies to assist with homework and school issues. For example, Participant D stated,

I would say that for school, especially like playing a sport while in school you
have to be mentally tough to take on the schedules that we have and to be able to
ger your work in to get good grades. As much as I don’t realize it I use mental
stuff way more than I think I do like, self-talk. It is the little things like that to get
me through.

Participant B had a similar response in relation to school work and tests,

When I am doing homework or taking a test I do a lot of goal setting and self-talk.
I know if something is hard, I know I can tell myself I can do it, even during tests
when I know I am frustrated and I can’t figure something out I talk myself
through it and tell myself I can do it.

Some other responses using mental training strategies were specifically addressing
relationship issues or preparing for job interviews. The use of self-talk was consistent on
how some participants use it to instruct during sport performance. Participant G referenced her preparation for a recent job interview,

> I think its [mental training strategies] all related to life. Like the other day I was going to a job interview and I kept telling myself, alright, let’s be positive, let’s go tackle this thing. I go in there thinking of different scenarios preparing myself positively.

The participants’ responses in relation to self-talk is consistent with research on athlete’s self-talk and performance. Some of the participants in this study use self-talk to stay positive during performance whether it is in an instructional form or by using positive affirmations to keep confidence levels high. Others mentioned their avoidance of self-talk due to the lack of experience on how to use it to rid their thoughts and feelings from being negative in nature. Research addresses two forms of self-talk in relation to athletic performance: positive self-talk and negative self-talk (Amirault, 2000; Hardy et al., 2001, 2005). Hardy et al. (2005) also suggest that athletes’ thoughts and feelings can be directed through use of positive self-talk and affirmations to build confidence levels. The majority of the participants reported that positive thinking prior and during performance helps enhance their performance.

**Routines.** Routines were commonly addressed by the participants. Some of the participants throughout their interview mentioned the terms routines and rituals synonymously. For the purpose of this study the researcher identified their experience with routines. Routines are very specific to each individual and have an impact on the participants’ daily practice or competition preparation. Participants described their routines in detail ranging from practice settings, pre-competition, and during competition time frames. Seven out of the 10 participants talked about routines and the specific steps they take during this process. Participant A quoted, “Softball is so superstitious that we
have to have the same routine everyday so that we feel comfortable.” Many others
mentioned routines as a strategy to get in the right mindset or to prepare themselves for
the game or skill execution. Participant I shared,

I always have the same routine when I go into the batter’s box, I stay outside the
batter’s box, I will swing my arms back with the bat and take deep breath when I
bring them together. I always step in the box with my right foot first and swing
my bat back and forth, and I always do that. For catching it is in between
stressful plays, I will always wipe the catcher’s box with my feet to brush the play
away. It calms me down a lot and gets me focused and ready for the next play.

Participant F also responded with her routine making her feel more focused,

Before a game I will do a little chest bump with my shortstop, in the box I just
always touch the corner with my left foot, umm it gets me focused to hit, right
when I touch that I am like alright, here we go.

All of the participants who shared their use of routines as part of their mental plan also
stated that it is something that each individual creates on their own, that everyone has
their own routine made up in different scenarios to assist with relaxation and to keep
them focused. Participant D stated,

I am a really superstitious person so I am routine so I like to make sure that
everything is just right, for my mindset. The same breakfast every morning on
game days, getting to the field, putting on my uniform in the exact same way,
every time, same things in warm-ups.

Not all of the participants use routines in relation to sport performance. Participant G
gave her point of view about routines,

I see a lot of people doing routines or rituals. I see that a lot and I am not really
using that myself, but there are a lot of people who, if they drop the ball, they
have to do things like blow it off, something like that to help them focus.

Routines, defined by the participants in the study, tend to be individually determined.
They are used during pre-game preparation and during offensive and defensive skill
execution. The use of routines by some of the participants facilitated their ability to focus and relax during performance.

**Reflection.** The research presented on mental skills training does not highlight reflection as a strategy often used by athletes in the mental training process, although reflection is a process people use in general to learn from their experiences. The participants in this study referred to reflection regularly as part of their mental training experience. Reflection was discussed by seven out of the 10 participants and five found it as a way to focus and prepare themselves for practice or competition. Participant B described her reflection process,

> Before practice I like to sit down and take five minutes to think about what I want to work on, how I wanna get better, make improvement before the next game. After a game or practice I like to take 10 minutes and reflect on what I did or what I can do better, how I can make myself a better player.

Much of the reflection process was described as determining what each player could do to enhance their performance physically. Participant D stated,

> I am a reflection person. I like to look back at what I did or what I need to work on, I get myself in that mindset to get better at that one thing physically. If I make a mistake at practice, first I gotta get in my head and figure out what I need to do to make adjustments and not do that again. Mostly during competition I like to focus on the positives, what I did good in that game and go into the next game with an open mindset.

Other participants tend to reflect on areas that were not perceived as positive. Participant E uses reflection from the previous game to enhance performance,

> Before games or practice I really just try to focus on what I am going to do to make myself better. Like, I will try and think about the last game or practice of what I did that wasn’t exactly the best thing I have ever done and I want to improve every day and every game.

Participant F addressed other factors during her reflection process,
Just before practice I like to think and reflect to get all I can out of it, and then during a game keeping my head in there, so not to worry about the other factors I talked about, like school, coaches or the calls the umpires make during the game.

For another participant reflection is a way to prepare by looking back at various factors.

“Going over everything that went on, rethinking about what the coaches said during practice and using that information to prepare myself” (Participant A). One participant referred to reflection as being a negative process for her. Participant C stated, “I try not to do reflection, I am a person that is naturally hard on myself where I don’t want to dwell on it too much.”

Reflection was described as part of the mental training experience by a majority of the participants; however, how they reflected varied by each individual. Reflection was described specifically in the practice setting to prepare for competition, after competition to prepare for the next game, after a mistake to prevent one from happening again, and sometimes not used at all. Participants reflected on their physical performance and from feedback given to them by the coaching staff.

**Visualization/mental imagery.** Visualization or mental imagery was also a strategy described in the experiences from the majority of the participants. The participants’ experience of visualization is consistent with how research describes the use of visualization in sport. The athlete sees themselves performing a skill or even views themselves in their mind allowing them to feel the process of skill performance without even doing it (Gordon & Weinberg, 1994; Orlick, 1980; Wood, 2010). Six out of the 10 participants responded about visualization as a strategy to prepare themselves for competition or to perform a skill. Participant G was specific in her description,

One of the things I always do before I get up to bat is I am seeing myself with a perfect swing or a really good hit. I try and remember the feeling, the same thing,
like if I know I am calling a screw ball I am seeing myself getting around that ball to frame it. I even see the umpire calling it a strike before hand, you know that kind of visual stuff.

Participant H described her experience with visualization that was very similar to Orlick (1980), who refers to this process of the athlete entering the competitive situation with a feeling of “been there before” so the athlete will be more relaxed and in control during skill performance (p. 88). Participant H stated,

I use mental training to prepare me for the event in which I am about to participate, such as mental imaging, seeing myself getting that game winning hit, or making a diving play etc. I go through situations in my head that could possibly happen in a game to prepare me and have myself know that I have been there a thousand times and I can and will succeed in that situation.

Another common factor with the use of visualization strategy is when the participants use it. Some of the participants describe using visualization before a game, before practice, before an at bat, during defensive plays, and sometimes the night before a competition setting. Participant B described how and when she uses visualization,

I always like to visualize a little bit the night before and then usually on my way to a game. Then during a game when I am on the on-deck circle I like to time the pitcher and watch her and I just think about how I am going to hit the ball, or like in warm-ups before we are out on the field I like to think about making the plays I am supposed to make and just doing my job. I go through different scenarios, like I usually visualize myself at catcher making the catch. When I am up to bat I think about hitting different pitches and seeing the actual spin on the ball, seeing where it is hit, hitting it to the place I want to hit and making good contact. I am more of a visualization person cause I know I can see myself doing it.

Visualization for other participants may not always be a part of their preparation.

Participant I addressed when she uses it the most by stating, “I don’t always use visualization the night before, but sometimes if I am really nervous before a big game I will.” Another participant describes how she does not use it at all. Participant C stated, “The visualization, I guess I don’t really use that one, cause I know I can hit the ball, I
know I can field the ball, I don’t really visualize doing it.” The strategy of visualization was important to many of the participants, seeing themselves execute specific skills before doing it as a way to prepare and increase confidence for their performance. One participant specifically did not use visualization because she felt her confidence to perform a skill was already at a high level.

**Goal setting.** Goal setting strategies was not a relevant response in relation to the participants’ mental skills training experience. Four out of the 10 participants described goal setting as a way to focus on skills to improve on but did not find it as significant to increasing their overall performance. Participant C stated,

Mostly before a game I kinda do a little goal setting here and there. I weigh more in on the physical aspect of the game, but we do spend time on goal setting. We do a lot at practice and what to focus on, what we can improve on.

She mentioned using goal setting in a practice and game setting. A second participant’s response addressed goals setting on a monthly basis but did not believe it was the ideal method. Participant E responded,

We do goal setting but I think instead of doing goals for the month of March, I would rather do goals for just this practice, this is what I am going to do to get better, for this game this is what I am going to do to get better. Day by day, week by week goal setting rather than by month.

Participant B had a similar response with her goal setting experience,

I use goal setting, but during a game I kinda stay away from that too, I don’t like to think about my goal for the day, like getting a hit. I am more just thinking about what I need to do and do my job.

Vealey (2007) mentions that proper goal setting techniques enhance physical skills and performance as well as strengthening an athlete’s focus and concentration on performance tasks; however, the majority of the participants in this study did not describe goal setting as a way to enhance their performance.
Relaxation. Throughout research the definition for the relaxation strategy is described as a technique that is usually performed prior to competition. Progressive muscle relaxation (PMR) is one form of relaxation used where the athlete is relaxing muscle groups throughout the whole body and eventually will combine with deep breathing techniques (Behncke, 2004; Ortiz, 2006; Weinberg & Gould, 2011). Participants in this study describe techniques on how they relax themselves for competition but it was not always consistent with the definition. Participant D stated, 

Before a game I definitely try to relax a lot, I try to just clear my head, I can’t have anything. I can’t think about anything. I do, nice, calm chilled music. Everybody makes fun of me for it but I like the most relaxing music before a game.

Participant J describes a different way to relax herself, “The actual individual skill I am working on, it gets frustrating at times so I like to take a step back and refocus and relax and try to compose myself to start over.” Although she does not describe the technique she uses to get to that relaxed state, her refocus assists in relieving the frustration that she is experiencing. Participant A has a similar experience with Participant D involving music, 

I try to get that good night sleep so that I know I am relaxed and ready to go. I use it to let my whole body relax, letting myself listen to music before the game to release that huge muscle tension.

The use of relaxation strategies varied for the participants, from clearing their mind, helping them to focus, or releasing muscle tension to perform skills. The technique to relaxation also varied for the participants from the use of music, taking a step back, or making sure to get a good night’s sleep before a game.

The six mental skills training strategies identified by the descriptions of the participants were listed in order from the most used to used the least. Most of the
participants were able to identify mental skills strategies even if they did not actively use them as part of their preparation or use to control mental skills. Table 1 provides a breakdown of the participants’ experience on the mental skills strategies they use on a regular basis to enhance their performance; however, the amount of time dedicated to using those strategies was not established during the interview process. A blank indicates that the participant did not describe using the strategy, but does not necessarily mean they do not use the specific training strategy.
Table 1

*Mental Skills Strategies*

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Six themes of mental skills strategies were identified by the participants’ responses. They were listed in order from the number of participants that described the strategy in their interview from most participants to the least. Table 1 identifies the mental training strategies and which strategies the participants utilize throughout their playing career to enhance performance. Two participants describe using five strategies, one participant describes using four strategies, four participants describe using three strategies, and three participants describe using two strategies at any given time before, during, and after competition. The results for the practice setting were reported slightly different with one participant using four strategies, one participant using three strategies, five participants using two strategies, and three participants using one strategy throughout.
the practice setting. In summary, seven out of the 10 participants described using three or fewer mental training strategies to enhance performance in the competition setting and three participants out of ten described using four or more strategies in the competition setting.

**Sources of Education**

Sport psychology research suggests that if athletes are educated about the benefits and how to effectively implement mental training strategies through mental skills training, they are more likely to implement these techniques into their practice and competition routines (Barr & Hall, 1992; Frey et al., 2003; Weinberg & Gould, 2011). Common obstacles that athletes face when preparing for performance are lack of confidence, stress, anxiety, low concentration levels, and negative self-talk (Murphy, 2005; Taylor, 1995; Weinberg & Gould, 2011). Other obstacles that may hinder a student-athlete’s performance are environmental factors such as coaches, relationships, weather, and even the officials controlling the game. Education through systematic mental skills training will allow the athlete to gain more control over their thoughts and actions will ultimately improve physical performance (Hacker, 2000; Janssen, 2002; Murphy, 2005).

To obtain a deeper understanding of how each participant was educated about mental skills strategies present with performance, the researcher asked each participant where their understanding or knowledge of mental skills training came from. Table 2 illustrates the sources each participant acknowledged in their response.
Eight of the 10 participants reported three or fewer sources as a foundation for their knowledge and education of mental skills training. Two out of the 10 participants reported having four sources of education. With the majority of the responses from the participants stating their parents and coaches were influential in teaching them about mental skills training, their descriptions indicate more of an instructional or encouraging strategy to help them focus or build confidence. Three common themes emerged to answer the second research question, “What factors or combination of factors influence the student-athletes’ use of mental training strategies to control and develop mental skills associated with physical skill performance in softball competition?” The themes were coaches, parents, and other sources.

**Coaches.** The majority of participants described coaches as being instrumental in helping them develop and cope with mental skills associated with the game. Eight of the
10 participants mentioned coaches as a source of learning about mental training strategies or helping develop mental skills to deal with stress, confidence, help them focus, or play with a sense of control. For example, Participant C stated,

A lot of coaches know when I have been struggling a little bit, but they bring it out of me, they say you got this, you can do it, you are one of the best people, you can do it, stuff that was confidence building.

Participant F also stated, “My coaches have done a great job keeping me under control you know, when I am upset and I have to go back out there and I have to play.” The role from coaches was supportive and some participants addressed instructional aspects from their coach with mental skills training. Participant J also responded about her coaches but did not specifically address how she was instructed to use mental training strategies.

Participant J stated,

Our coach now emphasizes slowing things down in practice and work on our mental game their too, visualize and things like relaxation when doing a skill. I feel like we all have our own way of doing or using the skills. She doesn’t really describe it to us.

Participant F had a similar response with her current college coaches,

It was in college when I learned about it [mental skills training]. No one ever touched on it in high school, but the past couple years in college our coaches started talking about mental training. Like in practice, games, we would have meetings about setting a goal or to think about what we can control, what we can’t control.

Participant G also acknowledge additional sources with assistance from her coaches,

“This year our college coaches had us read a book called *Mind Gym* and it is really inspiring with a lot of scenarios we can relate to as athletes so we learn by applying the strategies from the book.”

**Parents.** The majority of the participants also referenced their parents as being an influence to help them develop mental skills associated with competition. The specific
responses did not address specific strategies being taught to them, but addressed the supportive role from their parents in building confidence or helping them obtain resources for personal development.

Participant I stated, “A lot of it was my dad. I used to have a really bad attitude about everything, he was just like you need to be positive about what you are going to do.” Participant B had a similar experience with her parents and they helped her obtain other resources. Participant B stated, “My parents were really helpful. They went out and got me all sorts of books and everything on mental training to help me.” Participant H and Participant G both addressed how their parents encouraged them or tried to help them in certain situations. Participant H stated,

I have had little mental training throughout sports. It is an important factor and athletes may not believe in everything but they do use what they believe in to help with their game. My parents try to calm me down if I get too fired up. They used different strategies to get me through things.

Other sources. Six out of the 10 participants also described other sources other than parents or coaches about obtaining information about developing mental skills and utilizing strategies. Other sources mentioned were books, Internet, other athletes, and sport psychologists. Books and Internet sources were used minimally by two participants. Three of the participants specifically addressed other athletes as a source for mental skills training and education. Participant A stated on her experience,

We were lucky enough to have meetings with athletes from our Division I hockey team. They came in and did presentations for us on goal setting and other mental training stuff that they have done with their hockey team. [Player One] was on Team Canada when they won the Olympic Gold Medal and she taught us everything she learned. It’s nice to see it from people our age or close to our age instead of coaches telling us this is what we have to do. They have done it [mental training] and they have seen it be successful for them.
Participant E had a similar response but the other athlete in her case was her sister, a Division I softball player. Participant E stated,

I learned a lot from my older sister, she plays at [Division I school] and she is a senior. My sister taught me how to balance everything, like pressure and I have to be prepared mentally. She helped me with my mental aspect because of her experience.

Participant B also attends a school that has Division I athletes in a sport other than softball where the athletes provided mental training sessions to her team. Participant B stated,

When I got to college we started working with some Division I athletes as our mental trainers. We all thought this [mental training] is a really cool thing to do, I mean they know what they are talking about, so we all kind of made everyone on the team aware that this can really help us, that this can make us champions.

The three participants that reported learning about mental skills and strategies from other athletes shared similar feelings. They concluded that learning from other athletes who used mental training strategies to enhance their performance could help them be successful as well if they actively used mental training strategies during practice and competition. Two other participants acknowledge team access to a sport psychologist to develop mental skills and to learn about mental strategies; however, this was optional in each case and utilized on an individual basis. Participant D stated,

Here at [Institution], we do a lot of mental stuff too. We have a sport psychologist on staff. Every now and then we have mental training sessions. Never really practiced much mental training at the high school level, but now we can if we want to.

Participant H had a similar response to access to a team psychologist. Participant H stated,

This year we finally took on a personal team psychologist, you can go to him if you want to or you don’t have to on certain things. I actually haven’t really used him as much as I could have, it’s all individual and not mandatory.
The access to other sources such as other athletes was reported to be facilitated by the participants’ coaches or on their own. Participants using textbooks also sought them on their own or influenced by their parents or instructional sessions by their coaches. The coaches also made access to a sport psychologist but the use of this resource was also made optional to the participants. The educational background on mental skills training and strategies of the participants in this study is diverse. In each interview the researcher could not identify one experience where a systematic, multi-strategy approach was taught to the participant to assist in developing various mental skills present during competition. Six of the 10 participants reported their mental skills training experience to come from two or fewer sources of education identified in their interviews. Four of the 10 participants identified three or four sources of education about mental skills training with most of the education taking place occasionally or on an optional basis based on individual needs.

Summary

It was the intent of this phenomenological research study to address the questions:

1. What is the experience of NCAA Division II softball catchers in utilizing mental training strategies to enhance overall physical performance in competition settings?

2. What factors or combination of factors influence the catchers’ use of mental training strategies to control and develop mental skills associated with physical skill performance in softball competition?

Thorough analysis of the interview data collected revealed six major themes of mental skills training strategies and three additional themes for sources of education. The
common themes identified were self-talk, routines, reflection, visualization/mental imagery, goal setting, relaxation, coaches, parents, and other sources. These themes reflected the essence of mental skills training experience of 10 softball catchers at Division II institutions participating in the Central Region conference. The following chapter will include additional results, conclusions, and recommendations for practice and further research based on this study.
Chapter 5. Results, Conclusions, Limitations, and Recommendations

The purpose of this qualitative study was to describe the mental skills training experience of Division II collegiate softball catchers to enhance performance in competition settings. Ten Division II collegiate softball catchers were interviewed using a semi-structured interview process. The study sought to describe the emergent themes of mental skills training and the factors that influence the softball catchers’ experience with the use of mental skills training strategies in competition settings. Nine themes were generated from the interviews with the participants and direct quotes were used to give a greater understanding of the themes. This section reviews the research findings from the current study as well as implications of the study, limitations of the current study, and recommendations for future research.

Results

Recurring “clusters” of significant statements in the interview transcripts revealed nine emergent themes (Creswell, 2007). To address the first research question, six themes centered on specific mental skills training strategies and three themes centered on sources of education that influence use of mental skills strategies which addressed the second research question.

Self-talk. The majority of the participants referenced the regular use of self-talk as a strategy to boost confidence, regain control of emotions in stressful situations, or to instruct themselves during skill execution. Eight out of the 10 participants identified using self-talk in the practice or competition settings with three of them utilizing self-talk in both practice and competition and five only using it during the competition setting. When reporting on the use of self-talk, the participants also described how they use it to
enhance other areas in their personal lives such as building relationships, preparing or taking exams, and when working on homework. The participants described how self-talk in the identified scenarios helped them focus and provided confidence to accomplish a task as well as overcome obstacles faced in certain relationships. In the sport psychological research, self-talk has been identified as one of the most important strategies in performance enhancement. When executed in a positive way prior to and during performance, self-talk strategies reported higher performance due to increased focus, concentration, motivation for the task, and as an instructional guide to execute the skill properly (Araki et al., 2006; Hardy et al., 2001, 2005; Peluso et al., 2005). The only attribute not mentioned by the participants throughout their descriptions of their experience was that of motivation. No one in the study addressed using self-talk as a strategy to increase their personal motivational levels. The findings of the current study are also consistent with research and the participants’ use of negative self-talk. Two participants reported their self-talk tends to be negative and the effort to change their thoughts from negative to positive is difficult for them so they try not to use the self-talk strategy. Participant C from the current study stated, “Self-talk, but there is some negative in my head, but you can’t let it go too far or your gonna do worse on the next play.” Bird and Horn (1990) reported that softball athletes with higher levels of physical errors also had reported increased levels of negative self-talk during performance. Candrea (2010) identified negative self-talk behaviors with Division I softball athletes can create an unfocused athlete which can have an impact on their overall physical performance.
**Routines.** In sport some athletes refer to routines as superstitions or rituals. Regardless, the act of a routine is a way for an athlete to prepare themselves for competition or to perform a skill. Routines are described to be very specific to the athlete no matter what sport or position they are playing. Softball catchers are no different from this practice. Dorfman and Kuehl (2002), authors of *The Mental Game of Baseball*, describe consistent and repeated thoughts and behaviors are the elements of effective mental preparation and add,

> If avoiding foul lines, wearing “lucky” socks, using a “hot” bat, carrying a rabbit’s foot, or eating chicken every day can give a player confidence, then he should, by all means help himself to that feeling. It may be an important part of his preparation. (p. 132)

Softball catchers from this current study are no different from this practice. Seven out of the 10 participants reported using routines as a regular part of their daily mental preparation. Participant E stated,

> I have my little ritual, routine that I have to do. I put all my shoes, socks, and jersey on all the same way for every game, not really for practices. Then I have to go to the bathroom and I have to take it all off again. My jersey has to be tucked all the way in, belt had to be on perfectly. I think it mentally prepares me, like getting ready for a game is like you are getting ready for a battle every time you get on the field.

Responses by other participants described how their routines helped calm them down, focus, and feel a sense of being prepared to play. Although the majority of the participants used routines, they were all different and tailored to individual preferences to obtain that preparation phase for competition. Participant J described her routines,

> Well in the morning I put my left sock on first, then my right sock, and then my cleats in the same way. I have always done this since I was playing as a kid and now I do it in everyday life. Early in the season all I ate for breakfast was applejacks on game days. I felt like it helped me; in Florida I was doing really well cause I had applejacks in the morning.
According to sport performance coach Dagenais (2011), elite softball players (those playing at their highest level in Division I and Olympics) use routines all of the time. He states, “Performing routines gives them confidence and helps them focus and get into the zone so they can outperform their opponents on the field” (Dagenais, 2011, n.p.).

**Reflection.** Reflection is a way for people to examine their experiences and learn from them. Participants in this current study identified reflection as a regular part of their mental training experience. Seven out of 10 reported on reflection as part of their experience but only five described using it as a way to inform what to work on during their practice sessions and to focus and prepare for the next game. Their practice of reflection is consistent with literature where a form of thinking, analyzing, and then learning from their previous experience occurred so a changed action can take place (Moon, 2006). Reflection is also defined as a learned process and needs to be practiced over time. Thompson and Thompson (2008) recommended that ongoing reflection is necessary to achieve the benefits to develop self-confidence and skills. Two of the seven participants described their reflection experience as having a negative effect on their mindset so they try and stay away from that process.

**Visualization/mental imagery.** Visualization or mental imagery allows an athlete to experience a skill or a task before it happens physically. Six participants of the current study stated that visualization is an important strategy that they use on a regular basis to prepare for competition. The participants describe seeing themselves performing an at bat, making a routine play, or even seeing an umpire make a call before it happens. Some participants also describe seeing specific details such as the spinning of the ball or the center of the ball while feeling the action of their swing or the motion of their throw.
The participants reported that visualization before a game or skill execution elevated their confidence, and relieved stress and anxiety by helping them focus on their performance. These descriptive responses paralleled definitions of the visualization strategy presented in research and were also consistent on when athletes use them most. Positive performance outcomes are present with the use of imagery to reduce anxiety and increase an athlete’s focus and confidence levels (Calmels et al., 2004; Nicholls et al., 2005; Orlick, 1980; Ungerleider, 1996). One participant’s response addressed how she only uses visualization the night before a game if she is really nervous. Just as physical skills are practiced, Weinberg and Gould (2011) state that mental imagery and visualization techniques are most effective when used with other strategies and practiced on a regular basis.

**Goal setting.** Research suggests that goal setting is most effective when the goals are specific to an outcome, performance, and/or process in which the athlete is engaged (Filby et al., 1999). The use of goal setting is facilitative in raising an athlete’s self-confidence and attention levels, and increasing motivation on a particular task. Weinberg et al. (2001) conducted a study on how athletes set goals but addressed the importance of the coaches’ role to set up the goal setting programs for the athletes—supporting it is essential to set short-term goals in order to achieve long-term goals. The participants in this current study described very little experience or time being used on the goal setting process. Four participants talked about goal setting taking place at practice on their own or through the process of a coach helping them set goals month by month. One participant responded that she would benefit more from daily or weekly goal setting
rather than month by month. The four participants had similar experiences with goal setting, stating that it helped them focus on what to work to improve their performance.

**Relaxation.** Relaxation was one of the most referenced mental skills strategies highlighted in research; however, the participants in this study discussed it the least. Three out of the 10 participants described using a relaxation strategy to enhance performance. Researchers commonly define relaxation as a way for the athlete to relax muscle groups throughout the body while combining it with deep breathing techniques (Behncke, 2004; Ortiz, 2006; Weinberg & Gould, 2011). The participants in this study did not have consistent descriptions with current research. Two of the participants described how they use music to help them relax prior to competition. Another participant talked about taking a step back when frustrated which helped her refocus and relax in order to perform. In a study conducted by Sadeghi et al. (2010), university soccer players described using relaxation techniques as a way to relieve physical and mental stress and control their energy levels. Recognizing physical stress such as muscle tension is crucial to prevent negative outcomes with performance. Behncke (2004) and Sadeghi et al. (2010) suggest that practice with relaxation strategies will help the athlete learn how to recognize muscle tension and utilize techniques to reduce it. The participants in this study did not make it clear in what situations they experience muscle tension, therefore they may have a difficult time recognizing it.

**Coaches.** Coaches are the most instrumental people involved with teaching an athlete about how to compete. Their job is to provide the best possible strategies to develop physical skills and knowledge about game situations for their athletes. With rigorous academic and athletic schedules for student-athletes, the NCAA limits practice
time for collegiate athletics in Division II to be 20 contact hours per week (NCAA, 2011). This time limitation can be an obstacle for a coach to fit in all the aspects of teaching skills and strategies to their athletes. In a study conducted by Creasy et al. (2009), 22 NCAA collegiate coaches were interviewed about their teaching beliefs on mental skills training strategies for their student-athletes. The study reported 100% of the coaches agreed that mental skills are just as important as developing physical skills of their athletes with only 9% responding to working with their athletes to develop their mental skills (Creasy et al., 2009). The coaches indicated lack of knowledge and time constraints as a major influence on the lack of mental skills training (Creasy et al., 2009).

Although coaches were not part of the current study, the participants indicated in their responses that coaches had the most influence on the skills they use. Eight of the participants described coaches as a source of education on mental skills training. Two participants acknowledged their high school coaches telling them about the importance of mental skills training strategies but didn’t necessarily teach them. Participant I stated,

My 16U coach taught us a lot about getting rid of stress by wiping away the dirt or wiping it off your chest protector, just getting rid of the negative things and focusing on what’s going to be positive and focusing on the next play.

This example does not specifically address a mental skills training strategy highlighted in the literature. Participant B had a similar experience at the high school level,

My high school coach, he didn’t really stress it [mental skills training], he didn’t make it something you had to do but he always kind of pushed it, said it was something that was really helpful.

The majority of the participants referenced their first formal introduction to mental skills training when they started playing college softball. Some coaches incorporate mental training strategies in practice such as visualization and goal setting.
One participant discussed a mental training book their college coach had the team read this year during the season. The participant described the book as presenting different strategies and game situations the athletes might face and provides strategies on how to handle them mentally. Four of the participants described their experience with their coach as being someone to look to for building their confidence or helping them refocus during performance in competition. This came in the form of affirmation statements from the coaches as a way for the athletes to cope with mental skills which allowed them to focus on performance.

**Parents.** For six of the participants in this study, parents played an important factor in the development of their mental skills. The responses from the participants were consistent with each other, stating that ever since they started playing softball parents facilitated an increase in confidence levels and encouraged them how calm themselves down or to have a positive attitude. The participants’ responses did not describe specific mental training strategies to cope with adverse mental skills. Parents were described as playing a supportive role in assisting the participants with specific emotions when they were down after lack of performance in competition. One participant even described how her parents purchased mental training books to help her develop mental training strategies to enhance her performance. The supportive roles from parents was significant for the six participants. Although specific strategies were not present, the participants’ parents played a role in assisting them to recognize various mental responses in relation to performance. According to Voight (2005), mental skills training is based on the student-athletes’ need to develop an awareness of their mental life during performance to improve emotional, mental, physical, and behavioral responses. The participants in this
study further described how their parents would tell them to change their thoughts from negative to positive and boost their confidence during low times. This parental support allowed the participants to recognize their various emotions and mental state.

Other sources. The participants in this current study identified other sources as part of their mental skills training education or influence to use mental skills strategies. Other sources mentioned were mental training books, Internet sources, other athletes, and sport psychologists. The findings in this area varied from participant to participant but some common responses evolved. For example, three of the participants reported that other athletes taught them about specific mental training strategies. These other athletes mentioned compete at the Division I level in sport and have a greater experience with mental skills training on a daily basis. All three participants felt that if mental skills training helped these Division I athletes be successful, it would help them too. This thought is consistent with current research findings. Wrisberg et al. (2009) suggest that student-athletes need to have experience and believe that mental skills training will enhance their performance. Learning from other successful athletes or having success themselves with mental training strategies could do just that.

Three of the participants described their access to a team sport psychologist. Use of the team psychologist in all three cases was optional. The participants could go to the psychologist on their own if they wanted to work on developing mental skill strategies. All three participants said they rarely, if ever, used the psychologist as a resource because they were not required to use it. Having access to a team sport psychologist is a rare occurrence, especially at the Division II level. In order for the participants to have contact with the psychologist they must make an appointment outside of the practice
sessions to do so; it was not part of their regular practice routine. The use of books or Internet sources by the participants was minimal, with one participant describing an assignment by her coach to read a mental skills training book. This was outside of the practice setting but it included the whole team to participate in this assignment.

The participants described various resources of education in which they learned about mental skills training strategies or how to control emotions and feeling associated with competition and performance. In this study, six participants listed two or fewer sources contributing to their education and influence to use mental skills training strategies and four participants listed three to four sources.

Conclusion

To this date there is a very limited amount of research that has been conducted to investigate the mental skills training experience of Division II softball student-athletes. This study particularly focused on describing the experience of Division II softball catchers. The catcher position requires the athlete to be involved in the majority of plays on the field throughout the game. The catcher must be sharp with physical skill execution and make quick decisions in pressure situations. The findings from the current study expanded the descriptive list of mental skills training strategies and the factors to assist them in the use of these strategies to enhance their performance in sport.

Mental preparation in softball requires the use of certain mental training strategies to develop and control mental skills associated with enhancing their performance. The mental training strategies that the participants in the current study state to be part of their experience for their preparation include self-talk, routines, reflection, visualization/mental imagery, goal setting, and relaxation. Each participant described a different
experience with what mental skills training strategies they use and why they use them. Much of their experience was individual preference and assisted each athlete differently when developing mental skills for competition. Some participants described using the mental skills strategies to increase confidence, focus, and to control emotions. A lesser number of participants described using mental skills strategies to increase concentration, determine what physical skills to work on, and to relax prior to or during competition.

All 10 participants described using a combination of two or more mental training strategies in the competition setting, whereas eight of the participants described using a combination of two or fewer strategies in the practice setting. Two participants reported using three or more strategies throughout their practice sessions to enhance their overall performance. The researcher was unable to determine the frequency of use of mental skills strategies. Some participants described using mental skills training strategies daily while others reported only using it when they were nervous or had to increase their confidence for performance.

The combination of factors that contributed to the participants’ use of mental training strategies included coaches, parents, and other sources such as books/Internet, other athletes, and sport psychologists. The findings also had varied responses from the participants. The majority, eight participants, described coaches as having influence or educating them about developing mental skills through various strategies. A similar number discussed influence from their parents while six participants described other sources as well. A total of six participants indicated two or fewer sources of education on the use of mental training strategies, and four participants had a combination of three or
four other sources of education that influenced their use of mental skills training strategies to enhance their performance.

Overall, the participants described an understanding of how the use of mental training strategies develop mental skills to enhance their performance. All of the participants reported the use of specific strategies but the findings varied for each individual on what strategies they use, and the combination of strategies used were different for each individual. Some participants also stated they stay away from certain strategies because they do not know how to use them effectively. The findings for educational factors were similar. Each participant had a combination of different sources to influence the use of mental skills strategies into their playing experience. The descriptive experience from each participant concludes that each one as an athlete is different and has different needs in regards to mental skills development. This finding is very significant in relation to current research in the field. In order to create and implement an effective mental skills training program, one must first identify and recognize the needs of each individual player (Hacker, 2000; Taylor, 1995; Weinberg & Gould, 2011). Furthermore, tailoring mental training strategies to the individual needs of the athlete also requires one to tailor training strategies for the specific skill demands and positions of the sport (Janssen, 2002; Taylor, 1995; Wood, 2010).

Limitations of the Study

There are limitations to the current study that should be addressed. The first limitation is that not all positions in softball were represented in the sample of participants. For example, the 10 participants interviewed were all student-athletes playing in the catcher position for their team. Without getting the experiences from all
positions in softball, some data may not have emerged that would have strongly pertained to this study. A larger variation in player positions may have yielded alternative results.

A second limitation to this study is the limited number of participants. There were a total of 10 participants and the data were not completed to full saturation. If the data continued to be collected to saturation, more themes may have surfaced or the themes identified could have been strengthened. For example, other experiences with mental training strategies and skills were discussed during the interviews, although not enough participants described the skills and strategies to identify them as a theme. Some participants described strategies such as using trigger words to focus or personal journals for reflection. Other participants discussed using strategies strictly for motivation, dealing with pressure, anxiety, helping with external distractions such as umpires and fans, or needing strategies as a way to adjust their game from high school to college. If the researcher interviewed more participants or players in all softball playing positions, some of these topics may have emerged as themes.

The final limitation of the study is due to the lack of variation in the sample and data was not collected to full saturation; broad generalizations to this study are very limited.

**Recommendations, Suggestions, and Considerations**

The purpose of this research has always been descriptive: to describe in detail the mental skills training experience of Division II softball catchers. Each participant in this study describes their experience using mental skills training strategies; however, their experience varies based on the individual needs for performance development in sport and their prior experience with mental skills training strategies. The findings of this
study may be of use to other student-athletes, coaches, sport psychologists, coaching educators, and researchers when trying to develop and implement a comprehensive mental skills training program. Each student-athlete faces different demands and needs to enhance performance in sport. The strategies described throughout their experience are consistent with research findings and educational source influence. It is with this in mind that the researcher offers recommendations, suggestions, and considerations.

**Implications to consider: Student-athletes.** In order for student-athletes to perform at their highest potential in sport it is important for them to develop and strengthen their mental skills. The majority, if not all, of the practice hours in softball are dedicated to refining physical skills and game strategies. The student-athletes’ main concern is having a strong physical performance in competition. The results of this study reveal use of mental skills training strategies by the participants in competition, but is rarely used in the practice setting. Practicing mental training strategies on a consistent basis outside of the competition setting will help student-athletes develop mental skills needed for performance. It is important for student-athletes to gain an awareness of their mental needs in the areas of concentration, focus, attitude, dealing with environmental distractions, motivation, and anxiety control. Understanding their needs will determine what mental training strategies will best suit them. They also need to recognize when they are out of focus, losing control, lacking motivation, or becoming too anxious so they know when to apply specific mental training strategies. Educating student-athletes or assisting them in obtaining the various resources that are available is a key factor in this process. The student-athlete also needs to be receptive to mental skills strategies and
practice mental skills just as routinely as the physical skill practice (Behncke, 2004; Jarvis, 2006).

**Implications to consider: Coaches.** The student-athlete spends most of their time under the supervision and direction of a coach. Coaches can use these research findings when working with softball players in their practice to assist in improving their performance. The research findings can also aid in developing a mental skills training program that can be implemented with teams and individual players in mental skill development. Researchers suggest that athletes who are educated about the benefits and techniques of mental skills training are more likely to implement the techniques into their practice and competition routines (Barr & Hall, 1992; Frey et al., 2003; Weinberg & Gould, 2011). Educating softball players in the practice environment will help them gain experience with recognizing how to cope with mental skills and foster proper use of mental training strategies when they are needed. Since most of the participants in this current study reported that they were not introduced to mental skills training strategies until their college years, high school and youth coaches could consider teaching them at a younger age so those skills are stronger by the time they reach college participation. Unless facilitated by coaches, most student-athletes are unaware of how to effectively implement mental training strategies.

**Implications to consider: Sport psychologists.** A 2009 study conducted by Wrisberg et al. reports that 30-50% of NCAA Division I athletic departments have full- or part-time sport psychologists on staff. For NCAA Division II schools that number is even less due to budgets and access to sources beyond immediate coaching staff. Sport psychologists possess more training on mental skills development than much of the
coaching staff, so it is important for sport psychologists to reach out and provide education to coaches in this area. Providing resources or programs to coaches will save time so they can effectively implement a program during their practice sessions without taking away skill practice time from the athletes. A sport psychologist can distinguish individual needs for each player’s mental skill development. This could help the coach and athlete significantly when trying to tailor a program to enhance performance in sport.

**Implications to consider: Coaching educators.** The 1970s introduced sport psychology curriculum within kinesiology and physical education programs, but it was not until the 1980s that strategies started being used with performers in sport (Jarvis, 2006; Weinberg & Gould, 2011). Curriculum for coaches still varies in content and differs from program to program. Some degrees in coaching only offer a class on sport psychology and mental training and some do not offer any content on the subject at all. With programs evolving due to research, it would be important that students in a coaching program receive more education on the mental game in sport as this may be their only introduction or source to obtain this information. Coaches often attend conferences for professional development so offering extended trainings on the mental aspect of sport is essential for them to become comfortable to teach it to their athletes. In a study conducted by Creasy et al. (2009), coaches defined limited time and lack of knowledge as the two key factors affecting their use of mental training techniques. Other research conducted with college coaches paralleled the same results, therefore indicating increased education for coaches will be significant in improving their athletes’ mental skill development.
Implications to consider: Researchers. The results of this study reveal the use of mental skills training strategies to enhance performance with softball players but the implementation and strategies used could be interpreted as widespread and inconsistent. Strategies used in practice were used less often than in competition settings and many of the participants utilized three or fewer strategies to prepare for competition. Research in the field of sport psychology suggests that in order for an athlete to reach optimal levels of performance, using a combined method of mental training interventions has proved to be successful in the athlete’s development (Calmels et al., 2004; Nicholls et al., 2005; Orlick, 1980; Taylor, 1995; Ungerleider, 1996; Wagner, 2010). The researchers specifically state a combination of four or more strategies used by an athlete would help achieve the most benefits and address all mental skills that athletes must cope with during competition and preparation. Current studies on athletes’ use of mental training have been on Division I athletes or higher, such as professionals or of Olympic, elite status.

Since there is a current lack of research in this topic area for Division II student-athletes, there are several studies that are worth investigating. There is an opportunity to go beyond the scope of this research study and investigate, specifically, the ways coaches are implementing mental skills training strategies into coaching sessions with their student-athletes. This could further identify coaches’ needs and determine if there are inconsistencies on how the athletes perceive mental skills training with their experience.

A second suggestion for future research is to continue the current study while increasing the sample size and the variation of the sample to include student-athletes from all positions. The qualitative nature of the study could be time consuming, so developing a questionnaire that measures mental skills training and the use of strategies
could be performed through a quantitative statistical analysis to determine what results may surface. A quantitative study could be performed with a large number of coaches and athletes without the study being time consuming. Several other measures could be examined as well. For example, the researcher could uncover how frequently mental skills training occurs, how often the athletes utilize mental training strategies, and if a difference in performance occurs between average softball athletes and above average softball athletes based on their mental skills strategy usage.

Summary

This qualitative study described the experiences of Division II softball catchers and their use of mental skills training strategies to enhance performance in competition settings. The participants shared their experiences through semi-structured interviews and the results varied from each participant. Research implies that mental skills training and strategy use among athletes is based on preference, experience, and success, and it is important for athletes to learn about the strategies and how to implement them. Coaches play a factor in this education process and should assist the athletes in the facilitation of proper strategy implementation. Since a strong mental game contributes to physical skill performance outcomes, it would be beneficial for the student-athlete to practice mental skills strategies just as often as physical skill preparation. The findings in this study are significant to inform instruction and development of Division II softball athletes. The description of the participants’ experiences identified random use of mental training strategies to cope with mental skills. Experiences with mental skills training was diverse with all ten participants and suggests a need for further education for athletes to develop mental training skills to enhance their performance.
Bibliography


Voight, M. (2005). Integrating mental-skills training into everyday coaching: Physical skill alone won’t turn a loser into a winner. The good news is you don’t need a psychology degree to strengthen your players mental skills! *The Journal of Physical Education, Recreation and Dance, 76.*


Appendix A

Invitation Letter—Coaches
Dear (Coach of Institution):

I am writing to ask for your permission to allow 1-2 softball athletes from your institution to share their experiences with me regarding their use of mental skills training to enhance overall performance in sport. I am asking you to consider their participation in a research study regarding their experiences as a student-athlete.

My name is Shannon Norman and I am currently an Ed.D. candidate at the University of Minnesota, Duluth. I am also an assistant professor in the Kinesiology and Sport Science department at the University of South Dakota. I am in the process of writing my dissertation and feel that your athletes would be an excellent candidate to use in this research process.

My research seeks to inform practice by taking an in-depth look at the ways in which coaches, educators and practitioners in sport can use data within their athletic programs or classes to inform their decisions and increase student-athlete development in the area of mental skills training.

I am asking that you be willing to give selected student-athletes in your program permission to sit down with me, face-to-face, for a scheduled interview, whenever it is most convenient for your student-athletes and your program.

If you are willing to assist me in this important educational venture, I encourage you to contact me at your earliest convenience. I can be reached at 218-310-9554 or by email at spnorman@d.umn.edu.

I hope to hear from you soon!

Sincerely,
Appendix B

Invitation Letter—Student-Athletes
Name and Address of Recipient
Dear (Student-Athlete at Institution):

I am writing to ask you to share your experiences with me regarding the ways in which you use mental skills training to enhance your physical skill performance in the sport of softball. I am asking you to consider participating in a research study regarding your experience with mental skills training and how you may use those skills to cope with various factors with performance.

My name is Shannon Norman and I am currently an Ed.D. candidate at the University of Minnesota, Duluth. I am also an assistant professor in the Kinesiology and Sport Science department at the University of South Dakota. I am in the process of writing my dissertation and feel that you would be an excellent candidate to use in this research process.

My research seeks to inform practice by taking an in-depth look at the ways in which student-athletes competing at the Division II level use mental skills training as part of the development process to enhance performance. I feel that your experience could help inform coaches and educators in the field how athletes use mental skills training in personal development.

I am asking that you be willing to sit down with me, face-to-face, on one occasion that is convenient for you, and talk about the skills and ways you develop yourself to enhance your performance in sport. I will schedule the interview whenever it is most convenient for you.

If you are willing to join me in the important educational venture, I encourage you to contact me at your earliest convenience. I can be reached at 218-310-9554 or by email at spnorman@umn.edu.

I hope to hear from you soon!

Sincerely,
Appendix C

Interview Guide
Interview Protocol

1. Demographic Information:
   • What year are you as a student and as an athlete? Age?
   • When did you start playing in the catcher’s position?
   • How many years have you been playing the sport of softball?
2. Please describe what mental skills training in sport means to you?
3. Where does your understanding of mental skills training come from?
4. Describe situations before, during or after practice in which you utilized mental skills training or specific strategies.
5. Describe situations before, during or after competition in which you utilized mental skills training or specific strategies.
6. Explain other mental training skills that you know about but may not have used during practice or competition.
   a) You just described________________, have you used or heard of (list of mental training strategies not mentioned by participant)
7. How do you use mental skills training to enhance personal performance in your sport?
8. How do you believe the use of mental skills training and strategies impact other areas in your life?
Appendix D

Informed Consent
INFORMED CONSENT
The University of South Dakota

TITLE: [Mental Skills Training Experience of NCAA Division II Softball Catchers]

PROJECT DIRECTOR: [Shannon Norman]
PHONE #: [605-677-5938]
Department: [Kinesiology and Sport Science]

WHAT IS THE PURPOSE OF THIS STUDY?

You are being invited to participate in a research study about the mental skills training experience of NCAA Division II student-athletes as they participate in the sport of softball.

This study is being conducted by Shannon Norman (principal researcher) from the Department of Education at the University of Minnesota, Duluth. This study is being conducted as part of a dissertation research assignment.

The purpose of this study is to describe the mental skills training experiences of collegiate student-athletes in the sport of softball competing at the Division II level in sport. The study will describe how student-athletes utilize mental skills training to enhance their overall performance, specifically for student-athletes playing a catcher position.

HOW MANY PEOPLE WILL PARTICIPATE?

The study will consist of 8-10 female collegiate softball players competing in the Northern Sun Conference or Rocky Mountain Conference affiliated with NCAA Division II.

HOW LONG WILL I BE IN THIS STUDY?

Your participation in the study will last 45-60 minutes for a face-to-face interview and a period of time to review verbatim transcripts from your interview. You will have to meet with the researcher for a total of one time face-to-face and other contact will be done through email or phone conversations.

WHAT WILL HAPPEN DURING THIS STUDY?

During this study you will be asked to review an informed consent document. This document outlines all the steps, benefits and risks associated with the study. Once agreement has been made to participate in the study the consent form must be signed and collected by the researcher. The researcher will schedule a 45-60 minute face-to-face interview with the participant preferably at the participants University campus of enrollment. A secure office will be scheduled for the interview session. The interview protocol consists of 8 open-ended questions and the responses will be digitally recorded. The participant is free to decline to answer any particular question throughout the interview. Upon completion of the interview the researcher will transcribe the participant’s responses and send them to the participant to review for accuracy.
WHAT ARE THE RISKS OF THE STUDY?

There are no foreseeable risks to this study. In the unlikely event that a participant would become upset over any interview question, they would be referred to the university health center.

WHAT ARE THE BENEFITS OF THIS STUDY?

There are no perceived benefits if you decided to participate in this research study. There are no costs to you for participating in the study and no compensation for participating.

The discussion topics will include the aspects of mental skills training related to the development of your athletic experience. The information collected may not benefit you directly, but will provide benefits to coaches, educators, practitioners and others who concern themselves with the programs and services which support, enhance, and educate the student-athletes in the learning experience with mental skills training and performance.

WHAT ARE THE ALTERNATIVES TO PARTICIPATING IN THIS STUDY?

Participation in this research is strictly voluntary. There is no alternative option to this study.

WILL IT COST ME ANYTHING TO BE IN THIS STUDY?

You will not have any costs for being in this research study.

WILL I BE PAID FOR PARTICIPATING?

There will not be any compensation for participating in this study.

WHO IS FUNDING THE STUDY?

The University of South Dakota and the research team are receiving no payments from other agencies, organizations, or companies to conduct this research study.

ARE MY RECORDS CONFIDENTIAL?

The records of this study will be kept confidential to the extent permitted by law. In any report about this study that might be published, you will not be identified. Your study record may be reviewed by government agencies, Office of Human Subjects Protection and The University of South Dakota- Institutional Review Boards.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of securely archiving the data on a computer that is password protected and locked in the researcher’s office. Names will not be used in the written documentation.

If we write a report or article about this study is written, we will describe the study results will be described in a summarized manner so that you cannot be identified.

Individuals from the Institutional Review Board may inspect these records but will be done using appropriate protocol.
The participant has the right to review audio material from the interview to clarify accuracy or to make additions. The researcher will be the only person in review of the audio and transcription. All data will be destroyed by the researcher five years after completion of the study.

WILL I BE COMPENSATED FOR AN INJURY?

In the event that this research activity results in an injury, treatment will be available including first aid, emergency treatment, and follow-up care as needed. Payment for any such treatment is to be provided by you (you will be billed) or your third-party payer, if any (such as health insurance, Medicare, etc.). No funds have been set aside to compensate you in the event of an injury. If you feel you have suffered a research-related injury, please contact Shannon Norman at 605-677-5938.

IS THIS STUDY VOLUNTARY?

Your participation is voluntary. You may choose not to participate or you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. Your decision whether or not to participate will not affect your current or future relations with The University of South Dakota.

WHOM MAY I CONTACT IF I HAVE QUESTIONS?

You may ask any questions you have now or later.

If you have any questions about the study please contact Shannon Norman (Principal Researcher).
Shannon Norman
spnorman@d.umn.edu
218-310-9554 cell
Kinesiology and Sport Science
University of South Dakota
Patterson Hall, Suite 132A
414 East Clark Street
Vermillion, South Dakota 57069

You may also direct questions or concerns to Shannon Norman’s advisor:
Dr. Frank Guldbrandsen
218-726-8172
157 EduE
Department of Education
University of Minnesota-Duluth
Education Endazhi-gikinoo’amaading
412 Library Drive
Duluth, MN 55812-3029

If you have questions regarding your rights as a research subject, you may contact The University of South Dakota- Office of Human Subjects Protection at (605) 677-6184.

- You may also call this number about any problems, complaints, or concerns you have about this research study.
- You may also call this number if you cannot reach research staff, or you wish to talk with someone who is independent of the research team.
• General information about being a research subject can be found by clicking “Information for Research Participants” on the web site: http://www.usd.edu/research/research-and-sponsored-programs/research-participant-information.cfm

[If applicable] I give consent to be audiotaped during this study.
Please initial:   ____ Yes   ____ No

[If applicable] I give consent to be videotaped during this study.
Please initial:   ____ Yes   ____ No

[If applicable] I give consent for my quotes to be used in the research; however I will not be identified.
Please initial:   ____ Yes   ____ No

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

Subject’s Name: ______________________________________________________
______________________________________ ________________________
Signature of Subject     Date

If you are not giving the consent in person, remove section below.

Statement of Person Who Obtained Consent

I have discussed the above study with the subject or, when appropriate, with the subject’s legally authorized representative. It is my opinion that the subject adequately understands the risks, benefits, and procedures involved with participation in this research study.

__________________________________  __________________________
Signature of Person Obtaining Consent   Date