ATHLETE RESILIENCE TRAINING (ART) PROGRAM: AN EVIDENCE BASED INTERVENTION TO IMPROVE RESILIENCE IN COLLEGIATE GOLFERS AFTER PERFORMANCE FAILURE A MANUAL FOR COACHES AND ATHLETES

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A Project

Presented

to the Faculty of

California State University, Chico

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In Partial Fulfillment

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in

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By

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Summer 2017

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Leanne M. Ellis

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DEDICATION

I would like to dedicate this project to all athletes who truly love their sport. Playing at a competitive level can sometimes cause people to lose sight of why they started playing in the first place. Even though this program is designed for golfers, these ideas are meant to be applicable to any athlete. My hope is that it will help those who love what they do continue to have positive, enjoyable experiences every time they play.

ACKNOWLEDGEMENTS

First, I would like to thank Dr. Aubrey Newland, project committee chair. She has been supportive since day one when I approached her with my vision for what I wanted to accomplish with this project, she had not even moved to California yet. Dr. Newland has and continues to inspire me. With each conversation, I left with a feeling of renewed confidence and faith in myself. Her passion for teaching and passing along her own knowledge and experiences is something that will always stay with me. Without her supervision and continuous support this project would not have been possible.

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Finally, a special thanks to my husband Brian for his constant support and patience, you are my rock. Thank you for believing in me, for pushing me to keep moving forward and for always keeping things light. I would not have been able to accomplish this without you.

TABLE OF CONTENTS

ABSTRACT

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Resilience is important for an athlete to perform optimally. Attribution style, lack of coping mechanisms and negative thought patterns contribute to the stress and anxiety that performers feel. These issues can be the determining factor in whether they fail or succeed within their given sport. Psychological resilience has been studied in a variety of context including inmate populations, post-disaster communities, school aged children, the workplace and with military personnel. Until recently, this concept has not been examined with athletic populations. Those studies that do exist are focused on professional athletes and Olympic champions. While resilience has been demonstrated as trainable, no such training programs or intervention strategies have been created for collegiate golfers.

Competitive athletes can experience a wide variety of significant stressors which can hinder performance. Whether it is performance failure, injury, interpersonal relationships or demands from the organization, it is inevitable that an athlete will face some sort of hardship in

their career. This Athlete Resilience Training (ART) program includes a variety of modules such as positive personality, social support, attention and physiological control and coping skills. These are designed to help athletes develop the skills and resources necessary to limit the potentially detrimental effects that stressors can have on performance. The purpose of this ART program is to develop skills that have been demonstrated to increase resilience in humans to help them flourish in the face of adversity. This program has been designed to help collegiate golfers maintain optimal performance following a performance mistake.

CHAPTER I

INTRODUCTION TO THE PROJECT

Encountering stress or misfortune is inevitable throughout a person's life. These stressors can come in the form of daily life disturbances, traumatic life events and everything that falls in between these experiences. Potentially traumatic situations can be life-changing, yet over time people have shown the ability to adapt to stressful conditions. What is it that allows people to accomplish this? Psychological resilience plays a large role in this and is the idea that people can maintain normal levels of functioning in the face of adversity. Resilience in the face of hardship has been demonstrated in multiple areas. Sport performers in particular experience a wide variety of stressors that vary from their organization, fans, teammates, opponents and coaching staff. They can especially experience stress from the competitive environment that they are expected to work in. The difference with athletes compared to the everyday person is that they willingly put themselves in these high stress situations. One of the most anxiety provoking things that can happen to an athlete is choking under pressure. When a professional athlete experiences performance failure, it can have major impacts on their psychological wellbeing given that their performance influences their livelihood. Learning to be resilient in stressful situations takes time and constant work by an individual to understand and attain the resources, skills and personal qualities that are needed to overcome stress. In fact, resilience has been demonstrated as trainable (Reivich & Shatté, 2002; Seligman, 1991) and could prove invaluable for athletes who perform in high stress situations.

When someone encounters an event in their life that might qualify as some sort of "set back" they, consciously or even unconsciously, choose how to move forward. People can react to

changes in a homeostatic system in a variety of ways. This means that when someone is no under stress and experiences an adverse event, they could react in countless ways. Two people can come across an adversity but experience the adversity in completely different ways. Person A might succumb to the pressure of the event, which may lead to anxious or depressive symptoms. On the other hand, person B may overcome and bounce back from the same stressful event and even flourish after the fact. In this scenario, person B is demonstrating resilience. While a multitude of factors exist, this idea that a person can "bounce back" in the face of adversity is the core concept of psychological resilience.

The literature on resilience, and its accompanying processes and traits, has become increasingly more prevalent within the past few decades. How people function in response to adverse life events has been examined in completely different contexts, including the military (Reivich, Seligman, & McBride, 2011), education (Gillham, 2007), athletes (Fletcher & Sarkar, 2012; Galli & Vealey, 2008; for review see Galli & Gonzalez, 2015), and it has even been studied in the workplace (Burton, Pakenham, & Brown 2010; Chan, 2012; Klarreich, 1998; Robertson, Cooper, Sarkar, & Curran, 2015; Waite & Richardson, 2004). These areas of research will create the backbone for this project, the Athlete Resilience Training (ART) program, and will begin to explore the application of resilience in competitive athletes.

The idea of psychological resilience has been thriving within the literature, predominantly within the field of positive psychology. Positive psychology takes a different approach to viewing human health than what has been the primary way of thinking over the last few decades. Typically, the field of psychology is marked by a problem-focused conceptualization of the human psyche. This focus on pathology produces inquiry into resolving a problem *after* it occurs. Positive psychology is the scientific study of the strengths within

individuals, nurturing those strengths and figuring out what makes life worth living (Seligman & Csikszentmihalyi 2000). This viewpoint has helped to discover what types of educational environments allow students to thrive, what work settings promote the greatest performance from employees, what trainings best prepare soldiers for war, and how people can live more fruitful lives. Positive psychology is interested in enhancing the lives of ordinary people. Instead of looking at how to fix a person, it seeks to discover preventative measures to mental disorders and to create psychological environments in which people and their communities as a whole can thrive. Important resilient qualities have been identified in research within the field of positive psychology (Seligman & Csikszentmihalyi 2000) and, until recently (Fletcher & Sarkar, 2012; Galli & Vealey, 2008), have not been applied to the athletic population.

Within the last decade resilience has become a popular buzzword when discussing athletes. Despite the countless definitions, it has understandably been deemed a highly desirable trait in athletes. The phenomenon of resilience is a complex one. At various times and among different scholars, resilience has been defined as a process, a trait or an outcome. The most recent and comprehensive definition of resilience in relation to athletes has been proposed by Fletcher and Sarkar (2013) and will be the guiding idea for this manual. The authors take a critical look at the various definitions used throughout different contexts and provide one that is relatively all encompassing and specific to athletes. They describe resilience as "the role of mental processes and behavior in promoting personal assets and protecting an individual from the potential negative effect of stressors" (2013, p. 16). This definition allows for resilience to be seen from both a trait and a process perspective.

In addition to allowing for both the trait and process views, this definition includes a set of similarities that are present throughout the varying definitions. These commonalities can be

best portrayed using the analogy provided by Lazarus (1993) when describing how Robert Hook, a physicist-biologist, explained how different metals react under stress. Each metal has unique elastic properties, with more resilient metals being able to bend and bounce back, instead of breaking, when stressed. Humans exhibit a parallel quality of resisting psychological deformation when under pressure. Similar to metals, humans react under pressure in different ways, with some displaying more resilient qualities than others (Lazarus, 1993). These individual differences in how people react under pressure allows for a better examination of how resilience exists and how it can be enhanced in athletes.

Two foundational concepts can be extracted from this analogy, and the varying definitions of resilience. First, an exposure to some sort of adversity or bad event, similar to the bending of the metal and is analogous to a traumatic life event in humans. The second core idea is the presence of a positive outcome, or the ability of the metal to resist breaking which is analogous to the ability of a human to carry on with life after an event or after failure. This second idea is broader than simply the amelioration of the negative symptoms associated with stress. Typically, resilient individuals experience some sort of positive adaptation after the stressor (Luthar, Cicchetti & Becker, 2000). The antecedent, adversity, is followed by a consequence, positive adaptation, which is defined as "[adaptation] that . . . is substantially better than what would be expected given exposure to the risk circumstance being studied" (Luthar & Zelazo, 2003, p. 515). By this definition, it may be difficult to understand this construct in terms of athletes. However, Luthar and colleagues suggest that the positive adaptation must be appropriate to the adversity and the domain in which it is used. For example, positive adaptation in military personnel may be the lack of psychiatric symptoms. For an athlete, positive adaptation may be overcoming a barrier that previously stunted their performance. A golfer may

be able to play a more level headed game after making a bad shot, instead of going down a negative path of thought about their abilities. The mistakes they make during a game are not necessarily major disasters. However, they might perceive some specific performance as disastrous, such as taking a bogey on an easy par three hole. In either situation, the individual must positively adapt to successfully recover and proceed with their performance.

It is not a matter of *if* an athlete will experience adversity, but when. It is also imperative to understand when performance decrements do occur, how will the athlete respond? The athletes who are frequently admired are the ones who are able to come back from their hardships with the same level of performance. It is the athletes like Michael Jordan, Pelé and Babe Ruth who make us wonder what allowed them to fight back after injury, performance failure and even growing up in poverty, and to continue at the same high level of performance.

Developing resilience in athletes is important because athletes are susceptible to a wide variety of stressors, such as injury, performance decrements, controllable and uncontrollable variable or even being dropped from a team or sponsor. Stressors can also come from fans, family, opponents, competitions, family members, teammates, coaches and trainers. The goal of this program is aimed at helping athletes overcome the adversity of performance decrements during competition.

Purpose of the Project

The purpose of this project is to create a comprehensive resilience training program for college level golfers. This training program could also be adapted and utilized for other athletes. The ART program has been adapted from a variety of established programs. The goal is for this program to help athletes continue optimal sport performance after experiencing performance failure. This is accomplished through education and exercises that help athletes become more

optimistic, utilize social support and become more aware of negative thinking patterns to alter them in more productive ways. This program incorporates current theories on how resilience works across a variety of contexts. Current programs, theories and models have identified characteristics and processes that may increase psychological resilience. A variety of characteristics have been recognized as protecting athletes from the negative effects of adversities which may influence processes that lead to resilient thoughts and behaviors (Fletcher & Sarkar, 2012). However, very few resilience training programs exist for athletes and are limited in their scope. The goal is to produce a training manual that can be given to college level golf coaches as an outline for implementing resilience training into everyday practice for their players. Barring injury, high level athletes come to practice and competition with the same bodies and physical skill sets. Athletes at these levels have been practicing the mechanics of their sport for many years. However, sometimes athletes can go into competition and somehow "lose" these physical capabilities due to psychological stress. What is it that changes their abilities if they know how to physically perform? When an athlete experiences performance failure how can we get them "back into the game"? The answer lies within an athletes' capacity to react in a resilient manner.

Almost every sports enthusiast knows who Babe Ruth is and knows of his 714 home runs during his career, not to mention his career batting average of 0.342. However, with all of those home runs came an enormous amount of strikeout: 1,330 in all (Family of Babe Ruth and Babe Ruth League c/o Luminary Group LLC, n.d.). When looking at batting averages we can see just how often these athletes experience failure. Batting average (BA) is a statistic of the average performance of a batter. This is expressed as a ratio of the number of safe hit's, successfully making it on base, divided by the number of at bats. In other words, it is a ratio of successes to

failures. For perspective, a batting average higher than .300 is considered outstanding, and anything higher than .400 is almost impossible to achieve. As of August 24th, 2016 the Major League Baseball (MLB) player with the highest BA was Jose Altuve of the Houston Astros with a .361 average (Elias Sport Bureau, n.d.). This means, that approximately 36% of the time he successfully got on base. It also means that he failed, on average, 7 out of 10 times when he was at bat. Seventy percent of the time he walked away, letting down coaches, fans and teammates. However, he is considered a star player. Looking at these statistics may be depressing or anxiety provoking to some, but it is the resilient athletes who keep their head in the game and maintain optimal performance through this adversity. A famous quote from Babe Ruth illustrates what it is to be resilient, "every strike brings me closer to the next home run." This suggests that even through failure, people can achieve high performance standards.

This project focuses on skills and resources acquired by individuals and emphasizes the process they took to demonstrate resilience in different situations. This will be an ongoing endeavor with which the athlete will need to continually improve their skills and adapt to different situations and demands.

Scope of the Project

The study of exercise and sport psychology is a relatively new field compared to other areas of research such as strength and conditioning, biomechanics and psychology alone. It is rare to see college athletes' who don't have access to personal trainers, strength and conditioning coaches and athletic trainers. All of these trainers focus on the physical body, which makes sense as it is the most directly observable part of an athletes' performance, but what about the athletes' mind? Sport psychology consultants can provide an array of services and are quickly becoming far more accepted and utilized as valuable resources to give athletes a competitive edge.

However, some consultants may not be well versed in what goes into making athletes more resilient. It is also possible that teams may not be able to afford a separate consultant and the coach may attempt to provide these services themselves. Therefore, this training program will be a guide for coaches and consultants alike who may not feel confident or competent in encouraging a resilient frame of mind. This project is designed to provide easy to understand instructions on how to teach and implement a resilience program to maintain consistent or even improve performance, especially after a performance task failure. Coaches or consultants should participate in a brief training session with the author in order to explain the significant and potential of building psychological resilience in their athletes.

This project includes a variety of exercises that promote different aspects of resilience. Using the definition that Fletcher and Sarkar (2012) suggest, this training will focus on the mental process of explanatory style. Explanatory style is the way a person responds internally to good and bad events. It is how they explain to themselves why they experienced a certain event, whether is it positive or negative. When a person experiences an event they automatically come up with reasons as to why this event occurred. Events are explained in relation to their permanence, pervasiveness and personalization. These "three P's" are discussed in detail in the literature review and are included within the manual in a way that athletes, coaches and staff can make sense of and apply the information. This training will aim to teach athletes what explanatory style is, how to alter it and will aspire to challenge negative beliefs athletes may hold in relation to the three P's.

The second part of the definition asserts the promotion of personal assets. Personal assets have also been referred to as protective factors which are resilient qualities that help a person grow through adversity. Fletcher and Sarkar (2012) found that psychological factors involving

positive personality, motivation, confidence, focus, and perceived social support protected athletes from the potential negative effect of stressors. These personal assets influenced their metacognitions and appraisals, also referred to in the literature as explanatory style. An athletes' metacognitions and appraisal of a situation then facilitated optimal performance. One factor that stands out in the research on resilience is the influence of social support on resilience (Fletcher & Sarkar, 2012, Sarkar & Fletcher, 2014; Brown, 2008). In this training program the goal is to improve the athletes' relationships with others. A good base of social support, or at least perceived social support, has been demonstrated as a significant factor in psychological resilience.

Lastly, this program includes a section on cognitive appraisals. According to Fletcher and Sarkar (2012), psychological factors influence meta cognitions and how athletes appraise a situation. Therefore, resilience controls how an event is appraised (Fletcher & Sarkar, 2013). Those who are resilient will appraise a stressful event as within their resources to deal with the situation. It is also important to have athletes be aware of the appraisal of their own emotions. It has been suggested that those who exhibit resilience appraise their emotions as helpful in relation to their performance (Fletcher, Hanton & Mellalieu, 2006). For example, an athlete may view their hyper arousal prior to a performance as excitement instead of nervousness or anxiety.

The intended effects of this project are to help athletes stay in a resilient frame of mind when experiencing performance setbacks. For example, some golfers may make a bad shot off the tee and then the rest of their performance goes downhill from there. They hold beliefs that this bad performance will continue throughout the remainder of their round and that they do not possess the resources to deal with this stress. This training program is designed to be implemented and used along with regular physical training and practice rounds. After learning

what makes a person resilient, how to better utilize these skills and improve other personal assets, athletes should be able to continue optimal performance in spite of performance decrements.

Significance of the Project

This project is intended to be an instructional and informational tool for coaches, athletes and sport psychology consultants. While a consultant is preferred to implement this training program, it is not always feasible for athletic organizations. Therefore, this project is designed to allow coaches to easily implement psychological resilience training into their daily scheduled practices. The first reason this project is significant within the literature, as mentioned earlier, is that aspects of resilience have been demonstrated as trainable within individuals (Reivich & Shatté, 2002; Seligman, 1991). One of the largest resilience training programs, designed for military personnel, has shown to significantly improve resilience and overall mental health compared to controls (Lester, Harms, Herian, Krasikova & Beal, 2011). This particular program will be discussed in further detail in the literature review.

The concepts and techniques offered in this project are not necessarily novel as resilience training has been demonstrated as effective in other domains such as counseling, school psychology, the workplace and the military. However, only one such intervention exists to improve resilience in athletes (Schinke & Peterson, 2002). and it is not specifically designed for college level golfers. Psychological resilience training programs for athletes are almost nonexistent due to the fact that research on the topic is relatively sparse. While there is an increasing amount of research on the topic in relation to athletes, programs still need to be developed to tests these findings. It is rational to assume that building resilience reduces symptoms such as anxiety that may influence an athletes' performance. Resilience training has

been rooted in cognitive therapies whereby clients are challenged to change their cognitive processes. However, evidence from interventions are difficult to find, perhaps because of the difficulties and inconsistencies in defining resilience.

A project of this nature is necessary because, to the best writer's knowledge, only one such resilience training program has been adopted for athletes. Schinke and Jerome (2002) developed a resilience training protocol which was designed for national team athletes across a variety of sports. Preliminary studies examined the relationship between resilience training and major-games performance. During the first year the researchers evaluated male and female athletes from two national boxing teams. The authors program was based on Seligman's (1991) learned helplessness framework and focused on developing three general optimism skills in athletes. These skills were: evaluating personal assumptions, disputing negative thoughts and de-catastrophizing. These resilience training skills that have been implemented showed promise as an intervention. However, the authors assert that these three skills must not be considered as the ultimate answer in training resilience for elite athletes. While their results were promising, the intervention was narrow in scope, focusing solely on optimism skills alone to build resilience. Additionally, the authors also based their criteria for resilience on the number of medals/world champions won. As explained by Galli and Gonzalez (2008) "resilience can be displayed in more ways than merely victory" (p.253).

The Athlete Resilience Training (ART) program is meant to enable college athletes to learn skills to bolster resilience and be able to apply them during practice, competition, and in their everyday lives. This program is designed to be a simple systematic routine to encompass the ideas presented within the literature review. The goal is to give athletes a well-rounded set of techniques and resources that they can use to prevent further performance setbacks. A program

of this nature may take a few months for the athletes to begin to show resilient behaviors. It would be ideal to teach these skills and once an athlete begins to show improvements in resilience, the coach or support staff could begin to tapper back their interventions. This should allow for the athletes to develop and practice these skills on their own with minimal help from the coach or staff in the future.

Much like the intervention described by Schinke and Jerome (2002), the ART program is a stepping stone to encourage a more comprehensive look into how we can help our athletes become more resilient. This training intervention will help to fill in gaps within the literature by combining what is known across different fields. This program is distinct from those attempted because it includes the elements suggest by Fletcher and Sarkars' (2012) model and also takes into account skills and techniques that have been demonstrated as useful in building resilience in other areas of research. To reiterate, the purpose of this project was to create a comprehensive resilience training program for athletes adapted from a variety of programs and characteristics that have been identified to increase psychological resilience. The goal would be to help athletes improve their ability to continue on with successful performance after a mistake is made in competition.

Limitations of the Project

One limitation of this project is the clear lack of previous interventions. This project is designed to be a starting point for psychological resilience research in sport and therefore must be based off of non-sport related literature. However, if there were a greater number of previous interventions, successful or not, it would allow for future interventions to have more direction. In addition to this one limitation is the lack of empirical evidence that supports the influence of

resilience on college age golfers' performances. This lack of research on resilience in college age golfers illustrates a hole in the current research available within the literature.

These exercises have been designed for individuals who want to become more resilient when dealing with performance failures. However, this cannot be a one size fits all intervention. Considerations need to be made in relation to each individual and how they deal with failure. It is also imperative that the athlete, coach and/or support staff are invested and dedicated to promoting resilience for this program to be successful.

Lastly, this project is aimed at college age golfers specifically after performance failure. Therefore, it does not specifically address issues or stressor arising from injury. The concepts discussed may be advantageous for any individual wanting to become more resilient in general. Future research interventions or training programs may address those who cannot return to sport following injury, or even those elite athletes who may be struggling with the transition from no longer being a professional sport performer.

Definition of Terms

Adaptation

The athlete's ability and capacity to act and react competently to stressors perceived as significant in a sport context by restoring an internal sense of emotional and psychological balance Schinke et al. (2012, p. 281).

Adversity

Any hardship and suffering linked to difficulty, misfortune, or trauma (Jackson, Firtko, & Edenborough, 2007).

Athlete Resilience Training Program

(ART), the included training program.

Catastrophizing

An irrational belief marked by the rumination of worst-case scenarios.

Choking

A significant drop in performance under high stress in which the athlete cannot regain control without some outside assistance.

Coping

The direct use of strategies following the appraisal of an event as stressful.

Emotion-focused coping

Regulating the emotional responses to the problem that causes stress for the individual (Weinberg & Gould, 2011).

Explanatory style

The way an athlete internally responds to and explains both the good and bad events that occur in his or her life (Williams & Krane, 2014, p.278).

Learned helplessness

A condition in which a person suffers from a sense of powerlessness, arising from a traumatic event or persistent failure to succeed.

Mental toughness

Having the natural or developed psychological edge that enables you to 1) generally cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on a performer; and 2) specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure. (Jones, Hanton and Connaughton, 2002, p.209).

Master Resilience Trainer

(MRT), one of the foundational pillars for the Comprehensive Soldier Fitness program. This U.S. Army course provides a 10-day resilience training program to sergeants and for teaching sergeants how to teach these skills to their soldiers.

Penn Resilience Program

(PRP), developed at the University of Pennsylvania as a school based resilience training program for students in late childhood and early adolescence.

Positive adaptation

[Adaptation] that . . . is substantially better than what would be expected given exposure to the risk circumstance being studied (Luthar & Zelazo, 2003, p. 515).

Problem-focused coping

Efforts to alter or manage the problem that is causing the stress to an individual (Weinberg & Gould, 2011).

Process goals

Specify the procedures in which the athlete will engage during performance.

Protective factor

A collection of characteristics that allow individuals to adapt to the adverse circumstances that they may encounter (Connor & Davidson, 2003).

Progressive relaxation

A technique that involves the tensing and relaxing of all major muscle groups until all of the muscle groups are completely relaxed.

Resilience

The role of mental processes and behavior in promoting personal assets and protecting an individual from the potential negative effect of stressors (Fletcher & Sarkar, 2012).

Resiliency

Describes the content or attributes of the entity that facilitate effective coping under stressful circumstances.

CHAPTER II

REVIEW OF LITERATURE

Introduction

How do we explain the fact that some individuals can maintain optimal functioning and recover quickly from adverse circumstances while others may succumb? (Davis, Luecken & Lemery-Chalfant, 2009). This may be one of the most important questions when discussing optimal sport performance. Determining the qualities, protective factors and/or processes that influence psychological resilience may be one of the most important issues when discussing the ability to maintain optimal sport performance after failure. The following literature review will give an overview of the theories and models used to discuss this question. In addition, it will cover the topic of psychological resilience from the contexts of positive psychology, the military, school psychology, the workplace and within the realm of sports. Lastly, this review will discuss the different skills that have been demonstrated within the literature as necessary for a person to be resilient. This review of resilience based on a variety of domains will create the foundation for the proposed athlete resilience training program.

Theories, Models and Concepts

The study of what demonstrates psychological resilience has been deliberated over the past few decades. Theories are proposed in order to help explain the processes that underlie the relationship between concepts. The examination of this concept of what makes someone resilient has led to a variety of new theories and models which have been proposed in an attempt to describe the phenomenon. However, most of these theories are not specific to the realm of sports. Furthermore, the addition of new research has stirred debates regarding associated concepts with

resilience. This section will cover these theories, concepts and models and will include a discussion on the most recent theories which discuss factors that are thought to buffer athletes against the potentially harmful effects of adverse events (Galli & Vealey, 2008; Fletcher & Sarkar 2012).

At this point it is pertinent to distinguish what resilience is, what it is not and how it differs from similar terms. This will help to inform the significance of why this project was attempted. To begin with, resilience has been defined by Fletcher and Sarkar (2012) as "the role of mental processes and behavior in promoting personal assets and protecting an individual from the potential negative effect of stressors (p. 675)." This was the first definition of resilience that has been based on athletes. Constructs such as mental toughness, hardiness, coping, grit and resilience have all been used interchangeably. However, there are differences between these ideas that need to be clarified. Programs have been developed to train mental skills, mental toughness and improve coping skills in athletes. However, a limited number of programs exist for athletes to refine these skills, which is another reason why a separate program needs to be developed in order to improve athletic resilience. The differences between these constructs will be discussed in the following paragraphs.

Relatively speaking, very few programs exist to train something other than the athletes' physical body. When considering the difference between creating a resilience training program versus a mental skills training program, it is important to look at the construct of specificity. This idea, predominately used within the resistance training/strength and conditioning literature, can also be applied to sport and exercise psychology training programs. This term was first used by DeLorme (1945) who suggested a method in which athletes train in a specific way to produce a specific training outcome. You would not have an athlete perform squats to develop their upper

body strength, similarly, you would not use a generic mental skills training program to develop his/her psychological resilience. While many of the ideas within sport psychology have overlapping components, resilience needs to first be understood as its own concept and understood as conceptually different from other similar constructs. Additionally, Fletcher and Sarkar (2012) suggest that resilience interventions be grounded in systematic research in lieu of "piecemeal and incomplete strategies based on… mental toughness, hardiness or coping literatures. Such research programs, which should be underpinned by the conceptual and theoretical advances already made in this area in general psychology, will provide the most rigorous and robust platform from which to develop resilience training in sport" (p.676).

Mental toughness is one of the most commonly cited words in conjunction with resilience. Successfully overcoming a stressor or challenge is perhaps the most compelling connection between these two ideas, which why they are often used interchangeably. There are a few overlapping ideas for how resilience works that have been demonstrated in mental toughness. One notable example is the presence of optimism (Nicholls, Polman, Levy & Backhouse, 2008). These authors found that mental toughness correlated significantly with 8 of the 10 coping subscales and optimism. Optimism and other factors that contribute towards resilience will be discussed in the literature review. While the constructs bear similarities, there remain a few differences.

Much like resilience, there has not been one agreed upon definition for mental toughness and this construct has also been conceptualized as either a trait or a process. It has been defined as a characteristic of athletes who have an elevated sense of self-belief and an unshakeable assurance that they have control of their future (Clough, Earle, and Sewell 2002). The authors also suggest that a person who is mentally tough will remain relatively unaffected by

competition. A variety of viable questionnaires exist to measure mental toughness. One of the first individuals to investigate mental toughness created a 42-item measure that has been used within the research on this topic. This measure is known as the Psychological Performance Inventory (PPI) which was created by Loehr (1986) and was based on interviews with coaches and athletes. Interestingly, as referenced in Cowden, Meyer-Weitz and Asante (2016), Loehr (1995) suggested "emotional resilience" as an aspect of mental toughness. This means that the idea of resilience was considered as a subcomponent of mental toughness. In fact, the Cricket Mental Toughness Inventory (CMTI) includes resilience as subscale of mental toughness (Gucciardi & Gordon, 2009) and has been included in other mental toughness instruments. Additionally, current research has emphasized resilience as a component of mental toughness training, as noted in Gucciardi, Gordon, and Dimmock's (2008) Mental Toughness Training (MTT) program. It was reported that participation in this program resulted in improved self-reported mental toughness, disposition resilience and flow. Flow is a psychological state which has been linked to superior performance. (Swann, Keegan, Crust, Piggott, 2016). This has been suggested within the realm of sports and other domains. Mental toughness is a construct that is typically viewed in relation to athletic performers, however, one group of researchers decided to investigate this in 284 high school students and 140 undergraduate students (Gerber et. al, 2013). The authors set out to determine whether mentally tough participants demonstrated psychological resilience to stress. They found that across both samples mental toughness moderated the relationship between high stress and depressive symptoms. They argue that fostering protective factors that promote resilience is important.

Similarly, Cowden et al. (2016) found a variety of external resilience protective factors were associated with increased mental toughness scores including social resources and social

competence. Mental toughness and resilience are both imperative to an athletes' performance given the understanding of the potentially harmful effects of stress on an athlete's mental and physical health. Both of these constructs are important for an athlete to successfully deal with adversity. It appears that resilience is a component of mental toughness and that it is fair to argue that athletes who are mentally tough are resilient but not all resilient athletes' exhibit mental toughness (Strycharczyk, 2015). In general, any positive psychological characteristic that athletes display has been deemed as mental toughness by those not familiar with the current sport psychology literature. This causes the investigation and defining of mental toughness to be a large task to conquer. In terms of research, it may be helpful to break down mental toughness into smaller parts, such as examining resilience separately.

So what is it that distinguishes between the two? Cowden et al. (2016) suggest that resilience differs from mental toughness in that it includes a collection of qualities outside of the self, such as social support. Perceived social support has been demonstrated as essential for resilience in athletes (Fletcher & Sarkar, 2012). Most notably, resilience is different in that it requires both an adversity and positive adaptation to occur (Galli & Gonzalez, 2015), while mental toughness may only include an adversity. Positive adaptation has been defined "[adaptation] that . . . is substantially better than what would be expected given exposure to the risk circumstance being studied" (Luthar & Zelazo, 2003, p. 515). Some form of the term positive adaptation is notable in many of the resilience definitions such as "a good outcome" (Masten, 2001, p. 228), "thrive" (Connor & Davidson, 2003, p. 76), "capacity for generative experiences and positive emotions" (Bonanno, 2004, pp. 20–21) or "growth" (Leipold & Greve, 2009, p. 41). All of which occur following an adversity or stressor.

Another commonly used mental toughness definition includes the component of coping better than opponents (Jones, Hanton & Connaughton, 2002). This idea of coping with adversity has also been used synonymously with resilience. Fletcher and Sarkar (2013) argue that is should be thought of as conceptually separate from resilience. This has also been suggested in previous works. For example, Major, Richards, Cooper, Cozzarelli and Zubek (1998) observed that those who had higher personal resilience were more likely to use positive coping strategies while those with lower resilience used avoidance/denial to cope. Other researchers have had similar findings on the effectiveness of the coping strategies employed by low and high resilient individuals (Campbell-Sills, Cohan, & Stein, 2006). Avoidance/denial coping approaches predicted poorer adjustment after a stressor. Therefore, those who are resilient are more likely to use effective coping mechanisms to help get them through a perceived stressor (Major et al., 1998).

Given what is known about psychological resilience, it makes sense that coping should be viewed as a separate idea and should be implemented in interventions as such. Coping is not necessarily a quality or skill for someone who is resilient. As Fletcher and Sarkar (2013) explain, for someone to demonstrate resilience, they stay the same even after being exposed to a stressor. This means that, a resilient person maintains a homeostatic state of psychopathology after adversity. Whereas if someone who is not resilient experiences stress as something they do not have the resources to deal with, they may experience symptoms of anxiety and/or depression. In this case, they did not maintain homeostasis and would need to use coping skills to deal with the stress. An individual who uses coping strategies to return to a normal state of functioning has recovered from the adversity. The authors also determined that appraisals of stressful life events direct the choice of coping strategies in which individuals engage. In other words, resilience influences how a person appraises an event whereas coping is the direct use of strategies

following the appraisal of an event as stressful (Fletcher & Sarkar, 2013). While coping should be viewed as separate it appears to be important in how people bounce back. It is an integral part of dealing with adversity and is multifaceted in the variety of coping strategies that individuals can use (Carver, Scheier, & Weintraub, 1989). Fletcher and Sarkar also explain in their model of resilience (Figure 2) that resilience influences how an event is appraised. Once an athlete appraises an event, they select coping strategies to deal with the stressful event.

For a comprehensive review on other related concepts in addition to definitions and theories related to resilience see Fletcher & Sarkar (2013). These authors offered one of the first definition of resilience based on sport performers. They suggested that resilience can be defined as "the role of mental processes and behavior in promoting personal assets and protecting an individual from the potential negative effect of stressor" (2012, p.675). As previously mentioned, this definition allows resilience to be seen from both the trait/characteristic and stress process perspectives. Since a person does not simply become resilient after improved performance, it does not make sense to think of it solely as an outcome. It is an ongoing process that may come and go during one's life depending on the circumstances when an individual experiences an adverse event.

One of the more general theories of resilience that could be applied to a variety of domains is the Metatheory of Resilience and Resiliency (Richardson, 2002; Richardson, Neiger, Jensen, & Kumpfer, 1990). This theory is presented as three "waves" of research on resilience. The first wave (Resilient Qualities) is described as the identification of qualities, or protective factors, that buffer a person from adverse situations. The second wave (Resiliency Process) examines resilience in the context of coping with a stressor and how individuals acquire the qualities that allow them to successfully adapt to adverse circumstances. Lastly, the third wave (Innate

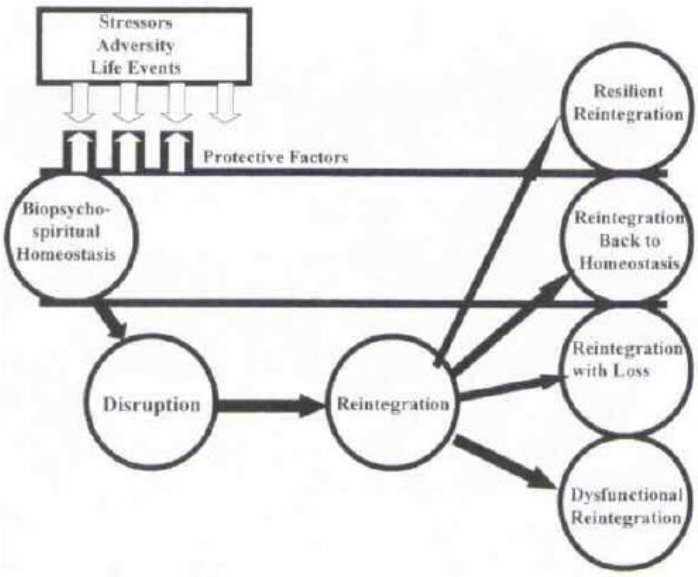
Resilience), deals with the identification of motivational forces within individuals that promote self-actualization. Each of these different waves of research are discernible in the theories and models discussed throughout this section.

From the second wave of resilience inquiry, the authors developed a model, to depict the process of how people acquire these resilient qualities. The metatheory of resilience (Richardson, 2002) (Figure 1) posits the presence of biopsychospiritual homeostasis within an individual. This is a person's typical state of the mind, body and spirit. This homeostasis is influenced by adversity, life events, stressors and protective factors. The interaction between adverse events and protective factors establishes whether a disruption occurs. This change will cause the individual to attribute the event as positive or negative. Following disruption of homeostasis there is a reintegration process leading to one of four outcomes: resilient reintegration, reintegration back to homeostasis, reintegration with loss, or dysfunctional reintegration. The most desirable outcome is resilient reintegration which refers to the coping process which results in personal growth, knowledge, self-understanding and increased strength in resilient qualities (Richardson, 2002). In general, most coaches and athletes desire personal growth and learning from a previously perceived negative experience in hopes of improved performance in the future. This theory and accompanying model describe how people can potentially develop resilient qualities.

The metatheory of resilience is important because it has the potential to be applied to a multitude of stressors, adversities and life events. Fletcher and Sarkar (2013) suggest that it can even be used in relation to "various levels of analysis such as individual, familial and community" (p.17). Under this postulation, this theory can be used when addressing resilience in athletes. However, a few drawbacks exist. This theory only takes into account one event that a

person experiences, it does not consider the possibility of multiple stressor occurring at once. Lastly, this model focuses on the idea of coping and it has been suggested that resilience and coping should be considered completely separate constructs (Fletcher & Sarkar, 2013). The idea behind this is that coping is not a quality or skill for someone who is resilient. After a stressor occurs, a resilient person stays in a homeostatic state of psychopathology. Whereas someone who is not resilient would need to use their coping skills to deal with the stress, therefore they did not maintain this homeostasis. Regardless of these limitations, it does create a sound foundation for examining resilience in sport performers.

Figure 1. The Resiliency Model (Richardson, 2002)



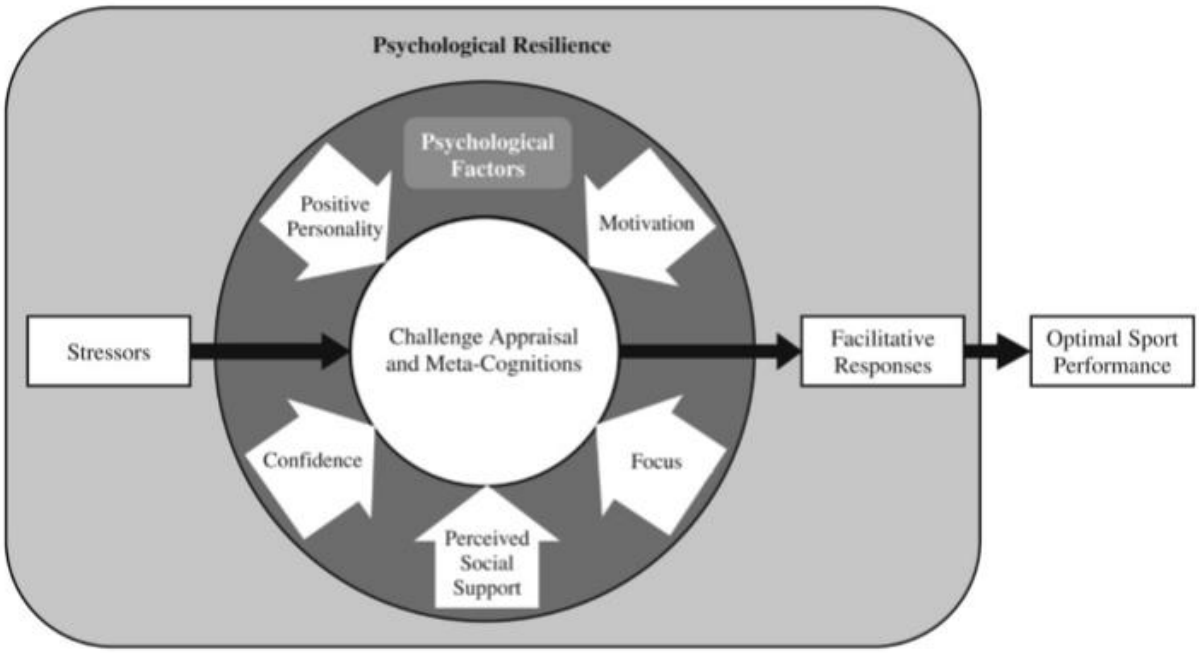
Another notable theory that exists to help explain resilience is Patterson's (1988) theory of resilience, the family adaptation and response model (FAAR). A variety of concepts can be extracted and compared to the models established for athletes. This theory is based on family life from a biopsychosocial perspective and asserts that people use their resources and coping behaviors to deal with a stressor. An individuals' resources for solving a problem and their

coping behaviors are influenced by the way a family attributes what has happened from some adverse event. After an event, the family either adjusts, which the authors characterize as stability, or the family adapts, characterized as trying to return to homeostasis. From previous research, the resources that a family possesses in order to overcome a stressor include family cohesion and adaptability (Olson, Sprenkle, & Russell, 1979). Patterson (1988) suggests that social support is one of the other main resources within the community has been identified as being important in protecting individuals against stress (Cobb, 1976). The importance of social support has also been noted in previous research on athletes (Fletcher & Sarkar, 2012; Petrie, Deiters & Harmison, 2014; Smith, Smoll & Ptacek, 1990). The influence of perceived social support surfaces in the literature on resilience in athletes and will be discussed later on.

There are more theories and models that exist to explain resilience, but the previously examined ones are pertinent to the proposed resilience training program for athletes. These non-sport specific theories have common ties with the models and theories that have been introduced for how resilience works in a sports environment. Resilience has been argued to function as the result of a process and also as a trait. When viewed as a personality trait it is described as a collection of characteristics that allow individuals to adapt to the adverse circumstances that they may encounter (Connor & Davidson, 2003), these have also been referred to as protective factors. Alternatively, as a process it is seen as a dynamic process including positive adaptation following adversity (Luthar, Cicchetti & Becker, 2000) and is not a static state of being. While the conceptualization of resilience has been accepted more recently as a process, Fletcher and Sarkar (2012) have found support for both approaches. These authors have developed one of the main theories which have been used to explain resilience and optimal sport performance. In their study (2012), the authors took a grounded theory approach to explore and explain the connection

between psychological resilience and optimal sport performance. They interviewed twelve Olympic champions, consisting of eight men and four women who came from a range of sports. They were asked through open ended questions about their experiences of enduring pressure during their sporting careers. After analysis the authors discovered stressors, cognitive appraisals and meta-cognitions were encapsulated in psychological resilience. Numerous psychological factors were identified to protect these athletes from the potentially negative effects of stressors, including positive personality, motivation, confidence, focus and perceived social support. In addition to the identification of these protective factors, the authors found that these traits influenced the process of challenge appraisal and meta-cognitions. These processes encourage facilitative responses that precede optimal sport performance. Figure 2 includes the authors' depiction of this theory.

Figure 2. (Fletcher & Sarkar, 2012)



This is the first study to demonstrate and discuss the specific role of psychological factors in the stress-resilience-performance relationship. While this study, and subsequent theory,

explains the phenomenon in the world's best athletes, it is likely to be applicable to other high performing athletes. A variety of these elements have been identified in other athletes who are not competing at the professional level or considered elite (Martin-Krumm, Sarrazin, Peterson & Famose, 2003; Petrie, Deiters & Harmison, 2014; Yi, Smith, & Vitaliano, 2005). This study does have one particular limitation which is the issue with retrospective bias from the participants. Seeing as some of the athletes were interviewed about gold medal winning performances that had occurred decades prior, they may have not recollected the experiences as accurately as possibly. While this study is not without its limitations, the authors were able to examine one of the most highly sought after groups of people, high-level achieving athletes.

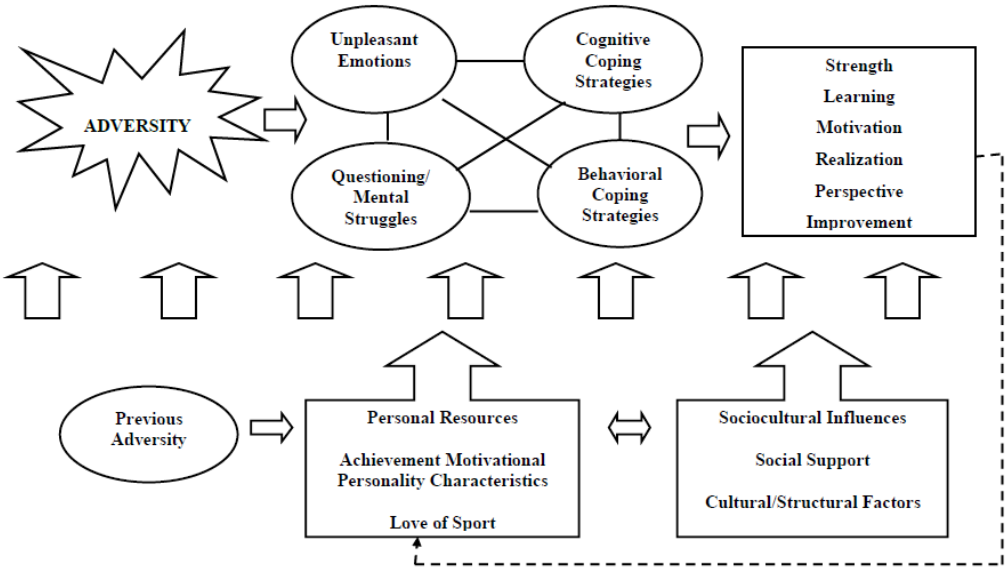
In addition to these theories, one model that has been proposed is the conceptual model of sport resilience by Galli and Vealey (2008) (Figure 3). Similar to the development of the grounded theory of psychological resilience (Fletcher & Sarkar, 2012), the authors developed a theory based on their own empirical data. Using the Richardson and colleague's resiliency model (1990) as a guiding framework, Galli and Vealey set out to investigate athletes' perceptions of their own experiences with resilience in the sport setting. The authors aimed to "determine how this process works, what factors influence an athletes' response to an adversity and what role does the experience of adversity play in helping athletes to be resilient" (2008, p.320). This study consisted of 10 current and former college and professional athletes from both team and individual sports. Data were collected via semi-structured interviews lasting roughly 60 minutes. These athletes were asked a variety of questions regarding their sporting experience and were asked to describe their most difficult adversity that they had to overcome in their athletic career in addition to how they responded to the incident. From these interviews, five general dimensions emerged from the analysis. These dimensions included breadth and duration,

agitation, personal resources, sociocultural influences and positive outcomes. A conceptual model of the process of resilience in athletes was created, this model is depicted below (Figure 3).

The authors determined that the factors athletes describe as being the center of the resilience process were previous adversity, sociocultural influences and personal resources. According to the model, adversities that athletes face result in a process of agitation, which the authors describe as unpleasant emotion and mental struggles. The authors concluded that an important aspect of resilience is the process of agitation, where athletes may use coping strategies to effectively deal with an adversity. During this time, athletes also use behavioral and cognitive coping strategies. These would lead to positive outcomes such as increased learning, increased motivation to help others, awareness of social support and self-improvement as a result of the adversity that they had faced. This particular model emphasized the importance of accounting for personal and environmental factors when studying resilience in sport. This model supports the view of resilience as a process and not a static trait.

While this study showed support for the process view and gave valuable insight into this process, there are a few limitations that exist. One of the flaws in this examination of resilience is that only one interview session was conducted with each participant. If the interviewers carried out various interviews over a period of time, themes may have been more solidified. Another drawback is that some of the individuals were “former athletes,” meaning they had to recall their adverse sporting situations retrospectively. Had the interviews been conducted solely with current athletes, recall bias could be minimized. The findings from this study give sport psychologists guidance in how to go about helping athletes who have faced some significant stressor by bolstering life and stress management skills for the athlete.

Figure 3. (Galli & Vealey, 2008)



It is notable that each of the speculations for how resilience works distinguishes which concepts are needed for that particular theory. These constructs will vary depending on the domain in which it is studied. For example, the model for families stressed the significance of social support (Patterson, 1988), whereas Galli and Vealey (2008) speculated that the adversity itself, sociocultural influences and personal resources were the most important in addition to positive outcomes following the resilience process. It is possible to recognize several common features between each of theories mentioned. In addition to this, researchers are finding that resilience is essential for those experiencing traumatic events. This is even true for those who choose to function in a demanding environment, such as athletes, where adversity is inevitable. Based on the available theories for athletic resilience, and for the purpose of this project, the grounded theory of psychological resilience and optimal sport performance will be used (Fletcher & Sarkar, 2012). These authors express that personal resources protect individuals from

negatively appraising a stressor. This way of viewing resilience shows psychological characteristics that influence an individual during the stress process.

Areas of Research

Positive Psychology

As previously mentioned, positive psychology is the scientific study of the strengths within individuals, with the goal of cultivating these strengths (Seligman & Csikszentmihalyi 2000). It has been described as an umbrella term which studies positive emotions, positive character traits, and enabling institutions (Seligman, Steen, Park & Peterson, 2005). "One could argue that resilience is the end product of intuitive application of positive psychology to the management of personal adversity." (Beazley, n.d.) By examining positive psychology, we are able to connect many of the same qualities and behaviors that have been demonstrated in resilient individuals. Each year, hundreds of thousands of people seek treatment for symptoms, disturbances, deficits, and disorders and aim to "fix" something that is broken or wrong with them. All of the focus is on negative aspects. It is rare to find a type of therapy or intervention that focuses on the strength within individuals. However, a variety of positive psychology interventions exist that have been empirically validated and will be discussed in this section.

One of the biggest contributors to the field of positive psychology is Martin E.P. Seligman. After writing many self-help books and developing the theory of learned helplessness, Seligman has worked alongside others, such as Dr. Christopher Peterson and Mihaly Csikszentmihalyi to further the field of positive psychology. Seligman and Peterson (2004) developed what has been described as the positive psychology counterpart to the Diagnostic and Statistical Manual of Mental Disorders (DSM). The DSM focuses on diagnosing what is wrong in individuals, whereas the authors' text, *Character Strengths and Virtues,* is intended to find

what is “right” in a person. Their list includes six classes of virtue with each having its own sub categories making up twenty-four character strengths. There “core virtues” are: (1) wisdom & knowledge, (2) courage, (3) humanity, (4) justice, (5) temperance and (6) transcendence. An example of a subcategory would be how temperance includes self-regulation and features of optimism (Peterson & Seligman, 2004). Each of these categories and a variety of the sub categories make an appearance in almost every psychological resilience associated intervention.

To support the efficacy of positive psychology interventions, Seligman and colleagues (2005) tested the effects of five different interventions that increase individual happiness. They define happiness to encompass positive emotion and pleasure, engaged life and meaningful life. The authors conducted a random-assignment placebo-controlled internet study testing five supposed happiness interventions and one placebo control exercise. Participants could be placed in one of the following exercise simulations: one exercise focused on building gratitude, two exercises focused on increasing awareness of what is most positive about oneself and two exercises focused on identifying character strengths. Participants were followed for six months and were periodically measured for depression and happiness. Of the participants, 411 completed all five of the sessions to measure progress; pre, post, one week, one month, three months and six months. The authors found increased happiness and decreased symptoms of depression for six months in the groups who participated in the “character strengths” and “increasing awareness” exercise groups. The specific exercises used were “using signature strengths in a new way” and “three good things” (Seligman et al., 2005). In the strengths exercise, subjects determined their top five character strengths or “signature strengths” after taking an online character strengths inventory. They were then asked to use one of these top strengths in a new and different way every day. For the three good things in life exercise, participants were asked to write down three

things that went well each day and their causes every night. They were also asked to provide a causal explanation for each good thing. While happiness itself is not a specific characteristic that will be discussed for the purpose of the Athlete Resilience Training program, this study helps to demonstrate the usefulness of positive psychology interventions. In a later study, the authors used positive psychotherapy which focuses on increasing positive emotion, engagement, and meaning rather than directly targeting depressive symptoms (Seligman, Rashid, & Parks, 2006). This intervention was designed to help students diagnosed with Major Depressive Disorder (MDD). It was found that interventions utilizing positive psychotherapy, produced improvement in symptoms and more frequent remission from depressive disorder than did their typical treatment including antidepressant medication.

One of the most notable leaders in evidence-based resilience curricula is the University of Pennsylvania Positive Psychology Center. These programs are designed to "teach skills to prevent and reduce stress-related problems such as anxiety, depression, burnout, and attrition, as well as increase persistence, well-being, and performance. The program teaches practical skills that can be applied in everyday life to strengthen an individual's ability to overcome adversity and challenges, manage stress, and thrive in their personal and professional life." (Penn - Resilience Training, 2016) One of their more well-known interventions is the Penn Resilience Program (PRP) curriculum. This program was originally designed to help school-aged students' increase their capacity to manage everyday problems that are common during adolescence. The PRP promotes optimism by teaching students to think more realistically and flexibly about the problems they encounter. This program has been researched extensively on its effectiveness in preventing depression. The PRP, teaches students to identify inaccurate thoughts which are a product of their explanatory styles. They are then taught to assess the accuracy of those thoughts,

and to reattribute them to more accurate causal beliefs (Reivich et al., 2011). Controlled studies have demonstrated that the PRP can reduce anxiety, depression, adjustment disorders and conduct problems (Gillham, Hamilton, Freres, Patton, & Gallop, 2006; Gillham et al., 2007; Gillham, Reivich, et al., 2006; Gillham, Reivich, Jaycox, & Seligman, 1995; Jaycox, Reivich, Gillham, & Seligman, 1994). Programs like these have the potential to help other populations in different situations where experiencing these symptoms could be detrimental to their performance or even put their life in danger. For example, athletes can experience performance anxiety depending on the demands of the situation and their resources which could negatively influence their performance. Similarly, military personnel can experience the adverse effects of posttraumatic stress disorder (PTSD) which can interfere with their performance while on duty or impact their daily living when adjusting back to civilian life.

Military Personnel

Service men and women in the military have, by far, one of the most mentally and physically taxing jobs. This makes them superior candidates for the examination of what makes a person resilient when faced with hardships. Individuals who perform duties where they may come into contact with life altering experiences are those who need to be considered when researching the topic of resilience. Whether serving in the Air Force, Army, Coast Guard, Marine Corps, or Navy, any of these military members are subject to potentially traumatizing events.

Over the last decade, a variety of studies have investigated the risks associated with deployment and combat operations on the physical and mental well-being of soldiers (Fear et al., 2010; Hoge & Castro, 2006). It has been determined that since October of 2001 more than 2.6 million U.S. military personnel have been deployed to Afghanistan. Increased exposure to combat situations is associated with an increased risk of developing PTSD. The effects of this

disorder include any combination of adverse mental health indications including; re-experiencing a traumatic event, avoidance of trauma related stimuli, undesirable alterations in thoughts and mood, and hyperarousal. The number of service members who have PTSD has increased dramatically since the beginning of 2001. The proportion of soldiers who had this diagnosis in 2001 was less than 1% and rose to 13.5% in 2012 (Institute of Medicine (U.S.) Committee on the Assessment of Ongoing Efforts in the Treatment of Posttraumatic Stress Disorder, 2014). It is possible that the increase in prevalence rate is due an increase in a reporting and may not necessarily be caused by an increase in those experiencing this disorder. Efforts are being made to help reduce the stigma associated with mental health conditions such as PTSD. This may account for a portion of the increase in diagnoses reported. However, given the rate of incidences, it is clear that something needed to be done to support military men and women in their adjustment after experiencing trauma.

The idea of being able to train resilience in people is a relatively new initiative. The Master Resilience Trainer (MRT) course was created in the fall of 2009 as a collaboration between the University of Pennsylvania and the U.S. Army. This course trains resilience skills to sergeants and instructs them on how to teach these skills to their soldiers. The main contributors to this program are Dr. Karen J. Reivich, Dr. Martin E. P. Seligman and Dr. Sharon McBride. This training is one of the main areas of the Comprehensive Soldier Fitness (CSF) which is designed as a preventive program to enhance psychological resilience among all members of the Army community (Casey, 2011). There is now the CSF2 to include both soldiers and their family members.

The curriculum for the training was based on the Penn Resilience Program (PRP). The MRT program is a ten-day course designed to train resilience skills to Non Commissioned

Officers (NCO's) and for them to then teach these skills to their soldiers. The course includes three components: preparation, sustainment and enhancement. The preparation component takes up the first eight days of the training and was developed by the University of Pennsylvania's Positive Psychology Center. This is the most notable section for the purpose of this Athlete Resilience Training since this is when the essentials of resilience are taught. The preparation component is the section where the PRP was modified to fit the specific needs of the army. The MRT course is anticipated to train resilience skills and helps soldiers become familiar with resilience concepts so that they are prepared throughout their deployment and in life.

The definition the authors use to guide their training is "a set of processes that enables good outcomes in spite of serious threats" (Masten, 2001). This description lines up with the definition used for the purpose of this project in that resilience is a process. However, it also supports the trait view of resilience due to the fact that the PRP is based on characteristics identified as protective factors that contribute to resilience. As previously discussed, this program was intended to reduce symptoms of anxiety, depression, adjustment disorders and conduct problems. These are all psychological disorders with adverse effects exhibited in some military personnel who have experienced trauma. The goal of resilience training in the military is to help reduce the occurrence of negative symptoms associated with PTSD and enhance the soldiers overall wellbeing and performance (Reivich et al., 2011).

The dominant way of thinking within the military is "suck it up," which may have helped some people become resilient individuals. However, this way of dealing with trauma may not be the most effective way of helping most individuals. Within the preparation component of the MRT, there are four learning modules; *Resilience, Building Mental Toughness, Identifying Character Strengths* and *Strengthening Relationships*. In each of these modules a presentation is

given in addition to group discussion, role plays, exercises and videos to demonstrate the concepts.

Within Module 1, *Resilience*, soldiers are educated on self-awareness, self-regulation, optimism, mental agility, character strength and connection in relationships. Each of these characteristics are thought to be core competencies in resilience.

Module 2, *Building Mental Toughness* relies heavily on cognitive behavior therapy which can help individuals in recognizing the cause-and-effect relationship among thoughts, feelings and behaviors and to develop strategies to diminish symptoms (U.S. DHHS, 1999). Albert Ellis's Rational Emotive Behavior Therapy (Ellis & Dryden, 1987), also known as ABC cognitive restructuring, is one of the main contributors to the success of this program. Another key variable in Module 2 is the focus on individual's explanatory style. An explanatory style is the way an individual internally responds to and explains both the good and bad events that occur (Williams & Krane, 2014, p.278). This section of the MRT focuses on Seligman's (1991) account of explanatory style, which asserts that it is one of the most distinctive features of whether individuals are optimists or pessimists. This idea will be examined further when discussing positive personality as altering explanatory style is a useful means for assisting athletes in maintaining optimism when facing inevitable barriers or disappointments.

Lastly, Modules 3 and 4 of the preparation component focus on *Identifying Character Strengths* and *Strengthening Relationships* respectively. The authors provide examples for how each of these modules are accomplished in the MRT (Reivich et al., 2011, p. 29-31). While these are important concepts, they are more self-explanatory than the skills that go into building mental toughness (Module 2).

Although this training is still in its infancy, there was some immediate support for the program by NCO's according the authors (Reivich, 2011). However, in one recent study, conducted by Griffith & West (2013), MRT had minimal effect as stress buffering. In this study 441 resilience-trained Army National Guard soldiers and civilians completed online questionnaires about their resilience training experience. While the stress buffering effect was minimal, results showed that perceived helpfulness was related to self-reported changes in resilience. Specifically, the participants rated resilience training as very helpful or helpful, with building mental toughness (Module 2) as most helpful. While the results show that MRT is perceived as helpful and useful, the effects of MRT as stress buffering was minimal. The authors suggest that this is probably a result of the need for the operational definition of resilience to be expanded. They also suggest a need for the mechanisms that link the MRT program and reduced PTSD symptoms.

To better evaluate the lasting effects of the MRT course, the CSF program is conducting an extensive review of the consequences of this training compared to controls (Lester, Harms, Herian, Krasikova & Beal, 2011). While this assessment has not been peer reviewed, the documentation of the methodology and statistics, in addition to the justification for the study, are sound. This report is a part of an ongoing longitudinal analysis of the effectiveness of the MRT course.

In this examination of the MRT course so far, the authors assessed the ability of this training to improve soldier resilience and overall psychological health on more than 22,000 soldiers across eight Brigade Combat Teams (BCTs). These teams were randomly selected and a total of 96 Master Resilience Trainers completed the 10-day course at the University of Pennsylvania. Each of these trainers returned to one of four BCTs, these BCTs served as the

treatment group. In addition to this, four BCTs did not receive MRTs throughout the program evaluation and served at the control group. Baseline measurements were taken and the Global Assessment Tool (GAT) were taken three times over roughly 15 months. This inventory, designed for the army, is "a systematic and comprehensive measure that allows the psychosocial fitness of soldiers to be described in multidimensional terms" (Peterson, Park, & Castro, 2011, p.13). This tool measures four dimensions; emotional, family, social and spiritual fitness with 16 subscales to measure psychological health constructs. A few of the most notable subscales that were examined were adaptability, good/bad coping, catastrophizing, optimism and family support. The authors also took into account demographics and organizational factors such as unit cohesion. Organizational factors were considered because these variables could potentially moderate the relationship between MRT training and changes in resilience.

The findings from this study suggest that the treatment condition exhibited significantly higher resilience and psychological mental health score compared to the controls. They also found that the organizational variables did not influence the effect of MRT training. MRT training appeared to be significantly more effective for ages 18-24 than older soldiers and it was more effective when conducted in a formal, scheduled class setting. Notable differences existed between the treatment and control conditions. Of those the most significant are emotional fitness (p=0.000), adaptability (p=0.006), character (p=0.001), good coping (p=0.001), optimism (p=0.009) and catastrophizing (p=0.001). These results demonstrate significant differences among the treatment and control conditions at Time 2 of assessments. The authors also suggest that, though modest, the effect sizes were consistent with, and sometimes better than, other related interventions and public health initiatives (Lester et al., 2011).

According to Reivich et al. (2011), "master resilience training involving many thousands of NCOs as teachers and 1.1 million soldiers as students is one of the largest-scale psychological interventions ever undertaken" (p.33). This training is promising for the future of U.S. Army veterans who have, until recently, not received any preventative care options or trainings as soldiers. These programs will help soldiers and veterans strengthen themselves to protect them from the potentially deleterious effects of combat and life as a military service member.

While the CSF and MRT are the most comprehensive and well known programs, the findings for the validity of these programs could be strengthened with data on physiological measures. Others have investigated different interventions, using physiological measures, for improving psychological resilience in individuals. Johnson and colleagues (2014) aimed to determine the effect of a mindfulness based training on resilience mechanism in Marines preparing for deployment. A sample of 281 active-duty marines were randomly selected, 147 of these members received mindfulness training and 134 were assigned usual training to serve as controls. Assessments consisted of physiological measures (heart rate and breathing rate), brain activation (fMRI), along with blood samples to detect neuropeptide Y and norepinephrine, which are signs of sympathetic (stress) activation. Assessments took place at baseline, eight weeks after, and 9 weeks after during and after stressful combat training session. This Mindfulness Based Mind Fitness Training (MMFT) is a 20-hour classroom based instruction. The goal of this training is to highlight interoceptive awareness which is the ability to perceive the physiological conditions of one's own body (Craig, 2003), attentional control and tolerance of present-moment experiences. Along with in-class training, participants were asked to complete at least 30 minutes of daily mindfulness and self-regulation exercises daily.

The results from this study determined that differences existed between those who received the MMFT compared to controls after stressful training. The trained group displayed a quicker reduction in heart rate ($p<0.001$). They also demonstrated a significantly different rate of recovery, in that the trained group had a greater reduction in breathing rate ($p<0.001$) (Johnson et al., 2014). These findings show that prior to a stress exposure, variables related to the stress response can be adapted with mindfulness based training.

Similar to one of the goals of the MRT and the mindfulness training discussed, the goal of this Athlete Resilience Training program is meant to enhance overall wellbeing and performance in athletic performing populations. While the traumatic events experienced by an athlete may seem to pale in comparison to those experienced by soldiers, this experience varies from person to person. How an individual comes back from a distressing event is determined, in part, by how they perceive, or explain, what has happened to them. This idea of explanatory style will be discussed later.

Skills, Personal Assets, Psychological Factors

The purpose of this training is to help coaches and sport psychology consultants take a proactive step to build psychological resilience in their athletes with the hopes of maintaining optimal performance. Mental skills need to be practiced and developed just like any physical skill and the proposed training is not meant to be a one size fits all program.

When experiencing poor athletic performance, some individuals continue while others may shut down and even drop out of competition. Uncertainty of the outcome is in the nature of sporting events and can have notable effects on the athlete. Why do these differences in response to failure differ so significantly? Why do some people bounce back while others quit? When examining sport performance, researchers and practitioners alike are interested in identifying the

factors that make an athlete resilient and in turn how athletes can become more resilient (Mummery, Schofield, & Perry, 2004). Everyone experiences failure at some point in their life; optimism, explanatory style and perceived social support appear to contribute to a person's psychological resilience after poor performance. These qualities will be discussed in detail in this section along with their application to athletes.

After a comprehensive review of the literature in sport resilience, Galli and Gonzalez (2015) suggested that interventions should be designed to develop protective factors and building competencies, such as optimism, problem-solving skills, self-regulation skills, positive views of oneself, and achievement goals in socially supportive environments (e.g. Galli & Vealey, 2008; Masten et al., 1990; Werner & Smith, 1992). It is also worth noting that many of the factors that have been shown to protect individuals from stressors are assessed in resilience measurements (Windle, Bennett, & Noyes, 2011). A variety of these factors will be covered along with protective factors.

Positive Personality/Optimism

The potential performance benefits from the "power of positive thinking" has long been a message suggested to athletes through media, coaches and within the literature. In fact, a positive personality has been identified as a factor relating to sustained athletic performance in the face of adversity (Fletcher & Sarkar 2012). In this study, it was found that Olympic gold medalists possessed positive personality characteristics which influenced mechanisms of challenge appraisals and meta-cognitions. One characteristic identified was optimism, which helped to protect the world's best athletes from the potentially harmful effect of stressors. Optimism has been identified as a characteristic of better athletic performances in Olympic and non-Olympic champions (Gordon 2008; Gould, Dieffenbach & Moffett 2002; Seligman, Nolen-Hoeksema,

Thornton & Thornton 1990). An improvement in optimism has been demonstrated through improving explanatory style (Fresco, Moore, Walt & Craighead, 2009; Gillham et al., 1995), which illustrates that this quality can be trained. While more research is necessary, it is likely that optimism can be learned (Gillham et al, 1995).

In another account, it was found that athletes who displayed more optimism during adverse conditions, were more likely to maintain or improve upon past performances than pessimists (Rettew & Reivich, 1995). It has been described as "a major determinant of the disjunction between two classes of behavior: (a) continued striving versus (b) giving up and turning away" (Scheier & Carver, 1985, p. 227). This "continued striving" is the hallmark of psychological resilience.

Peterson's article on optimism (2000), describes this construct using Lionel Tiger's definition (1979) "a mood or attitude associated with an expectation about the social or material future--one which the evaluator regards as socially desirable, to his [or her] advantage, or for his [or her] pleasure" (p. 18). In the case of athletes, it does not have to mean thoughts about winning their given event. Optimism could manifest through thoughts and feelings about successfully completing even just a portion of their sport performance such as hitting a fastball, making a putt, or effectively dribbling past some defenders.

In the MRT program, optimism is one of the core competencies that is taught to soldiers. In this portion of the module soldiers are taught to notice goodness in self and others, identify what is controllable and challenge counterproductive beliefs (Reivich, Seligman, & McBride, 2011). One of the exercises used to teach this is "Hunt the Good Stuff". In a study of 577 adult participants, happiness was increased and depressive symptoms were decreased for six months

after practicing the "Three Good Things" exercises (Seligman et al., 2005). This activity will be explained in detail in the Methodology section of this paper.

The significance of training and encouraging optimism has been supported and appears to be a desirable skill in building resilience (Martin-Krumm et al., 2003; Seligman et al., 1990). However, as noted by Schinke and Jerome (2002), it has been shown that even the most optimistic athletes have failed at times to demonstrate psychological resilience when faced with adversity (Schinke, 2000; Schinke & Peterson, 2002). Additionally, Schinke, da Costa and Andrews (2001) suggested that optimism can be learned in one context and transferred to others.

As with many things, being optimistic is only one piece of the puzzle. Learning this skill alone, or in conjunction with others, does not guarantee sport performance improvements or resilience. In fact, Smith, Smoll and Ptacek (1990) examined social support and coping skills as moderators of life stressors to athletic injuries. The results showed that both of these things were needed to protect athletes from injury. However, taken alone social support and coping skills were not as effective in moderating life stressor. Thus, resilience is a result of several constructs working together to protect individuals. A positive view of oneself and confidence in strengths and abilities may help athletes to become more resilient.

Explanatory Style

As previously discussed, optimism is a trainable quality. Fresco and colleagues (2009) studied the influence of a self-administered optimism training on those with pessimistic explanatory styles. While the training was minimally supervised the authors found that 112 college students with a pessimistic explanatory style, showed significant drops in pessimism in three separate but related assessments. This study did not necessarily measure optimism improvements, but a significant drop in pessimism could suggest a more optimistic outlook.

Similarly, Gillham et al. (1995) sought to investigate the influence of a teaching cognitive and social problem solving skills to prevent depressive symptoms in children. They followed 69 children for 2 years who were deemed at risk for depression, this group was compared to 49 children in a no-treatment control group. They found that the prevention program improved the explanatory style in children which was associated with fewer depressive symptoms. Children who participated in the prevention group had a significantly more optimistic explanatory style than children in the control group through the 2-year follow-up.

As previously discussed, an optimistic disposition is a desirable trait in training resilience skills. Therefore, it is important to determine what makes a person optimistic. According to Gordon (2008), optimism has been considered in two general ways; (1) as an individual's outlook on whether a positive or negative outcome or event will occur and (2) as a means of explaining positive and negative outcomes. The latter definition will be the focus of this section and its relation to athletic populations. What causes a person to be hopeful and confident about the future? How does this translate to athletes during their performance, after failure and in high pressure situations? One key psychological feature influencing how athletes react to adversity may be attributional style. How an athlete views the result of an event, can be dissected by looking at an individual's attributional, or explanatory, style. These terms have been used interchangeably as explanatory style has been measured using attributional style questionnaires (Gordon, 2008). As briefly described in the MRT program, "explanatory style refers to the way an athlete internally responds to and explains both the good and bad events that occur in his or her life" (Williams & Krane, 2014, p.278). The dimensions that encompass explanatory style known as the "Three P's" are personalization (self), permanence (in time), and pervasiveness (across contexts). An athlete who displays a pessimistic explanatory style will attribute

performance failures to internal, stable, and global factors. In other words, they believe the failure is caused by personal inadequacies, it will repeat itself in the future and that the failure will spread to other areas of their game. On the other hand, an optimistic athlete will attribute failure to forces that are out of their control (e.g. excellent performance of opponent), that the failure is confined to that one context and they believe that the performance decrement will not continue to occur. It is also important to note that, both the optimistic and pessimistic athlete will also have attributions for positive events, not just failures. However, since the purpose of this project is resilience after performance failure, positive events will not be analyzed.

This idea can be illustrated by looking at professional golfer Nick Price, a well-known, skilled golfer with 18 PGA tour victories and 24 international wins. However, for a period of time his scores on the course were remarkably inconsistent. Rotella, a renowned performance consultant, described Price's thinking during his performance as being controlled by how he played the first few holes (2000). If he played them poorly, he would lose his concentration, begin to "fix" his swing mid round and become erratic. Conversely, if he played well the first few holes he would develop a relaxed state of mind. As Rotella best explains it, "[Nick] let events control the way he thought, rather than taking control of his thoughts and using them to influence the events." In this case, the golfer may have held negative beliefs about the poor performance that were attributed to internal, stable and global causes. In which case he would have thought he had little control of his round, or his swing, based on the first few poor performances. This demonstrates how athletes' perceptions of control can influence their physical capabilities.

Martin-Krumm et al. (2003) sought to test the recovery of failure based on explanatory style. To accomplish this, they had 62 teenage participants perform a dribbling task. Subjects

filled out a questionnaire assessing explanatory style in sport and then performed the first dribbling task. With no other information given and regardless of how they performed, they were told they had not produced a very good time compared to other pupils. Participants rated their perceptions of the success/failure, after a rest period they were given the opportunity to try again. It was demonstrated that athletes who displayed an optimistic explanatory style were less anxious, more confident and had better performance than pessimistic athletes (Martin-Krumm et al., 2003). However, this type of explanatory style may differ between sports and skill level. For example, in a study of 38 elite ice hockey competitors, it was found that a pessimistic explanatory style may benefit hockey performance (Davis & Zaichkowski, 1998). While this is not what the authors predicted, the results may be partially explained due to the fact that ice hockey is heavily marked by frequent, intense, physical contact.

With few exceptions, it has become clear that there is a positive linear relationship between optimistic attributional style and athletic performance. According to Schinke and Jerome (2002), the aim of resilience training should be to teach positive re-attributing techniques. In a review of literature on attributional training, Försterling (1985) suggests that this skill should cultivate expectations of future controlled abilities in those with incapacitating thought patterns.

Research has demonstrated that modifying explanatory style is feasible (DeRubeis, Evans, Hollon, Garvey, Grove & Tuason, 1990; Seligman, Castellon, Cacciola, Schulman, Luborsky, Ollove & Downing, 1988). So how do you teach someone to re-attribute an event such a bad performance? It appears the most useful technique to maintain optimism in athletes may be by utilizing cognitive therapy. Sport psychology is an interdisciplinary field with strong ties to counseling psychology. According the Meriam-Webster online dictionary (2016), cognitive

therapy (CT) is a type of psychotherapy, especially for depression, that emphasizes the substitution of desirable patterns of thinking for maladaptive, negative or faulty ones. In the MRT program, CT is a huge component to teach resilience skills. Soldiers are educated on the dimensions of explanatory style as well as patterns of thought. They are then taught to identify these negative thinking styles and thinking traps such as jumping to conclusions or over generalizing (Reivich, et al., 2011). Similar to the MRT training, one of the few resilience training programs that exist for athletes strives to develop a positive explanatory styles (Schinke & Jerome, 2002; Schinke, Peterson, & Couture, 2004). This training program is currently being taught to international amateur athletes. This is accomplished through teaching three general optimism skills: evaluating personal assumptions, disputing negative thoughts and decatastrophising. In each of these training protocols, the overarching goals encompass awareness of thoughts. After becoming aware of general thoughts and negative thinking about an event, athletes are taught to challenge these beliefs and use positive self-talk techniques to overcome it.

This idea of evaluating an individual's own thoughts is known as meta-cognition. The term was coined in 1979 by Flavell who described the phenomenon as an individual's knowledge of, and control over, his or her cognitions. As found by Fletcher and Sarkar (2012) a variety of the above mentioned protective factors influenced the athletes' performance through the evaluation of their own thoughts. They determined that during the height of their careers, these elite athletes used specific psychological strategies such as goal-setting, imagery, self-talk, and relaxation and activation. These were utilized to control their cognitions and images and are known as meta-cognitive skills.

Perceived/Received Social Support

"A coach's ability to show acceptance, provide empathy, and express warmth-while at the same time setting high standards of performance- may potentially influence the achievements and personal development of team members" (Sarason, Sarason, & Pierce, 1990, p. 125). While addressing social support, personality and performance as a whole, these authors recognized the potential value in examining the relationship between social support and performance in athletes. The authors were mainly intrigued by the influence coaches have on athletes and cohesion within a team environment. This idea may be especially important when thinking about individual sport performers who may not have as much social support resources as those who compete in team sports. Outside of the team setting, an individual athlete, such as a golfer could receive social support from coaches, staff within an organization, family members or friends.

It has been suggested that social support may affect performance in a variety of domains and situations, including sport performance (Sarkar & Fletcher, 2014; Brown, 2008). As previously noted in Fletcher and Sarkar (2012), Olympic champions believed they had high quality social support. This helped to protect them from the potential negative effect of stressors such as competitive (e.g., loss of form), organizational (e.g., sport politics), and personal factors (e.g., family). Athletes are constantly surrounded by people who support them such as coaches, family, teammates and other staff members who work within the organization. However, just because they have these resources does not necessarily mean that the athlete believes or perceives that they have quality social support. Therefore, perceived social support is the athlete's personal judgment as to whether these individuals will assist them when needed. On the contrary, received social support is the actual act of support that can be directly observed (Helgeson, 1993). Even with the variety of adversities that an athlete may face (i.e. performance slumps or injury) it has been demonstrated that sociocultural influences such as social support

and cultural factors are one of the central aspects that influence the resilience process (Galli & Vealey, 2008).

The stress-buffering hypothesis suggests that social support may work by moderating the effect of stress on outcomes. Meaning high levels of quality support may protect individuals from harmful effects of adversity. As suggested by Cohen (1988) and Rees, Ingledew, and Hardy, (1999) "social support might influence performance in a main effects model by providing advice about tactics and game plans, or by increasing positive effect, leading to a greater likelihood of experiencing flow states" (as cited in Rees & Hardy, 2004, p.320). To better understand how social support protects athletes from the adverse effects of poor performance these authors assessed perceived social support in 130 high level tennis players. The players completed measures of social support, stressors and performance factors. Results from the interactive effects suggested that higher levels of social support protected players from the harmful influence of stress on performance. However, social support was seemingly unimportant for those who reported not experiencing stress. Later, Rees, Hardy and Freeman (2007) examined the influence of received social support on the performance of 117 high-level male golfers. In this study the authors hypothesized that social support would be associated with better performance. Questionnaires on social support and stressors were completed before competitions and performance outcomes were recorded. They found, again, that stressors did in fact hinder performance and social support was associated with better performance.

This concept is also used as a component in the MRT program and is referenced to as connection. Soldiers are taught to build connections by forming strong relationships through positive and effective communication, empathy, willingness to ask for help, and willingness to offer help (Reivich et al., 2011). This topic was discussed as a brainstorming experience at the

third annual conference of the Association for the Advancement of Applied Sport Psychology (AAASP). Richman, Hardy, Rosenfeld and Callanan (1989) asked 26 sport psychologists and 10 coaches to participate in a group brainstorming activity. The participants were shown a social support model developed by Rosenfeld, Richman and Hardy (1989). This model included six types of social support that athletes need to get from their environment: listening, emotional support, emotional challenge, shared social reality, technical appreciation and technical challenge. Participants were randomly divided into six work groups and a group recorder was identified. The data collected during this activity were comprised of strategies that could be implemented in order to provide better social support to student-athletes. A few suggestions were provided for how to train the athletes themselves. First, train athletes in the value of emotional support. Emotional support is "characterized by the willingness to be on the recipient's side in a difficult situation, even if the supporter is not in total agreement with him or her" (Richman et al., 1989, p.151). Athletes should be encouraged to provide this type of support to others. Again, this idea is similar to what is taught to soldiers in the MRT program. The coaches and sport psychologists in this study suggest that role playing be used where athletes can recognize feelings in others, learn active listening skills, and practice reflection techniques. By utilizing these suggestions, giving and receiving social support should become a more frequent behavior in athletes (Richman et al.,1989, p.154). Second, it was suggested that a variety of social opportunities should be arranged outside of athletes' regular competitive and practice settings. This includes casual exchanges in a variety of settings between other student athletes, sport psychologists, parents and friends. Third, was to create a shared social reality. This is illustrated by sharing similar experiences, priorities, values and views within the given context. This could

be accomplished through establishing a mentor/buddy system with new and veteran athletes or by setting up small group meetings for student-athletes to discuss a variety of issues.

A large part of social support education needs to be done in part for those individuals who will be giving this support (i.e. coaches, parents). There are a variety of things that can be done to influence the athletes' perception of the quality of social support that they have access to. It is clear that social support influences individuals' performances across domains. However, in one study of 272 competitive swimmers, the authors found that groups categorized as resilient performers showed lower perceptions of perceived social support from significant others than the other two groups (Mummery, Schofield & Perry, 2004). They suggest that a certain degree of independence from social support was an important factor in swimming performance. Therefore, it is important to recognize that the influence of social support perceptions on performance may vary from athlete to athlete.

It is clear that these protective factors serve an integral part in sport performance and that these assets need to be strengthened within athletes to maintain optimal performance. It has been suggested that interventions should be created to develop protective factors (Galli & Gonzalez, 2015). The authors also suggest that once these are developed adversity simulations can be done with athletes in a safe environment. This will allow them to establish and apply appropriate responses. A similar idea has been suggested based on the metatheory of resilience. It is the idea that this process is necessary in life and that stressors create opportunities for the cultivation of resilient qualities or protective factors (Richardson, 2002).

Conclusion

Based on the findings, Fletcher and Sarkar (2012) suggested that these psychological factors (positive personality, motivation, confidence, focus, and perceived social support)

influenced meta cognitions and how the athletes appraised a stressful situation which influenced sport performance. They found that the world's best athletes were more inclined to perceive stressors as opportunities for growth. Similarly, Moore et al. (2013) suggested that interventions should be created to help athletes evaluate high pressure competition in a more adaptive manner. In other words, they should learn to appraise situation as a challenge rather than a threat. Lazarus and Folkman (Folkman, 1984; Lazarus & Folkman, 1984) developed the appraisal model of psychological stress which explains that humans are constantly evaluating the events that we come into contact with. This can produce emotions that lead to bodily stress responses. We then come up with behavioral strategies to deal with the events. A person who deems a situation as a threat believes they do not possess the necessary resources to deal with the stressor. On the other hand, if a stressor is appraised as a challenge, they believe they have the resources to overcome it (Lazarus & Folkman, 1984). Moore and colleagues propose that this "should not only encourage more favorable emotional and attentional responses, but also facilitate stress-resilient performance" (p.560). Therefore, this psychological resilience training program was based on the Fletcher and Sarkar (2012) model, and was designed to incorporate explanatory style and cognitive appraisals that have been demonstrated as important in the stress-resilient performance in athletes.

CHAPTER III

METHODOLOGY

This chapter gives an overview of what is expected to be contained within the ART program. The necessary elements were covered such as the procedures and conditions that would be ideal for coaches to implement this resilience training program for their college golf team. As previously discussed it would be most effective for the coach to attend a short workshop with the author to go over the concept of psychological resilience, how it can be improved in athletes and how this will influence their performance. The project was designed to help college golfers improve their ability to bounce back after making an error in their performance. Whether this occurs on the first drive or the last putt of a tournament or anywhere in between, having the capacity to move forward with minimal interference can be one of the most advantageous processes an athlete can hone.

This project has been created through the examination of what allows a person to demonstrate resilience. Resilience in sport is a relatively new area of study, therefore this training program included ideas on resilience from varying fields such as positive psychology, school psychology and the military. The current theories and findings in these different fields that help describe the skills and resources which allow a person to be resilient, created the foundation of the project. These ideas were extracted to create exercises to help improve an athletes' ability to prevent adverse side effects after performance decrements. These exercises were adapted from current studied programs that teach these skills and resources individually.

The techniques and exercises illustrated in the ART program are designed to be utilized by coaches and consultants on how to teach psychological resilience. Players should initially be

taught what resilience is and how working towards this mind set could benefit their performance and even in their everyday lives. Having an educational component in any psychological skills training program may be as important as the exercises themselves for the effectiveness of the program (Weinberg & Gould, 2011). Athletes should also be taught the importance of experiencing adversity. Galli and Vealey (2008) studied athletes' perceptions and experiences of resilience. Among other findings the authors determined that an important component of the resilience process is the athletes' perception of the adversity. In particular, it was imperative that they viewed the adversity as needed to strengthen themselves for future stressors. Each of the athletes explained that they gained some benefit from working through their adversities (Galli & Vealey, 2008). The authors also suggested that more longitudinal studies are needed to determine if athletes actually "grow" from adverse experiences in sport. While performance failure is not ideal, it appears to be a crucial part in becoming resilient.

Ideally, this project will focus on the following areas; positive personality and optimism, explanatory style, perceived/received social support, attention and physiological control and coping. The specific exercises that could be utilized to accomplish this will be discussed in the following pages.

Positive Personality and Optimism

Positive personality and optimism would attempt to improve an athletes' overall positive outlook on life and their performance as an athlete. This principle is used in the MRT program whereby the trainers use Seligman's "3 Good Things" exercise to improve positive emotions, particularly gratitude (Seligman et al., 2005). They call it "Hunt the Good Stuff". In this activity soldiers are challenged each day to write down at least 3 good things that happened. This is designed to help individuals notice positive experiences in order to enhance their positivity and

to counteract the bias from negatively perceived events. They are then asked to go one step further and write a reflection next to each positive event to answer why it happened, what it means to them, what can they do to allow more of this good thing and what how did they or others contribute to this good thing occurring. This allows them to really reflect on and immerse themselves in the good experience. This exercise will be adapted and applied to fit the situations an athlete may encounter.

Explanatory Style

This section of the manual will focus on the athletes' thoughts in relation to performance failure. How an athlete generally explains and responds to events that occur is known as their explanatory style. It is important for the athlete to first become aware of their thoughts. Many athletes engage in destructive thought patters without even realizing they are doing it or what caused the initial negative thought to begin with. We cannot change anything without first becoming aware of what needs to be changed. This can be done by learning the A-B-C framework (Ellis & Ellis, 2011) which can help individuals to understand their thoughts, feelings be behaviors in relation to an event. The A stands for the activating event or adversity, here the athlete will learn to identify what the activating event is. The B is a person's beliefs about the event that occurred. The athlete will determine the belief they have about what has happened. This will be discussed in relation to the "Three P's" which are permanence, pervasiveness and personalization. Lastly, the C is the emotional and behavioral consequence or reaction of the individual. The athlete will learn how their negative belief is influencing their performance. By using this structure, athletes should begin to recognize thought patterns that facilitate adaptive and counterproductive outcomes.

After learning to identify thoughts athletes should be taught the different types of thinking traps or cognitive distortions. One of the most notable, catastrophizing, can be observed in athletes and was originally identified by Beck (1963). This can be defined as an irrational belief and rumination of worst-case scenarios. It is the idea that something is much worse than it actually is and is more common than one would think. For a golfer, it may be the thought that if they make an error on the first hole of their round that the entire round is going to be marked by other poor performances. This type of thinking can increase anxiety and could paralyze an athletes' optimal performance.

Disputing negative or irrational beliefs such as catastrophizing can be done by first writing down the belief that the athlete holds about their sport performance. The coach or consultant will then teach them how to challenge these beliefs. One way to challenge this belief is by asking for the concrete evidence for why this belief exists. Clients are requested to dispute the absolute terms that exist in the belief such as "must", "should" out to". They should challenge these beliefs frequently until they no longer hold that irrational belief or at least until it is weakened in strength (Corey, 2016). Athletes can also overcome this thought pattern by consciously switching to the best case scenario possibility.

Perceived/Received Social Support

This module will illustrate ways for athletes to feel as though they have a greater base of social support. Some of the activities to improve this will be based on Richman et al. (1989) recommended strategies such as implementing a mentor/buddy system. Ideally new team members will be paired with a veteran athlete. This will help athletes to create shared similar experiences, priorities, values and views within their team. Setting up small group meetings for student-athletes to discuss issues with sport performance may also aid in supporting each other.

Creating these shared experiences will also occur inherently when the athletes participate in the ART program together.

Lastly, the MRT program includes the component of connection (Reivich et al., 2011). Whereby soldiers are taught and encouraged to build connections with others. This can be done with athletes by having the individuals identify strengths in others. This should be focused on the strengths in others who are most closely related to their sporting environment. This could be coaches, staff but most importantly their teammates. As referenced in the MRT program, it is also important to learn the importance of empathy (Reivich et al., 2011). This can be done by engaging in an exercise that challenges athletes to understand a situation from another persons' perspective. One activity to improve this in children that could be adapted for college level golfers is called "look for clues, stand in another's shoes" (Seligman, Reivich, Jaycox, & Gillham, 1995). This exercise will ask the individual to identify what the people in the given situation were thinking.

Attention and Physiological Control

While this component was not discussed in detail within the literature review, it is important to address the concentration demands associated with performing under pressure in a competitive sport environment. This idea of focus was included in Fletcher & Sarkars' (2012) grounded theory model. They determined that focus was one of the psychological factors that helped to protect the world's best athletes from the potential negative effect of stressors. The authors suggested that this ability allowed them to focus on themselves and not get distracted by others, focus on the process rather than the outcome, and helped them to switch their sport focus on and off to meet the demands they encountered. Interestingly the authors found that a large portion of gold medalists who had to work part-time jobs while competing learned to switch their sport

focus on and off. One gold medalist even suggested that athletes do voluntary work or part-time work. This may already be an asset that college golfers are more prone to have given that they are concurrently enrolled in their college courses while competing. This requires them to constantly change their focus from school work to their sport performance. However, having the athletes engage in some type of community service outside of their sporting domain will be included in the program.

Athletes should be able to shift their focus as the demands of their environment or competition change and should be able to switch between external vs. internal and broad vs. narrow scopes of focus. However, when the phenomenon of choking occurs, this causes attention to involuntarily narrow and become more internally focused (Williams & Krane, 2014). When this occurs athletes experience a heightened sense of their physiological arousal which then interferes with many of the desired movement patterns needed to be successful. By systemically manipulating physiological arousal, athletes can regain control of their focus. To accomplish this, athletes will be taught breathing techniques and progressive muscle relaxation exercises. A mindfulness based exercise could also prove useful in bringing the athlete back to the current moment.

Lastly, in a study on choking under pressure, the authors found that those who choked during performance adopted an outcome focus and those who excelled adopted a task-oriented approach (Hill, Hanton, Matthews, & Fleming, 2010). One type of task-oriented approach used in this study was the use of process goals. Process goals specify exactly what an athlete will do during performance as opposed to focusing on outcome goals which are marked by standards of performance. The ART program will include teaching athletes to implement process goals.

Coping

The above psychological factors contribute to resilience and serve as protective factors that have been demonstrated within the literature to help athletes demonstrate resilient. However, when athletes experience stress and feel they do not possess the resources to deal with the stressor they need coping strategies to manage the stress and get themselves back on track.

As discussed in the literature review, coping is an important part in overcoming adversity. Resilience influences an individuals' selection of coping strategies/behaviors. Those who demonstrate resilience are more likely to use effective coping strategies (Major et al., 1998). Whether an athlete is capable of demonstrating resilient qualities or not they still need to have access to adaptive coping strategies when an event is appraised as stressful. Teaching effective coping strategies is crucial because individuals can develop maladaptive coping mechanism when dealing with stress. One example of a maladaptive coping strategy is substance abuse. In this program athletes will be taught to utilize effective coping strategies such as problem-focused and emotion focused coping, encouraging self-dialogue and seeking social support when they feel they do not possess the resources to deal with a stressor. As referenced in Williams and Krane (2014), successful coping strategies often consist of changing one's environment, using positive thinking and using a narrow, specific focus of attention (Gould, Eklund, & Jackson, 1993) and can all be used in the moment when a golfer is experiencing performance failure.

Conclusion

The psychological factors and exercises introduced in this program should be used as a separate practice time but these skills should also be refined during practice time prior to competition. Ideally the program would initially be introduced in an educational manner to the athletes in a separate session outside of regular practice time. One skill established in the

program could be selected as the topic of focus for that week. This would be discussed/practiced for 20 min prior to the commencement of the physical practice. At the end of each practice a 10-15 minute debrief would take place in which the ideas would be discussed as a group and how it came up and was utilized during the physical practice session. Then with each subsequent week a new idea should be introduced while still practicing the skill discussed in the week prior. Once all of the components of the program are introduced to the athletes, a maintenance phase would begin where these ideas are trained in each and every practice.

This project was designed with college golfers in mind for a variety of reasons. Having this psychological edge could allow a collegiate golfer to utilize every ounce of potential they have to set them apart from other athletes. For those who may not be pursuing the professional career, transitioning from being a high level athlete could be difficult. However, having the ability to demonstrate resilience would help them in their transition. To that point learning how to improve resilience would help anyone during times of change and stress throughout their lives. This program could be implemented preferably by the author, a head coach or a sport psychology consultant. If a third person, outside of the organization, were to implement this program, it would be important to build rapport with the athletes and hold some level of authority prior to implementation. This would enhance buy in from the players and other support staff which would improve the likelihood of success in the intervention.

CHAPTER IV

RESULTS

Due to the nature of this project, an explanation of the supplemental materials is provided in lieu of a traditional results section. The training program and subsequent materials can be found in the appendices. The Athlete Resilience Training (ART) program packet can be found in Appendix A. This copy of the program includes fill in the blanks, multiple choice, and short answer sections for the athletes to fill in. This manual is blank and is the one that the facilitator (the author, sport psychology consultant or coaching staff) should make copies of in order to hand out to their athletes. It has been suggested that the facilitator go through the program themselves before running the training program with their athletes. This allows for them to fill in the manual themselves and prepare for the different discussion sections and group activities that are presented.

A series of videos were created to supplement the training manual. Links to access to the video component to the program are located in Appendix B. The video provides information about the subject manner and assists in the completion of the ART program packet. The video series helps to explain terms and topics related to resilience in addition to facilitating discussions that should be held by the group of athletes who are participating in the training. Lastly, Appendix C contains the ART manual answer key and instructions for the individual who is facilitating the completion of the program. Having this reference manual gives the facilitator immediate access on how to run the program and suggestions for running the different exercises and discussion sections. This document has been designed with easy to follow directions on how to implement specific exercises and discussions in the ART program.

For the best success with this program, it is crucial that the athletes, coaches and/or facilitator of the program are committed to learning about what makes people resilience. The individual facilitating the program may be a member of the coaching staff, a sport psychology consultant or the author of the program. Through practice and persistence, adopting the skills and resources that are presented in this training should greatly benefit those who participate. The ability to learn these techniques and skills will be different for each athlete. Some may find certain sections easier than others and some may see changes in the way they view their performance, while others may not. Buy-in from the athletes, along with dedication from all individuals who are involved in the implementation of this program are crucial. All involved parties will only get out what they put it. Therefore, if the facilitator does not believe in the program's effectiveness athletes may lack the motivation to change. Dedication and the desire for self-improvement will allow for the best probability of athletes demonstrating resilience. This is why it is key for every athlete to be invested throughout the duration of the program. This program is meant to give athletes skills and exercises that can be practiced for the remainder of their athletic career, not just in the ART program environment.

Ideally this program would be spaced out over a period of five weeks. Allowing one week for each section to be the focus of practices for that week. If the facilitator should choose this method of delivery, each week should begin in the classroom setting. This allows for the participants to complete the packet and work on the group exercises in an environment that is separate from where they typically practice. This sets the stage for the athletes practice the different skills, ideas and exercises in the training session. After this the ideas presented can then can be generalized to practice time and eventually to competition.

Alternately, this training program could be completed in one day. If this is the chosen method, it is suggested that the facilitator plan for breaks to allows participants to get up and move around during the training session. Break time is not built into the program so it is up to the facilitator to determine when breaks are needed. Since the sections can last anywhere from thirty minutes to an hour and a half it is recommended that breaks be taken in between the different training modules.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

Summary

This project was designed to be a training program for collegiate golfers that could be implemented by the author, coaching staff, or a sport psychology consultant. It has been demonstrated that psychological resilience is trainable (Reivich & Shatté, 2002; Seligman, 1991). An athlete who has practiced the skills and resources which can help individuals bounce back in the face of adversity may have better performance outcomes. This is especially important for those who willingly perform in high stress situations or those who may choke under pressure. Resilience has been studied for decades in school-aged children and until recently (Fletcher & Sarkar, 2012; Galli & Vealey, 2008) was not examined in athletes. There are few studies on resilience in relation to collegiate athletes (Galli & Vealey, 2008; Lu, Lee, Chang, Chou, Hsu, Lin, & Gill, 2016). These pieces of research identify factors, personal assets and resources related to resilience and performance. However, they do not address specific training modalities or interventions. At this time, a majority of the studies within the field of sport psychology focus on professional athletes and Olympic champions. Therefore, most intervention strategies are geared towards this population. Collegiate athletes tend to be overlooked when it comes to creation and implementation of programs, especially when it comes to their mental game. In fact, it has been demonstrated that psychological skills training is widely under used in collegiate athletes (Voight & Callghan, 2001). Findings from research examining resilience in professional athletes needs to be applied to collegiate athletes who could greatly benefit from psychological resilience training. Training resilience in collegiate athletes could allow for an even more

competitive pool of professional athletes. Additionally, since resilience has been suggested to be trainable (Reivich & Shatté, 2002; Seligman, 1991), this project has been designed to fill the gap in training interventions starting with collegiate level golf.

Many definitions, theories and models have been offered to explain resilience throughout the last few decades. However, very few have concentrated on athletes. Since context is key in understanding the psychology behind performance, it is important to examine what this resilience looks like in the athletic population. One of the most recent and comprehensive ways of explaining resilience in Olympic champions was provided by Fletcher and Sarkar (2013). This study and subsequent theory and model set the stage for creating a resilience training program by examining how these athletes respond to pressure during their sporting careers. This is one of the few studies on resilience in sport performers. Therefore, this program is based on literature that has also examined facets of resilience in school-aged children (Gillham, et al. 2007), service men and women (Lester et al., 2011; Reivich et al., 2011), and even in the workplace (Burton et al., 2010; Chan, 2012; Klarreich, 1998; Robertson et al., 2015; Waite & Richardson, 2004). Additionally, at this time there are no known programs for collegiate athletes that help train them in bouncing back in the face of adversity, especially when that adversity is performance failure. This project is designed as an additional resource for a coaching staff to use in order to provide their athletes additional support to obtain or maintain optimal performance.

This training program has been broken up into five sections, each serving a unique purpose and building on the previous sections. It is recommended that the program be followed in sequential order. The training starts with an overview of what resilience is and different concepts and theories that have been used to explain this phenomenon. After education on the topic the program begins with the first of four key components that address the different

skills and resources needed to demonstrate resilience. This section is titled Positive Personality, which focuses on how an athlete can begin to develop a generally optimistic outlook, especially in relation to their sport performance. This is done through recognizing counterproductive thoughts, altering an individual's explanatory style and cognitive appraisals (Beck, 1963; Ellis & Ellis, 2011). The second component touches on the importance of social support in those who demonstrate psychological resilience and how athletes can realize, grow, and access their social network (Richman et al., 1989; Seligman et al., 1995). Next the program describes attention and physiological control and how these can be exercised prior to experiencing stress in order to produce resilience outcomes (Hill, Hanton, Matthews, & Fleming, 2010). Lastly, the program describes coping mechanisms to assist when an athlete experience under or over arousal. Those who are more resilient are likely to deal with stress in more effective ways (Major et al., 1998). However, just because someone is resilient does not mean they have effective coping strategies. Someone can overcome an adversity and use maladaptive coping skills. An example of this would be substance abuse to deal with stress. This is why it is important to learn and utilize appropriate and effective coping strategies. This skill was included in the ART program because athletes need to have practiced these skills in order for them to be useful. Each of these sections include group activities to be used during the training session and suggested techniques to practice outside of the training session and on the course. Arguably one of the most important aspects of this program is the educational component in each section (Weinberrg & Gould, 2011). This, along with the commitment of the players and coaches to spend sufficient time every day to practice these skills will be a large determining factor in the outcomes.

Recommendations and Future Applications

This project is a theoretical program that could be implemented by knowledgeable coaching staff, sport psychology consultants or the author. It was designed to help collegiate golfers maintain optimal performance after making a mistake during play. A variety of factors will influence the effectiveness of this program. The implementation of these techniques has the potential to allow athletes to show significant improvement in how they react to failure as evidenced by their performance outcomes. However, there was no data collection in the creation of this project. As a future endeavor, the efficacy of this program could be measured by comparing statistics on performance outcomes before and after the implementation of this program. Since there is no such training program for collegiate athletes, researchers could use this program as a starting point for determining effective resilience intervention strategies. In addition, to performance outcome measures, it would be valuable to use established questionnaires that it could shed light on participants' perceptions of their resilience regardless of their performance outcomes. Additionally, questionnaires could provide valuable information to measure resilience itself, overall positivity, confidence, feelings of control, perceived social support and/or effective coping skill use. Determining the effectiveness of various implementation methods would help to establish the most robust training programs. This could be done through the comparison of implementation using the videos provided versus an in person administration of the program by the author or a knowledgeable sport psychology consultant.

Just as athletes strive to improve their physical game, they must also be dedicated to improving their mental game. This type of dedication and a positive approach to teaching and learning these skills is paramount to the success of this program. Coaches want what is best for their athletes and will typically have a drive to help them improve. More importantly, the athlete

needs to have an intrinsic desire to improve their mental game just as much as they want to improve their physical capabilities.

All of the materials presented in the appendices are designed specifically for collegiate golfers. The scripts of this program could potentially be altered for athletes across different sports, age groups and experience level. However, use or alteration of this material in anyway without consent from the author is prohibited.

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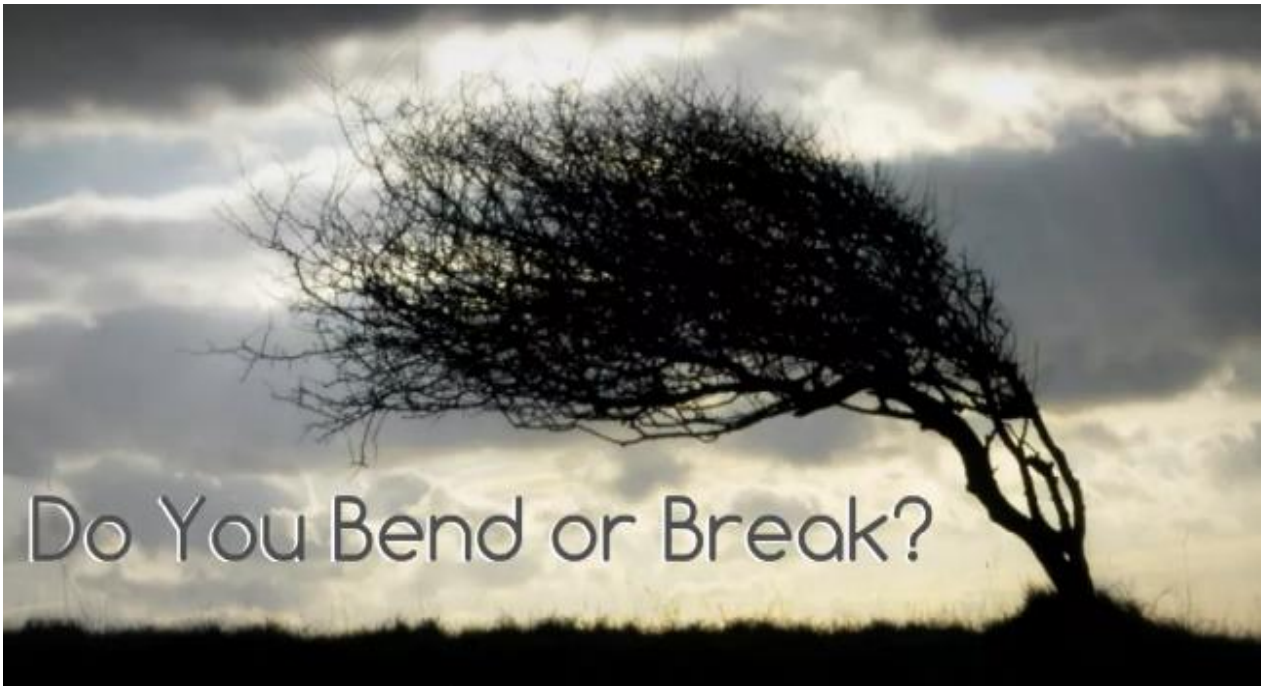
APPENDIX A

Athlete Resilience

A Training Manual for Collegiate Golfers

"The mark of a great player is in his ability to come back. The great champions have all come back from defeat."

-Samuel Snead



Leanne Ellis, M.A.

California State University, Chico

Name: _____

Role: _____

Institution: _____

Date: __/__/__

Table of Contents

PURPOSE OF THE MANUAL

This manual is designed to provide a comprehensive resilience training program for both college level golfers. However, many of these ideas could be modified and utilized for athletes in different sports. The Athlete Resilience Training (ART) program has been adapted from a variety of established resilience programs, concepts, theories and models that have been used to explain how resilience works and how to develop it in different populations. These have been used to identify characteristics and processes that may increase psychological resilience in school children, in the workplace, in service personnel and more recently in athletes. A variety of characteristics have been identified as protecting athletes from the negative effects of adversities which may influence processes that lead to resilient thoughts and behaviors (Fletcher & Sarkar, 2012). This program is intended to help athletes continue optimal sport performance after experiencing performance decrements.

WHAT TO EXPECT

This packet contains exercise suggestions, questions, fill in the blank as well as group discussion topics. These components can be found in each section throughout the manual. This training program will encompass ideas for helping athletes: become more optimistic, learn how to utilize social support, coping skills and become aware of negative thinking patterns in order to alter them in more productive ways. These skills and resources are designed to help develop resilience.

The ART manual reinforces and compliments the concepts covered in video which is necessary to complete the manual. The video will be an educational component to further explain terms, ideas and theories related to resilience in sport and how to improve resilience in athletes. The commentator will help to facilitate the completion of manual. Together, the manual and video should give coaches the tools that they need to help build, improve and maintain resilience in their athletes.

HOW TO USE THE PROGRAM

This training program can be utilized as a one-day training session for athletes. Alternatively, coaches may choose to break the program up into sections and teach the different components at separate times. For example, teach Section 1 for 1-2 weeks during practice time, then move on to Section 2 for another 1-2 weeks. If the latter is preferred, it is important to use the manual in the order that the material is presented in to follow along with the video.

For athletes to increase and then maintain the likelihood of experiencing resilience, it is imperative that these concepts are practiced indefinitely. Resilience is not something one simply obtains; it is an ongoing process. Therefore, it is important that the coach or staff continues implementing the presented concepts with their athletes even after the training is complete.

Each individual should have their own packet. Play the video and follow along. Upon completion of each activity or section, pause the video and check in with your athletes to fill in missing information, go over concepts and answer questions if necessary.

UNDERSTANDING YOUR ROLE

Coaches Responsibility

You may be a coach, sport psychology consultant or some other member of the coaching staff. You have the greatest chance for having an impact on your athletes' sport careers because you spend a great deal of time with them. Part of your responsibility in this role is to have the best possible interactions with your team.

When our athletes are challenged with an adversity, we sometimes use practices that we once used ourselves as emerging athletes. Some of those practices may be helpful in the short term but they may not be the most effective means for dealing with stressor. Even though we may be working with athletes, it is important to remember that we are not the one performing during competition. We are not them and our relationship with them will not be the same if you try to live vicariously through them.

The coach and/or coaching staff should complete the video and manual prior to training their athletes. This way, coaches can become educated on resilience and related topics prior to teaching your athletes. Coaches are encouraged to complete the training, once completed you may use the "Manual Answer Key" to fill in any blanks in order to better teach these ideas and exercises later on.

Athletes Responsibility

This training is designed to help you learn the skills, resources and mental processes that have been demonstrated as effective and vital in dealing with adversity. Those who master these basic principles may experience fewer symptoms of stress and anxiety during competition especially after a performance failure. To gain the most benefit from this program, it is the athletes' responsibility to actively engage in the exercises and discussion questions presented. After successfully completing this program and continuing to use the concepts and exercises set forth, dealing with stress may become less difficult, allowing for golf to remain enjoyable even under pressure.

Some of these tools may come naturally to you and others you may need to actively work on and practice. Either way, you can master them and greatly enhance your likelihood of having optimal performance after experiencing performance failure.

Lastly, a further benefit to practicing these concepts is that the strategies don't only work with your sport performance, being more resilient can influence other areas of your life and buffer you from the effects of everyday life stressors.

Let's get started!

Why Do You Need a Training Program?

It is likely that at some point during your life you have experienced some sort of adversity and were able to bounce back. However, you may not have had the opportunity to train to be more psychologically resilient when it comes to your sport performance. Resilience has been demonstrated as trainable (Reivich & Shatté, 2002; Seligman, 1991) and could prove invaluable for athletes who perform in high stress situations.

You are at a very competitive level in your golf career and train your body and form strategically each week. You do this to become stronger and gain better control of your movements. If given the guidance, you can also train your brain and learn to have better control of your thoughts. Barring injury, high level athletes come to each practice and competition with the same body and physical skill set. They have been practicing the mechanics of golf for many years. What is it that sets you apart from your competitors? Mistakes will happen, it is the athlete who can overcome those performance decrements and maintain optimal performance who has the best possibility for success.

There are three important ideas in those last sentences:

- **Resilience can be trained.** Losing your form during an important tournament round can be extremely stressful. Athletes need special skills, knowledge and resources to be successful at overcoming these challenges.
- **You have control of your thoughts.** Athletes are not usually given formal training on anything other than how to improve physically. Learning how to alter your thought patterns could be what sets you apart from opponents.
- **Mistakes are inevitable.** Striving for perfection is a characteristic of being a competitive sport performer. Understanding that adversities will happen might be one of the most important aspects of developing a resilient frame of mind.

The ART program will give you that training.

INTRODUCTION

Welcome! Watch the video.

The Athlete Resilience Training (ART) program is a **training program** designed for _____. Resilience is essential for athletes who compete at a high level so they can remain relatively unaffected when performance setbacks occur during competition and even in practice.

Understanding Resilience. Watch the Video.

Resilience is: "_____

_____

_____

_____."

(Fletcher & Sarkar, 2013, p. 16).

Two concepts present for resilience to occur:

1. _____

2. _____

 Write down an adversity/stressor that you have experienced during practice or competition.

_____

_____

_____

_____

The following pages will include relevant theories, models and concepts that help to explain how resilience works when athletes face adversities.

Concepts related to resilience. Watch the video.

An **adversity**_____

_____."

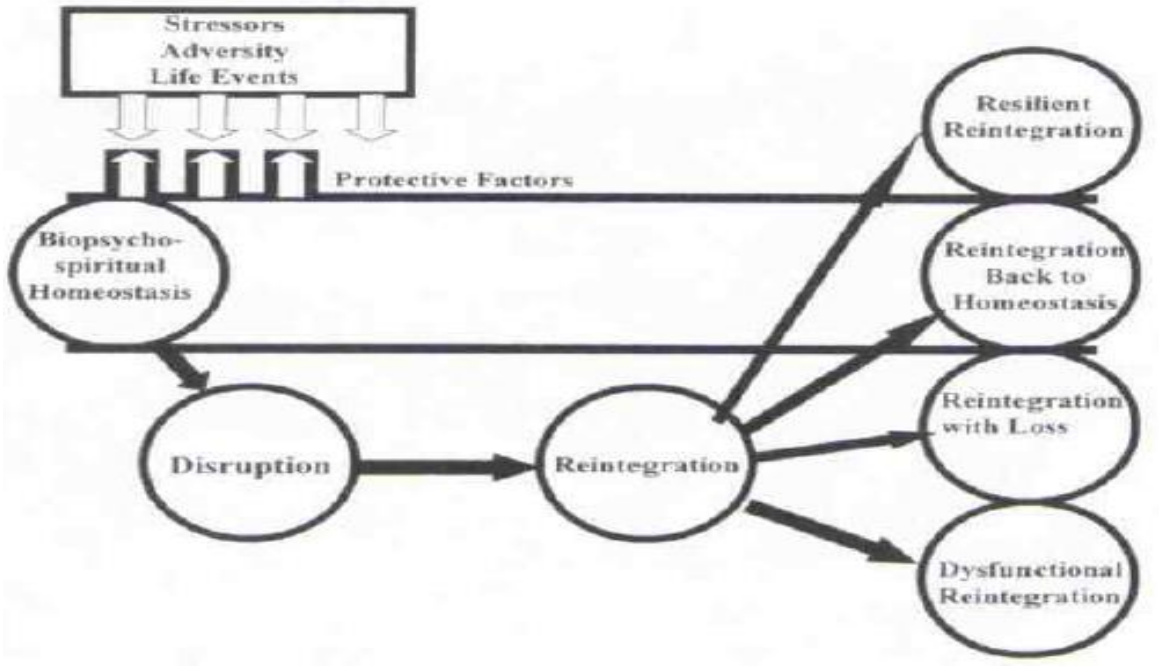
(Jackson, Firtko, & Edenborough, 2007).

Positive adaptation is adaptation that is _____ than

what would be expected given exposure to the _____ being studied (Luthar & Zelazo, 2003, p. 515).

Mental toughness is an elevated sense of self-belief & an unshakeable assurance that the individual has control of their future.

The Metatheory of Resilience. Watch the video.

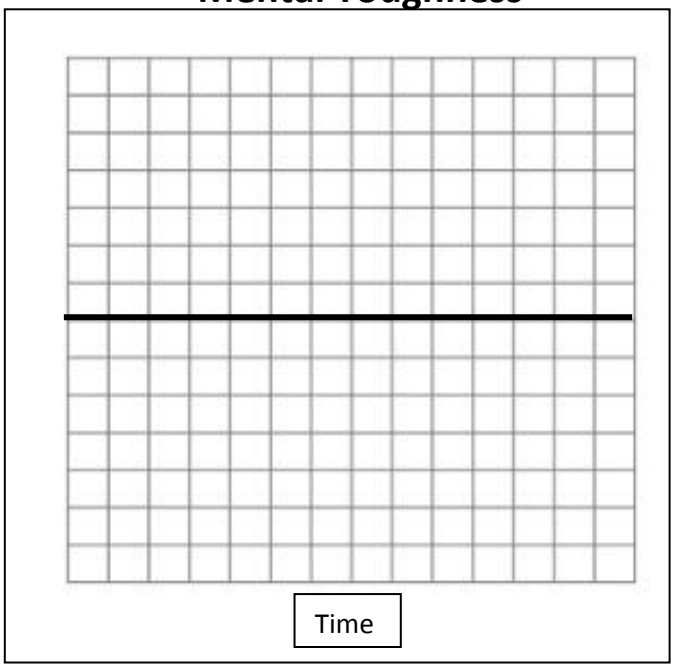


(Richardon, 2002)

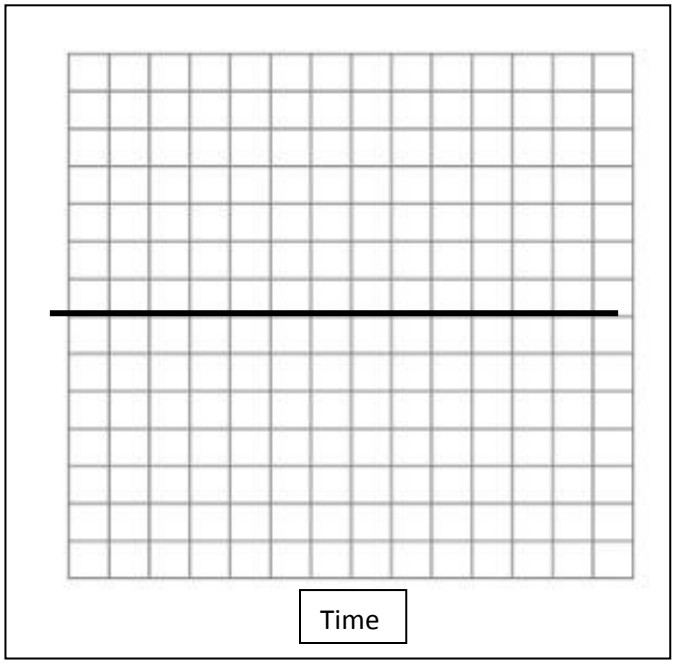
For each concept do the following if applicable:

1. Label the homeostasis line
2. Draw an adversity occurring =
3. Draw a line for what occurs following the adversity
4. Draw a dashed line for where the new homeostasis lies
5. Label where positive adaptation occurs

Mental Toughness



Resilience

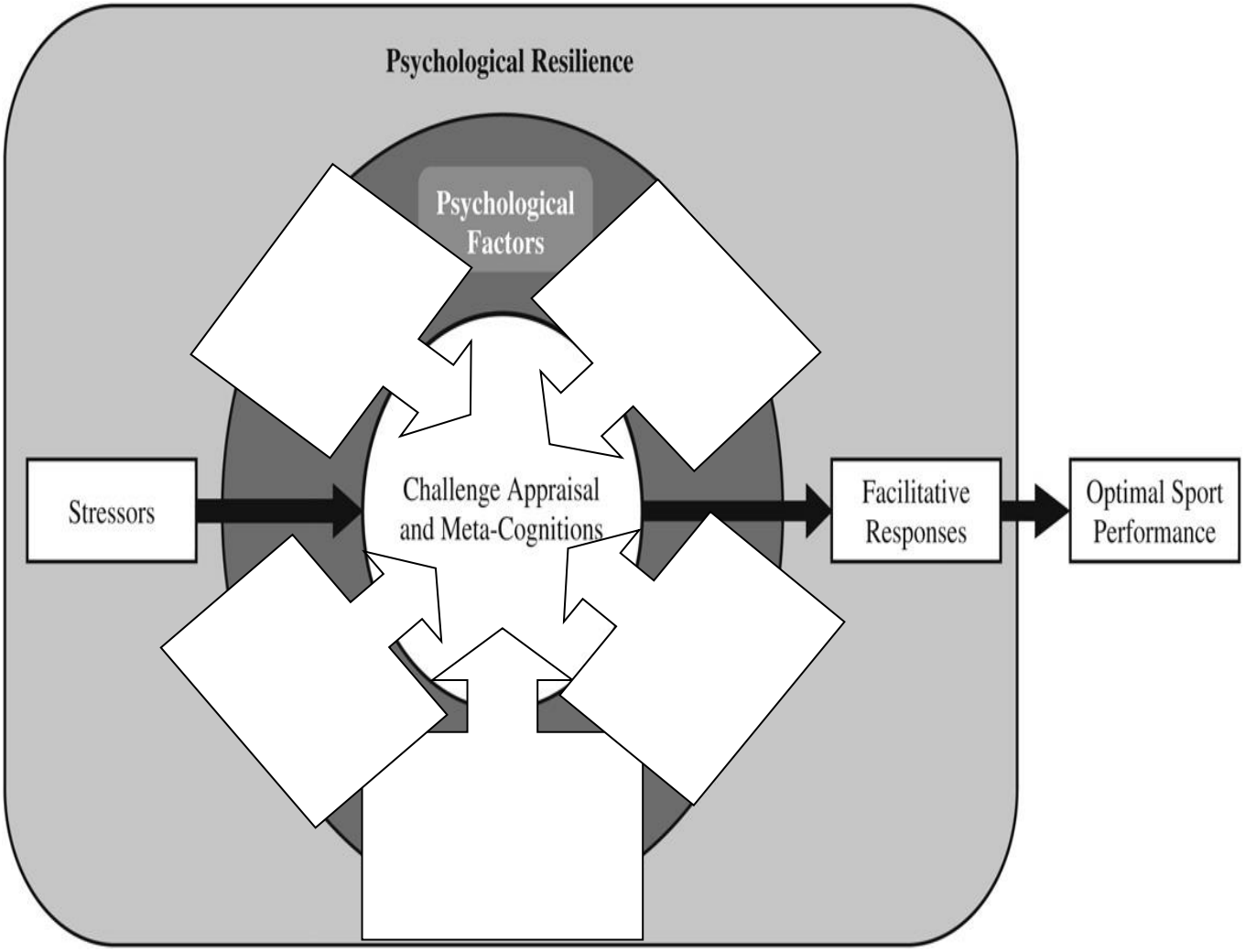


A Grounded Theory of Psychological Resilience. Watch the video.

This model serves as the guiding framework for the ART program.

It has been suggested that 5 psychological factors help to protect the world's best athletes from the potentially negative effects of stressors.
These traits influenced the process of challenge appraisal and meta-cognitions which encourage facilitative responses that precede optimal sport performance.

Fill in the 5 factors that influence resilience.



(Fletcher & Sarkar, 2012)

Five traits influence challenge appraisals and meta-cognitions (Fletcher & Sarkar, 2012). These processes encourage productive responses that lead optimal sport performance.

Primary Appraisal

"What does this stressor/situation mean?"

"How can it influence me?"

Three outcomes:

i. *Positive*- "this is good"

ii. *Irrelevant*- "this is not important"

iii. *Dangerous*- "this is stressful"

Secondary Appraisal

_____- the athlete has sufficient resources to deal with stressor

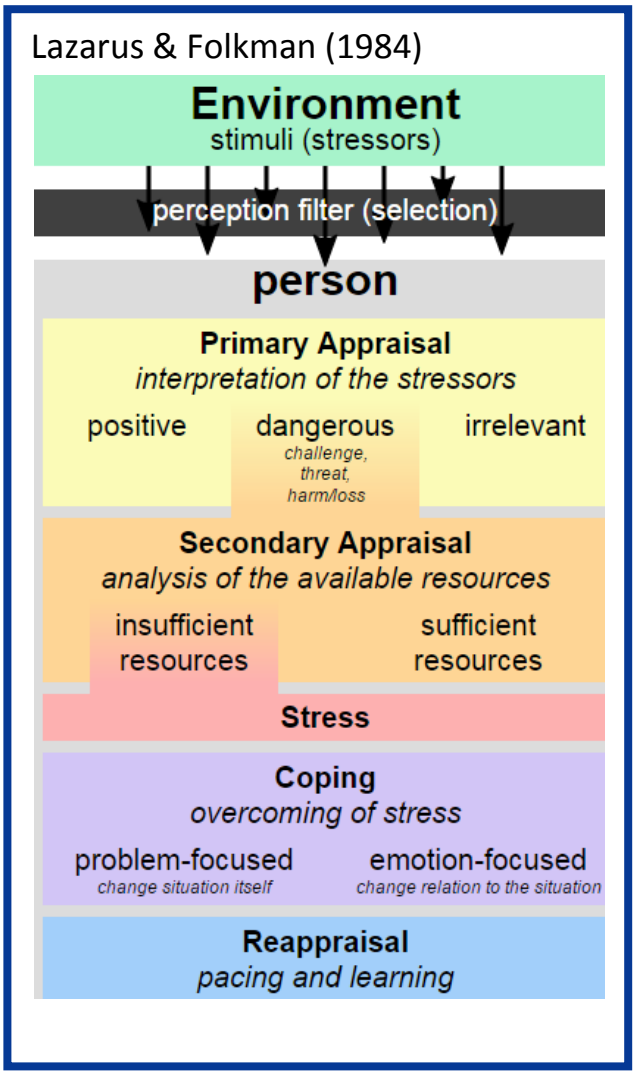
"going to be hard, but I ***can*** do it"

_____ - athlete *does not* have resources to deal with the stressor

"I ***can't*** do it, will cause future harm"

_____- damage is done

"I ***can't*** do anything about it"



Using your personal account of experiencing a stressor, determine your primary and secondary appraisal of the event.

_____

_____

_____

_____

_____

A Grounded Theory of Psychological Resilience continued

Meta-cognition is a higher-level cognition that

is defined as _____

_____

_____

(Flavell, 1979).

This process is **intentional**.

This can incorporate knowledge about when and how to use certain strategies for problem solving. In general, there are two components to meta cognitive processing:

(1) Knowledge about cognitions

&

(2) Regulation of cognitions

The latter can be one of the more difficult skills for an athlete to hone but may be crucial in how athletes bounce back in the face of adversity.

Positive Personality

Experiencing stress and adversity is okay! Watch the video.

****Experiencing an adversity is a necessary part of developing resilience and is crucial in allowing individuals to grow****

"Smooth seas do not make skillful sailors."

-African Proverb

 No matter how small it may be, think of ONE positive that came from experiencing the adversity that you wrote about on page 9. Discuss as a group.

Your mental strength is similar to your physical strength; *it is cultivated through persistent training* and practice.

Positive Affirmations. Watch the video.

Affirmations are _____ and can help to rewire our brains to think more positively.

 **On the Course Exercise**

Write down your own personal positive affirmation. Cut it out, laminate it and keep it in your golf bag for whenever you need a positive reminder.

25 Positive Affirmations for Golfers

1) My body is strong and healthy, my mind is brilliant, my swing is smooth.
2) Everything that is going on right now will help me.
3) I am more than good enough and I get better every day.
4) I can see my hard work manifesting into a smooth performance.
5) A wave of bliss washes away my frustration and restores it back to happiness.
6) I make the right choices every time.
7) I may not know the good in this situation right now, but it is there.
8) I have the ability to conquer my challenges.
9) My athletic performance is just beginning.
10) I accept the mindset to praise myself.
11) My thoughts are overflowing with positivity.
12) I will get past this difficulty and flourish.
13) I am okay with what has happened, what is happening and what will happen.
14) Today, I discard my old habits and take up new, more positive ones.
15) I have an incredible team, supportive family and wonderful friends.
16) I radiate confidence, calm, and peace.
17) I recognize my own self-worth; my confidence is beaming.
18) I focus on breathing and grounding myself.
19) I move forward because I have faith in my path.
20) I am a motivating force; I am unbreakable.
21) I forgive myself for the mistakes I have made.
22) With every breath my fears of competition are dissolving.
23) I trust myself and the decisions I make.
24) I have as much talent to as my other competitors.
25) I have been blessed with infinite talents which I make the most of today.

Explanatory Style Watch the video.

What is explanatory style?

_____

_____

_____.

A_____: the situation, event or setback.

B_____: our interpretation of why the situation happened, which leads to:

C_____: the feelings and behaviors that our belief causes.


Activity

Create two equal sized groups. Have one group read scenario #1 and the other read scenario #2. Each team should discuss and fill in the ABC's together. Once completed have one person in each group read the scenario aloud and discuss the groups consensus for the ABC's, allow the other group to fill in the blanks in their workbook.

Scenario #1:

Jordan has been working and concentrating tirelessly on his approach shots for more than 4 months. When he places a crucial shot during a tournament outside of his comfort zone for putting, he becomes frustrated. He thinks to himself, *I am a loser there goes the rest of the tournament; I will never be good at these shots when it really matters*. He gets upset, doesn't take his time on the next putt, misses it and is disappointed for the rest of the round.

A:_____

B:_____

C:_____

Scenario #2:

Alex has been working and concentrating tirelessly on her approach shots for more than 4 months. During a tournament, she places a crucial shot outside of her putting comfort zone. She thinks, *well that's disappointing but it was just one shot out of many. I know there are things that I can improve upon and maybe next time I will get the ball a little closer to the pin*. She takes a deep breath, images performing well on her next shot, makes the next putt and enjoys the rest of the round.

A:_____

B:_____

C:_____

In these scenarios, the (**A**) adversity is the same, however Alex's (**B**) belief is much different than Jordan's. She acknowledges that she did not perform well on that attempt but thought about how it was just one shot out of the entire round. This type of thinking helps her to let go of those initial feelings of disappointment allowing her to do things that help her to feel better and move on to the next shot (**C**).

Now, analyze your personal example of dealing with an adversity during practice or competition by answering the following questions.

A- Describe just the facts of the event by answering: *Who? What? Where? When?*

B- Why do you *think* the situation happened? What *caused* it?

C- How did you *feel*? What was your *reaction*? What did you *do* after?

Explanatory Style	Personalization	Permanence	Pervasiveness
Pessimistic Attribute failures to:	*Internal* (self)	*Stable* (unchangeable)	*Global* (will affect everything)
Optimistic Attribute failures to:	*External* (not self)	*Unstable* (changeable)	*Specific* (will not affect everything)

When you experienced your adversity, how did you attribute that experience?

 Now explain your thoughts during the experience on:

Personalization-

Permanence-

Pervasiveness-

Did you have an optimistic or pessimistic explanatory style? Circle one.

Optimistic / Pessimistic

Common Types of Distorted Thinking/Thinking Traps

Distorted Thinking Watch the video.

***Aaron Beck (1976) proposed the theory behind cognitive distortions and David Burns (1980) popularized it with common names and examples for the various distortions.

1) Catastrophizing

This is an irrational belief and rumination of worst-case scenarios. The athlete thinks things are much worse than they actually are. This type of thinking can be paralyzing, increase anxiety and can stunt an athletes' performance.

2) Shoulding

Everyone has lists of rules about how people *should* behave and how things should happen. *Musts* and *oughts* are also a part of this distortion. Guilt is the emotional consequence of this type of thinking.

3) Black and White Thinking

This type of thinking results when the individual see's things as all or nothing. There is no room for gray areas, everything is in absolutes. This is also known as polarized thinking. Either things are perfect or they are a failure

Label the cognitive distortion and underline the key words:

- *"I will always be bad at chip shots, I will never be good at them!"*

_____

- *"I missed the first putt on my first hole, there goes the rest of my round!"*

_____

- *"I should have made that putt…. I ought to make this next shot."*

_____

Dispute your beliefs!

Changing Beliefs Watch the video.

 Whenever a negative belief about a situation enters your mind, ask yourself the follow questions. Answer them in relation to your personal adversity that you experienced.

1. **What else could explain what happened**?

Check to see if the situations can be explained in another way. How else could I look at this situation? Jordan from scenario #1 could think: "I did not get the shot as close as I wanted. Maybe the wind picked up more than I had anticipated."

2. **Where is the evidence for this belief**?

Check the accuracy of your thought. Where's the data? What are the real, objective facts about what happened? Does this evidence support your belief or oppose it? Jordan: "I am not a loser. I am a great golfer and have been working hard each week to perform better."

3. **Is this belief constructive?**

Even if a belief might be true, it does not mean that it is functional. Check to see if your belief is useful. Is this something you would say to a friend?

Jordan: "Yeah, I missed that up shot, but I have a lot going for me otherwise. My putting has been on point this round and I have been practicing these up shots for a while now. I am sure I will make the next one, besides thinking about my shortcoming on this shot is sabotaging that."

4. **Is this situation as bad as I am making it out to be?**

Put it in perspective, be pragmatic. What is the worst and best thing that could happen? What is most likely to happen? Will this matter in five years? What good could come out of this? Jordan: "Just because I missed that shot does not mean I will mess up on the next one. I have played well under pressure before and will do it again."

On the Course Exercise

Keep a pad of paper or make a few copies and print out the template on the next page. Keep these and a pen with you on the course at all times during practice. Write down ALL negative beliefs that you encounter during a round. After the round use the disputing techniques to see how you can think differently about these situations.

One step further

After a week or two, look at all of the thoughts that you entered into your log so far.

- Highlight any thoughts that could have common themes.
- You may notice that there are certain commonalities in your thinking.
- Identify patterns, these could be in relation to yourself, others and the world.
- What, if any, cognitive distortions can you identify in your thinking?
- Be on the lookout for thoughts associated with a high intensity feeling. Really focus on the thoughts that are accompanied by immediate negative emotions.

Examples of thinking associated with intense emotion:

"I really hate this game, it's stupid!" = **Anger**

"Man, if I keep this up, my career is over" = **Fear**

"I am so pathetic; I can't make any of these shots" = **Depression**

Performance Thought Log

Antecedent	Feelings/Emotions Rate Intensity (low) 1-10 (high)	Thought/Beliefs	Consequence	Best-Case Scenario

Social Support

"A group becomes a team when each member is sure enough of himself and his contributions to praise the skills of the others."

~ Norman Shidle

What is social support? Watch the video.

Social support can affect performance in a variety of domains and situations, including sport performance. It can have a huge impact on a persons' ability to demonstrate resilience in the face of adversity.

This is an extremely important aspect to focus on in individual sports where you don't have that inherent social support system. However, collegiate golf is the exception and this is the time for athletes to learn how to utilize and improve these sources of support.

Collegiate athletes are constantly surrounded by people who can be a part of their psychosocial support system. They may be coaches, family, professors, teammates or other staff members who work within the athletic organization.

Brainstorm. In the space below write down words, ideas or a definition of what social support means to you?

Perceived and Received Watch the video.

More important than having quality social support is being *aware* that you have it!

It seems we all have a pretty good idea of what social support is. However, just because someone appears to have social support does not necessarily mean that they believe or perceive that they have this resource.

Perceived social support is _____

_____.

Received social support is _____

_____.

 In this box, write down the name of 2+ people whom you trust can provide assistance and encouragement, especially in difficult times. Write down a person with whom you want to improve your relationship with.

The Uniqueness of Collegiate Golf Watch the video.

Understanding and utilizing social support is critical for collegiate golfers because:

- **High quality social support can protect you**
  - A good base of support can protect athletes from the harmful influences that stress can have on performance. Whether it is competitive (e.g. loss of form/technique issues, injury) organizational (e.g. sport politics, travel) or personal factors (e.g. financial issues, family).

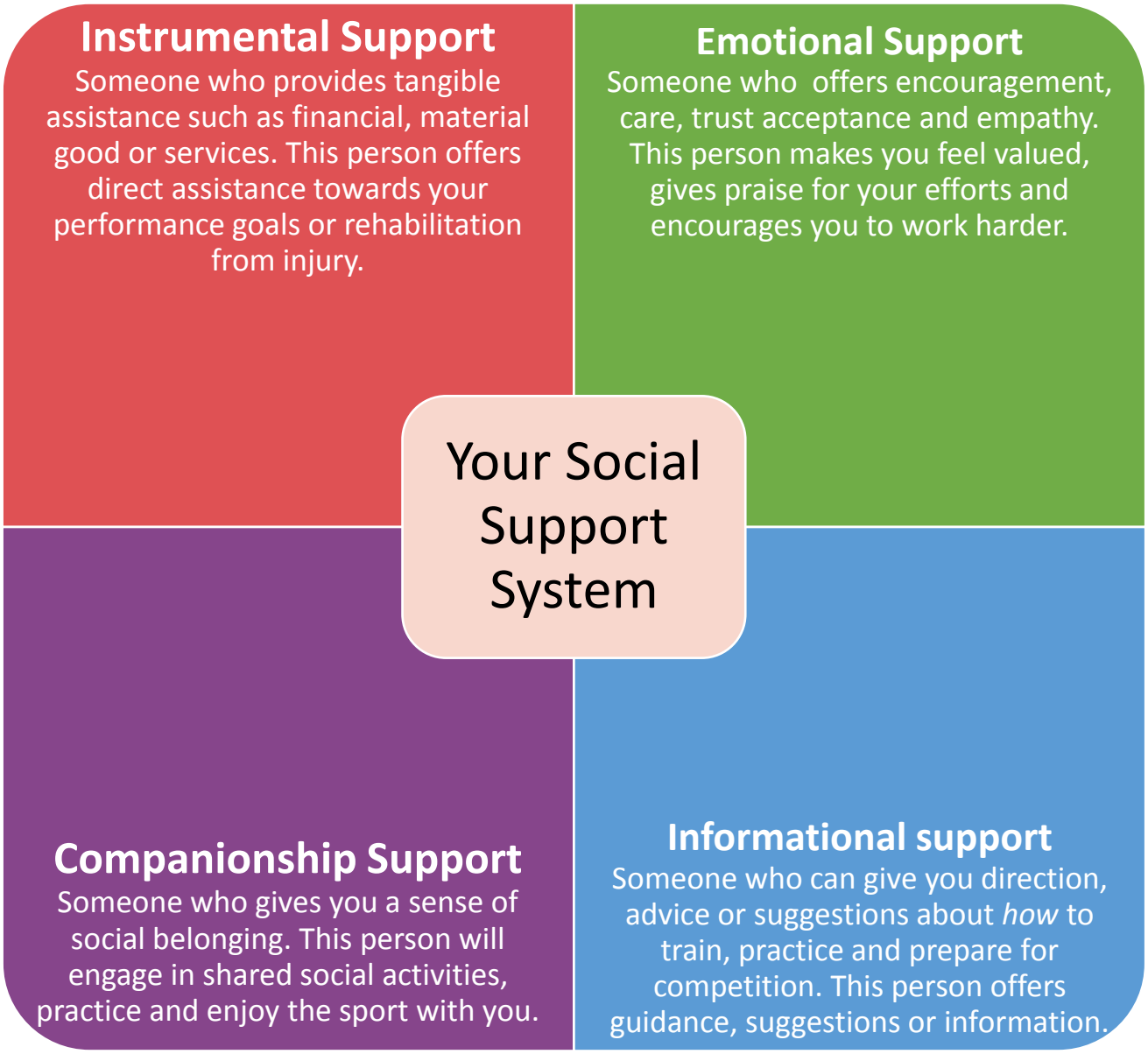
- **The nature of the sport**
  - Given that golf is typically an individual sport, these athletes may feel they have less opportunities for social support compared those on a team. Collegiate athletes are fortunate in that respect for have the team component.

- **You can foster this resource now**
  - Learn how to utilize social support while you have a potentially 'built in' support system. This is the time for you to develop the social support that you already have access to. By learning how to strengthen the relationships that you have, practicing this skill will make it easier for you to develop and recognize people who support you in the future and create new meaningful connections.

In the following pages you will be challenged to learn about and practice active listening skills, reflection techniques and empathic understanding. In doing so this should help to improve your ability to give and receive social support and should become a more frequent behavior for yourself and those around you.

Thinking about your social support Watch the video

If you can, list one or more people in the space provided for each category. Every week, make it a goal to interact with at least two people from this list.



Recognizing feelings in others Watch the video.

There are many different types of social support. *Emotional support* is a type of support that is typically perceived by athletes as a form of support provided primarily by parents.

Emotional support is "characterized by _____

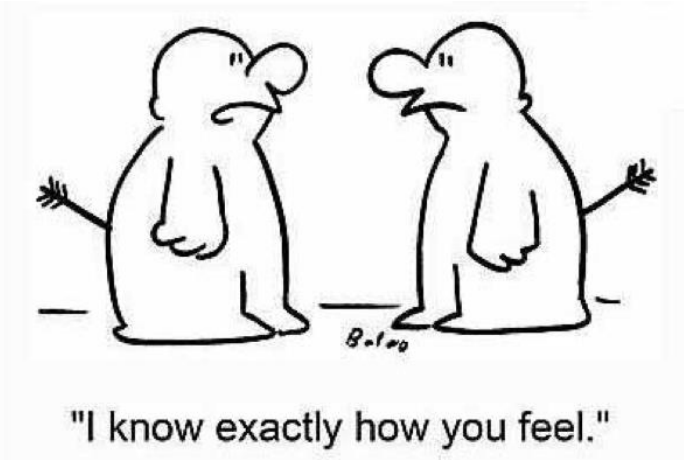
_____,

even if the supporter is not in total agreement with him or her."

(Richman et al., 1989, p.151).

Empathy is at the center of effective social support.

The ability to recognize and share feelings that are being experienced by another.



This understanding allows people to share:

Encouragement in times of adversity.

Reassurance in times of defeat.

Excitement in times of triumph.

****Pause the video and complete the activity on the following page.

Group Exercises

Common Ground

The purpose of the Common Ground Activity is to recognize that we may have more in common with others than we think. The purpose is to give you an opportunity to identify obstacles and successes that each of us have experienced in our life.

Everyone stand up! Form a large circle with about arms width space in between you and the person next to you. Each time you hear a statement that is true for you, step forward.

Identifying Strengths in Others

Get two different colored pens/markers, label the colors at the bottom of the page. In one color, circle the character strengths that you identify with. Then, using the other color, circle the strengths that others identified in you during the activity.

Creativity	Curiostity	Judgement	Love of learning	Perspective	Bravery
Perserverence	Honesty	Zest	Love	Kindness	Social Intelligence
Teamwork	Fairness	Leadership	Forgiveness	Humility	Prudence
Self-regulation	Appreciate of beauty and excellence	Gratitude	Hope	Humor	Spirituality

As identified by Peterson and Seligman (2004).

= Strengths I identify with.

=Strengths others identified in me.

Active Listening Watch the video.

Active Listening is listening that is characterized by _____

_____.

It is not passive it is **ACTIVE** listening.

Therefore, this is a skill that needs to be practiced as it requires the listener to give full attention to the speaker in addition to comprehending, remembering and responding to what is being said.

One of the best ways we can become an active listener is by practicing Reflective Listening!

Reflective listening is a communication strategy involving two key steps:

1) _____

2) _____

This helps to confirm the idea has been understood correctly and deepens understanding by clarifying whether one's ideas about the other persons meaning is accurate. It also allows the speaker to hear their thoughts and feelings.

This may be a new concept for many people, or you may feel you already do this. However, to be 100% focused during a conversation can be a struggle. This *is* natural, our brains are hardwired to think about ourselves so don't feel discouraged if this skill proves to be difficult.

****Pause the video and complete the activity on the following page.

Active Listening Skills

Reflective listening.

In each situation, pretend you are talking to a friend. Write a reflection below each statement.

1. "*Sometimes I just get so worked up right before a tournament I can't even sleep the night before*."

2. "*Everything just clicked during that round! I didn't even have to think about what I was doing*."

3. "*I am so sick of getting injured all the time. Not being able to play to the best of my ability is really starting to get my down*."

4. "*I have been hitting longer drives lately and I think it is because I have been training tirelessly the last few months. I have been hitting the gym consistently and have become much stronger*."

 Practice Reflective Listening

Get into groups of two with the person sitting next to you. Practice your active listening skills with your partner using the following prompt. Have one person start as *the speaker* and the other as *the listener*. Do not switch roles until the facilitator says to do so.

Listener should ask: "*Where do you see yourself five years from now*?"

The listener should:

- Use ONLY reflections and open-ended questions during this conversation.

-Let *them* talk (you just listen-avoid problem solving/lecturing)

-Convey acceptance, genuine curiosity and delight

-Do not interrupt

- Use encouragers ("mhmm", "I see", "no way", "right on", "tell me more")
    - This shows the speaker you are still there and following along

-Check in with "*does that sounds about right*?" following a reflection.

Creating opportunities for social support Watch the video.

In addition to being more empathetic towards your peers and learning to listen actively, there are a few things that can be done to improve and expand an athletes' social support system.

Here are a few suggestions that are encouraged for the coach and staff to implement:

- Mentor/Buddy system.
  - A system where older, more veteran college golfers are paired with newer and possibly younger teammates. The veteran becomes a role model to a "New Member". As a mentor, you would essentially become their advisor throughout their time as a student athlete. This is always a great way to help improve team cohesion.
  - In order to become a mentor, you have to be a mentee first. In this role, you essentially get an older friend who can help you navigate juggling life as a student athlete and the issues that may arise.
- Group meetings for all student athletes.
  - This could occur once a semester/quarter and may even be a proposal for the Athletic Director to involve each sport that is offered at the school. Ideally there would be small group sessions involved where each sport is represented an athlete from that group.
  - This would allow student athletes the opportunity to benefit from a shared social reality and expand their perceived social support. Most of these athletes will be able to share similar experiences, priorities and values across different sports.
- Weekly team meetings.
  - This would be a dedicated time each week for the team to get together. During this time the athletes would have the chance to discuss things that may be going on whether not they are related golf. The coach or staff should come prepared to these meetings with a topic, prompts or discussion points.

Attention and Physiological Control

Attention Control Watch the video.

Attention control is an individual's _____

_____.

In essence it is a person ability to concentrate.

How to exercise attention control:

1) **Do something other than golf!**

It has been suggested that athletes who engage in activities outside of their sporting realm may have better attention control. This is helpful because it forces you to learn to switch your sport focus on and off. Examples include: hobbies, volunteer work, part-time job etc.

Come up with 3 specific things you can do and engage in one of these things at least twice a week.

A)

B)

C)

2) Self-talk for concentration

Distractions are inevitable during competition and practice, whether it is focusing on something in the future or something that happened on the last hole. These thoughts divert your attention away from the present shot/skill that you need to execute. Therefore, it is important to stay present to attend to what is needed in the moment.

- Self-talk cues to improve concentration
  - Develop a routine for self-talk
  - Identify what needs to happen in the moment
  - Talk to yourself like you're talking to another person
  - Determine which cues work for you, try different ones if necessary
  - Practice this with consistency, on and off the course

On the Course Exercise

During a practice round identify a time when you feel your focus has shifted away from the present moment, especially if you made a performance error. As this occurs get out your notepad and write down a statement about what you plan to do next. Give yourself this cue on the next turn internally or externally. Example: "That was okay, but you need to be a little smoother next time/look at one dimple on the ball/relax/arms straight/like a pendulum/hit the line".

3) Practice mindfulness

Learning to be more mindful in any situation is a skill that could have profound benefits. Mindfulness is a mental state accomplished by focusing one's awareness on the present moment. Being mindful encompasses acknowledging and accepting feelings, thoughts, and bodily sensations in a calm manner.

An exercise on being mindful

Listen to the facilitator as they read the mindfulness script.

Remember: mindfulness is not about trying to make sense of your thoughts, it's about being present and attentive to that moment.

Mindfulness continued

How did you feel after?

What did you notice about your body?

These are things that you can teach yourself to notice and be more mindful of while on the course. Take the time to practice mindfulness before, during and after a round even if it just for a minute.

If you thought you would never get into meditation, guess what? You just did! If you felt a benefit from the last minute or so, practice this mind-calming exercise during practice and even work on extending the time you use mindfulness.

On the Course Exercise

Now as an athlete, you can expand this mindfulness activity to use when you're on the course. The next time you are practicing, work on thought control and being more mindful at least once. Pick one singular thing to focus on and concentrate your attention there for a few moments before executing the shot. For example, if you are about to:

- **Drive**, focus solely on the line you want to hit.
- **Chipping**, focus on the area that you want to end up.
- **Putt**, focus on one dimple on the ball that you want to hit.

What does attention control have to do with resilience and performance mistakes?

The ability to control attention allows athletes to concentrate on themselves in the present moment, not get distracted by others and helps them to focus on the process rather than the outcome. Athletes should be able to shift their focus in order to meet the demands in their environment. When the phenomenon of choking occurs the athletes' attention involuntarily narrows and become more internally focused. This means they will have a heightened sense of physiological arousal which can then interfere with movement patterns.

Physiological Control Watch the video.

By systemically manipulating physiological arousal, athletes can regain control of their focus.

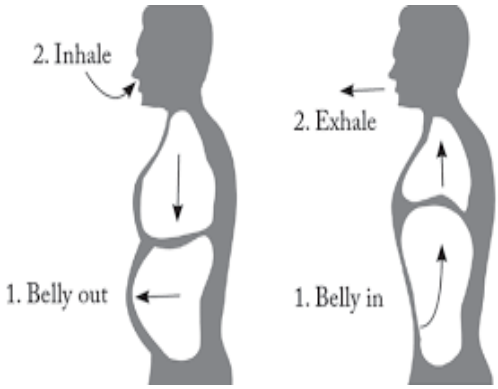
When stress occurs, an athlete may experience increased muscle tension, perspiration, heart rate and shallow breathing. The following momentary relaxation exercises are designed to help alleviate these symptoms which could negatively affect performance.

Breathing.

Rhythmic- Breathing that occurs at a regular rate or in a particular rhythm. Take a deep full breath in and completely exhale, expelling all of the air from your lungs. Then inhale to a count of 5, hold your breath for a 5 count and finally exhale to a count of 5. Do this 3-6 times on your own.

Diaphragmatic Breathing- Proper breathing comes from the

This can occur lying down or while sitting. Keep your knees bent and ensure your shoulders, head and neck are relaxed. Place one hand on your upper chest and the other on your abdomen just below your rib cage. Breathe in slowly through your nose, if you are taking a deep complete breath from the diaphragm, the hand on your stomach will move and the one on your chest should stay as still as possible.



Muscle relaxation.

Quick body scan- Be mindful and scan your body from head to toe. Start at the top of your head and stop in areas where the muscles feel too tense. Release the tension in this area and continue scanning the rest of your body.

Sport muscle check- Scan only the muscles that are most important to complete the motor movements necessary for the task at hand. Squeeze that muscle group for 4-8 seconds and release. Complete this 2-3 times.

Example: Squeeze the club in your hand and relax to the proper level.

Coping

Positive Self Dialogue Watch the video.

Create an audio file of practiced self-talk.

Take 10-15 minutes. On a separate sheet of paper write out a narrative to include the following information. It may be helpful to think of a time where you felt you experienced "flow" or by recalling a past outstanding performance to help you get started.

- Describe an exceptional performance in which the events occur exactly as you desire. Include the best *thoughts*, *feelings* and *emotions* that you would experience before, during and after your performance.
- Include statements such as: "I am well prepared" "I have done this before and have succeeded"

Use your phone to record yourself reading this script. Be sure to speak slowly, calmly and clearly as you will be listening to this in a time of potential stress. Take pauses in reading your script to allow your mind to fully visualize what this would look like. Listen to this tape over and over again to help program your mind for success and keep a copy of this tape on hand whenever you may need a reminder.

You may chance this audio recording at any time. This is meant to be a starting point. You may go through a few different versions of this audio recording to get to a point of mastery where you feel the narrative is helping you cope.

Emotion Focused Coping Watch the video.

Emotion focused coping is evidenced by coping efforts to _____ _____ that result from a stressor.

Reduction- _____.

- Use attention/physiological control skills to regulate

Restructuring- interpretation of symptoms from – to +

When you feel your heart pounding, what is the first things you think of? Most people attribute this to stress. This viewpoint is more debilitative, think of a more facilitative way to interpret these symptoms.

 Cue cards

Write on the line below how you can interpret symptoms in a more positive way. Cut out, laminate and keep this in your bag.

_____

Energizing- used when you feel _____ aroused.

- Imagery: fast moving powerful train, slowly gaining momentum going faster and faster
- Verbal cues/phrases
  - "Power"
  - "Explosive"
  - "I am energetic and alert"
  - "I am breathing deeply, inhaling energy"
  - "With each breath my body is getting stronger"
- Music
- Dynamic warm-up

Problem Focused Coping Watch the video.

Problem focused coping _____

_____.

- Seek out those in your social support system
  - If you cannot talk to them directly, try to call or text!
  - When feeling anxious I could call: _____
- Gather information
  - Helps to appraise opposition as less of a threat
- Planning

Write down two of your own process oriented goals

- I will _____

  _____
- I will _____

  _____

  - Pre-competition plan (fill in template on next page)
    - Worst performance
      - What you did prior: _____
      - What you felt prior: _____
    - Best performance
      - What you did prior: _____
      - What you felt prior: _____

- Problem-solving

In the moment _____ of determining solutions to a which an athlete is confronted.

  - What is the problem? Who? What? When? Where? List possible solutions. Explore the pros and cons of each option. Write out a plan and discuss it with a coach.

(adapted from William & Krane,2014, pg.218)

	Night before 24 hours to start	Competition Day 3 hours to start	Travel & Arrival @ Venue 2 hours to start	Warm-up 45 minutes to start	On the course 10 minutes to Start
Thoughts					
Feelings					
Actions					

Closing Watch the video.

What have we learned?

- What is resilience?
- How does it differ from mental toughness?
- Models to explain how resilience works in athletes
- How to be more positive
- How to alter negative/distorted thought patterns
- Improving perceived and received social support
- Methods for attention and physiological control
- Coping techniques

Thank you for your participation!

Please take a few minutes to review the materials and make sure each section is completed. Use this time to ask the instructor any questions you may have.

For more information, or questions please contact Leanne Ellis at lhowes@mail.csuchico.edu

APPENDIX B

ART Program Online Video Links

Intro
http://www.kaltura.com/tiny/7d0nr

Welcome
http://www.kaltura.com/tiny/d66tq

What is Resilience?
http://www.kaltura.com/tiny/ecl6g

Positive Personality
http://www.kaltura.com/tiny/2ab3b

Social Support
http://www.kaltura.com/tiny/d5z8e

Attention and Physiological Control
http://www.kaltura.com/tiny/047sj

Coping
http://www.kaltura.com/tiny/7ja4i

APPENDIX C

ART Answer Key and Instructions for the Facilitator

Ideal location: A room with some space for participants to stand and engage in activities

Materials: Ball of yarn, scissors, colored markers/crayons/pencils, extra paper, copies of the Pre-Competition Plan on page 43, enough for each participant.

Bolded items are answers to be completed in the manual.

It is suggested that the facilitator reads the items in " ".

***For every "On the courses exercise" that is presented, be sure to go over this with your athletes and have them work on these skills outside of the class setting while they are playing/practicing.

Introduction

Page 9

The Athlete Resilience Training (ART) program is a training program designed for **college level golfers**.

Resilience is **the role of mental processes and behavior in promoting personal assets and protecting an individual from the potential negative effect of a stressor**.

Two concepts present for resilience to occur: (i) **Adversity** & (ii) **Positive Adaptation**

Activity: Write in an adversity you have experienced in sport
** Please note that participants should not be forced to share but emphasize that "sharing your experiences not only helps you but helps the group to understand how resilience works. You will use this experience as your personal example throughout the training program. If at any point you feel your example does not fit with the questions posed, you are welcome to come up with and use a different personal example. Ideally you will pick an adversity related to some sport performance, however if you truly cannot come up with one you can use an adversity that you have experienced outside of the sporting realm."

Concepts related to resilience

Page 10

An adversity is **any hardship and suffering linked to difficulty, misfortune, or trauma**.

Positive adaptation is adaptation that is **substantially better** than what would be expected given exposure to the **risk circumstance** being studied.

Page 11

Draw/Label
Allow participants to fill in by themselves. Then go over it afterwards, emphasis should be on the new homeostasis line which indicates that a person has gained something (such as better coping skills) to deal with future stressors.

Mental Toughness Resilience

Page 12

Five factors that influence resilience according to Fletcher & Sarkar (2012): **1) positive personality, 2) motivation, 3) confidence, 4) focus and 5) perceived social support.**

Page 13

Secondary appraisals

a. **Challenge**- the athlete has sufficient resources to deal with stressor
b. **Threat**- the athletes view it as a stressful event
c. **Harm/loss**- damage is done and can't do anything about it.

Page 14

Meta-cognition is a higher-level cognition that is defined as **knowledge about cognition and control of cognition**.

Positive Personality

Page 15

Affirmations are **methods of self-improvement** and can help to rewire our brains to think more positively.

Activity: Once athletes come up with their own positive affirmation, ask: What's the evidence to support this belief? Is there any evidence to reject it? Is there a more accurate way to think about this situation? What's the likely effect of thinking this way? How does it affect my emotions? My behavior? What would happen if I changed my belief?

Page 17
The way an athlete internally responds to and explains both the good and the bad events that occur in his or her life.

Adversity or Activating Event, Belief, Consequence (p.17)

Page 18
Scenario #1
A-Jordan did not perform well on a shot he had been practicing.
B- I am a loser, just lost the tournament; I always choke under pressure
C- He feels angry and allows this incident affect the rest of his round.
Scenario #2
A- Alex did not perform well on a shot she had been practicing.
B- I can do better next time.
C- Feels at peace with this performance mistake, uses skills to keep moving forward

Page 19
Encourage participants to encourage their personal ABC's that they identified.

A- Identify what the adversity is
B- Discuss permanence, pervasiveness and personalization
C- Notice how the negative belief is influencing performance

Page 20
Encourage sharing of three P's.

Circle which one best describes your explanatory style. Ask participants "why did you select that one?"

Page 21
-**Black and White Thinking**, underline: **always** and **never**

-**Catastrophising**, underline: **there goes the rest of my round**

-**Shoulding**, underline: **should** and **ought**

Page 22-23
Encourage discussion of how you disputed your beliefs.

Social Support

Page 26
Discuss interpretations of social support

Page 27
Perceived social support is **the athlete's personal judgment as to whether these individuals will assist them when needed.**

Received social support is **the actual act of support that can be directly observed.**

Page 28
The Uniqueness of Golf (Watch the video)

Page 29
Discuss the different types of social support. Have athletes to share their examples of how people in their lives support them in these different areas.

Page 30
Emotional support is "characterized by the **willingness to be on the recipient's side in a difficult situation**, even if the supporter is not in total agreement with him or her."

Page 31
Common Ground

Materials needed: List of questions to ask, large enough space in a room.

*NOTE to the trainer: This is a "high risk" activity that requires trust and safety for participants; introducing this activity too early or before building trust can inhibit further sharing and openness. This activity works best with a group of 6+.

Inform the group ""I am going to ask you some questions today, some of them might feel a bit personal but I hope you will answer them honestly. Each time an answer is true for you I encourage you to step forward. No one is going to check up on you about your facts, so if you feel you qualify to take a step then do so, if not then you may stay where you are. You are the judge of what you should do. No one here is under any pressure to respond in any particular way to any of the questions. If you have any doubts about sharing some part of yourself, you should feel perfectly comfortable with your decision not to step forward. However, this is a safe space and everything that is discussed in this room, will stay in this room".

"If you can answer "yes" to any of the questions, then take a step forward, after several seconds I will ask you to return to the group."
As the facilitator come up with personal examples to start with so you can participate as well and model the exercise."

Do not rush to the next question. Allow time for the participants to think after they have moved back into the circle.

Start with simple statements such as:
Who in this room is an athlete?
Who is from (town that the school is in)?
Who wears contacts or glasses?
Who in this room likes to dance?
Whose favorite cuisine is Mexican food?

Then move into more into deeper topics:
Who has felt extreme anxiety during a round?

Who in this room has experienced self-doubt?
Who has felt judged about their sport performance?
Who believes in life after death?
Who believes they have a supportive family?
Who has experienced the effects of alcohol or drug addiction in your family?
Who in this room has been bullied?
Who has bullied others?
Who has lost someone close to them?
Who has cried at least once this year?
Since you joined the team, you have laughed at yourself at least once
Who could use a hug right now?

Once all the questions have been asked, start by asking participants about what happened and how they feel about the activity and then go on to talk about the issues raised and what they learned.
DEBRIEF DISCUSSION
"During this discussion I want to remind everyone to keep the utmost respect for everyone in this room."

1. Maybe there is more that bring us together than this sport?
2. How are you feeling right now?
3. "Is there anything you want to say to your fellow participants about why you stepped forward for a particular question?"
4. How did people feel stepping forward - or not?
5. For those who stepped forward often, at what point did they begin to notice that others were not moving as fast as they were?

**Use this time to allow people to EXPLAIN, SHARE, AND TELL STORIES about any of the statements. Use the discussion to allow people to talk about HOW THEY FEEL right now and how they feel about the exercise.

Notes: If someone makes a comment about the exercise/training, thank them for their comment and refocus the discussion towards people's feelings and stories. Try to keep comments focused on others rather than themselves.

End the discussion by thanking everyone for participating. You may want to describe how this exercise has affected you.

This activity can be draining for some individuals, suggested break: 5-10 minutes.

Watch this 8 min video on character strengths
https://www.youtube.com/watch?v=U3nT2KDAGOc

Identifying strengths in others
Materials needed: Large ball of yarn, scissors, colored pens/crayons/markers

Form a circle again and stand as a part of the circle with a ball of yarn.

“Imagine that this ball of yard is actually roots from a tree. These roots run deep below the ground and are what connect and unite us. We all have things going on in our own lives, but all of us have these roots that intertwine which give us strength and support.”

Wrap the end of the yarn around your wrist.

“Share at least one strength about someone in this room and pass the ball of yarn to them. Be specific, use examples if possible feel free to look at the list of 24 character strengths that have been identified. Each person who receives the ball of yarn will wrap it around their wrist before identifying a strength in someone else and tossing the yarn to another person. You may also say something you appreciate about that person in relation to their strengths. The appreciation can be about something that recently happened or about the person in general. Someone can be picked more than once. We will finish once we run out of yarn, once everyone is holding a piece or when each person has gotten a chance to talk about more than one person in the group.”

The ball then travels across the circle to each player with everyone holding onto a piece of the string once the ball is tossed. Once everyone is holding onto the string and it is crisscrosses throughout the circle the facilitator, uses scissors to cut through the string.

“Keep holding onto the string, as we cut these ties to finish this activity, each person is left with a piece of string in their hand to remind them of the connections we have made.”

Now in your manual, follow the next direction.

Allow 5 minutes for them to circle strengths.

Page 32
Active Listening is listening that is characterized by **listening without giving advice or making judgments**.

Reflective listening is a communication strategy involving two key steps: 1) **Seek to understand a speaker's idea** and 2) **offer the idea back to the speaker**.

Page 33
Have the participants complete the exercise on this page. Allow at least 10 minutes for them to fill it out. After, go through each scenario and encourage sharing of responses. Then provide the suggested reflections listed below next to “simple” and “complex”. Take notice of how the complex reflection makes more of a guess at what the person meant, why they were giving you that information or what else they may have said if they continued talking.

1. “Sometimes I just get so worked before a tournament that I can’t even sleep the night before.”
   Simple: At times you get worked about tournaments and it makes it difficult for you to sleep.

Complex: You can get anxious before tournaments and you are looking for something to change

2. "Everything just clicked during that round! I didn't even have to think about what I was doing."
   Simple: You didn't have to think about what you were doing, the movements just happened and they worked.
   Complex: You were in the flow; you want to know how you can make that happen again in the future.

3. "I am so sick of getting injured all the time. Not being able to play to the best of my ability is really starting to get my down."
   Simple: You don't want to be injured anymore, it's making you sad.
   Complex: Being injured so often affects your mental wellbeing. You're interested in finding ways to become healthy again and avoid future injuries.

4. "I have been hitting longer drives lately and I think it is because I have been training tirelessly the last few months. I have been hitting the gym consistently and have become much stronger."
   Simple: Going to the gym has really helped your game!
   Complex: You are realizing that your efforts in the gym are coming together to enhance your performance on the course.

Page 34 Practice reflective listening with a partner
"Get into groups of two with the person sitting next to you. Practice your active listening skills with your partner using the following prompt. Have one person start as *the speaker* and the other as *the listener*. Do not switch roles until the facilitator says to do so."

Set a time for 5 minutes or until participants seem to get off track. Then have them switch roles for another 5 minutes.

Debrief with a discussion on how it went and by asking some questions like:
As the **listener**:

- What were easy parts for you during this exercise?
- What did you find difficult?
- What did you see or notice when the speaker felt fully heard?
    - They may have noticed that the person lit up, seemed excited or continued talking more in depth.
- What did you see or notice when the speaker did not felt fully heard?
    - They may have seemed annoyed or started talking about something else.

As the **speaker**:

- How did you feel when the listener accurately reflected back what you said?
    - They may have noticed that they really felt heard by the listener

Page 35
Creating opportunities for social support. This page serves more as a suggestion for a coaching staff or athletic director. However, discussing these different modes for creating opportunities for social support can be helpful.

Page 36
Attention control is an individual's **ability to choose what they pay attention to and what they ignore.**
Ways to exercise attention control:

1. Do something other than golf!
    - Have athletes come up with 3 specific things you can do and engage in one of these things at least twice a week.
    - Brainstorm as a group some of the specific things they could do that are not related to golfing (hobbies, philanthropy work, part-time job)

Page 37
Athletes face so many things that may divert their attention to the task at hand. It could be something going on in their personal life or something that has to do with their sport performance. Either way, this section is meant to address the concentration demands associated with performing under pressure. Being able to control your attention could be a performance altering skill, especially after making a mistake during competition.

2. Self-Talk for attention control (watch video)
3. Mindfulness

The facilitator should read the following script as a mindfulness exercise. Try not to rush the process, read in a slow monotone voice.

"Close your eyes, sit quiet and still. Uncross your legs and place your hands face down on your legs. Focus on a single breath, a deep breath in through the nose, hold and out through the mouth. Breath slowly in and out, letting your breath flow effortlessly in and out of your body.

Let go of your thoughts for a minute. Let go of things you have to do later today or pending projects that need your attention. Simply let yourself be still for one minute.

Purposefully watch your breath focusing on your sensations as it passes through your body and fills you with energy. How does the air feel going on and out of your lungs. How does it feel having your diaphragm fully expand and release? Now, how long you can focus on just your breathing.

If your mind wanders to your 'to do list' or you begin to ruminate on something in the past, let these thoughts wash over you. Pay no mind to them and just let them go. Allow yourself to be wherever you are for just a moment then gently bring your mind's focus back to the present and … your deep breaths. Try to be present in that moment.

Page 38
Debrief by discussing how this exercise went for participants.
Discuss the "on the course exercise" that is presented on the page.

Page 39
Follow along with the video and practice these breathing and muscle relaxation techniques.
Diaphragmatic Breathing- Proper breathing comes from the **diaphragm**.

Page 40 Coping
Create a coping audio file.

- As the coach it may be helpful during this time to give your athletes feedback on a time where you noticed they performed very well.

Page 41: emotion focused coping
Emotion focused coping is evidenced by coping efforts to **manage emotions and associated responses** that result from a stressor.

Why are controlling arousal and one's anxiety important?

- Proper emotional states allow the athlete to perform to their potential

Restructuring- As your athletes to brainstorm another way we could interpret increased heart rate and fast breathing.

Answer: **Excitement**!

Facilitate having them write out their own card to keep in their bag. Ask for everyone to share if they have something other than excitement.

Ex: "my increased heart rate & fast breathing are because I am excited!"

Energizing- used when you feel **under** aroused
Most coaches are interested in psyching up techniques
Coach needs to assess the athlete(s) feelings and attitudes
Signals that they are under activated

- do they seem to move slowly
- does their mind seem to somewhere else
- do they feel heavy
- do they react slowly

What coaches can do:

- Coach should not get excited before a contest! (Anxiety producing effect)
- Use your athletes first name
- Do a proper dynamic warm up
    - Walk, run, jumping jacks, jump rope (low level cardio activity) for 5-10 minutes to raise the temperature of your muscles to help prevent injury.
    - Arm circles
    - Lunge w/lateral twist
    - High knees
    - Butt kickers

Page 42: Problem-focused coping
Problem focused coping refers to **the efforts that deal directly with the stressor that is causing the symptoms**.

- Seek out those in your social support system
If you cannot talk to them directly, try to call or text!
When feeling anxious I could call: _____

- Gather information
Helps to appraise opposition as less of a threat

-Planning

Write down two of your own process oriented goals. Read athletes a few examples.

- I will have a better attitude toward putting
- I will love and trust my wedge during this round.
- I will practice being more present and mindful before each shot. I won't speculate mid round where I stand in the tournament.
- I will trust myself.
- I will perform my pre shot routine every time.
- I will not analyze or criticize the shots I have taken. I will move on a focus each shot as it come.
- I will be resilient when mistakes happen, I will not let what happens on the course bother me.
- I will enjoy playing today.

Pre-competition plan (fill in template on next page)
Challenge your athletes to think about their worst performance and fill in what they did and how they felt prior. Then asked about their best performance.

- Problem-solving
in the moment thought process for determining solution to problem

Page 43
Prior to filling out a pre competition plan, athletes should think about a past performance. They should determine what they did and what they felt prior to their best and worst performances
Help athletes complete a pre competition plan (example below)
It is important for each athlete to fill out their plan to reflect critical moments that may be meaningful to them.
Allow 10 minutes for them to fill it in themselves then go over as a group
Inform them that you will make blank copies so they can test and revise their pre competition plan at any time. This plan can be kept in a bag or on a mobile device for easy access.

	Night before 24 Hr. to Start	**Competition Day 3 Hr. to Start**	**Travel and Arrival at Venue 2 Hr. to Start**	**Warm-up 45 Min to Start**	**On the course 10 Min to Start**
Thoughts	Relax	Calm	About each part of competition	Getting swing feeling loose	Positive Visualize the round
Feelings	Relaxed	Keep mind occupied.	Confident	Sharp Big, Powerful, in control	Confident & Big Energized In control
Actions	Watch TV Pack Eat Prepare food	Keep busy Engage in non-sport activities	Listen to enjoyable music Examine course	Drills Personal warm-up	Quiet Breathing routine

Page 44:

Thank them and congratulate them for completing the training!