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Assess the Efficacy of a 15-Week Psychological Skills Training Program for Collegiate Wrestlers

James Malechek

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by

James Malechek
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Abstract

Psychological skills training is becoming increasingly popular among coaches and elite athletes. However, the research available in this area continues to be lacking. The purpose of this study was to assess the efficacy of using a self-guided psychological skills training program to improve wrestler mental skills during competitive season. The wrestler's mental strength was evaluated before and after the program using the Athletic Coping Skills Inventory-28.

The experimental group consisted of 27 male collegiate wrestlers. The control group had 21 male collegiate wrestlers. The experimental group was given a handout every week for 15-weeks. The handouts dealt with multiple psychological skills important to performance.

Following the analyses, there were found to be statistically significant findings for the intervention group on the athlete assessment of the subscales related to confidence achievement and motivation (7.74±2.52 vs. 8.44±2.04, $p<.01$) and goal setting and mental preparation (6.33±2.68 vs. 7.18±2.46, $p<.05$). There were also found to be statistically significant findings for the coaches' assessment related to freedom from worry (7.14±1.63 vs. 8.22±2.00, $p<.01$). Statistically significant findings for the intervention group for athletic trainer assessment regarding coachability (11.66±1.00 vs. 11.03±1.62, $p<.05$), goal setting and mental preparation (8.81±1.86 vs. 7.14±1.85, $p<.001$), and pretest to posttest cumulative scores (64.11±6.68 vs. 60.77±8.18, $p<.05$) were also identified. This study provides a foundation for future research. Implementation of psychological skills training programs can be an effective way to improve athletes' performance.

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CHAPTER ONE

INTRODUCTION

Background of the Problem

Psychological skills are a growing part of the athletic world. With the increase in research and an improved understanding of sport psychology, it has become common to see the implementation of psychological skills training programs. With more focus on sport psychology, it has been made clear how important psychological skills are to improving the success of athletes. There are a variety of skills that are encompassed in psychological skills training (PST). Psychological skill is defined as a systematic training of mental skills to enhance a sport performance (Birrer & Morgan, 2010). Most are never addressed, or are addressed incorrectly, causing more harm than help. Athletes are aware of how to improve some skills like self-talk and mental imagery, however most athletes are unable to properly use these psychological skills.

When looking at athletes, what separates the more successful athletes from the rest of the group? These extra factors are psychological skill and mental toughness. Though athletes may be almost identical in body type and training age, they may be separated by years in psychological skill. Although research has begun to explore this area more, psychological skills training is not a new topic. It has been shown in the 1950's that the Soviet Union was the first country to systematically engage in mental skills training with athletes and coaches (Ryba, Stambulova, & Wrisber, 2005). Psychological training then became emphasized, and was systematically applied to other Eastern Bloc countries for the preparation of Olympic athletes

during the 1970's and 1980's (Williams & Straub, 2006). Wrestling is a sport that can benefit significantly from athletes gaining proficiency in mental skills training.

When discussing wrestling, it is important to understand the demands of the sport. The first is understanding the rapid weight reduction that occurs before matches. This weight loss is usually carried out through the combined use of sauna, restriction of water intake, and fasting (Kukidome, Shirai, Kubo, Matsushima, Yanagisawa, Homma, & Aizawa, 2008). These rapid weight reductions are also typically short-term reductions. Short-term weight reduction leads to decrease in body water content and muscle mass, because it is typically achieved by restriction of food and water intake (Kukidome, et.al., 2008). These weight reductions typically take place several days before competitions. The weight reductions require the athlete to limit food and liquid intake, while also demanding that the athlete work out to lose weight to make their specific class. These weight losses can range from a pound or less to over ten pounds.

Along with weight loss, mental toughness is another large demand of the sport. Mental toughness is thought to be particularly pertinent for high-energy, demanding, and combative sports, like wrestling, because exhausting physical efforts are required to maximize performance (Gould, Hodge, Peterson, & Petlichkoff, 1987). With high physical and mental demands in wrestling, psychological skills training needs to be addressed in order to improve athlete performance. "Although mental toughness is defined in different ways, it usually has to do with an athlete's ability to focus, ability to rebound from failure, ability to cope with pressure, determination to persist in the face of adversity, and mental resilience" (Bull, Shambrook, James, & Brooks, 2005; Gucciardi, Gordon, & Dimmock, 2008; Jones, Hanton, & Connaughton, 2002; Thelwell, Weston, & Greenless, 2005). With mental toughness being perceived as a critical

component for athletic success, and PST targeting building and development of these mental skills, then the importance for a PST program is critical (Weinberg & Gould, 2011).

Statement of the Problem

Psychological skills training is becoming increasingly popular among coaches and elite athletes. However, the research available in this area continues to be lacking. While there is common agreement among athletes and coaches that psychological skills training is an invaluable piece of their training program, few studies support empirically the efficacy of providing such programs. Athletes are beginning to explore psychological skills on their own to help to improve performance. With so many different facets of psychological skills it may be difficult for athletes to focus in on where they are stronger and weaker. They may also be finding out how to implement each psychological skill in the incorrect manner which may hinder what the athlete could receive from the skill which could also negatively impact performance.

One specific gap in the research literature is identifying appropriate and meaningful PST interventions that provide the most congruent fit to specific sports. One such sport that has been under-represented in the research literature is wrestling. One of the goals of this study is to address this oversight. The purpose of this study was to show whether or not mental training techniques can be improved through a self-guided psychological skills training program spread over a competitive season. Traditionally, PST programs are implemented during the off-season or pre-season for athletes (Weinberg et.al., 2011). This 15-week study was designed to explore whether wrestling athletes, given access to a self-guided psychological skills training program would implement the techniques on their own.

Purpose of Study

The purpose of this study was to assess the efficacy of using a self-guided psychological skills training program to improve wrestler mental skills during a competitive season.

Hypotheses

1. Athletes receiving the self-guided psychological skills training program will self-report improvements in mental skills.
2. Coaches of athletes receiving the self-guided psychological skills training program will report improvements in athlete's mental skills.
3. Athletic trainers of athletes receiving the self-guided psychological skills training program will report improvements in athlete's mental skills.

Assumptions

1. It was assumed that all participants were honest in reporting their answers on the pre-test and post-test.
2. It was assumed that all participants read the material that was presented to them weekly.

Delimitations

The delimitations placed on this study were:

1. This study was limited to 48 collegiate men from Lindenwood University's men's wrestling team and the University of Wisconsin-Parkside's men's wrestling team. The conclusions will therefore apply only to similar populations.

2. Any extra questions or research into the PST material was based purely on the discretion and motivation of the athlete and not implemented by the primary investigator.

Definition of Terms

Psychological Skills Training

Psychological skills training (PST) refers to systematic and consistent practice of mental or psychological skills for the purpose of enhancing performance, increasing enjoyment, or achieving greater sport and physical activity self-satisfaction (Weinberg et.al., 2011). This training approach is organized into four main categories: imagery, goal-setting, self-talk and physical relaxation techniques (Birrer & Morgan, 2010). The main idea behind PST is that psychological skills can be trained and learned just like any other skill (Edwards, Steyn, 2008).

Coping with Adversity

Coping is defined as "a process of constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands or conflicts appraised as taxing or exceeding one's resources" (Lazarus & Folkman, 1984, p. 141). For the purposes of this study, the construct "Coping with Adversity" is operationalized as an athlete having the capacity to remain positive and enthusiastic even when things are going badly, remains calm and controlled, and can quickly bounce back from mistakes and setbacks (Smith & Smoll, 1995).

Coachability

Being coachable is defined as capable of being easily taught and trained to do something better (Coachable, 2015). For the purposes of this study, the construct "Coachability" is

operationalized as an athlete is open to, and learns from, instruction, and accepts constructive criticism without taking it personally and becoming upset (Smith & Smoll, 1995).

Concentration

When an athlete becomes easily distracted, and is able to focus on the task at hand in both practice and game situations even when adverse or unexpected situations occur (Smith & Smoll, 1995).

Confidence & Achievement Motivation

Confidence is defined as the belief that you can successfully perform a desired behavior (Weinberg et.al., 2011). Achievement motivation refers to a person's efforts to master a task, achieve excellence, overcome obstacles, perform better than others, and take pride in exercising talent (Murray, 1938). For the purposes of this study, the construct "Confidence & Achievement Motivation" is operationalized as an athlete being confident and positively motivated, consistently gives 100% during practices and games, and clearly has a "game plan" for performing well (Smith & Smoll, 1995).

Goal Setting

A goal is defined as an object or aim of an action (Locke and Latham, 2002). For the purposes of this study, the construct "Goal Setting" is operationalized as an athlete sets and works toward specific performance goals, plans and mentally prepares for games, and clearly has a "game plan" for performing well (Smith & Smoll, 1995).

Peaking Under Pressure

Pressure can be defined as "any factor or combination of factors that increases the importance of performing well" (Baumeister, 1984). For the purposes of this study, the construct

"Peaking Under Pressure" is operationalized as an athlete is challenged rather than threatened by pressure situations and performs well under pressure – a clutch performer (Smith & Smoll, 1995).

Freedom from Worry

Freedom from worry can also be called anxiety. Anxiety is a negative emotional state in which feelings of nervousness, worry, and apprehension are associated with activation or arousal of the body (Weinberg, et.al, 2011). For the purposes of this study, the construct "Freedom from Worry" is operationalized as an athlete puts pressure on him or herself by worrying about performing poorly or making mistakes; worries about what others will think if he or she performs poorly (Smith & Smoll, 1995).

Coach

The official definition of a coach is a person who teaches and trains the members of a sports team and makes decisions about how the team plays during games (Coach, 2015). For the purpose of this study, the coach is a member of an NCAA institution. The NCAA's definition of a coach is someone who is designated by the institution's athletics department to perform coaching duties and who serves in that capacity on a volunteer or paid basis (NCAA Division II Manual: 2014-15 NCAA Division II Manual, 2014).

Athlete

The official definition of an athlete is a person who is trained or skilled in exercises, sports, or games requiring physical strength, agility, or stamina (Athlete, 2015). For the purpose of this study, the athletes were NCAA recognized student athletes. According to the NCAA a student-athlete is a student who is enrolled at the University and is presently participating in

athletics or has completed his/her eligibility but is still currently enrolled at the University (NCAA Division II Manual: 2014-15 NCAA Division II Manual, 2014).

Athletic Trainer

According to the National Athletic Trainers' Association (NATA), athletic trainers are defined as health care professionals who collaborate with physicians (Terminology, 2015). Athletic trainers' services are comprised of prevention, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions (Terminology, 2015). For the purpose of this study, the athletic trainer served to treat the injuries of the athletes when they asked for assistance.

NCAA Wrestling

The official definition of wrestling is a sport in which two people try to throw, force, or pin each other to the ground (Wrestling, 2015). For the purpose of the study, wrestling is a sanctioned sport by the National Collegiate Athletic Association (NCAA) which requires that all athletes competing in wrestling need to maintain specific standards in order for them to compete.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The world of sports is a complex and rigorous place inhabited by a wide range of individuals. Some of these people are looking for fame and fortune while others are looking for acceptance and accomplishment. Many individuals who are idolized in the world of sports have similar attributes. Overall, they are genetically gifted athletes who always find a way to edge out their rivals to display their dominance. When looking at these exceptional athletes, what is the determining factor that separates those who are successful? The most prominent factor that separates these exemplary athletes from others is their mental skill ability. This ability, unseen by the observer but experienced by that individual internally, is where the field of sports psychology provides greater insight.

Though the world of sport psychology is a relatively unexplored field, it continues to be researched in order to show how important it is in relation to sports. With the increase in athlete's wanting any type of edge over competitors, sport psychology is quickly gaining ground. The demand for an increased understanding and utilization of mental skills has continued to grow. More importantly, they have begun to investigate their own personal psychology to better understand themselves as well as the weaknesses in their personal psyche (McCrory, Cobley, Marchant, 2013). In a society where sports rule all, athletes will try anything in order to gain the advantage to hold a place in the sport-driven society. Research has also shown that athletes' response to sport psychology services can influence the overall effectiveness of the support and it

is, therefore, appropriate to evaluate the responses (Vealey, 1994). These demands are fueling the increased research into psychological skills training directly related to sports. With the increase in research it has brought light upon the facet of psychological skills training. Though psychological skills training is separated into nine different aspects they are all individually important in helping an athlete to improve their mental skills and improve performance. The nine facets that comprise PST are: attitude, motivation, goals and commitment, people skills, self-talk, mental imagery, dealing with anxiety, dealing with emotions, and concentration. When people are able to control these facets, they are able to successfully use PST to their advantage (McCarthy, Jones, Harwood, Oliver, 2010).

In this study, the Athletic Coping Skills Inventory-28 (ACSI-28) was used to determine whether or not athletes receiving the self-guided psychological skills training program will self-report improvements in mental skill. The study was also designed to see if, the ACSI-28 would determine whether or not Coaches and Athletic Trainers of athletes receiving the self-guided psychological skills training program will report improvements in athlete's mental skills. The ACSI-28 test is a valid and reproducible test for psychological skills assessment. It is used to identify how the athlete rates on the seven (7) predetermined subscales (Coping with Adversity, Coachability, Concentration, Confidence and Achievement Motivation, Goal Setting and Mental Preparation, Peaking Under Pressure and Freedom from Worry) (Smith & Smoll, 1995). The ACSI-28 is a common test for assessing how strong an individual is within the subscales in order to understand where they would need improvement. The error on this test varies because it is dependent on how honest the individual is when they fill out the test.

Psychological Skills Training

Having an athlete physically ready can be determined with how much rest the athlete has had and how they physically feel going into the event. However, how can someone tell when the athlete is mentally prepared? Having an athlete mentally prepared is just as important as having the athlete physically prepared. This is where psychological skills training (PST) factors in. PST is defined as a "systematic and consistent practice of mental or psychological skills for the purpose of enhancing performance, increasing enjoyment, or achieving greater sport and physical activity self-satisfaction" (Weinberg et.al., 2011). When implemented correctly, PST is systematic, goal-oriented, planned, controlled and evaluated (Birrer & Morgan, 2010). It is a growing training strategy that is currently making a large impact on the athletic world. The main idea behind PST is that psychological skills can be trained and learned just like any other skill (Edwards & Steyn, 2008). Training programs within the broad field of PST vary to the extent that they reflect diverse conceptual foundations, classificatory systems, applied focus, and health and/or sporting contexts (Edwards & Edwards, 2012). "In the applied sport setting, training programs vary depending on such factors as the athletes' age, personal skills, psychological skills required, type of sport and participation level" (Edwards & Edwards, 2012, p.525).

Psychological skills training often refers to skills that can be learned to carry out a specific task (Birrer & Morgan, 2010). The training approach and organization for PST is in four main categories. These categories are organized as: imagery, goal-setting, self-talk, and physical relaxation techniques (Birrer & Morgan, 2010). These four basic categories of PST are then broken down into three sublevels that encompass nine specific skills. These skills vary in

difficulty. These skills target an athlete as both intrinsic and extrinsic skills that can benefit an athlete's performance.

Level I Skills

Level I of PST is devoted to learning skills that constitute a broad base required for achieving long-range goals: learning and developing as an athlete and sustaining daily practice (Lesyk, 1998). The PST skills included in Level I are: attitude, motivation, goals and commitment, and people skills (Lesyk, 1998). The skills in this level are observable by others, whether in a physical or vocal form. This allows individuals to observe, on a physical level, that the individual is making a change. These changes can include how an individual changes their body language (e.g. specifically posture) in response to coaches or teammates (Henriksen & Diment, 2011). When the individual is not responding well they physically show, through body language, how they are struggling with the flow of the competition or how a coach is reacting to their play. This is typically dealing with the individual's people skills.

People Skills

People skills are used and observed by almost everyone in the world on a daily basis. They are an individual's ability to communicate and express emotions towards other individuals (Lesyk, 1998). Breaking it down to the lowest level, people skills deal with how an individual interacts with other people. Although technology has helped to increase the ease of getting in touch with people it does not always help to improve the skills for communication. There has been an increase in technology, which has improved the efficiency and speed of some types of communication however, comparable progress has not been achieved in the interpersonal aspects of communication (Burke, 2001). "One of the main reasons

communicating is sometimes problematic is that many people believe that it is others, rather than themselves, who are ineffective, and therefore they do not see the need to improve their own communication skills" (Weinberg et.al., 2011). If an individual has weak people skills they will typically struggle to properly communicate with other individuals. When an individual is able to improve their people skills, they are able to better express and communicate their ideas with others. With improved people skills, an individual is able to convey to his teammates and/or coaches what he is seeing, hearing, and feeling during a competition. Improving one's people skills enables the coaches and/or teammates to work better together in unison.

Another aspect is observing the proxemics of the individual. An individual may physically distance themselves by being outside the circle or secluding themselves from a coach or teammates. Typically, an individual will distance themselves physically while also putting up a wall between themselves and the others around them (Henriksen, et al., 2011). Individuals can also observe how an individual is reacting by their voice. Though they may not be making any body language to portray their mood, the individual's tone of their voice can indicate their mood. Listening to the individual's tone of voice can often indicate the general demeanor of their mood. The above mentioned skills are typically dealing with attitude and commitment.

Attitude

Attitude is the first psychological skill in PST. It is a skill that is defined as a person's feeling of like or dislike towards an object that can influence behavior (Lesyk, 1998). In other words, if an individual has a positive feeling towards an activity they will be more willing to participate in that activity as compared to an individual who has a negative feeling towards that activity. Research has shown that attitude can be changed. In a study by Gould, Petlichkoff,

Hodge, and Simmons (1990) showed self-reported positive changes in attitude to sport psychology of elite wrestlers who had gone through an educational program, in terms of how important they perceived it to be. One's attitude will impact the likelihood an individual will continue if an activity is not going well. If an individual has a negative attitude towards that activity, and a rough patch occurs, they will most likely discontinue with the team or cause a negative attitude to spread towards other team members. On the other hand, if an individual has a positive attitude, he/she will most likely keep that positive attitude and continue with the activity. Though these skills vary slightly they both work together.

Commitment

Commitment is similar to attitude in that they are both influenced by a positive feeling towards an object or goal. However, they differ in that attitude is directed towards a behavior while commitment is how long an individual will stay with a particular activity. Commitment is how faithful an individual is towards a specific object or objective. When a person is more committed to an activity, they will have the ability to maintain a positive attitude for a longer duration. However, when that commitment changes, the individual will not stay with that particular activity as long, nor will they have as positive an attitude towards that activity.

During competition, athletes can have varying levels of attitude and commitment. If an athlete is having a bad experience during the competition it will impact their attitude. However, commitment is not solely dependent on attitude. Although, having consistent poor attitude can impact how long the individual has a commitment to the activity. With these varying levels of attitude and commitment, motivation can be effected. When an individual is having a poor attitude and commitment to the sport, their motivation will typically be lower during that

competition. However, if the experience is positive it will most likely increase the athlete's motivation during the competition and potentially cause an increase in confidence to occur after the competition. Motivation is still dependent on the athlete. The levels of motivation an individual requires is solely based on that individual.

Motivation

When understanding an individual, it is important to understand their motivation. Motivation is solely dependent upon the individual. Not all individuals have the same motivations or motivation levels. Motivation is defined as the direction and intensity of one's effort (Sage, 1977). Looking at motivation it can be broken into several different facets: achievement motivation, competitiveness, intrinsic motivation, and extrinsic motivation. These four components comprise the bigger picture known as motivation. When looking at the components individually, it is important to understand what each of these facet represents, as well as how they work together for motivation.

The first component is achievement motivation. Achievement motivation is defined as a person's efforts to master a task, achieve excellence, overcome obstacles, perform better than others, and take pride in exercising talent (Murray, 1938). Achievement motivation has also been described as a person's orientation to strive for task success, persist in the face of failure, and experience pride in accomplishments (Gill, 2000). With the understanding of achievement motivation there is the need to understand competitiveness.

Competitiveness has been defined as "a disposition to strive for satisfaction when making comparisons with some standard of excellence in the presence of evaluative others" (Martens, 1976, p. 3). Martens' views competitiveness as a person's achievement behavior within a

competitive situation (1976, p.3). This component is specifically dealt with during social evaluation (Weinberg et.al., 2011). Competitiveness speaks to the individuals on their need for achievement. More specifically, the individual's situation-specific achievement orientation (Weinberg et.al., 2011). This looks at individual's orientation towards achievement: meaning some people are more highly orientated in a competitive setting while in other settings they tend to be less orientated (Weinberg et.al., 2011). When assessing Martens' definition of competitiveness, it is important to understand the limitation of the definition. Martens only looks at situations where the individual is evaluated by, or has the potential to be evaluated by, knowledgeable others (Weinberg et.al., 2011). However, this definition lacks the ability to describe how an individual may compete with themselves. These can include: beating one's best time in a race, a high score in a game, or a distance covered. Depending on the individual's level of achievement motivation would reflect the level of self-competition, whereas an individual's level of competitiveness would influence the behavior in a socially evaluated situation (Weinberg et.al., 2011).

When understanding achievement motivation and competitiveness it is important to understand how they play into motivation as a whole. Taking a close look at competitiveness and achievement motivation is understanding what they deal with. Most commonly they deal with the final outcome, but the pursuit of excellence is often overlooked with the psychological journey of getting to that point (Weinberg et.al., 2011). With that in mind there has been a trend of trying to understand how competitiveness and achievement motivation impact a person on a variety of levels. These can range from "choice of activity (e.g., seeking out opponents of equal ability to compete against or looking for players of greater or lesser ability to play with), effort of

pursuit (e.g., how often you practice), intensity of effort in the pursuit of goals (e.g., how consistently hard you try during a workout), and persistence in the face of failure and adversity (e.g., when the going gets tough, do you work harder or take it easier)" (Weinberg et.al., 2011). Looking at all these different variables it is clear to see that motivation is greatly varied between individuals.

Motivation is a crucial facet of PST. "Motivation refers to internal factors that impel action and to external factors that can act as inducements to action" (Locke and Latham, 2004). "The three aspects of action that motivation can affect are: direction (choice), intensity (effort), and duration (persistence)" (Locke and Latham, 2004). Motivation has the capability to affect more than these three aspects. It can also affect an individual's skills and abilities. Motivation has the potential to affect how successful people can be with those skills and abilities.

Motivation is an important skill in PST as well as overall success. When the athlete is not able to identify their motivation levels and adjust them they are not able to have the performance they expected. Although motivation is solely based on the individual, each individual can control their motivation. The athlete's motivation level will impact other skills in PST. Goal setting can be impacted by motivation. Levels of motivations will determine the types of goals that are set by the athlete.

Goal Setting

Goals and goal setting are a crucial part to any PST program. It is important to understand where goal setting falls into a PST program. It is also important to understand the types of goals and how to properly implement them into the PST program. A goal is defined as

an object or aim of an action (Locke and Latham, 2002). When applying this definition of goals to sports it gets separated into two different types of goals: objective and subjective. Objective goals have been defined as "attaining a specific standard of proficiency on a task, usually within a specified time" (Locke & Latham, 2002, p. 705). An example of this type of goal is wanting to run a 5K in 3 months. Objective goals are based on tangible outcomes, whereas subjective goals are defined as a general statement of intent (Weinberg et.al., 2011). Examples of this goal is "I want to run fast"; "I want to play well." Subjective goals are not based on tangible outcomes that can be measured. They are dependent on the individual's personal judgment. In understanding objective and subjective goals it is now important to understand the types of goals. Goals can be separated into three different categories: outcome, performance and process. Each of these three categories represents a different time frame for goal achievement. The three categories are also represented by varying difficulty levels (Locke & Latham, 2002).

The first type of goals to discuss are outcome goals. Outcome goals are terminal goals that an athlete or team has set forth for a desired outcome (Lesyk, 1998). Examples of these goals are results from events, such as finishing in a certain place. Achievement of these goals is not only dependent on the individual's or team's effort but also on the ability and play of the opponent (Weinberg et.al., 2011). It is possible for a person to give the best performance of their life but still lose, causing the person to not achieve their outcome of winning that event. Though outcome goals are essential in the process of being a successful goal-setter, they are typically too broad to be achieved by themselves.

The second type of goals in the goal-setting process are performance goals. "Performance goals focus on achieving standards or performance objectives

independently of other competitors, usually on the basis of comparisons with one's own previous performances" (Weinberg et.al., 2011). These goals also tend to be more flexible and within the person's control. These types of goals typically include a past performance followed by a future desired performance that the individual wants to achieve by a desired date. An example of a performance goal may be that an individual wants to increase their vertical jump. Their previous vertical jump was 36 inches and the athlete sets a future desired performance of getting a vertical jump of 38 inches before the end of the off-season. These goals are the markers for the individual to determine where they currently are performing as compared to where they want to be.

The third type of goal in the goal-setting process is a process goal. Process goals are typically known as short-term goals that are the building blocks for performance and outcome goals (Lesyk, 1998). Process goals are regarded as the most important of all the goals because they are considered the foundation for achieving performance and outcome goals. Further, they are very specific and are typically responsible for changing the behavior of an individual. When making a process goal, an individual can change their nutrition, sleep patterns, extra workout sessions and many other portions of their life. For example, an individual may specify a process goal of eating fruit three times a day during their preseason. With specific goals, an individual has the ability to monitor how successful a goal is being achieved and whether the goal is satisfactory or if modification is required. Research has shown that process goals are effective in positively influencing golfer's self-efficacy, cognitive anxiety, and confidence (Kingston & Hardy, 1997).

Goal setting is dependent upon an individual. Research from various individuals has shown that specific goals that targeted both short- and long-term duration and had difficulty levels of moderate to very difficult were shown to be associated with the best performances (Weinberg et.al., 2011). "Setting specific rather than general goals enhanced performance, although not on all tasks (Weinberg et.al., 2011). Burton (1989a) found that goal setting appeared to increase performance for low-complexity tasks better than high-complexity tasks. A number of intervention studies who used goal setting to help change performance and behavior in sport and exercise settings were able to demonstrate a positive effect that goals can have on improving performance in: lacrosse (Weinberg, Stitcher, Richardson, & Jackson, 1994), basketball (Swain & Jones, 1995), football (Ward & Carnes, 2002), ice hockey (Anderson, Crowell, Doman, & Howard, 1988), soccer (Brobst & Ward, 2002), swimming (Burton, 1989b), tennis (Galvan & Ward, 1998), and golf (Kingston & Hardy, 1997).

This research has helped in improving the understanding of how goals are effective but it has also given sport psychology researchers more information on the process of "goal setting, including how people set goals, what goals are most important to people, what barriers impede goal attainment, and how different types of individuals differ in their goal setting" (Weinberg et.al., 2011). With the increase in research between differing levels: collegiate, Olympic, and youth athletes (Weinberg, Burke, & Jackson, 1997; Weinberg, Burton, Yukelson, & Weigand, 1993; 2000), research has revealed how athletes' prefer to set their goals as well as their goal-setting strategies. The most common responses that were received were:

> *"Almost all athletes used some type of goal setting to enhance performance, finding their goals to be moderately to highly effective; Improving performance (Olympic athletes), winning (collegiate athletes), and enjoyment (youth sport athletes) were the most*

important goals for athletes. These were the top three goals for each type of athlete, although the number one goal varied; Athletes commented that they preferred goals that were moderately difficult, difficult, and very difficult. These were in order, the top three preferences for goal difficulty. However, great individual differences emerged concerning preference for goal difficulty; The number one reason athletes gave for setting goals was to provide them direction and keep them focused on the task at hand; Athletes using multiple goal strategies exhibited the best performance; Individual differences (e.g., goal orientation, locus of control) need to be considered when setting goals" (Weinberg et.al., 2011).

All of the skills for Level I of PST deal with physical assessments. These skills can be seen, heard, or felt. The skills within Level I all play crucial roles in understanding how an athlete will perform leading up to the performance. Unlike Level II and Level III, Level I is the only level where skills can be seen physically.

Level II Skills

Level II of PST is devoted to skills that are used immediately before performance. These skills deal with the individual mentally preparing themselves for the competition and clearing their minds to ensure that a peak performance will occur. The Level II skills are self-talk and mental imagery (Lesyk, 1998). These skills are intrinsic and dependent on the individual and both require the individual to understand what they are able to partake in and mentally prepare themselves for what is to come (Lesyk, 1998). Both of these skills can help the individual to increase motivation and self-confidence. However, if used incorrectly an individual can decrease motivation and self-confidence.

Self-talk

Self-talk is something that occurs daily with individuals. Although most have never been taught about self-talk, it is still used on a daily basis by every individual. Self-talk can be defined as anytime you are having a mental conversation about something with yourself

(Weinberg et.al., 2011). Self-talk can be used in a variety of different manners. This can include breaking bad habits, initiating action, sustaining an effort, or learning a new skill (Weinberg et.al., 2011).

Self-talk can be separated into three main types: positive, instructional, and negative. Positive self-talk is typically when an individual is focusing on increasing energy, effort, and a positive attitude but is a general statement not a specific cue (e.g. "I can do this") (Weinberg et.al., 2011). Gould, Eklund, and Jackson's (1992a; 1992b) studies of Olympic wrestlers were able to show that self-talk was a skill that was used by the wrestlers in order to appropriately focus their attention. "These wrestlers also reported more positive expectancies and task-specific self-talk prior to their best versus worst performance" (Williams et.al., 2006). In another study, Gould, Finch, and Jackson (1993) investigated the stress-coping strategies of the U.S. national champion figure skaters. They found the two most common coping strategies used were: rational thinking and self-talk and positive focus and orientation maintenance (Gould et.al., 1993). Research has shown that planned, constructive self-talk can enhance skill acquisition and performance (Cutton & Landin, 2007; Hatzigeorgiadis, Zourbanos, Goltsios, & Theodorakis, 2008; Perkos, Theodorakis & Chroni, 2002), whereas instructional self-talk deals with helping the individual focus on a technical or task-related aspect of the performance in order to improve the execution (e.g., "Stay in my stance", "Keep moving your feet during the tackle") (Weinberg et.al., 2011). The last type of self-talk is negative. Negative self-talk is being critical and self-demeaning which can get in the way of the individual reaching their goals (Weinberg et.al., 2011). Negative self-talk can become very destructive when the individual uses general labels on themselves as loser, choke artist, and others (Williams et.al., 2006). When an individual

evaluates themselves in that manner, it is destructive to both one's mental health and completely irrational (Ellis, 1988; Ellis & Dryden, 1987; Grieger & Boyd, 1980). This in turn can cause the individual to become counterproductive and produce very high anxiety (Weinberg et.al., 2011). A study by Van Raalte, Brewerm Rivera, & Petitpas (1994) observed the self-talk and behavioral assessments with junior tennis players and found that negative self-talk was associated with losing. However, the study failed to show a relationship between positive self-talk leading to better performance (Van Raalte et.al., 1994). This is the same as when an individual has planned destructive self-talk it will impair performance (Cumming, Nordin, Horton, & Reynolds, 2006). When dealing with negative events, athletes who think more positively about these events are typically more successful than those who do not. Studies have shown that athletes who use a logbook to monitor their self-talk were able to become more aware of the frequency they used self-talk as well as understanding the downfall of using the negative self-talk (Hardy, Roberts, & Hardy, 2009).

Self-talk is not only limited to talking about oneself. Self-talk can also be used for an athlete to gain control over their attention (e.g., Gould et.al., 1992a, 1992b; Hardy, Gammage, & Hall, 2001; Hatzigeorgiadis, Zourbanos, & Theodorakis, 2007; Landin & Herbert, 1999). Individuals can lose focus easily not only during competition but also during practice. If an individual is losing focus at any time a simple instruction to your sport or skill can help the individual to refocus their attention. Often times, individuals will look back on the past (e.g., I should have made that shot) or to the future (e.g., if I can make this free throw we win). These events can cause the individual to lose their focus and decrease their performance. Researchers have also been able to find that affective cues can enhance an individual's performance.

Meichenbaum (1975) found that runners who said words like "fast" or "quick" were found to have increased their speed. Another study by Owens & Bunker (1989) found that golfers who used swing thoughts such as "smooth" or "oily" were able to produce smoother and more controlled swings. Silva (1982) found a sprinter in the starting blocks will be able to have a faster start by saying words like "snap" or "explode" than when they are thinking about hearing the gun go off. This is because appropriate self-talk will directly trigger a desired movement when the gun goes off (Silva, 1982). This allows the athlete to be able to process the gun being fired, allowing the athlete to have a faster start. Meichenbaum (1975) also found that each word an individual uses should have an emotional quality that is attached in order to achieve the appropriate movement quality or content.

As athletes become more accustomed to self-talk they will begin to become more proficient with the skill. When an athlete is able to control their self-talk they will become more productive as an athlete. Being able to limit the amount of negative self-talk from negative events will not only lead to better performances but also a more stable athlete. When an athlete understands how to manage their highs and lows accordingly they will be in a better position. Self-talk can be regulated in several different ways. One aspect that can help to improve self-talk is mental imagery.

Mental Imagery

Whenever an athlete is thinking about a motor skill for their respective sport they are performing mental imagery. In the past, mental imagery was called "mental practice" and was researched thoroughly in large amounts (Richardson, 1967a, 1967b; Weinberg, 1981, 2008). With the increase in research, there has been scientific evidence supporting the effectiveness of

mental imagery in sport and exercise settings (Weinberg et.al., 2011). The increased understanding has also led to individuals being able to use mental imagery to its full potential to increase performance.

Mental imagery is defined as the ability of an individual to create a mental picture of an experience. These experiences can include: competitions, specific tasks, or every day events. These events are similar to real sensory experiences (e.g., seeing, feeling, or hearing), however these experiences occur within the individual's mind rather than a total body experience (Weinberg et.al., 2011). The individual's kinesthetic sense is particularly important to athletes because this allows the individual to feel the body as it moves in different positions which will help in enhancing performance (Moran & MacIntyre, 1998). During this time, the individual will use what information they already have from the event to guide themselves through the performance. They clearly envision how they will execute and what the outcome will be. Depending on the athlete, these sessions can be extremely intense for individuals. They may be able to hear the crowd, smell grass, see the person they are up against and may illicit almost game-like sensations to the athlete. Throughout mental imagery there are four aspects that are targeted during each imagery session. They include: "images of the surroundings in which the athlete competes, the positive or negative character of images, the senses involved in imagery (types of imagery), and perspective (internal vs. external) the athlete takes in creating imagery" (Weinberg et.al., 2011).

An example of mental imagery may look similar to this. A wide receiver on a football team is lined before the start of the play. Using his visual sense, the athlete can see the defender lined up against him. This would be targeting the individual's surroundings. The individual

could also see the field that they are playing on as well as the crowd, other players on the field, and other areas surrounding the competition. Using his auditory sense he hears the quarterback call out the cadence and makes his initial move off the line of scrimmage. While using the tactile sense he pushes the defender off him and sprints down the side line. At this point the wide receiver is thinking about the move he is making on the defender. The wide receiver thinks that if he makes a cut inside that he will get past the defender. This would be a positive thought during the mental imagery. This would then fall under the nature of imagery. The nature of imagery falls under whether an individual has a positive or negative image. Depending on whether it is a positive or negative image, can determine what the outcome of the mental imagery session will be. Again using his visual sense to look over his shoulder to see the ball as it is thrown to him. The athlete stretches out his arms to catch the ball as he is tackled. As the wide receiver is tackled to the ground, he uses his olfactory sense, he smells the grass as the play comes to an end. Throughout the process of the mental imagery session, four different types of senses are targeted (visual, kinesthetic, auditory, and olfactory). These are categorized as the types of imagery. They help the individual to become immersed into the imagery to help them to have the most realistic mental imagery they can.

Perspective also helps to understand and clarify imagery for the onlooker. This can be split into an internal or external perspective for imagery (Mahoney & Avener, 1977). Internal imagery is described as imagery of the execution of a certain skill from the individual's own perspective (Weinberg et.al., 2011). This can be described as "if you had a camera on your head, you see only what you would see if you actually executed the particular skill" (Weinberg et.al., 2011). An example would be a quarterback being able to see how the defense is lined up and to

make the appropriate call for the play. External imagery differs, in that it is the perspective of an outside observer (Weinberg et.al., 2011). This can be classified as if you are watching yourself. An example of this would be, the quarterback not only seeing the defense but also seeing all the referees, the running backs behind him, and the wide receivers and defensive backs to his sides.

Mental imagery can also be increased if the individual is able to attach emotions to their imagery. If the athlete is able to recreate emotions (e.g., anxiety, anger, joy, or pain) or thoughts (e.g., confidence and concentration) throughout their imagery they will be better prepared to maintain and minimize these during competitions (Weinberg et.al., 2011). The more closely an individual is able to recreate the event and the emotions during that event, the more likely they are to not only control their emotions better but to also increase their performance during that event.

The skills in Level II of PST deal with an athlete before a performance. These skills can help to improve the athlete's performance. When properly used together, they can increase an athlete's performance and confidence in their ability. Being able to properly use both these skills will help to put the athlete in a better situation and to be more prepared to perform.

Level III Skills

Level III of PST is devoted to skills that are used during the actual competition. The skills in Level III are directly related to how an athlete will perform during the specific competition (Lesyk, 1998). When an athlete is able to better handle situations that arise during a sport, they will be more likely to succeed in that situation while receiving their desired result (Henriksen, et al., 2011). The Level III skills include: dealing with anxiety, dealing with

emotions and concentration. Each of these skills represents a certain internal factor that the athlete must control. Typically one of the first skills associated with the competition is anxiety.

Anxiety

Anxiety is a natural response that occurs in the body. It can occur in anyone at any time. Most times, however, anxiety is brought on by a stressful situation in which an individual places more emphasis than normal. Anxiety can be defined as a negative emotional state characterized by nervousness, worry, and apprehension which is associated with the activation or arousal of the body (Weinberg et.al., 2011). Anxiety can be separated into two components: trait and state anxiety. Trait anxiety can be defined as a general predisposition to respond across many situations with high levels of anxiety (Williams et.al., 2006). Trait anxiety is typically broader. Since it is broader, it typically deals with the general feeling of an individual. State anxiety deals with more specifics, typically the individual's anxiety at the specific moment (Williams et.al., 2006). "People who are high in trait anxiety are expected to respond with higher levels of state anxiety, or situationally specific anxiety" (Williams et.al., 2006).

Anxiety can differ between individuals greatly. However, most people experience some side effects of anxiety. Frequently, anxiety is accompanied by physiological effects that can include nausea, trembling of hands and other limbs, shortness of breath, sweating, as well as an increase in heart rate. When these responses are triggered in an individual's body, one typically does not perform to the best of one's ability. An individual starts to complicate and over-think situations and scenarios they have previously experienced. This is where the terms like "clutch" come into play. When an individual is unable to control the anxiety, causing this hesitation in

performance, they typically are labeled as unable to handle the moment which causes them to be labeled as failures during important competitions.

Typically, anxiety is experienced during occasions where the individual is close to reaching a goal. These competitions are more commonly called the "big stage". They are when all focus of the spectators is focused on the current competition. They are typically the only event going on at the moment and when it is narrowed down to only two opponents. This is when athletes begin to experience anxiety, which can impact the athlete causing a decrease in performance. However, this situation also illustrates that individuals are able to overcome anxiety and succeed. These athletes, often are referred to as "clutch" individuals. When comparing the athletes, this is typically how people separate them. When an athlete is able to put together their best performance and come away with the victory they are seen as that "clutch" individual, while the opponent is seen as a person who didn't have their best performance and is shown as the individual who could not handle the "pressure" when they were on the "big stage." Athletes who do not let anxiety alter their performance typically, perform better and receive the desired outcome of the performance. When an athlete is able to control their anxiety they will typically have better control of their emotions.

Emotions

Emotions are an internal factor that are seen and used on a daily basis. They are how we communicate to one another to show if we are happy, sad, or concerned. Emotions are seen through several components (that are expressed in facial movements, posture, gesture, touch and the voice), these involve a physiological response in the brain and body and they have specific action tendencies (McCarthy, 2011). Time and again, people are able to see and understand

emotions yet when it comes to defining what an emotion is people usually falter. Though in this particular age, the need has been pushed to understand a particular process deeply before a proper definition can occur (Oatley, Keltner, & Jenkins, 2006). "It has been difficult to locate a precise definition of emotion that adequately accounts for the different theoretical approaches that abound" (McCarthy, 2011).

People are able to easily understand what emotion is; however, it is not as easily defined. The simplest definition of emotion can be stated as a response by an individual that involves physical arousal, expressed behavior or a conscious experience by the individual (Lesyk, 1998). "Ekman (1992) outlined at least nine characteristics that distinguish basic emotions from one another, such as distinctive universal signals (e.g., facial expressions), comparable expressions in other animals, distinctive physiology, distinctive universals in antecedent events, quick onset and brief duration" (McCarthy, 2011). These distinctions have helped researchers to differentiate emotions from other similar manners like mood and disposition (McCarthy, 2011). Moods can typically range in a variety of lengths from hours to weeks. "They are often objectless whereas emotions have an object such as when a person is angry, that person is typically angry about something specific" (McCarthy, 2011). Dispositions often refer to an individual's enduring aspect of personality (e.g., agreeableness, shyness) (Oatley, et.al., 2006).

Emotion can often carry or cause an individual to falter in sports. When an individual has the ability to feed on an emotion and harness it towards the competition, that individual will typically be able to succeed in that competition. However, if an individual is not able to control those emotions, they can easily hinder an individual's performance. If an individual is not able to

control that emotion, it can easily overcome them and begin to cloud the individual's judgment. When that judgment is clouded, an individual could begin to make poor choices that could ultimately lead to failure in that competition. When an athlete is able to have a clear sight of the competition, they will most likely be able to then control their concentration as well.

Emotions can also influence a person during mental imagery. "In using imagery to help control anxiety, anger, or pain, athletes must be able to recreate these emotions in their minds" (Williams et.al., 2006). When using mental imagery to recreate these emotions, it will help the athlete to understand not only how but why anxiety impacted them during that performance. Having an individual work through this mental imagery process should help the individual and give them understanding as to how they can work on that anxiety so it does not hinder performance in the future. Mental imagery can also be used with emotion to help recreate peak performances for the athlete. If an athlete had a peak performance and recreated it with mental imagery, their emotions will be positive which can have a positive impact on future performances for the athlete. It will also help the athlete to understand what they need to do in order to achieve that peak performance.

Concentration

Often in sports, coaches instruct their athletes to focus and have their attention on the competition. Though this is accurate, the correct term is concentration. As stated by Moran (2004) "concentration refers to a person's ability to exert deliberate mental effort on what is most important in any given situation" (p. 103). Though this definition is accurate it is vague for sports. A more precise definition that applies to sport and competition is comprised of four parts: "focusing on the relevant cues in the environment, maintaining that attentional focus over

time, having awareness of the situation and performance errors, and shifting attentional focus when necessary" (Weinberg et.al., 2011). In order for concentration to be used successfully, the individual needs to have complete attention to the task at hand.

Concentration consist of various types of attentional focus. These different types are specific to sports and other activities. Attentional focus can be broken down into two dimensions: width and direction (Nideffer, 1976a, 1976b, 1981; Nideffer & Segal, 2001). The width portion of attentional focus is broad and narrow. The direction portion of attentional focus is external and internal. These components comprise the four types of attentional focus: broad attentional focus, narrow attentional focus, external attentional focus, and internal attentional focus. Broad attentional focus will allow an individual to perceive several occurrences simultaneously (Weinberg et.al., 2011). This deals with the environment constantly changing around the individual so they must adapt to the changes. Narrow attentional focus occurs when an individual only responds to one or two cues at a given time (Weinberg et.al., 2011). This deals with the individual narrowing focus causing them to only take in one to two cues at a given time rather than the whole environment. External attentional focus has the individual direct their attention onto an object or to an opponent's movements (Weinberg et.al., 2011). The external attentional focus deals with the outside, more specifically an object or opponent. Internal attentional focus is directed toward the individual. It deals with the individual's thoughts and feelings (Weinberg et.al., 2011). These four categories comprise attentional focus. They are combined together to give an observer the understanding of where the individual is for their specific attentional focus but more importantly their confidence.

When an individual can block out all the fans, noise, and outside distractions they are able to invest all their focus into the task at hand. When an individual is able to focus completely on the here and now, in the present, they are in optimal concentration (Williams et.al., 2006). Oftentimes, when people are at this point they are considered to be in the "zone." Nothing can throw them off during the competition. When an athlete performs using their full attention, they are absorbed into the game and are able to put their best performance together.

However, when an individual has lost their concentration it is a completely different scenario. When this occurs, oftentimes they begin to make more mistakes that can become very costly. Though concentration loss will vary between individuals there are typical ones that can occur. The most common losses of concentration are: after mistakes, when stressed out, when not sufficiently motivated, or when over motivated (Williams et.al., 2006). When situations like this occur, they can break an individual's concentration. With the lack of concentration, an individual will begin to make more mistakes which can ultimately lead to an increase in negative attitude, increased anxiety, and an increase in negative emotion. When these problems start to arise, the individual will decrease their ability to perform to their peak potential.

If an athlete is struggling with one of these skills during a competition, they will most likely not be able to obtain their desired result nor will they be satisfied with their performance during that event. In a study by Jackson (1995) with elite athletes, it showed that worries and irrelevant thoughts can cause individuals to lose concentration and they develop inappropriate focus of attention. When an individual is unable to control these internal factors they will not be able to produce the best performance they can. However, when an athlete is able to achieve all of these during a performance, they will typically be able to experience their own personal

moments of flow. When an athlete is in that flow experience, they will be able to manage and excel at these skills. Being able to excel at these skills enables them to have performances that satisfy all the athlete's desires (Henriksen, et al., 2011).

Conclusion

It can be assessed that PST programs can be effective for improving an athlete's performance and preparedness for a competition. Mental strength and preparedness are crucial for an athlete's success during a competition. In order to achieve an appropriate level of mental strength, athlete's need to have a PST program in place in order to improve the skills necessary to achieve their full mental strength. Coaches and athletes both need to understand this and take appropriate steps in order to achieve athletes who are mentally stronger.

Psychological skills training programs promote an increase in athletes' ability to become mentally stronger during competition settings. It is directly related to helping the athlete to perform better during competition settings. Athletes who struggle with PST often times are not able to reach their full potential during competitions. When the athlete cannot reach full potential they are not as prepared to compete and often fall short of their goals. With the intervention of a PST program athletes are able to reach that full potential and are prepared for competitions. When the athlete is prepared they have a better competition.

This study will use the Athletic Coping Skills Inventory-28 (ACSI-28) to attempt to establish whether or not a self-guided psychological skills training program can improve an athlete's mental strength. The ACSI-28 is used to assess where an athlete falls on seven subscales (coping with adversity, coachability, concentration, confidence and achievement motivation, goal setting and mental preparation, peaking under pressure, and freedom from

worry) (Smith & Smoll, 1995). The ACSI-28 will help to quantify where athletes are struggling with specific mental skills. With the increased understanding of the athlete's areas of weakness it allows the sport psychologist to design a PST program to meet the needs of the athlete to improve mental strength.

CHAPTER THREE

METHODOLOGY

Introduction

The purpose of this study was to show whether or not mental training techniques in wrestlers can be improved through a self-guided psychological skills training program spread over a competitive season. Traditionally, PST programs are implemented during the off-season or pre-season for athletes (Weinberg et.al., 2011). This 15-week study was designed to explore whether wrestling athletes given access to a self-guided psychological skills training program would implement the techniques.

Statement of the Problem

The purpose of this study was to assess the efficacy of using a self-guided psychological skill training program to improve wrestler's mental skills during a competitive season.

Subjects

The participants were 48 collegiate men from two different University sports teams (Lindenwood University men's wrestling team and the University of Wisconsin-Parkside men's wrestling team). They were recruited from these wrestling teams based upon accessibility and convenience sampling. The researcher selected the teams and made arrangements with the teams' head coaches. They all agreed to allow their athletes to participate in this study. Each participant was required to give a written informed consent using a form approved by

Lindenwood University's Institutional Review Board (IRB) prior to their involvement in this study.

A total of 48 athletes completed the pre-test and were enrolled in this study. Following the collection of all post-test data, 27 athletes from Lindenwood men's wrestling team and 21 athletes from Wisconsin-Parkside men's wrestling team had completed all of the pre- and post-test and their data were included in the statistical analysis. No athletes dropped out of the study.

Table 1 represents a summary of the subject characteristics for the study.

Table 1

Subject Characteristics for Study Participants

Variable	N	% of Group
Lindenwood University Wrestling Team	27	100
Freshman	4	14.8
Sophomore	6	22.2
Junior	7	25.9
Senior	2	7.4
5th Year Senior/Grad. Students	8	29.6
Wisconsin-Parkside Wrestling Team	21	100
Freshman	11	52.4
Sophomore	1	4.8
Junior	2	9.5
Senior	6	28.6
5th Year Senior/Grad Students	1	4.8

The average age of the Lindenwood University wrestling team was 20.81± with an age range between 18 and 24. The average training age of Lindenwood University wrestlers was 10.25± and ranged from 4 years to 18 years. For Wisconsin-Parkside, the average age of wrestling

athletes was 19.71± with a range from 18 to 23 years. The average training age of Wisconsin-Parkside wrestlers was 11.20± with years wrestling ranging from 5 to 17.

Threats to Internal Validity

The following data table provides a summary of the threats to valid inference. All of the threat tests were conducted and controlled as well as possible. Table 2 represents a complete listing of the threats to internal validity assessed.

Table 2

Threats to Internal Validity

Threats	Controlled	Explanation
History	No	Participants may not have been exposed to PST programs in the past
Maturation	Yes	Pre and post-test tools were used at start and end of season
Testing	Partially	Same testing protocol was used during pre-test and post testing
Instrumentation	Yes	Same PST assessment test with objective evaluation of scoring was used for pre and post test
Statistical Regression	Yes	All participants were college students between ages of 18 and 24
Selection Bias	No	Participants were invited by convenience sample method to be a part of the study
Mortality	Partially	No participants dropped out from the study following pre-testing

Casual Time Order	Yes	Data was collected within timely data collection window as defined by research proposal
Diffusion	No	Participants were competing on the same team and shared same coaches and athletic training staff
Demoralization	Yes	Control group was not administered any negative treatment or treated unfairly
Compensatory Rivalry	No	Control and experimental groups were mutually exclusive
Compensation	Yes	Neither group was provided compensation for participation

Statistical Treatment of Data

The ACSI-28 assessment tool was utilized in this study. Participant data was entered into SPSS 21.0 for the purpose of data analysis. After inputting all data, several data cleaning methods were initiated to ensure correctness and integrity of data. A series of dependent sample t-tests were run which allowed a comparison of control group to treatment group. Specifically these independent sample t-tests were run for total score and the seven subscales that included: Coping with adversity, coachability, concentration, confidence and achievement motivation, goal setting and mental preparation, peaking under pressure, and freedom from worry. Triangulation of treatment data was assessed using assessments obtained from athlete, coach, and head athletic trainer. Correlation analysis was run to determine the strength of relationship between the three assessment groups.

Instruments

The control and experimental groups participated in a pre-test (at the beginning of the official competitive season in November) and a post-test (following the conclusion of competitive season in February). The data collection instrument used for the research study (Belem, et.al, 2014; Smith & Smoll, 1995) consisted of an Athletic Coping Skills Inventory-28 (ACSI-28). The ACSI-28 consisted of 7 subscales (Coping with Adversity, Coachability, Concentration, Confidence and Achievement Motivation, Goal Setting and Mental Preparation, Peaking Under Pressure and Freedom from Worry). The format for the ACSI-28 test consisted of 28 questions on a 4-point modified Likert scale. Respondents answered questions related to self-appraisal of psychological skills with 0=Almost Never, 1=Sometimes, 2=Often, and 3=Almost Always. Out of the 28 questions, 6 questions were reverse scored. The test was administered by the researcher and was monitored to make sure the test was done individually so answers would not be influenced by each other. An example of the ACSI-28 test used in the study is attached in Appendix B.

Methods and Equipment Trial

Lindenwood athletes in the experimental group received emails every Monday during the duration of the study. The researcher selected email as the means of communication because of the differing schedule times among the athletes. The following section provides information on the content of the Self-Guided Psychological Skills Training Program offered to the Lindenwood University Wrestling team. There were 15 weeks in the program and the topics covered included: Goal setting, motivation, communication & listening, flow, arousal, stress management,

relaxation techniques, imagery, behavior modification, effective communication, concentration, self-confidence, general motivation, and peaking for target competition.

Week 1: Goal Setting

The first week of the study dealt with goal setting. Goal setting was the first week because people often times set goals but typically incorrectly. Getting people to develop the proper goals, which provide direction and enhance motivation, and helping them to learn how to stick to and achieve their goals (Weinberg et.al., 2011). The handout to the experiment group was designed to help the athletes understand how and when to develop proper goals. This handout was related to the subscale of goal setting and mental preparation.

There are three (3) different types of goals – all of which play a unique and complementary role in helping an athlete stay on task in their sport.

(1). OUTCOME GOALS

(2). PERFORMANCE GOALS

(3). PROCESS GOALS

OUTCOME GOALS are the terminal goals that an athlete sets for desired team or individual performance. For college and professional teams this might include winning a National Championship, a Conference Ring, a Divisional Pennant, an Olympic Medal, or a World Title. Outcome goals, while an essential piece of the goal-setting program, are by themselves often not enough to inspire optimal performance.

PERFORMANCE GOALS are the individual goals that allow the athlete to measure progress over time using self and past performance as the evaluative comparison. For example, a 100m runner might have a personal best of 11.10 seconds and creates a performance goal to run

under the 11 second barrier this season. A football player has a bench press max of 280lbs and sets a performance goal to lift 300lbs before the opening day of the season. Perhaps a softball player has a best season hitting average of .290 and sets a performance goal to hit .350 for the next year.

PROCESS GOALS are often considered "PRACTICE GOALS' or "STEPPING-STONE GOALS" that help an athlete toward achieving the outcome and performance goals. One can argue that *PROCESS* goals are the most important because they set the foundation for optimal performance. Typical categories of process goals might relate to core strength, flexibility, mental skills training, nutrition, gaining adequate recovery, sleep, simulation training, and injury prevention. A process goal for a college swimmer might include securing a minimum of 8 hours of sleep every night for the duration of the 3-month competitive season. The swimmer might also have a process goal of completing an average of 20,000 yards of swim training/per week during the pre-competition period.

Goal Setting Worksheet

Choose Three (3) OUTCOME Goals You Want to Achieve in the Next Six (6) Months:

(1) _____

(2) _____

(3) _____

Choose Three (3) PERFORMANCE Goals You Want to Achieve in the Next Six (6) Months:

(4) _____

(5) _____

(6) _____

Choose Three (3) PROCESS Goals You Want to Achieve in the Next Six (6) Months:

(7) _____

(8) _____

(9) _____

GOAL COMMITMENT:

On a SCALE of 1 to 10, how committed are you to achieving each of the nine (9) goals above?

GOAL LIMITATIONS:

What potential obstacles and roadblocks do you see as limiting your ability to achieve success?

_____

Michael Phelps – Setting Goals

https://www.youtube.com/watch?v=ArdvcoHcqYQ

Week 2: Motivation

The second week of the study dealt with motivation. Sport and exercise psychologists can view motivation from several specific vantage points, including achievement motivation, motivation in the form of competitive stress, and intrinsic and extrinsic motivation (Weinberg et.al., 2011). The handout for the second week was designed to inform the experiment group with understanding motivation and how to develop their own. This handout dealt with the subscale of confidence and achievement motivation.

Motivation is an aspect all athletes who excel at their sport have. Motivation is the reason a person has for acting or behaving in a particular way. Motivation is one of the driving forces for athletics.

- Motivation is divided between:
    - Intrinsic (internal)
        - Internal influences
        - This is driven by how much enjoyment you get out of the activity
    - Extrinsic (external)
        - Outside influences
        - Depends on rewards (how well you do or receiving something for doing good)
- Motivation is then divided between:
    - Quantity
        - How much the athlete achieves

- Quality
    - How much the athlete enjoys the activity
    - How engaged the athlete is in the sport
    - Psychological & physiological benefit of the sport

These all go hand in hand in determining how motivated a person is when for their particular sport. The less motivation you have in the sport the less likely you are to succeed.

Take time now to think and write out where you fall in these different categories. After you have done that, think about and rate yourself on a scale of 1-100 for how motivated you are for the sport. Then ask yourself, if where you rated yourself is a high enough level to be successful in wrestling. If no then what aspect of motivation will you change in order to get to a level where you see yourself as being successful?

How to develop motivation for sport

https://www.youtube.com/watch?v=gG--qTi9K_Y

Week 3: Communication & Listening

The third week dealt with communication and listening skills. "Good communication skills are among the most important ingredients contributing to performance enhancement and the personal growth of sport and exercise participants" (Weinberg et.al., 2011). "Studies have shown that Olympic swimmers look to their coaches' social competence relative to communication even before their technical skills" (Philippe & Seiler, 2006) and "that athletes prefer different amounts of information and emotions from their coaches' pregame talks" (Vargas-Tonsing & Guan, 2007). The handout for the experiment group was designed to inform

the athlete on what time of communicator and listener they are as well as understanding how to become a more skilled communicator. This handout dealt with the subscale of coachability.

This week's handout is about listening and communicating. Being able to listen and communicate between each other is crucial in order to understand and portray your thoughts to one another. There are several types of listening they include:

- Active Listening
    - When the listener is attuned, connected, and engaged and demonstrates a caring attitude and desire to truly understand what the other person has to say.
    - Most effective form of listening
- Inattentive Listening
    - Listeners tune out quickly once they think they have enough information to decipher what the speaker is saying.
- Arrogant Listening
    - Listeners are more interested in what they have to say as opposed to what the other person is saying.
    - Least effective form of listening

Looking at yourself, what kind of listener are you? Are you happy with the type of listener you are? Take the time to watch the YouTube clip for this week and fill out the handout on the bottom to see where your listening skills are at. Good Luck this weekend!

Julian Treasure: 5 ways to listen better

https://www.youtube.com/watch?v=cSohjlYQI2A

Week 4: Flow

The fourth week dealt with flow. Athletes find themselves in flow moments but are typically unaware that they are occurring at that time. Such an experience fosters the development of a conscious state where optimal human functioning flourishes (Csikszentmihalyi, 1990).The handout to the experiment group was designed to help the athlete understand what flow moments are. The handout was also designed to help the athlete to understand times when they achieved a flow moment and how to recreate those moments more often. This handout dealt with the subscale of peaking under pressure.

This week's handout discusses flow. Many of you may ask, what is flow? I want you to imagine for moment that you are in a wrestling match. Your attention is focused on your movements, you can feel the exact pressure of his grip, you feel the power in your legs and you are ready to take your shot. This experience is living in the moment. You are completely absorbed in the present match. You know you are tired yet you hardly notice.

When you are in that type of moment you are experiencing flow also known as being in the zone. Flow is the moment where you're completely attention and focus is on the present task. This can be experienced not only in sports but in any facet of your life.

When looking at flow there are 10 components that go into that experience:

1. Clear goals that, while challenging, are still attainable
2. Strong concentration and focused attention
3. The activity is intrinsically rewarding
4. Feelings of serenity; a loss of feeling of self-consciousness

5. Timelessness; a distorted sense of time; feeling so focused on the present that you lose track of time passing
6. Immediate feedback
7. Knowing that the task is doable; a balance between skill level and the challenge presented
8. Feelings of personal control over the situation and the outcome
9. Lack of awareness of physical needs
10. Complete focus on the activity itself

When these are all in play flow is experienced. Take a minute to look back on any previous events that you feel you experienced flow. Thinking about those experiences how many of the components above did you meet?

Flow 101: 5 of the World's Best Athletes Reveal the Secrets of the Zone

https://www.youtube.com/watch?v=sgDfYzG6Uyg

Week 5: Arousal

The fifth week dealt with arousal. "The relationship between arousal and performance can be complicated, and athletes in competitive sport need to learn to control their arousal" (Weinberg et.al., 2011). "They should be able to increase it-to psych up-when they're feeling lethargic and to decrease it when the pressure to win causes them anxiety and nervousness" (Weinberg et.al., 2011). The handout for the experiment group was designed to help the athlete understand their own personal arousal levels. This handout dealt with the subscale of concentration.

This week's handout will discuss arousal. What is Arousal? The official definition is consisting of neural excitation ranging on a continuum from a comatose state to extreme excitement /panic attack. What does that really mean though? Arousal comes down to how excited you have to be in order to successfully compete during a competition. Have you ever felt that no matter what you did that you were not able to get excited for a competition? If you have experienced this then you have been in a state of underarousal. Meaning that the required level of arousal was not present for you to be completely engaged in the activity.

Typically, underarousal occurs in competitions where you view the opponent as little to no threat. When an opponent is viewed this way typically the person is underaroused and typically does not have the best competition that they can have. A person can also be over aroused. Over arousal occurs typically on big stages/competitions where an individual/team feels the need to perform at their absolute best. When over arousal occurs it also typically leads to the individual/team having a subpar performance. Everyone has an optimal level of arousal specific to them. When an individual/team is under or over aroused it is common to see a subpar performance put forth by them.

Think back into your own careers, has there ever been a time where you were under or over aroused? Did you have a good performance when that occurred? Where do you feel your optimal level of arousal is?

Being "In the Zone" in Sports

https://www.youtube.com/watch?v=V7KThiSU1nE

Week 6: Stress Management

The sixth week handout dealt with stress management. In a highly competitive sport with high physical demands stress management needed to be addressed. "In a well-designed clinical trials study, collegiate rowers who were randomly assigned to a cognitive behavioral stress management training versus control conditions experienced fewer days lost to injury and illness across a season (Perna, Antoni, Baum, Gordon, & Schneiderman, 2003), verifying in a more controlled study earlier results found with competitive gymnastics" (Kerr & Goss, 1996). The handout was designed to help the athlete identify stress and understand how to help manage their own personal stress. This handout dealt with the subscale of coping with adversity.

This week's handout will discuss stress. Many of us experience stress but do we understand what stress really is? Stress can often be described as having a feeling of being overwhelmed, worried, or worn out. Stress is an emotional experience that typically comes with other responses. These other responses are behavioral, physiological (body function), and biochemical (hormones). This means that when we feel an emotional response to a situation our body adapts to that situation. This can be increased heart rate, sweating, increased thoughts of worry and questioning of one's abilities. Typically these responses only last for short amounts of time and then the stress is overcome. However, sometimes the stress is not relieved causing it to build up. When we have stress that is constantly building up it not only impacts performance on the field but off the field as well.

Constant built up stress impacts several areas of our lives. It can impact your recovery, attitude, and communication. When we are constantly stressed out we are hindering our bodies' ability to recover. When we limit our bodies' recovery we are causing constant breakdown with

no time to recover. This causes increased fatigue, soreness, and overall changes in the person. Have you let stress invade your life and let it build up? Did it impact your performance in school or in competition or even in everyday life? What did you do to relieve that stress?

Stress Management Strategies: Ways to Unwind

https://www.youtube.com/watch?v=0fL-pn80s-c

Week 7: Relaxation Techniques

The seventh week dealt with relaxation techniques. The relaxation technique that was focused on was breath control. "Breath control, in fact, is one of the easiest, most effective ways to control anxiety and muscle tension" (Weinberg et.al., 2011). The handout for the experiment group was designed to give them an understanding of potential ways to reduce stress through breath control relaxation techniques. This handout dealt with the subscale of coping with adversity.

This week's handout will deal with relaxation techniques. Stress is a natural occurrence in everyone's life. Stress can cause havoc in our lives. Being able to relax and calm yourself is crucial in sports and everyday life. When your mind is crowded and racing you often times overlook the obvious, and miss crucial information/openings that you normally would capitalize on.

The most common technique used for relaxation is breathing. When looking at breathing most people do not know how to properly breathe. Starting a breathing technique you should begin by breathing in through your nose. When doing breathing exercises most people only breathe from their upper chest, which is not the proper way to breath for a relaxation

technique. When breathing for a relaxation technique you should breathe in filling your lower lungs first then filling your upper chest next. The last step is breathing out through your mouth.

The breathing technique I would recommend using is the 5-2-5 breathing technique. This technique will help to calm you down and control your breathing and heart rate. The first step in getting in a relaxed position, preferably seated. Once in a relaxed position begin by breathing in through your nose for a 5 count. Making sure you are filling your lower lungs first before your upper lungs. Once you have reached the 5 count hold that air in for a count of 2. Once the 2 count is reached you then release that breath for a 5 count. When releasing the 5 count breath let the stress in your body release as well. Identify any pain in your and let that pain fade away as you exhale.

This technique can be used at any time during times of stress whether it be everyday life or before a competition. If you have any questions please feel free to ask.

Relax!!!!! Breathing exercise #1

https://www.youtube.com/watch?v=Apkg1cKDyyA

Week 8: Imagery

The eighth week handout dealt with imagery. Imagery is the process of recalling from memory pieces of information stored from experience and shaping these pieces into meaningful images (Weinberg et.al., 2011). "These pieces are essentially a product of your memory, experienced internally through the recall and reconstruction of previous events" (Weinberg et.al., 2011). The handout for the experiment group was designed to give the athletes a way to properly use imagery. This handout dealt with the subscale of goal setting and mental preparation.

This week's handout deals with imagery. I imagine that many of you use imagery already but do not know it. Imagery is the creation of any type of mental images. When you form these mental images you are enhancing your ability to remember these images. When you are able to better remember the images you are increasing your odds of being able to successfully accomplish these images. Being able to use mental imagery can help to improve confidence in your abilities.

The first step is to get yourself relaxed. This can first be achieved by using the breathing techniques discussed in previous handouts. The next step is beginning to draw the surrounding for the image. For example if you were drawing a mental picture of a wrestling match you would start by imagining the mat and the crowd as well as other surroundings. You want to be as detailed as possible when creating this image. This can include sounds, smells, and sensations you feel from this event. Once you have created the background image you can begin to make the specifics. This may include a certain person you want to or have wrestled. Once that is created you can then move on to picturing yourself executing a specific move or defending against your opponent. Once you've reached a point that you feel the picture is done you have completed the mental imagery. Being able to picture yourself being successful in all of this mental imagery session is crucial as well. If you picture yourself executing correctly you will carry that over into a match.

This week I want you guys to try a mental imagery session on your own. Try to be positive during the session. Making sure that you are relaxed. If you are tense you will be far less successful with this than if you are relaxed. If you have any questions please feel free to ask.

Week 9: Behavior Modification

The ninth week dealt with behavior modification. Behavior modification was dealing with the athlete's understanding of their bad behaviors and addressing them correctly. According to the literature, sport psychologists agree that the predominant approach with sport and physical activity participants should be positive (Smith, 2006). "Being positive helps build confidence and self-esteem which is critical to succeeding" (Pitino 1998, pp. 78-80). The handout for the experiment group was designed to help the athlete understand positive and negative thoughts. This handout dealt with the subscale of coachability.

This week's handout will deal with behavior. Behavior plays key roles in our success. Behavior can be broken down into two different types, positive and negative. Positive behaviors are associated with learning, growth, and understanding. When you have positive behaviors, you are having clear and rational thoughts. These are critical when it comes to success in sports and life. However, positive thoughts do not always occur. At some point negative thoughts occur. Negative thoughts are irrational and unproductive thoughts. They can lead to a decrease in mood and performance. They can be changed though. If you have had a negative experience it does not mean that every experience like that in the future will also be a negative experience.

Looking back on your athletic history, have you ever had a negative thought that impacted your performance? Has that experience impacted future experiences that were similar? Have positive thoughts caused you to have increased performances? Which thought pattern do you typically have more of?

Negative Thoughts – Sports Psychology, Mental Toughness & Peak Performance Coaching

https://www.youtube.com/watch?v=JB6OJGlQtSI

Week 10: Effective Communication

The tenth week dealt with effective communication. The handout for the experiment group was designed to be a more in depth handout that built off of the handout from the third week that dealt with communication and listening. The handout was directed toward giving the experiment group the idea of how to improve communication skills between themselves and others around them. This handout dealt with the subscale of coachability.

What makes teams successful? Is it the quality of players? Is it the coach's strategy? Granted these all go into a successful team however there is one component that determines how successful these components are. That component is communication. Without effective communication, you as an athlete and team, will not be as successful as you can be. This includes talking to teammates and coaches.

To be an effective communicator you must understand that each person you communicate with has had different experiences and even different cultural upbringings from what you have had. There are several characteristics that are also key to being an effective communicator. These characteristics are being open, honest, sincere, genuine, and consistent. However, sarcasm, ridicule, and degrading or demeaning comments are poor communication techniques and should not be used. Several other crucial components to remember are that actions speak louder than words, be supportive of each other, and recognize the importance of managing your own emotions. When you lose control of your emotions,

frustration may distort and override the content of what you are hearing or trying to say. This can cause what you say to be interpreted very differently and can cause your real message to be lost.

Communication is something that can make or break even the most successful of teams. When you are not able to properly communicate you are not able to build the bonds that strengthen teams. Going forward, use this outline to help you when speaking to teammates and coaches so that your message gets heard and understood in the way that it was meant to be.

You are Limitless

https://www.youtube.com/watch?v=oXJ1FZKwI7c

Week 11: Concentration

The eleventh week dealt with concentration. Concentration is crucial in all sports settings. When an environment changes rapidly, attentional focus also must change rapidly (Weinberg et.al., 2011). When other information is brought in, judgment is clouded causing attention and concentration to be broken. The handout was designed for the experiment group to help determine how frequent concentration is lost in competition settings. This handout dealt with the subscale of concentration.

This week's handout deals with concentration. Concentration in sports is crucial for success. When looking at concentration, if concentration is not at 100% during a task/performance the task/performance will almost always be suffering and insufficient. What defines complete concentration? The major component of concentration is the ability to selectively attend to the appropriate cues for the task at hand, while blocking out internal and

external stimulus. This means that I am focusing on the person and not worrying about the pain in my knee, the referee made a bad call or I'm doing what my coach says but it isn't working. However, if an individual is able to keep focus on the task at hand these internal and external distractions do not impact the individual and they are able to be in that state of complete concentration.

The concentration zone that is ideal for performance is optimal concentration. Optimal concentration requires the individual to be completely in the here and now (in the present). When the mind fades to the past or future the individual is not as effective in the present. Optimal concentration also requires keeping an appropriate focus over an appropriate length of time as well as the ability to shift attention based upon changes in performance demands. Competition intensity and duration can both change during competition causing optimal concentration to also change throughout a competition. When an individual is able to control their concentration throughout the entire competition they are gaining an edge that can mean the difference between a win and a loss.

Looking back on your past competitions, did concentration impact your performance? Do you lose concentration frequently in competitions? Is your ability to concentrate extend not only in competition but also in everyday life activities?

Sports Psych Concentration

https://www.youtube.com/watch?v=hwHX2zKrmNg

Week 12: Self-confidence

The twelfth week dealt with self-confidence. Self-confidence was the last mental skill talked about in the handouts. If an athlete has high self-confidence they are more likely to succeed in their respective sport. Research also indicates that that the factor most consistently distinguishing highly successful from less successful athletes is confidence (Jones & Hardy, 1990; Vealey, 2005). The handout was designed for the experiment group to help them understand the importance of having self-confidence. This handout dealt with the subscale of confidence and achievement motivation.

This week's handout will deal with self-confidence. Many people talk about self-confidence but what does self-confidence really mean. Self-confidence is defined as self-assurance in trusting one's own abilities, capacities and judgments. Self-confidence comes down to having confidence in your own abilities. Self-confidence is impacted by past experiences. If you had positive experiences then your self-confidence will be higher especially in similar situations. Self-confidence can be changed though.

The first technique that can help to improve self-confidence is thought stoppage. With thought stoppage you are eliminating negative or counterproductive thoughts. Thought stopping begins with awareness of the unwanted thought and uses a trigger to interrupt or stop the undesirable thought. First the technique begins with awareness of the unwanted thought and use of a trigger to interrupt or stop the undesirable thought. The trigger can be a word like "stop" or a physical action such as "snapping your fingers". The most important thing to remember with thought stopping is that it is a skill. With that being said it is best to first experiment and become comfortable with it during practice before ever using it in a competition setting.

Another skill is reframing. Reframing is the process of creating alternative frames of reference or different ways of looking at the world. They say the world because the world is literally what we make it. Reframing allows the individual to transform what appears to be a weakness or difficulty into a strength or possibility, simply by looking at it from a different point of view. Reframing is useful because it allows the individual to take a look from a different angle and potentially see something from a negative to a positive.

Think back on previous competitions, was there specific thought patterns that ran through your head before your best performances? Were there different thought patterns for your worse performances? Would reframing or thought stoppage have helped you to overcome the negative thoughts?

How to build confidence – 3 quick tips

https://www.youtube.com/watch?v=7VQxofn4CDw

Week 13: General Motivation

The thirteenth week dealt with general motivation. The general motivation was used to help build the athlete's motivation, self-confidence, and focus for the upcoming tournaments. The handout was designed for the experiment group so that they would begin to focus on the final tournaments of the season. This handout dealt with the subscale of confidence and achievement motivation.

This week's handout will deal with motivation. Motivation is the foundation of sport performance and achievement. Without motivation, even the most talented athlete is unlikely to reach their full potential. Motivation is dependent on several factors. It depends on what an

athlete has experienced, pregame speeches and their surrounds. The way an athlete is able to take all these in and process them will determine their motivation.

There are many different levels of motivation but what is the right amount? That is solely dependent on the person. Everyone's level of motivation is different. Some people get their optimal level when they are on the big stage and center of attention, while others like to be in the background till the last minute till they take the stage. Despite these levels being different there is one thing in common with both, they are optimal levels of motivation. The most important thing to remember is everyone is different so once you find that level it is solely for you and once you are able to hit that level you are at your optimal level.

With the season coming down to the end there are a few questions you should ask yourself. What is your motivation for the season? What is your motivation to achieve your goal for the season? Have you ever experienced over or under motivation? Where is your optimal level of motivation?

The Greatness within Motivational Video

https://www.youtube.com/watch?v=HiyYEVcU1tI

Week 14: General Motivation

The fourteenth week dealt with general motivation. The general motivation was used to help build the athlete's motivation, self-confidence, and focus for the upcoming tournaments. The handout was designed for the experiment group so that they would begin to focus on the final tournaments of the season. This handout dealt with the subscale of confidence and achievement motivation.

This week's handout will continue to talk about motivation. With only two weeks left before the Regionals, it is time to really think about what are your goals and motivations for the season. Everyone has different goals and motivation for the season. Everyone also has different standards for what they consider a season to be successful. With that being said, what are yours? What are your goals from the beginning of the season? Are they still the same or have they changed slightly?

With so little of the season left it is time for you to think about what makes you the best wrestler you can be. At this point in the season a lot of your success is determined by if you believe in your own abilities. Self-efficacy is a person's judgment about their capability to successfully perform a particular task. Self-efficacy is crucial to your success. If you believe you can do it then nothing can stop you. With that in mind, do you believe in your abilities as a wrestler? Believing in your abilities and trusting in yourself are the keys to success. Everyone knows what they can do and how to achieve it. Now is the time to go out and embrace these opportunities.

Motivational Video you can literally watch every day! For athletes, students, anyone!

https://www.youtube.com/watch?v=82TBs-e-GP4

Week 15: Peaking for Target Competition

The fifteenth week dealt with peaking for target competition. This was the final week of the handout for the experiment group. The handout was designed to help the experiment group attain higher levels of self-confidence, focus, motivation, freedom from worry, and peaking under pressure. The handout was specifically designed for the experiment group to give them a

better understanding of how to achieve a peak performance. This handout dealt with the subscale of peaking under pressure and freedom from worry.

This is the final handout for the season. The season is coming to a close quick with Regionals this weekend. With this in mind our last handout will talk about peaking. Peak performance is considered to be a performance that results in a personal best. This means that when you hit a peak performance you are having your best performance. Though many people believe peak performances are uncontrollable and are random, research supports that peak performance can be controlled by the individual.

When looking at peak performance there are certain characteristics that are common when peak performance is achieved. Some of these characteristics include; total immersion in the activity, feeling in complete control, control over emotion, thoughts and arousal, high self-confidence and physically and mentally relaxed. There is also a precursor to peak performance in the form of flow. When an individual is experiencing flow they are more likely to have a peak performance following that flow. With all of that in mind there is some mental preparation that needs to be taken to achieve both flow and peak performance.

The mental preparation needed to achieve peak performance are skills that we have worked on throughout the handouts. These mental preparations include; having a positive attitude, attaining optimal arousal, achieving appropriate motivation to perform, being focused on the task, having positive team interactions, and lastly enjoying what you are doing. Too often, people turn sport into a job losing the fun in it. When you are able to keep the fun in sport you will be more likely to achieve these states.

With this being the final handout I would like to take a moment to say thank you to all who have been reading these handouts. I hope that they have helped you not only in wrestling but in life. I wish the starters best of luck in the Regional this weekend. Always remember if you have any questions please feel free to ask.

Eric Thomas: How badly do you want it?

https://www.youtube.com/watch?v=PPqprN5nrJg

Data Collection Procedures

The ACSI-28 was distributed by the primary investigator at Lindenwood University and the University of Wisconsin-Parkside. All athletes were required to undergo pre-testing during the first week of November before competitions began. During the pre-testing, athletes completed the ACSI-28 in addition to the Head Coach and assigned Head Athletic Trainer. For the control group, only self-appraisal and Head Coach data was obtained due to several changes in athletic trainer occurring during the competition season. A universal identification number was assigned to each athlete in order to match pre-test and post test data. After data input, all identifying information was destroyed to ensure confidentiality and anonymity. The post-test screening of the ACSI-28 was carried out 15-weeks after the start of the study during the last week of February.

Data Analysis Procedures

Data was analyzed using Statistical Package for the Social Sciences (21.0). Initial observations and data cleaning were made through a descriptive statistics analysis.

Summary

This was an exploratory study examining the outcomes of a 15-week PST program for improvement in mental skills among Lindenwood University men's wrestling team. All of the subjects completed pre-intervention and post-season tests for the ACSI-28. The hypotheses tested were that the athletes receiving the self-guided psychological skills training program will self-report improvements in mental skills; Coaches of athletes receiving the self-guided psychological skills training program will report improvements in athlete's mental skills; and athletic trainers of athletes receiving the self-guided psychological skills training program will report improvements in athlete's mental skills. The outcomes of this study were designed to further assess the efficacy of using self-guided psychological skill training programs.

CHAPTER FOUR

RESULTS

Introduction

The purpose of this study was to assess the efficacy of using a self-guided psychological skill training program to improve wrestler mental skills during a competitive season. The sample included 48 intercollegiate male wrestlers who were used in the data analyses for the research study.

Analysis of Data

Tables 3 through 7 represent a summary of the descriptive statistics for the assessments from pretest to posttest. The analyses run on the data were paired sample t-tests. The paired sample t-test was chosen for the data because it is the easiest test to compare the data from pretest to posttest.

Table 3: Descriptive Statistics for Subscales Based Upon Lindenwood Wrestling Team: Athlete Assessment (N=27)

	Min.	Max	Mean	Std. Dev.
Coping with Adversity				
Pre-test	2.00	11.00	6.74	2.03
Post-test	2.00	10.00	6.88	2.06
Coachability				
Pre-test	5.00	12.00	9.70	1.81
Post-test	2.00	12.00	9.37	2.30
Concentration				
Pre-test	2.00	12.00	7.18	2.30
Post-test	4.00	12.00	7.25	1.87
Confidence and Achievement Motivation				
Pre-test	4.00	12.00	7.74	2.52
Post-test	5.00	12.00	8.44**	.04
Goal Setting and Mental Preparation				
Pre-test	2.00	11.00	6.33	2.68
Post-test	3.00	12.00	7.18*	2.46
Peaking Under Pressure				
Pre-test	3.00	12.00	7.74	2.52
Post-test	4.00	11.00	7.59	2.25
Freedom from Worry				
Pre-test	.00	12.00	6.74	2.83
Post-test	2.00	11.00	7.18	2.23
Total				
Pre-test	23.00	75.00	52.11	10.89
Post-test	39.00	71.00	53.92	8.61

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

Overall for the athletes in the treatment group, cumulative scores on the ASCI-28 increased by 1.81 points from pre-test to post-test. Five of the seven subscales increased over the course of the study from pre-test to post-test. Paired samples t-tests were run to determine whether there was a significant difference from pre-test to post-test on the ASCI-28 instrument for cumulative score and the seven subscales. Two subscales were significant at $p<.05$. The Confidence & Achievement Motivation subscale increased from 7.74 to 8.44 ($t = -2.95$, $df = 26$; $p = .007$). The Goal Setting and Mental Preparation subscale increased from 6.33 to 7.18 ($t = -2.05$, $df = 26$; $p = .050$).

Table 4: Descriptive Statistics for Subscales Based Upon Lindenwood Wrestling Team: Coach Assessment (N=1)

	Min.	Max	Mean	Std. Dev.
Coping with Adversity				
Pre-test	2.00	11.00	6.25	2.21
Post-test	3.00	12.00	7.11	2.48
Coachability				
Pre-test	2.00	12.00	10.14	2.67
Post-test	.00	12.00	9.88	2.95
Concentration				
Pre-test	3.00	11.00	6.59	1.86
Post-test	2.00	11.00	6.77	2.80
Confidence and Achievement Motivation				
Pre-test	4.00	12.00	7.14	2.41
Post-test	3.00	11.00	7.07	2.82
Goal Setting and Mental Preparation				
Pre-test	2.00	12.00	6.70	2.90
Post-test	1.00	12.00	6.70	2.85
Peaking Under Pressure				
Pre-test	2.00	12.00	6.33	2.55
Post-test	1.00	11.00	6.44	2.97
Freedom from Worry				
Pre-test	4.00	10.00	7.14	1.63
Post-test	4.00	11.00	8.22**	2.00
Total				
Pre-test	32.00	71.00	50.33	10.41
Post-test	29.00	77.00	52.22	15.46

**$p<.01$

Overall for the coaches assessment in the treatment group, cumulative scores on the ASCI-28 increased by 1.89 points from pre-test to post-test. Four of the seven subscales increased over the course of the study from pre-test to post-test. Paired samples t-tests were run to determine whether there was a significant difference from pre-test to post-test on the ASCI-28 instrument for cumulative score and the seven subscales. Only one subscale was significant at $p<.05$. The Freedom from Worry subscale increased from 7.14 to 8.22 ($t = -2.74$, $df = 26$; $p = .010$).

Table 5: Descriptive Statistics for Subscales Based Upon Lindenwood Wrestling Team: Athletic Trainer Assessment (N=1)

	Min.	Max	Mean	Std. Dev.
Coping with Adversity				
Pre-test	6.00	11.00	8.07	1.38
Post-test	4.00	10.00	8.00	1.79
Coachability				
Pre-test	8.00	12.00	11.66	1.00
Post-test	7.00	12.00	11.03*	1.62
Concentration				
Pre-test	6.00	12.00	8.18	1.44
Post-test	5.00	12.00	8.18	1.92
Confidence and Achievement Motivation				
Pre-test	8.00	12.00	11.03	1.01
Post-test	6.00	12.00	10.59	1.80
Goal Setting and Mental Preparation				
Pre-test	5.00	12.00	8.81	1.86
Post-test	4.00	12.00	7.14***	1.85
Peaking Under Pressure				
Pre-test	5.00	12.00	7.74	2.12
Post-test	4.00	12.00	7.70	2.03
Freedom from Worry				
Pre-test	6.00	12.00	8.59	1.39
Post-test	7.00	10.00	8.11	1.05
Total				
Pre-test	54.00	78.00	64.11	6.68
Post-test	42.00	76.00	60.77*	8.18

*p<.05; ***p<.001

Overall for the athletic trainers assessment for the treatment group, cumulative scores on the ASCI-28 decreased by 3.34 points from pre-test to post test. Six of the seven subscales decreased over the course of the study from pre-test to post-test. Paired samples t-tests were run to determine whether there was a significant difference from pre-test to post-test on the ASCI-28 instrument for cumulative score and the seven subscales. Three subscales were significant at $p<.05$. The Coachability subscale decreased significantly from 11.66 to 11.03 ($t = 1.23$, $df = 26$; $p = .041$). The Goal Setting and Mental Preparation subscale decreased from 8.81 to 7.14 ($t = 2.41$, $df = 26$; $p = .000$). The cumulative ASCI-28 score decreased from 64.11 to 60.77 ($t = 2.18$, $df = 26$; $p = .039$).

Table 6: Descriptive Statistics for Subscales Based Upon Wisconsin-Parkside Wrestling Team: Athlete Assessment (N=21)

	Min.	Max	Mean	Std. Dev.
Coping with Adversity				
Pre-test	5.00	12.00	8.00	2.04
Post-test	4.00	12.00	7.95	2.33
Coachability				
Pre-test	8.00	12.00	10.57	1.43
Post-test	6.00	12.00	10.57	1.53
Concentration				
Pre-test	4.00	12.00	9.04	2.06
Post-test	7.00	12.00	9.38	1.77
Confidence and Achievement Motivation				
Pre-test	7.00	12.00	8.95	1.59
Post-test	6.00	12.00	9.42	1.56
Goal Setting and Mental Preparation				
Pre-test	.00	11.00	7.33	2.79
Post-test	3.00	12.00	7.42	2.73
Peaking Under Pressure				
Pre-test	2.00	12.00	7.52	2.73
Post-test	4.00	12.00	8.00	2.77
Freedom from Worry				
Pre-test	3.00	12.00	7.28	2.62
Post-test	1.00	12.00	7.09	3.08
Total				
Pre-test	43.00	81.00	58.71	10.27
Post-test	43.00	75.00	59.85	10.20

Overall for the athletes in the control group, cumulative scores on the ASCI-28 increased by 1.14 points from pre-test to post-test. Four of the seven subscales increased over the course of the study from pre-test to post-test. Paired samples t-tests were run to determine whether there was a significant difference from pre-test to post-test on the ASCI-28 instrument for cumulative score and the seven subscales. None of the subscales were significantly different from pre-test to post-test at $p<.05$.

Table 7: Descriptive Statistics for Subscales Based Upon Wisconsin-Parkside Wrestling Team: Coach Assessment (N=1)

	Min.	Max	Mean	Std. Dev.
Coping with Adversity				
Pre-test	4.00	8.00	6.57	1.36
Post-test	4.00	9.00	7.09	1.51
Coachability				
Pre-test	6.00	12.00	9.66	1.68
Post-test	5.00	12.00	9.90	1.70
Concentration				
Pre-test	4.00	8.00	6.76	1.44
Post-test	4.00	10.00	7.00	1.73
Confidence and Achievement Motivation				
Pre-test	4.00	9.00	6.61	1.62
Post-test	4.00	11.00	6.47	1.96
Goal Setting and Mental Preparation				
Pre-test	4.00	8.00	5.85	1.85
Post-test	4.00	9.00	5.57	1.88
Peaking Under Pressure				
Pre-test	3.00	10.00	6.66	2.12
Post-test	4.00	12.00	6.61	2.24
Freedom from Worry				
Pre-test	4.00	10.00	7.38	1.65
Post-test	4.00	11.00	7.14	1.93
Total				
Pre-test	29.00	64.00	49.52	9.88
Post-test	33.00	70.00	49.80	10.44

Overall for the coaches in the control group, cumulative scores on the ASCI-28 increased by .28 points from pre-test to post-test. Three of the seven subscales increased over the course of the study from pre-test to post-test. Paired samples t-tests were run to determine whether there was a significant difference from pre-test to post-test on the ASCI-28 instrument for cumulative score and the seven subscales. Similar to athlete assessment, no subscales increased significantly from pre-test to post-test (at $p<.05$).

Summary

Following the analyses, there were found to be statistically significant findings for the intervention group on the athlete assessment of the subscales related to confidence achievement and motivation and goal setting and mental preparation. There were also found to be statistically significant findings for the coaches' assessment related to freedom from worry. There were also found to be statistically significant findings for the intervention group for athletic trainer assessment regarding coachability, goal setting and mental preparation, and pretest to posttest cumulative scores. Chapter five will further investigate the results of the analyses and discuss the practical implications. The chapter will also discuss the purpose of self-guided psychological skills training programs and propose future implications of these findings.

CHAPTER FIVE

DISCUSSION

Introduction

The purpose of this study was to assess the efficacy of using a self-guided psychological skills training program to improve wrestler mental skills during a competitive season. Male varsity wrestlers from Lindenwood University and the University of Wisconsin-Parkside were invited to participate in the study from November 2014 through February 2015. Athletes' mental skills were assessed utilizing the ACSI-28 (Athletic Coping Skills Inventory-28) prior to the intervention and again 15-weeks later at the conclusion of the wrestling season. Athletes in the treatment group were given weekly handouts dealing with different psychological skills and asked to read the material during the 15-week period. This discussion section will present significant findings and interpret results of the study. Limitations of the study will be presented along with suggestions for future research and associated practical implications.

Results and Rationales

The following research hypotheses were tested for this study: (1) Athletes receiving the self-guided psychological skills training program will self-report improvements in mental skills; (2) Coaches of athletes receiving the self-guided psychological skills training program will report improvements in athletes mental skills; (3) Athletic Trainers of athletes receiving the self-guided psychological skills training program will report improvements in athletes mental skills. In order to test these hypotheses, ACSI-28 scores were recorded at pre-test and post-test time periods. Over the course of the 15-week intervention program, athletes within the experimental group increased cumulative scores on the ASCI-28 by 1.81 points from pre-test to post-test. The athlete

assessment also increased on two of the seven subscales (confidence and achievement motivation and goal setting and mental preparation). These results showed that athletes perceived some level of personal development in these two subscales. Coaches within the experimental group saw an increase in one subscale (freedom from worry). I believe this increase may have been caused by the coaches increased knowledge of the athletes. The team was split up and had several young athletes in starting positions. With the coach not knowing much about the athlete at the beginning of the testing. The results could have increased because they became more comfortable with the athletes and had increased confidence in the athletes.

The athletic trainer in the experimental group had a decrease in two of the seven subscales (coachability and goal setting and mental preparation) as well as the cumulative score decreased significantly from pre-test to post-test. I believe the reason there was a decrease in the athletic trainer's opinion from pre-test to post-test was due to a ceiling effect. I feel that since the athletic trainer has been with the wrestling team for several years that he has an understanding of the type of athlete that is recruited onto the team. This may have caused him to overestimate the abilities and strong suits of the team. The athletic trainer may have also built relationships with the athletes. This may have caused him to take personal feelings of the athletes into consideration when he was filling out his assessment. The other thought for why the decrease occurred may be from the athletes becoming more fatigued as the season went on. If the athletic trainer has a good rapport with the athletes they may be more inclined to open up to the athletic trainer. This could include the athletic trainer seeing a side of the athlete that the coach does not see. With wrestling being such a high demand sport, both physically and

mentally, the athletes may have had shifts in mood that the athletic trainer could have seen as a negative and rated the athletes based on that rather than if it were actually the case.

The control group showed no significant increases or decreases from pre-test to post-test. One significant limitation, as discussed later in this chapter, is the lack of participation by the primary researcher. With the primary researcher only handing out the information to the athletes, the study relied heavily on the athletes taking the action of reading the material on their own rather than having the researcher forcing them to participate. Looking specifically at the handouts, most of the handouts were geared towards confidence and achievement motivation and goal setting and mental preparation. With so many of the weekly sessions targeting these two subscales, increases in these two seemed more apparent than in the other five subscales. Improvements in these two subscales, from pre-test to post-test, suggest that even self-guided psychological skills training programs may have some significant impact on athletes who need to improve some areas of mental strength.

The study did have success when it came to showing that a self-guided PST program can improve athletes' mental strengths. The program was strong in targeting confidence and achievement motivation and goal setting and mental preparation. However, most of the handouts directly targeted those two subscales. In order for the program to work more effectively, the handouts need to be directed towards more of the subscales. If the handouts would have targeted all of the subscales more consistently, I believe more of the subscales would have shown statistical significance. The handouts for the study were able to work well for the experimental group. These type of athletes typically are very busy and have multiple workouts a day, with the handouts typically being a page or less they had an increased chance of taking some time out of

their day to read it. If they would have been longer I don't think as many of the athletes would have read the handouts. The study would have also been stronger had we been able to have an athletic trainer for the control group. However, due to the control group having changed trainers in the middle of the season, it would have skewed data results and potentially given false significance.

Limitations of the Study

While the study was able to provide sound quantitative results, there were limitations to the study that should be addressed. The first being the athletes following through and reading the provided materials on their own. With the athletes being in season, they were traveling frequently which could have hindered their willingness to read the assignments on a weekly basis. The study did not follow up to determine the commitment and actual participation levels of athletes exposed to psychological skills training program.

Secondly, some of the subject's post-test results could have been skewed because of performance during the season. If an athlete was having a better season they may have rated themselves higher causing the increase. Athletes may also have rated themselves lower due to any injuries or outside causes. The coaches may have also seen a similar effect on their post-test results. A coach may see the athlete as being improved in mental strength without having actually increased mental strength by reading the material. The coach may also have been harsher on individuals who were not performing to their ability causing their subsequent scores to decrease.

Recommendations and Implications for Future Research

Mental strength is very important for athletes to perform well. Most athletes do not have access to a sport psychologist so mental skills are typically untrained. Though at the highest levels of sport they are present, most universities are not fortunate enough to have a sport psychologist on staff. This lack of a sport psychologist and mental skills training resources has caused a gap in athlete's performance. If there were an increase in sport psychology resources, athlete performance might increase.

Psychological skills training is slowly becoming more prominent in the world of sports. This has brought about a new demand for how to implement psychological skills training programs with teams. Athletes may be reluctant to read the material if they are not forced to. This can limit the effectiveness of the program and may not have a positive impact on the athlete. This study has shown that, despite the primary researcher not forcing the athletes to read the handouts, increases were still present during the post-test on some dimensions of mental skills training. This increase may have been more significant had the primary researcher been more hands on with the athletes and had they taught the material rather than allowing the athlete to make the decision to read it.

Improved research in this area provides valuable information for coaches and athletes in regard to understanding the importance of psychological skills training. Future research is necessary in this field. Future studies may find more significant results if the primary researcher is more hands on and has the athlete read the material rather than just provide the material to them. Future research should also investigate how outside observers like athletic trainers perceive the athlete and coach relationship. Though that person is around the team at all times

their views of team success and relationships can vary greatly and may shed light on how to improve these areas.

An important aspect to consider in this study is the needs of the athletes and what psychological skills a person needs for wrestling. When trying to assess the needs of the sport it is first important to understand the sport. Wrestling is a high intensity sport with very demanding guidelines. With the sport of wrestling only having 10 weight classes on a collegiate team, with roster sizes ranging from 20 up to 35, competition for spots is high. This competitiveness drives participants to take drastic means in order to get to the position they want. This high competition for positions also leads to dramatic weight reduction. The thought process in wrestling is to get to the lowest weight that you possibly can. Though this is unhealthy, it is a risk wrestlers are willingly open to take. This weight reduction can vary greatly from athletes losing a couple pounds to well over 10 lbs. This causes high fatigue on athletes both physically and mentally. Wrestlers have been known to starve themselves of both food and beverage in order to reach their desired weight. This can impact all psychological skills in the program. With wrestlers having their psychological skills impacted, it is critical that a program is in place in order to help minimize the damage done to these skills during the competition season.

This research project was able to reveal several significant findings. The study provided a preliminary exploratory study complementing some existing research on this topic. It was able to show the holes in research as well to show the demand for increased research in the area. The largest area where there was a hole was understanding how mentally strong athletes truly are. Looking at the results, most wrestlers rated themselves very poorly and showed that mentally they may be setting themselves up for failure due to the lack of psychological training.

Additionally, athletes might not follow the self-guided portion very closely. They may forget to read the information or be unmotivated to read the motivation if it is not a requirement. If an athlete is more motivated to read the material they would potentially be able to see the increase in mental strength compared to someone who was not. This could dramatically impact results between individuals and other studies.

There needs to be an increase in PST program studies in the future. Future studies need to address if self-guided programs can help to improve mental strength. There also needs to be increased research in the area to see if certain sports would benefit from self-guided or hands-on interventions. I think if there is more research produced between self-guided programs vs. other methods that there will be a better understand that certain sports will benefit better from one vs. the other. Future studies also need to address, if one timing of program will help to increase mental strength depending on what program is used.

Psychological skills training is gaining popularity but is still only used by a small fraction of individuals. The purpose of this study was to assess the efficacy of using a self-guided psychological skill training program to improve wrestler mental skills during a competitive season. The results of the study suggest that a self-guided psychological skills training program can increase athlete's mental strength. The athletes in the experimental group showed that it is possible to increase mental strength, even if the program is implemented during the competitive season.

Conclusion

In conclusion, this study provides valuable research for self-guided psychological skills training programs in wrestling athletes. This study was able to show statistically significant increases in confidence achievement motivation and goal setting and mental preparation from a self-guided psychological skills program. Mental strength is critical for athletes in improving their performance. In order for athletes to reach their highest athletic performance, psychological skills training is one of the critical components to meet that goal.

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APPENDICES

Appendix A: Institutional Review Board (IRB) Approval

Appendix B: Athletic Coping Skills Inventory-28 (ACSI-28)

APPENDIX B

Athletic Coping Skills Inventory-28 (ACSI-28)

Assessment of Personal Sport Psychological Skills

DIRECTIONS: A number of statements that athletes have used to describe their experiences are given below. Please read each statement carefully, and then recall as accurately as possible how often you experience the same thing. There are no right or wrong answers. Do not spend too much time on any one statement.

Please circle how often you have these experiences when playing sports.

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

Almost Never Sometimes Often Almost Always

12. I put a lot of pressure on myself by worrying about how I will perform.
Almost Never Sometimes Often Almost Always

13. I set my own performance goals for each practice.
Almost Never Sometimes Often Almost Always

14. I don't have to be pushed to practice or play hard – I give 100%.
Almost Never Sometimes Often Almost Always

15. If a coach criticizes or yells at me, I correct the mistake without getting upset about it.
Almost Never Sometimes Often Almost Always

16. I handle unexpected situations in my sport very well.
Almost Never Sometimes Often Almost Always

17. When things are going badly, I tell myself to keep calm, and this works for me.
Almost Never Sometimes Often Almost Always

18. The more pressure there is during a game, the more I enjoy it.
Almost Never Sometimes Often Almost Always

19. While competing, I worry about making mistakes or failing to come through.
Almost Never Sometimes Often Almost Always

20. I have my own game plan worked out in my head long before the game begins.
Almost Never Sometimes Often Almost Always

21. When I feel myself getting too tense, I can quickly relax my body and calm myself.
Almost Never Sometimes Often Almost Always

22. To me pressure situations are challenges that I welcome.
Almost Never Sometimes Often Almost Always

23. I think about and imagine what will happen if I fail or screw up.
Almost Never Sometimes Often Almost Always

24. I maintain emotional control regardless of how things are going for me.
Almost Never Sometimes Often Almost Always

25. It is easy for me to direct my attention and focus on a single object or person.
Almost Never Sometimes Often Almost Always

26. When I fail to reach my goals, it makes me try even harder.
Almost Never Sometimes Often Almost Always

27. I improve my skills by listening carefully to advice and instruction from coaches and managers.
Almost Never Sometimes Often Almost Always

28. I make fewer mistakes when the pressure is on because I concentrate better.
Almost Never Sometimes Often Almost Always

SCORING: This is the Athletic Coping Skills Inventory (ACSI), a measure of an athlete's psychological skills, developed by Smith, Schultz, Smoll, & Ptacek (1994). Determine your score on the following subscales by adding the scores on the question numbers identified. Also, note the following numerical scales associated with your ratings.

0 = Almost Never
1 = Sometimes
2 = Often
3 = Almost Always

Finally, note that an * after a question number signifies a reversed scored item (that is, 0 = Almost Always, 3 = Almost never, and so on).

SUBSCALES:

_____ *Coping with Adversity:* This subscale assesses if an athlete remains positive and enthusiastic even when things are going badly, remains calm and controlled, and can quickly bounce back from mistakes and setbacks.
(Sum Scores on Questions 5, 17, 21, and 24, and place the total in the blank provided).

_____ *Coachability:* Assesses is an athlete is open to and learns from instruction, and accepts constructive criticism without taking it personally and becoming upset.
(Sum Scores on Questions 3*, 10*, 15, and 27, and place the total in the blank provided).

_____ *Concentration:* This subscale reflects whether an athlete becomes easily distracted, and is able to focus on the task at hand in both practice and game situations even when adverse or unexpected situations occur.
(Sum Scores on Questions 4, 11, 16, and 25, and place the total in the blank provided).

_____ *Confidence and Achievement Motivation:* Measures if an athlete is confident and positively motivated, consistently gives 100% during practices and games, and works hard to improve his or her skills.
(Sum Scores on Questions 2, 9, 14, and 26, and place the total in the blank provided).

_____ *Goal Setting and Mental Preparation:* Assesses whether an athlete sets and works toward specific performance goals, plans and mentally prepares for games, and clearly has a "game plan" for performing well.
(Sum Scores on Questions 1, 8, 13, and 20, and place the total in the blank provided).

_____ *Peaking Under Pressure:* Measures if an athlete is challenged rather than threatened by pressure situations and performs well under pressure – a clutch performer.
(Sum Scores on Questions 6, 18, 22, and 28, and place the total in the blank provided).

_____ *Freedom from Worry:* Assesses whether an athlete puts pressure on him or herself by worrying about performing poorly or making mistakes; worries about what others will think if he or she performs poorly.
(Sum Scores on Questions 7*, 12*, 19*, and 23*, and place the total in the blank provided).

_____ *TOTAL SCORE or SUM OF SUBSCALES*

Scores range from a low of 0 to a high of 12 on each subscale, with higher scores indicating greater strengths on that subscale. The score for the TOTAL SCALE ranges from a low of 0 to a high of 84, with higher scores signifying greater strength.

After taking the ACSI, write a few sentences summarizing your results for the TOTAL SCALE and individual subscales. What areas of Psychological Skills Training do you feel you need to work on in the future?