Strength and Conditioning Coaches Facilitating Physical and Mental Gains

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Chapter 1: Introduction

There has been rapid growth in the demand for strength and conditioning coaches since the turn of the century as well as a parallel growth in specific strength and conditioning educational programs (Springham et al., 2018). In the United States, there are two hundred and fifty-eight university programs that are accredited by the National Strength and Conditioning Association (NSCA) (ERP School List, n.d.). To become accredited the university must meet, and continue to meet, the educational guidelines recommended by the NSCA. Currently, the NSCA does not require a sport psychology specific course to become an accredited program according to the ERP Undergraduate Strength & Conditioning Program Application provided on the NSCA website (National strength and Conditioning Association (NSCA), 2021). The rapid growth in accredited programs is important to the field of strength and conditioning as it becomes a more integral part of athletic performance.

Strength and conditioning coaches are becoming increasingly more important to sport organizations and athletic performance. As their importance grows, so does the breadth of their duties; strength and conditioning coaches now play an important role in injury rehabilitation, sport nutrition, and social support of athletes (Springham et al., 2018). To bridge the gap between allied professionals, the NSCA has recently began requiring courses such as injury rehabilitation and nutrition with an emphasis in sport. On top of these subjects, the NSCA requires specific courses on the topic of human anatomy physiology, exercise physiology, kinesiology or biomechanics, scientific principles of strength and conditioning, resistance training and conditioning, exercise technique/exercise prescription with emphasis in anaerobic exercise, and program design as related to strength and conditioning (NSCA, 2021). Sport psychology is not listed, and thus not considered a core component of strength and conditioning

education at this time. In an attempt to gather the amount of psychology courses being offered outside of the requirement, I analyzed the degree requirements for ten different programs. Using a random number generator, ten university programs were selected from a ranked list of the fifty best programs for sport science (*50 best bachelor's in sports science degree programs,* 2020). Of the ten universities selected, eight had the requirement of one psychology course throughout the entire bachelor's degree. This class was most often a general psychology course, lacking instruction on sport specific mental skills. The remaining two universities had one that required two psychology courses and the final requiring no psychology courses during their degree. In a similar fashion, ethics courses that teach coaches to only practice within their own abilities and education, something extremely important to consider, are also missing from the requirements.

As more is learned about mental health and psychological skills training (PST), athletes seek this type of mentorship as well. Psychological skills training (PST) is defined as the deliberate and persistent practice of mental skills for the purpose of enhancing performance, increasing enjoyment, or achieving greater satisfaction (Weinberg & Gould, 1999). In sport psychology, PST is one of the key components of practitioners' work. Sport psychology is inherently different than clinical psychology in that the certified mental performance consultant (CMPC) (Schoenbaechler, 2020) works in a wider variety of settings and within a less formal context. This has to do with how the CMPC is often around the athletes and teams they work with during times in which they are not providing the content. This helps the CMPC build rapport with their clients through showing face and becoming part of their sport training as a whole. Although CMPC's often work in less formal situations than clinical psychologists, there is still a stigma of seeing a [sport] psychologist or someone with a psychology-type title (Linder et al., 1991: Martin, 2005: Van Raalte et al., 1992: Van Raalte et al., 1990: Zakrajsek et al.,

2011). This stigma comes from the belief that athletes will be viewed negatively if they engage the help of a sport psychology consultant (Martin et al., 2002). Other factors such as gender and sport influence athletes' beliefs, as described in the findings by Yambor & Connelly (1991). Social norms and cultural stereotypes dictate that male athletes should be tough and masculine and, should not exhibit or disclose any emotional problems.

It has been found that the delivery of psychological skills by a non-psychology titled professional has the potential to increase athlete receptivity and use (Radcliffe et al., 2018). Some strength and conditioning coaches have begun to implement softer skills of PST into their work. These softer skills are rooted in the development of interpersonal skills (Tod & Lavallee, 2012). Throughout the beginning of a strength and conditioning coach's career, one will undergo a phase of professional development that is integral to their continued success. During this phase of development, there is an increased focus on the key elements of coaching, high emphasis on relationship building, and a broadened view of the strength and conditioning role in athletic preparation (Tod & Lavallee, 2012). New coaches or intern coaches may experience a lag in development due to lack of experience, inefficient preparation, and arguably incomplete education. Because of the lag, current research shows that the number of coaches utilizing these softer skills are few and almost always are from the most experienced group of coaches, whereas the younger coaches tend to not use it at all or as frequently (Tod et al., 2012: Dorgo, 2009: Radcliffe et al., 2013).

As a professional in strength and conditioning, I approach my work from a humanistic lens. The humanistic theoretical model was developed by Carl Rogers and focused on happiness and the self (Rogers, 1961). This model was based around person-centered therapy (PCT) where the goal was to create a supportive environment, focus on the individual as the agent for self-

change, and the idea that the individual is in charge of the therapy process. With this in mind, a key aspect of the humanistic approach is to build rapport early on with athletes. In strength and conditioning, building rapport and fostering buy-in is of utmost importance when having an athlete work through a training program as the rapport helps create the supportive environment outlined in PCT. Another aspect of this model that is reflected in my own work is authenticity in all of my practices. Completely being myself and showing my own confidence helps build trust within my coach-athlete relationships and also helps athletes realize how being completely authentic can benefit them. This level of authenticity allows me to address my athletes with unconditional positive regard (UPG) (Walker, 2013). UPG means to coach in a nonjudgmental, empathetic, and psychologically safe space. Personally, I have found that showing empathy through body language has improved my quality of coaching. Using empathy, I can acknowledge that athletes have unique life experiences, skills, and abilities to identify and verbalize their thoughts and feelings. This acknowledgement has helped me to find the most effective way to coach each individual athlete in the way that they will understand best.

The theory of planned behavior is a well-researched theory in psychology for predicting human behaviors, particularly in the areas of health, exercise, and sport. The theory is shaped by the individuals' attitude, normative influences (perceived norms), and perceived behavioral control. The components within this theory align with the humanistic model in that the behavior in question is most likely to change when the change is lead by the client and not the consultant. Using the humanistic values alongside the theory of planned behavior coaches behavior can change to positively impact athletes. In the case of strength and conditioning coaches, attitude is a representation of one's beliefs regarding the tendency for a specific behavior to lead to specific outcomes (McLachlan et al., 2012). The subjective norm refers to the social pressure or influence

perceived by the coach from other strength and conditioning professionals in respect to engaging in the behavior, which in this case is the addition of PST during weight training. In strength and conditioning settings, perceived behavioral control refers to the control felt by the coach to effectively implement the desired behavior. These three factors influence the intention of the professional, which in turn influences the outcome of behavior. Using the humanistic lens in my coaching informs this research and aligns closely with the theory of planned behavior. Utilizing this approach and model I will lay out specific tools to aid implementation of PST into the strength and conditioning setting.

Rationale for Project

The idea for this project has been developing since before I even knew there was a project to do. Growing up playing team sports, I learned the importance of physical development and how it impacts performance. My coaches spoke highly of skill development and perfecting the basics throughout my athletic career. We achieved positive outcomes and it was the basics that helped us do so. When competition would work against us, we kept it simple and relied on concrete skills to out-work the opponent to come out ahead. At the same time, my coach would use motivational quotes and have us read passages from professional athletes' interview transcriptions or books to solidify his points. The quote that is most memorable to me, from thirteen years ago, is "the game is ninety percent mental, and ten percent physical." This would always be followed by a speech about how the coach helped us to perfect our skill, but we need to stay tough to come out on top.

At twelve years old, this got me thinking about the lack of mental coaching we received. I understood practicing sport skills to perform well, but I was confused on why we practice one hundred percent of the time for ten percent of the skill required for successful competition

performance. Even though I did not completely understand the concept of mental performance training, I understood the imbalance mathematically. When going into college, I had a desire to help athletes preform at their highest level, both physically and mentally. Getting my degree in kinesiology with an emphasis on strength and conditioning helped me to understand the physical aspect of performance and coaching. After graduating, I was working with athletes on a daily basis and starting to notice that gap once again. I would get questions about confidence, focus, or mental toughness during team sessions in the weight room. These questions brought me back to my own experiences in team sport and my desire to bridge that gap, leading to my implementation of mental training into strength and conditioning.

Statement of Purpose of Project

Due to the lack of research on this niche topic, the purpose of this project is to create a resource for strength and conditioning professionals. This resource will be focused on the implementation of PST alongside a strength and conditioning training program. To successfully implement a PST program, the strength and conditioning professional needs to have a clear understanding of each skill. To address that need, there will be information provided to help the professional reach a level of competency in that area. Along with information on each topic, there will be activities and tips on how to incorporate PST with athletes in the weight room. The project will be presented in the form of a website, which will be accessible for coaches wherever and whenever they choose to learn more. Having the resource in this format will also make sharing the content easier for professionals across the field. The goal is to reach as many strength and conditioning professionals as possible to help them build their interpersonal skills and more effectively aid in athlete preparation.

Key Definitions

Activation: The cognitive and physiological activity geared towards preparing a response to an anticipated situation (Mellalieu & Shearer, 2012).

Adversity: Misfortune in sport such as bad weather, forgotten equipment, opponents (DeChurch & Haas, 2008).

Allied Health: Health professions that are different from medicine and nursing (*What is Allied Health?,* n.d.).

Arousal: A mix of mental and physical responses to experiences (Weinberg, 2013).

Arousal Control: How an individual regulates their mental and physical responses to experiences (Weinberg, 2013).

Attending Behavior: Verbal and non-verbal behaviors that are displayed by the listener showing interest and attention (*Listening to Understand*, n.d.).

Attentional Focus/Focus: An individual's ability to concentrate on task-relevant cues (Weinberg & Gould, 2014).

Attitude: A way of thinking or feeling about something (Ajzen, 1991).

Behavior: The way an individual acts, controlled or uncontrolled (McLachlan et al., 2012).

Broad Attentional Focus: When an individual is focusing on the environment as a whole (Nideffer, 1976).

Cognitive Anxiety: Negative feelings about success or readiness (Weinberg, 2013).

Commitment: A mental state representing the desire or decision to continue participation (Scanlan et al., 1993).

Competency: Level of professional skill (Oliver, 2013).

Competition Imagery: Imagery during competition that aids with coping, building confidence, and increases feelings of control (Martin et al., 1999).

Confidence: Perceived self-belief or value in oneself, ability, team, etc. (Vealey & Vernau, 2013).

Contingency Plan: A backup plan created in advance (DeChurch & Haas, 2008).

Coping Skills: Physical and mental skills to manage the perceived demands of a situation (Wallace & Lewis, 1998).

Countable Athletically Relate Activity (CARA) Hours: The amount of time that student athletes are able to spend under supervision during the year (NCAA, 2009).

Emotional Intelligence: The ability to effectively interact with others and control yourself (Goleman, 2006).

Empathy: The ability to focus on others' thoughts and understand how they see things (Duquin & Schroeder-Braun, 1996).

Energy Management: How an individual uses arousal and relaxation to maintain their ideal psychological state (Weinberg, 2013).

External Attentional Focus: When an individual concentrates on their environment, not themselves (Nideffer, 1976).

External Imagery: When an athlete imagines watching themselves, in the third-person perspective, complete a task (Spittle & Morris, 2007).

External Self-Talk: What an individual says out loud to themselves (Hardy, Gammage, & Hall, 2001).

Flow State: The feeling of total involvement in the activity and acting on autopilot (Csikszentmihalyi, 1988).

Goal: A realistic and measurable desired outcome (Roberts & Kristiansen, 2013).

Goal Setting: The act of creating realistic and challenging goals (Radcliffe et al., 2013).

Helping Relationship: A partnership of a counselor and client working together to solve client problems (Wallace & Lewis, 1998).

Humanistic Theoretical Model: An approach that observes every trait and characteristic of an individual as a whole (Rogers, 1961).

Imagery: Mentally rehearsing part of or a complete performance or skill (Morris, 2013).

Individual Zone of Optimal Functioning (IZOF): Represents each individual's ideal arousal for peak performance (Hanin, 1980).

Intention: The desired objective (McLachlan et al., 2012).

Instructional Self-Talk: Self-direction about the performance of a skill (Theodorakis et al., 2000).

Internal Attentional Focus: When an athlete concentrates on their own self (Nideffer, 1976).

Internal Imagery: When an athlete imagines watching themselves, in the first-person perspective, complete a task (Spittle & Morris, 2007).

Internal Self-Talk: What an individual says to themselves in their head (Hardy, Gammage, & Hall, 2001).

Interdisciplinary: Collaboration of best practice knowledge within an individual's profession (Weiss, 2008).

Interpersonal Skills: The productive behavior of an individual while interacting with others (Weinberg & Gould, 2014).

Matching Hypothesis: States that an anxiety management technique should be matched to the specific needs of an individual (Terry et al., 1995).

Mental Practice: An act that uses imagery and self-talk to rehearse a skill (Horn et al., 2002).

Motivational Self-Talk: Self-talk that concentrates on the outcome and improves skill execution through increasing confidence and arousal (Theodorakis et al., 2000).

Narrow Attentional Focus: When the individual is concentrating on a single stimulus (Nideffer, 1976.).

Negative Self-Talk: Self-talk that includes statements that are negative or reflect anger and discouragement (Van Raalte, 2013).

Non-Psychology Titled Professional: Someone who does not serve in the role of a sport psychologist as part of an athletic staff (Radcliffe et al., 2018).

Outcome Goal: Set standards that center on a specific quality of performance (Winters & Latham, 1996).

Perceived Control: The level of belief in oneself during a situation (Ajzen, 1991).

Performance Goal: Standards that center on improvements based on a previous performance (Kieran & Hardy, 1997).

Positive Self-Talk: Self-talk that utilizes encouraging phrases and reflects favorable emotions (Van Raalte, 2013).

Pre-Performance Routine: A routine developed by an athlete to help them focus on the goal of a single moment by preparing them physically and mentally before each attempt (Perry & Katz, 2015).

Process Goal: Set standards that specific the actions an athlete will engage in during performances (Kieran & Hardy, 1997).

Progressive Muscle Relaxation (PMR): A relaxation process that involves moving through the body while contracting and immediately relaxing single muscles at a time (Weinberg, 2013).

Psyching-Up: A technique used to increase arousal (Shelton & Mahoney, 1978).

Psychological Skills Training (PST): The deliberate and persistent practice of mental skills to enhance performance and increase enjoyment (Weinberg & Gould, 1999).

Psychology-Oriented Responsibilities/Soft Skills: Psychological skills that are easily implemented without a formal education (Tod et al., 2012).

Rapport: A strong feeling of trust and understanding between individuals (Way & Vosloo, 2016).

Rehabilitation Imagery: Imagery that involves strategies to aid in pain management and healing (Arvinen-Barrow et al., 2013).

Self-Talk: The words and phrases that athletes say to themselves during different points of training or competition (Van Raalte, 2013).

Somatic Anxiety: Physical responses to anxiety such as increased heart rate, shortness of breath, and other things of the like (Weinberg, 2013).

Sport Psychology: An area of study that uses psychological knowledge and skills to address optimal performance and well-being of athletes (American Psychological Association, n.d.).

Sport Psychology Consultant: An individual who aids athletes in critical sport learning and mental performance (Gould et al., 1991).

State-Confidence: The belief individuals possess at one particular moment about their ability to be successful (Vealey, 1986).

Strength and Conditioning Coach/Professional: Part of a coaching staff that assists in athlete development, particularly in the area of athletic performance (Tod et al., 2012).

Subjective Norm: The belief towards approval by a group (Ajzen, 1991).

Team Cohesion: Sticking, working, acting together (Statler, 2013).

Theory of Planned Behavior: A model used to predict future actions, conscious or subconscious (Ajzen, 1991).

Training Imagery: Imagery used to practice different versions of game-time situations (Martin et al., 1999).

Trait-Confidence: The beliefs individuals usually possess about their ability to be successful (Vealey, 1986).

Visualization: A specific sensory modality focusing only on the sense of sight during practice (Richardson, 1969).

Chapter 2: Literature Review

This review of the literature will examine what exactly psychological skills training (PST) is in relation to strength and conditioning. To do this, the author will analyze the definition along with benefits of PST, and the different settings PST has been successfully implemented. Once a base of PST is built, the author will explore the strength and conditioning professional. To accurately get a picture of the strength and conditioning field, the education offered to hopeful professionals will be highly examined using the theory of planned behavior. Using this theory will allow the author to go deeper than just the strength and conditioning professionals' education, it will be possible to look at what organizations and athletes want out of the professional, and what needs to be accomplished to successfully fulfill these requirements. The literature review will point out the current state of PST use in sport performance and how the strength and conditioning professional can assist in the implementation of the skills.

Definition of Psychological Skills Training

Psychological skills training is defined as the deliberate and persistent practice of mental skills for the purpose of enhancing performance, increasing enjoyment, or achieving greater satisfaction (Weinberg & Gould, 1999). There are four main methods used in sport psychology: goal setting, self-talk, imagery, and relaxation (Vealey, 1988). Just as athletes need to train physically, they need to be prepared mentally. Using PST athletes can work on skills such as confidence, commitment, focus, and motivation (Weinberg & Gould, 1999). Psychological skills training, in addition to their physical and sport training, helps athletes to develop the competitive edge over their opponents. This edge is often noted as "being in the zone," something that mental skills consultants refer to as flow state. Flow state can be fostered through the use of

psychological skills in and out of performance. Understanding PST can aid coaches in helping athletes reach peak performance more often.

Psychological skills can be taught and implemented using the weight room as the main focus, but an integral part of PST is to help bridge the gap between uses. A goal of any performance coach, mental or physical, should be to teach the skills and provide tools that can be applied to any part of the performer's life. There are three key skills when introducing and beginning a PST program, they are goal setting, imagery, and self-talk. Although there are many more skills that are important, these three are the most used by athletes and understood highly by researchers. Supplemental skills such as attentional focus, energy management, and pre-performance planning can provide additional support. These skills will not only help the athlete perform well in the weight room, but also in sport competition, and other important areas of their life.

Benefits of Psychological Skills Training

Psychological skills training (PST) has developed quite the track record for itself over the past few decades. As the number of athletes speaking out on mental health increases, so does their mention of PST and what it has done for them. Giannis Antetokounmpo, back-to-back NBA MVP (2019 & 2020), NBA Defensive Player of the Year (2020), NBA Finals MVP and champion (2021), brought sport psychology to the forefront before Game 5 of the NBA Finals. During a press conference on Friday July 16th, 2021, Antetokounmpo advocated for PST by saying:

> "When you focus on your past, that's your ego. When you focus on your future, that's your pride. When you focus on the present, that's humility."

In saying this, Antetokounmpo emphasized the importance of mental skills in sport and life alike. Here, Giannis is able to demonstrate the differences in mindset and attentional focus, something we will go over later in this review. This idea can be transferred to the work of strength and conditioning coaches. As coaches and mentors, strength and conditioning professionals will impact athletes of all ages. Their understanding of what it takes to be successful on and off the court will benefit everyone involved. Hearing a high-caliber athlete talk about PST so publicly, advocates for the field of sport psychology and allied health.

Throughout research on elite athletes, many studies have found that the more successful athletes showed greater commitment, self-confidence, task orientation, and energy management (Hardy, Hall, & Alexander, 2001: Harwood et al., 2004). These are skills that are fostered through experiences and honed with the help of a sport psychology consultant. Lebon and colleagues (2010) found that the use of mental imagery was also beneficial to athletes while training in the weight room. Athletes supplementing imagery into their rest periods, or rehabilitation programs, had achieved greater maximal voluntary contractions in the muscles that were focused on during the imagery session (Lebon et al., 2010).

Settings Psychological Skills Training has been Proven

Psychological skills training has been used in a variety of settings and research is beginning to follow a similar pattern. The research follows youth athletes, elite athletes, teams of all levels, and military personnel (Vealey, 1988: Peluso et al., 2005: Hatzigeorgiadis et al., 2011: McCrory et al., 2013: Fitzwater et al., 2018). In these settings, PST is specific to the needs of the individual and what it means to have a successful performance in their field. Researchers use these different settings to study performers under specific levels of stress. Using these test groups allows for future research to easily replicate and expand upon what was already done.

Teams. Team cohesion is a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its objectives and for the satisfaction of each member's needs (Carron & Eys, 2012). Cohesion in teams is important for two main reasons, how satisfactory each member feels and the successfulness of the team's performances. Papanikolaou and his team (2012) looked at the effects of a PST program on the cohesion of a men's soccer team and found some staggering results. They used seven items from Sports Cohesion Questionnaire (SCQ) to measure the cohesion of the team by including both social and task elements. They found that the team with the PST intervention showed significant increases in cohesion throughout the duration of the study. In contrast, the team without the intervention showed a decrease in team- and athlete-coach cohesion as time went on (Papanikolaou et al, 2012).

Individuals. One study on individuals participating in golf putting activities looked at how imagery and self-talk can be used to increase accuracy (Peluso et al., 2005). This study analyzed the putting accuracy of 150 college students whose skills and practice times ranged significantly. The research found that those who implemented mental strategies during their performances increased their putting accuracy significantly, across all evaluations, more than the control group who did not use the strategies (Peluso et al., 2005). This shows that the use of psychological skills training benefits novice and elite athletes alike (Hatzigeorgiadis et al., 2011).

Military. The military is a big advocate for PST in their training of various groups of individuals. PST is used during training for a specific job or assignment, which allows for a control and test group to be used without much effort. One study on pilot trainees suggests that specific components of a PST intervention can potentially aid in the development of skills that form major components of self-regulation strategies, a skill that is crucial to the performance of

pilots (McCrory et al., 2013). Mental performance coaches are becoming increasingly more important as the skills they teach are being noticed as increasingly more important. Fitzwater and colleagues (2018) found that using the military recruits allowed for an accurate study as their training had real consequences of success and failures. Their study advocates for the use of PST in military training to facilitate the development of mental toughness and enhance performances in the military setting (Fitzwater et al., 2018).

Increasing Role of Strength and Conditioning Coaches

In recent years, strength and conditioning specialized staff have become a standard for any organization that is looking to improve their competitive performance. It is known that strength and conditioning increases muscle strength, power, endurance, and hypertrophy. Research shows that these enhancements have the ability to improve athletes' speed, agility, power, balance, coordination, and aid in injury prevention (Zatsiorsky et al., 2006). Resistance training has shown benefits when it comes to self-efficacy and confidence in athletes. As the field of strength and conditioning grows in breadth and depth with new insights and technology (Springham et al., 2018), the importance of strength and conditioning coaches rises alongside. As organizations recognize the importance of a strength and conditioning coach, so do athletes. The role of the strength and conditioning coach has adapted rapidly; the strength and conditioning coach went from only talking weights to being someone an athlete can confide in and go to when in need. To address these interdisciplinary needs, strength and conditioning professionals often supplement their bachelor's degree with a minor on a specific topic or continue their education with a master's or another bachelor's in one of the different interdisciplinary fields. Athletes have developed a relationship with strength and conditioning coaches that allows the coach to help bridge the gap between athletes and other support and coaching staff members. This unique

coach-athlete relationship is supported by the rapport built by the coach and the positive perceptions the athlete has of strength and conditioning training.

Strength and Conditioning Coach Job Description

Strength and conditioning coaches are required to have at least a bachelor's degree in kinesiology or a related field. Coaches are required to have a certain amount of experience; dependent on what type of organization is being applied to. In most cases, the experience is required to be at certain levels of competition, such as high school, Division III, Division, II, Division I, or professional. The job descriptions also include a requirement of being able to work cohesively with athletic trainers and other sport medicine staff to continue injury rehabilitation and return-to-play protocol within their scope of practice. There are mentions in most job descriptions of also having some knowledge on nutrition in order to be able to help athletes fuel their bodies correctly. However, there was not a single mention of sport psychology, mental skills training, or PST in any of the posted Google Job descriptions as of February 19, 2021. Despite no requirement of it, mental skills implementation, soft skill training, and interpersonal skills utilized by strength and conditioning coaches is highly sought after. In an interview, a hiring committee is looking at how well the applicant communicates and responds, which represents the thoughtfulness and interpersonal skills learned by the hopeful coach. Without saying it, hiring committees are looking for the skills taught and learned in PST. The job postings and organizations omitting this requirement is keeping education from keeping up with the evolving intricacies of working as a strength and conditioning professional.

Why Strength and Conditioning Coaches Should Implement Psychological Skills Training

Although there was no formal requirement found in the job descriptions, 61% of respondents in one study reported that their position as a strength and conditioning coach

required the addition of psychology-oriented responsibilities (Radcliffe et al., 2018). These responsibilities are referred to as "softer skills" (Tod et al., 2012), skills that are easily implemented without a formal educational background on the topic. The development of softer skills arose from strength and conditioning coaches meeting athletes' need of a mentor during a difficult time. Radcliffe and colleagues (2018) noted that when the softer skills are delivered by a non-sport psychology-titled professional, such as the strength and conditioning coach who has high rapport, there is increased receptivity to psychological interventions and thus increases the potential for administering the interventions. For these skills to be beneficial and worthwhile, a helping relationship must be built between the strength coach and athlete.

A helping relationship in counseling is defined as a partnership of counselor and client working together to solve client problems by activating assets, developing skills, and utilizing environmental resources to decrease client problems and increase coping skills (Wallace & Lewis, 1998). This very definition can also be applied to a strength and conditioning coaches work with an athlete. A modified definition for the helping relationship between a coach and an athlete is as follows: a partnership of coach and athlete working together to solve athlete problems by activating assets, developing skills, and utilizing environmental resources to decrease athlete problems and increase the probability of successful performances (Wallace & Lewis, 1998). The helping relationship focuses more on the interpersonal skills the coach possesses, not just the physiological knowledge (Radcliffe et al., 2018). These interpersonal skills are what Radcliffe and his team (2018) referred to as soft skills. These skills involve providing social and emotional support (Radcliffe et al., 2018), not just the expected physical support. Important interpersonal skills for a coach in this helping role are, but not limited to, emotional intelligence, attending behavior, successful communication, empathy, and leadership.

Analysis suggests that the quality of the coach-athlete relationship is associated with better cognitive performance in an out of athletic performances (Davis et al., 2018). This helping relationship is fostered through the coach working in an environment that is removed from the immediate team setting and the stressors that go along with it. It is here that the setting is governed by social dynamics and performance related incentives (Tod et al., 2012).

Significant Time Spent with Athletes

Student athletes have a limited number of hours that they are able to spend under supervision during different times of the year, whether they are in-season or off-season (NCAA, 2009). When in-season, the athlete has twenty countable athletically related activity (CARA) hours, and when in the off-season, athletes have only eight CARA hours. During the off-season, athletes spend a large percentage of their CARA hours in the weight room, lifting three to four days per week for, on average, one hour. It is here that the relationship with the strength and conditioning coach becomes more important and stands out to the athlete. The high percentage of time spent with athletes provides space for the strength and conditioning coach to engage with the athlete on a personal level and develop rapport and trust within their relationship. This enables more positive outcomes for both the relationship and the athlete's performance (Foulds et al., 2019: Szedlak et al., 2018). To help foster rapport in the coach-athlete relationship, strength and conditioning coaches use this time to observe the athlete's responses to identify if it is necessary to make changes to their communication style, behavior, or actions to increase the likelihood of achieving the desired outcome (Light Shields et al., 1997). Using this increased percentage of time during the off-season, and keeping the relationship going when athletes are in-season, can benefit the athlete with continued physiological and psychological support in a lower sport specific stress environment.

Opportunities in Weight Rooms

During weight training sessions, there can be quite a bit of down time. It is during this time that an athlete-coach relationship is built and strengthened, but also is where PST could be incorporated to benefit the athlete and help them get more out of their time. There are two main areas of down time in the weight room, pre-lift mingling/huddle and rest times. From the moment when athletes first enter the weight room, the strength and conditioning coach is assessing their moods and readiness for the day. Coaches can use this time and knowledge to address any injury or accommodation needs before the lift even begins. Before the lift, there is almost always a pre-lift huddle. During this huddle, the coach will go through the day's lift and have a short conversation about any important topics. This time could also be utilized to implement micro-sessions on a mental skill that will assist the athletes in and out of the weight room.

In training programs where increasing strength or power is the main goal, a rest period of three to five minutes was found to be necessary to maintain the number of repetitions at the prescribed intensity (De Salles et al., 2009). One study suggests using mental imagery as a tool to improve motivation and self-confidence in regard to performances in and out of the weight room (Lebon et al., 2010). Lebon and team (2010) suggest that the techniques could ideally be performed during the rest periods of the training session to complement training without risk of overtraining. However, the required rest time for hypertrophy is 30-60 seconds and 20-60 seconds for muscular endurance (De Salles et al., 2009); rest periods to achieve these specific adaptations do not provide enough time to successfully incorporate PST. The use of mental imagery during rest times proves to be a beneficial tool in injury rehabilitation where one may have a greater amount of time between exercises. One study on injured athletes showed greater

strength, less reinjury anxiety, and decreased pain after mental imagery was incorporated into the traditional rehabilitation program (Cupal & Brewer, 2001).

Techniques for Implementation of Psychological Skills Training

In the field of strength and conditioning new techniques are always being generated, implemented, and evaluated, while the search for peak performance continues. Athletes want to jump higher, run faster, and be stronger. To be successful as a performance coach, strength and conditioning professionals must look at every aspect of performance to aid athletes on their path for peak performances (Foulds et al., 2019), this means looking at physical and psychological aspects of training. Strength and conditioning coaches are in a prime position to help their athletes in more ways than one. Being someone that athletes trust (Foulds et al., 2019: Tod et al., 2012), working psychological skills into their physical training may prove to have greater effect. The setting of a weight room is often one that is individually focused, even when teams lift together. This type of situation allows for individualized coaching to be done and different information to be presented when it is called for. Although the psychological skills are being presented in the weight room, they have the ability to be applied to sport performance as well, just as lifting in the weight room is to help athletes increase their sport performance.

When assessing what psychological skills could be taught in the strength and conditioning setting, by a trained professional, one quickly can become overwhelmed. It is my goal to lay out the key skills that can be learned and taught by the strength and conditioning coach for athlete implementation, in and out of the weight room. The key skills for working in this setting are goal setting, imagery, self-talk, energy management, attentional focus, and pre-performance planning (Brinkman et al., 2020: Tenenbaum et al., 1991: Lebon et al., 2010: Richter et al., 2012: Yue & Cole, 1992: Mellalieu et al., 2009: Neumann, 2019: Perry & Katz,

2015: Cooper et al., 2018: Shelton & Mahoney, 1978: Mellalieu & Shearer, 2012: Ranganathan et al., 2004: Shackell & Standing, 2007). Heydari and colleagues (2018) found that training goal setting, imagery, and positive self-talk significantly increased state- and trait-confidence in volleyball athletes. Trait-confidence is the belief or degree of certainty individuals usually possess about their ability to be successful in sport; whereas state-confidence is the belief or degree of certainty individuals possess at one particular moment about their ability to be successful in sport (Vealey, 1986). Differentiating between the two types of confidence aids professionals ability to help increase confidence with each individual athlete in the most efficient way. Vealey (1986) developed two separate tools to measure the levels of trait- and state-confidence. The Trait Sport-Confidence Inventory (TSCI) State Sport-Confidence Inventory (SSCI). Both the TSCI and SSCI include thirteen questions measured on a 9-point Likert scale (Vealey, 1986). Using these assessments along with teaching psychological skills, a professional can aid in increasing athletes' confidence in sport. In a systematic review, Neumann (2019) found evidence suggesting that differentiating between types of focus and using specific types during specific moments of training and competition can promote more successful outcomes. Applying attentional focus in different ways can aid in muscular efficiency and accuracy of force production during weightlifting and competition through muscle activation and energy management (Neumann, 2019). Through implementation of different attentional focus strategies, athletes can increase motivation and endurance during high levels of exercise intensity (Neumann, 2019). Practicing the same attentional focus during pre-competition planning can enhance athletic performances (Perry & Katz, 2015). Using routines has been shown increase accuracy of performance as well as enhance a feeling of self-control when performing an athletic

action (Perry & Katz, 2015). Continuous success and enhanced feelings of self-control can aid in ongoing motivation and commitment in sport by the athlete.

Each of these skills has the potential to transfer out of the weight room and lift any athlete's performance to the next level, with the help and proper evaluation by a trusted professional. As a strength and conditioning coach, it is imperative to understand each skill before teaching it to an athlete. This proficiency will allow the skill to be taught clearly to be understood quickly, permitting a conversation to happen where athletes can ask for clarification and receive it without much hesitation from the strength and conditioning professional. Using these skills, on their own or in combination with each other, will help athletes to be more confident, have a higher level of commitment, and be more motivated.

Goal Setting

To first understand goal setting, one must understand what a goal is. Goals are defined as realistic and measurable desired outcomes (Roberts & Kristiansen, 2013) or what an individual is trying to accomplish (Locke et al., 1980). Taking that a step further, goal setting can be defined as the act of creating realistic and challenging goals to increase motivation (Radcliffe et al., 2013: Mellalieu & Shearer, 2012) and direct training. There are three main types of goals that can be used on their own or in combination with each other to enhance performances (Locke & Latham 2006). The three types of goals are outcome, performance, and process, each goal referencing a specific point in competition. Outcome goals are set standards that center on a specific quantity or quality of performance (Winters & Latham, 1996), such as the result of a contest between teams. Performance goals focus on improvements based on one's own performance standards in reference to past performances (Kieran & Hardy, 1997). Process goals specify the behaviors and procedures an athlete will engage in during performances (Kieran &

Hardy, 1997). When setting the different types of goals, it is suggested that goals that are more difficult and specific lead to more successful performances compared to goals that are vague or "do your best" (Locke et al., 1980).

Studies over the years have produced varied findings regarding these types of goals. A study done by Boyce and Wayda (1994) found that self-goal setting led to a greater increase in leg press strength during a 9-week intervention when compared to the control group who were told to do their best. Another study examining success in muscular endurance tasks found that the test group who set goals outperformed the control group of no goals during a 10-week intervention using the 3-minute sit up test (Tanenbaum et al., 1991). In a study conducted by Stoeber and colleagues (2009), they assessed the strength of different goal setting strategies in relation to triathlon race performance. They found that athletes who set higher performance goals (faster times) and higher outcome goals (higher placing) showed greater race performances than athletes who set lower goals (Stoeber et al., 2009). These studies show how goals can be modified for various settings and lead to improved performances. When applying goal setting to strength and conditioning, it is important to note that each athlete will have different goals and it is best to guide them into setting their own, rather than setting goals for them. The self-efficacy gained from personal goal setting in sports may also transfer to other aspects of the athlete's life, such as in academics (Locke & Latham, 1985: Ginns et al., 2018) and injury rehabilitation (Brinkman et al., 2020).

The effectiveness of goal setting has been explained by various theories, including Locke & Latham's (2002) mechanistic theory and Burton's (1983) cognitive theory. The mechanistic theory states that goals regulate performance in four keyways. First, goals act as a director for performance. They direct attention and effort toward goal-relevant activities and away from

goal- irrelevant activities (Locke & Latham, 2002). This helps athletes stay on task throughout the entire performance, competition, or process. Second, goals act as an energizer. Higher, more challenging, goals lead to greater effort than lower or easier goals (Locke & Latham, 2002). Third, goals act as a motivator and increase adherence and persistence. When athletes have greater autonomy and are allowed to control the time they spend on a task, more challenging goals prolong effort (Locke & Latham, 2002). This key point has an interesting aspect of time-intensity balance. When athletes are faced with a short deadline, they are able to work more intensely for a short period of time, whereas when not pressed for time, athletes are able to work for long durations at a lower intensity. Finally, goals impact the actions of athletes. Goals influence arousal and the use of task-relevant knowledge (Locke & Latham, 2002). Burton's cognitive theory (1983) suggests that it is preferable to focus on process goals or be performance-oriented since process goals remain within the athlete's control, promote realistic expectations, and foster learning and improvement. Using a combination of these two theories, it is possible to increase motivation and action of athletes in their pursuit of success and goal achievement.

Imagery

Imagery is a mental process that involves multisensory experiences in absence of actual perception (Horn et al., 2008). Imagery incorporates all five of an athlete's senses: sight, smell, touch, taste, and sound (Hanarahan et al., 2013: Horn et al., 2008: White & Hardy, 1998). Often, the terms imagery, visualization, and mental practice will be used interchangeably. It is important to note their differences to ensure that true imagery is occurring. Visualization is a specific sensory modality, focusing only on the one sense of sight (Richardson, 1969). Mental practice usually involves other psychological skills such as self-talk along with imagery (Horn et

al., 2002). There are three general uses for imagery (Simonsmeier & Buecker, 2016), and two specific perspectives (Gordon et al., 1994).

The three general uses are when in training, competition, and rehabilitation (Simonsmeier & Buecker, 2016). Imagery use in each of these situations will look slightly different, but always following the same pattern and including all the senses. Rehabilitation imagery includes a multitude of different focuses, such as: pain management, healing, success in rehabilitation sessions, and successful performing of skills (Arvinen-Barrow et al., 2013). One study on ten injured athletes found that implementation of imagery alongside physical rehabilitation enhances the rehabilitation experience and facilitates the recovery rates of injured athletes (Driediger et al., 2006). Competition imagery can help in overcoming difficult competitive situations and coping with stressors, using imagery in these situations can build confidence and increase a feeling of control (Martin et al., 1999). Imagery in training can be used in a variety of ways. One is using imagery to imagine different game-time situations, such as a soccer goalkeeper imagining different shots-on-goal during a soccer game (Martin et al., 1999). Several studies have been conducted to determine if imagery has an impact on strength and conditioning performance. The studies conclude that imagery, in supplementation to training, shows an increase in strength in comparison to control groups (Richter et al., 2012: Ranganathan et al., 2004: Shackell & Standing, 2007: Smith & Collins, 2004: Yue & Cole, 1992). Another is imagining different sizes and levels of crowd distraction during a free-throw attempt in basketball. This is also when the skill of imagery is strengthened, during a time of low-stress and minimal consequences. Imagery in the training session can also include energy management and anxiety control during stressful situations, such as the one caused by tryouts (Martin et al., 1999).

The two specific perspectives of imagery are internal and external (Spittle & Morris, 2007). During internal imagery, the athlete is picturing themselves in the first-person successfully completing a task, as if they were doing it themselves (Spittle & Morris, 2007). External imagery is when the athlete pictures watching themselves successfully completing that same task from the third-person perspective, as if the task were a movie (Spittle & Morris, 2007). When deciding which perspective to use, it is most important that the athlete uses their own preference to benefit most from the intervention. Research shows that those who use imagery are more motivated (Martin & Hall, 1995) and have increased concentration in stressful situations (Martin et al., 1999). It is the strength and conditioning professional's responsibility to identify the necessary type of imagery for the athlete in question and to help them understand imagery in a way that leads to successful implementation in the weight room and sport performance.

The effectiveness of imagery is evaluated in contention with the fact that the brain stores memories and representations of sport performance that are accessed through physical execution and motor imagery execution (Holmes & Collins, 2001). Physical execution is when an individual directly completes a task, whether that be a sport specific skill or exercise for general preparation. Motor imagery is defined as a force-generating representation of the self in action (Jeannerod, 1997) from the internal or external perspective. Motor imagery was found to activate various brain regions; however, a potentially more significant finding was that brain activity is influenced by the nature of the imaginal task (Jeannerod & Decety, 1995). To best access the memories and prepare for performances and competition, the use of the 7-point checklist created by Holmes & Collins (2001), represented by PETTLEP, is recommended. This model provides useful guidance in the learning and rehearsal of imagery. The 7-points of PETTLEP are physical,

environmental, task, timing, learning, emotion, and perspective (Holmes & Collins, 2001). Physical refers to the physical elements incorporated to the imagery session. To be most effective, the imagery should feel as physically as close to performance (Holmes & Collins, 2001), such as holding a racquet while imaging a tennis match or wearing a team uniform when imaging a track meet. Environmental refers to the athlete being in or comfortable with an environment. To be most effective, an athlete should physically be in the same environment as will be the competition, such as a golfer standing in a sand pit while imaging bunker shots. However, this is not always practical of feasible, in that instance, it is best to look at photos, watch videos, or even speak with individuals who have previously competed in the environment (Holmes & Collins, 2001). Task refers to the imagery matching the level of performer. An elite athlete and pre-elite athlete focus on different aspects while preparing for competition, the imagery practice should reflect the same (Holmes & Collins, 2001). For example, when imaging a task where form is emphasized, it has been found that the use of external visual imagery alongside kinesthetic imagery leads to superior performance (Hardy & Callow, 1999). Timing refers to the process that imagery follows. If a performer always completes a skill in the same order and duration, then the imagery should match that (Holmes & Collins, 2001). A basketball player imaging their free-throw should follow the same timing of a physically preformed free-throw. Learning refers to how the imagery will change over time. As motor functions and skills are learned and preformed differently, the imagery of that skill should represent the performers advancement (Holmes & Collins, 2001). Emotion refers to a newer aspect of imagery and has been found to be the central core to mental training (Loehr, 1997). It is beneficial to recognize that sport is not performed in a hyper-relaxed state, so the execution of motor imagery of sport should not be in a hyper-relaxed state either (Holmes & Collins, 2001). Imagery emotions

throughout the PETTLEP process should match the emotions of competition, if a performer is aroused, then the imagery script should be written in a way to increase the heartrate and breathing rate of the imagining performer. Perspective refers to the way in which the performer is picturing the imagery, whether that be from and internal or external perspective. When following PETTLEP, it is important to recognize that this is not a step-by-step process. Imagery takes in each of the 7-points and uses them cohesively with each other. Imagery is best used when utilizing each aspect and modifying to specifically fit the needs of the individual or group.

Self-Talk

Self-talk refers to the automatic or deliberate statements athletes use to direct their thinking (Mellalieu et al., 2009). Self-talk can occur in two different ways, internal or external, similar to imagery. Internal self-talk refers to what athletes say to themselves in their heads, whereas external self-talk refers to what athletes say to themselves out loud (Hardy, Gammage, & Hall, 2001). There are four main types of self-talk, each can benefit the athlete in a different way (Van Raalte et al., 2016). The first type of self-talk is instructional; this type includes self-direction about the performance of a skill or strategy (Theodorakis et al., 2000). Training including instructional self-talk was found to be useful in facilitating the learning of new skills and in enhancing the performance of tasks requiring higher accuracy and precision (Theodorakis et al., 2000). The second type of self-talk is motivational. This type of self-talk is effective for maximizing effort and persistence during a performance, meaning that this specific type is most effective when applied to endurance or strength-based activities (Theodorakis et al., 2000). Motivational self-talk typically concentrates on the outcome and improves skill execution through building confidence, increasing arousal, and creating positive moods (Theodorakis et al., 2000). The third type of self-talk is positive; positive self-talk utilizes encouraging phrases and

reflects favorable emotions (Van Raalte, 2013). Positive self-talk has also been found to increase performance through increases in confidence and anxiety control (Hardy et al., 1996). The final type of self-talk is negative. Negative self-talk includes statements that are negative and/or reflect anger or discouragement (Van Raalte, 2013). Often, athletes will be more successful when reframing negative self-talk into one of the other three types, but it is advantageous to note that some athletes can use negative self-talk to their benefit (Van Raalte et al., 2000).

Research being done on the topic of how self-talk impacts sport performance supports the previously mentioned claims. One study conducted in 2008 by Edwards et al., concluded that athletes utilizing motivational self-talk improved vertical jump performance greater than those using instructional or no self-talk. Theodorkis and colleagues (2001) found when studying test groups on 3-minute basketball shooting percentage, the group instructed to use "relax" improved over the control group and the group instructed to use the term "fast." This helps to solidify how important it is for each athlete to use the type of self-talk that most closely relates to their personality and are most comfortable with. As the professional, strength and conditioning coaches need to know and understand each of the types to help the athlete find what works best for them.

To get the most benefit from the use of self-talk, it is suggested that individuals follow the ABCDE model that was derived Ellis' (1985; 1991) rational-emotive behavior theory. The ABCDE model reflects how events change our emotions and self-talk, but also how to get through them. A represents the activating event or adversity, B represents the belief of the individual, and C is represented by the consequences of the belief (Ziegler & Smith, 2004). D has been added to this model which represents how an individual can dispute the consequences and beliefs caused by adversity (Ellis, 1985; Sarracino et al., 2016). To successfully dispute

ABCDE, it is imperative to teach individuals to recognize and challenge their automatic or deliberate self-statements (DiGiuseppe et al., 2014), or self-talk. Ellis (1985) advocated the use of the ABCDE model; E representing the effect of the disputed ABC on individuals and their performance. The most important aspect of this model is to help athletes see the connection between events that may serve as a trigger for destructive self-talk, and how irrational emotions and beliefs can cause consequences that often lead to increased stress and/or conflict during performances (Malkinson & Brask-Rustad, 2013).

Attentional Focus

Attentional focus is an individual's ability to concentrate on task-relevant cues (Weinberg & Gould, 2014). When working with this definition, it is also important to note that being able to switch attentional focus when necessary is a key component of achieving excellence in sport (Orlick & Partington, 1988). Strength and conditioning coaches work with all types of athletes and almost, if not every position within the sports they work with. As a coach it is important to understand that each athlete will have different levels of focus during different points of competition and at different levels of play (Mann et al., 2007). They also found systematic differences between amateur and elite athletes in the way that elite athletes extracted more task-relevant information from complex game situations (Mann et al., 2007). This correlates to more successful outcomes through quicker decision making and more accurate anticipation of opponents' moves. Depending on the individual and their position, there are four main types of attentional focus that they may engage in.

The four types of attentional focus can be conceptualized on the four-quadrant model created by Nideffer (1976). To understand the types, one must first understand the two different axes, the horizontal from external to internal, and the vertical from narrow to broad (Nideffer,

1976). Narrow attentional focus refers to concentrating on a single stimulus, whereas broad attentional focus refers to an athlete not concentrating on a single thing, but rather their entire environment (Nideffer, 1976). External attentional focus is when the athlete concentrates on their environment and internal attentional focus is when the athlete concentrates on their own self (Nideffer, 1976). If one were to put these types of focus on a grid, it would result in four quadrants of focus. The first being broad-external, this is the type of focus that a quarterback in football demonstrates as they step back, assesses the field, and complete a pass. The second quadrant holds the broad-internal focus, this is the type of focus that a coach would use as they develop a game plan. The third quadrant represents narrow-external focus, such as golfer concentrating on the ball when putting. The fourth quadrant represents narrow-internal focus, such as a gymnast evaluating their current arousal and breath control when preparing for a floor routine. Educating an athlete on the types of focus and when each is most beneficial is an important part of competition preparation.

Research addressing attentional focus and the use by elite Olympic athletes shows that those that preform at the highest level, have the best strategies on how to focus and maintain that focus over time when faced with uncertainties in competition (Orlick & Partington, 1988). Orlick (2008) found that focusing on the present prevents athletes from dwelling on uncontrollable aspects of their performance such as the past, future, opponents, or crowd. During their best performances, the players' attentional focus was also characterized by executing well-learned skills on autopilot (Tedesqui & Orlick, 2015). Preforming key, proficient tasks on autopilot allows for the athlete to focus on other aspects of competition, allowing for more focus on the field and play development, showing that elite athletes automate skills during practice to ensure their attention is in the right place during competition (Baumeister, 1984; Horn & Boutcher,

2008; Orlick & Partington, 1988). Knowing the types of attentional focus, being able to recognize, and seamlessly move between each type will aid an athlete in reaching peak performance.

Pre-Performance Planning

In sport, pre-performance planning is often taken for granted or forgotten about. Athletes and coaches work hard to plan the perfect travel itinerary or game day scenario. When everything goes as planned, things generally work out in the planner's favor. Developing, understanding, and enhancing the preparation for performance has been seen as a very real way of ultimately enhancing performance level and consistency (Cohn et al., 1990: Wrisberg & Anshel, 1989: Cotterill, 2011). However, when things do not go as planned it can be a cause of stress, anxiety, and poor harmonization between athletes (DeChurch & Haas, 2008). There are two key components to planning that are overlooked, but integral to performance. Both of the key types of plans will help the athlete or performer to control their controllables when faced with adversity. This adversity may come in the form of inclement weather, a forgotten piece of equipment, unexpected opponents, and other events of the same nature (DeChurch & Haas, 2008). The two key types of plans are contingency plans and pre-performance routines, and both will aid in combating the unexpended nature of competition and help prepare the athlete for a top performance.

Contingency plans. Most research has been conducted in the corporate world (Bloom & Menefee, 1994: Smith, 1990: Rodrigues, 2021), but the same ideology can be applied to sport. A contingency plan specifies, in advance, a backup plan that the team will follow if needed (DeChurch & Haas, 2008: Bloom & Menefee, 1994), and enacted during situations when athletes or teams are faced with adversity. Adversity can come in many forms such as inclement weather,

performance slumps, conflicts, and injuries (Tamminen et al., 2013). Implementing a contingency plan can aid an athlete by helping them see that the inconvenience is not happening to them, it is happening with them, such as snowing during a championship soccer game. This is something out of anyone's control and is enough to make anyone more anxious or nervous than necessary going into competition. An athlete with a contingency plan can tactically attack the inclement weather and come out ahead of their opponents. A key component of this type of plan is to sit down before the event and respond, not react. In this type of planned response an athlete has the ability to remind themselves of the gear they should wear and the type of food they should eat or drink to best perform in the snowy conditions. This is an example of an athlete responding to the adverse situation and controlling their controllables to have a successful performance.

Pre-performance routines. When a basketball player goes to the free-throw line, when a tennis player initiates a serve, or when a golfer sets up for a shot, each athlete has a routine that they do (Czech et al., 2004: Morais & Gomes, 2019: Cohn et al., 1990). This routine helps them to focus on the goal of that very moment and helps them to prepare physically and mentally to have a successful performance (Perry & Katz, 2015). When preparing physically, the goal is to reduce the heart rate and breathing rate to minimize unwanted anxiety (Weinberg & Gould, 2014). Mental preparation refers to reducing distractions and focusing only on task relevant cues (Weinberg & Gould, 2014). Pre-performance routines are used during self-paced events in which the athlete sets themselves up and completes the task on their own time, within the limits of the game (Lidor, 2013). Using this type of plan helps for an athlete to momentarily block out nerves, observers, coaches, and opponents in attempt to execute the task at hand.

To best create and practice this type of routine, Lidor (2013) suggests the use of a three-phase model; the three phases of the model are preliminary preparatory instructions (Phase 1), task-specific preparatory instructions (Phase 2), and preparatory instructions for the real-life self-paced event (Phase 3) (Lidor, 2013). The objective of Phase 1 is to teach athletes the fundamentals of both physical and psychological preparatory routines associated with self-paced tasks (Lidor, 2013). Coaches should speak with the athletes and provide demonstrations about how pre-performance routines are integral to self-paced tasks and convince athletes to include them in their performance. Throughout this phase, athletes should be taught different styles of pre-performance routines, and be provided the space and time to practice in a risk-free environment. An emphasis should be made on trying different types of routines and learning to incorporate different skills, such as, attentional focus, imagery, and self-talk. The goal of Phase 2 is to enable athletes to adopt a consistent set of physical and psychological routines that best reflect their individual needs and preferences (Lidor, 2013). During this phase, athletes select the most beneficial routine for their task performances. This phase can cause a dip in motivations, coaches can assist in maintaining motivation by showing videos of skilled athletes preparing themselves for self-paced skills and lead a discussion on the most beneficial elements the skilled athlete used in their routine (Lidor, 2013). Athletes should practice their routine repeatedly until they feel comfortable using it in a real self-paced event, such as competitions and games. The goal of Phase 3 is to enable athletes to practice their pre-performance routine in settings that reflect the actual real-life self-paced event (Lidor, 2013). Athletes should practice routines while considering two major situational conditions, time constraints and external distractions. This type of new practice will ensure that the physical and psychological routines can successfully be performed within the time constraints of competitions and overcome outside distractions such as,

loud crowds, trash talk, and commentators. Working this three-phase model will allow an athlete to learn the benefits, practice different styles of routines, and pick on that will allow them to preform self-paced tasks more successfully.

Energy Management

Energy management includes two main topics, arousal control and relaxation. Arousal is defined as a blend of physiological and psychological responses an individual is experiencing (Weinberg, 2013). Arousal can be viewed as a fluid continuum of emotions athletes experience throughout their day from deep sleep to extreme excitation (Weinberg, 2013). However, each athlete will interpret situations differently and require their own skills to manage the situation. There are two main areas of increased energy: activation and arousal. Activation is viewed as the cognitive and physiological activity geared towards preparing a planned response to some anticipated situation; whereas arousal is defined as the physiological and cognitive activity which occurs in relation to new stimuli, which suggests a lack of planned preparation (Mellalieu & Shearer, 2012). Depending on each individual and their competitive position in sport, they will have different levels of arousal that leads to optimal performance (Pineschi & Di Pietro, 2013: Kamata et al., 2002). This is known as their Individual Zone of Optimal Functioning (IZOF) (Hanin, 1980). The IZOF model proposes that each individual athlete experiences a unique range of positive and negative emotions that are either functional or dysfunctional in performance (Harmison, 2006). These establish four zones of emotions to be identified dysfunctional negative (uncomfortable, displeased, frustrated, nervous), functional negative (irritated, uneasy, scared, fierce), functional positive (fun, pleased, inspired, confident, excited), and dysfunctional positive (comfortable, overconfident, content, dispassionate) (Hanin, 1980). Achieving peak performance is a result of being athletes being able to identify their current levels of emotions and knowing

how to get them in their ideal zones (Cooper et al., 2018). There are two key strategies for regulating the levels of emotions, psyching-up and relaxation (Pineschi & Di Pietro, 2013). Simply psyching-up the whole team before the game is no longer the move; it is important to create a positive and energized environment for all positions. It is equally as important understand that each player's IZOFs varies in the levels of emotional self-regulation depending on competition, sport practice, or strength training (Robazza et al., 2004).

Psyching-up. Psyching-up is an important skill for athletes when they become aware that they are experiencing feelings such as fatigue, lethargy, lack of enthusiasm, and lower levels of attention (Pineschi & Di Pietro, 2013). Strategies used to psych-up athletes include increasing attentional focus, self-efficacy statements ("I can do it"), and imagery (Shelton & Mahoney, 1978). These strategies include several techniques such as, standing positions, intensity keywords and positive statements, energizing imagery, increased breathing rate, and upbeat music (Weinberg, 2013). The previously mentioned techniques can be implemented at a team or individual level; however, it is imperative that the psyching-up techniques do not over-psych individuals out of their optimal zone for peak performance.

Relaxation. Relaxation is a key component for peak performance and a skill that can be easily transferred from one area of a performer's life to another. Relaxation includes physical and cognitive techniques that can combat the different types of anxiety and emotions felt by the performer (Weinberg, 2013). Each technique used should be specific to the type of anxiety being experienced, whether it be cognitive (psychological) or somatic (physiological) (Flint, 1998). Cognitive anxiety consists of negative feelings about success or preparedness. Somatic anxiety consists of increased heart rate, shortness of breath, sweaty hands, increased muscle tension, cold sweats, and butterflies (Weinberg, 2013). To successfully target the anxiety experienced by the

athlete, the practitioner should be aware of the matching hypothesis. The matching hypothesis states that an anxiety management technique should be matched to the specific needs of the individual (Terry et al., 1995: Weinberg, 2013). Using this matching hypothesis, a state of worry should be matched with cognitive techniques that will focus on calming thoughts, and nervous sweating or shaking will be matched with physical techniques such as progressive muscle relaxation (PMR) or breath control. Common cognitive relaxation techniques include meditation, thought focusing, and using repetitive phrases or mantras (Mellalieu & Shearer, 2012). Progressive muscle relaxation is highly regarded as the gold standard of relaxation techniques (Weinberg, 2013). It was developed on three key assumptions: it is possible to learn the difference between relaxation and tension in muscles, tension and relaxation are mutually exclusive, and body relaxation will lower anxious thoughts because one cannot be anxious and relaxed at the same time (Jacobson, 1938). Progressive muscle relaxation is the process by which an individual moves through the body tensing and immediately relaxing a single muscle group at a time, until all target areas have been relaxed. This type of relaxation can take as long as an individual desires, generally starting with shorter interventions and building up to longer durations. Breath control is another easily implemented type of physical relaxation. There are different breathing techniques that can be learned and mastered to be used in different situations of competition or training. When athletes are anxious, they often are not breathing correctly. Athletes tend to shorten the exhalation aspect, keeping their blood pressure elevated more than necessary. Using breathing techniques helps to combat those physical responses to anxiety by having the individual focus on each part of the breath: the inhale, hold, exhale, and pause (Weinberg, 2013). Depending on the situation these techniques use different timings to help the performer relax.

Theory of Planned Behavior

The theory of planned behavior (TPB) is a predictive theory that aims to explain the decision-making processes of human behaviors and thus, links beliefs to behavior, particularly in the areas of health, exercise, and sport (Armitage, 2005). Although the creation and main use are in these three areas, it is also used in studies of beliefs, attitudes, and behavioral intentions. The theory of planned behavior emphasizes that all individuals are different and their perceptions of a situation are highly influential (McLachlan et al., 2012). Figure 1 in Appendix A (Ajzen, 1991) shows the relationship between beliefs and behavior. The execution of their beliefs, however, is dependent on the strength of their intentions.

Breaking Down the Three Sections

Beliefs are shaped in regard to each individual's own, unique experiences and is expressed through their attitude, the subjective norms, and their perceived behavioral control. One's attitude is a representation of their beliefs regarding the probability for a behavior to lead to a specific outcome and their determination of whether that outcome is desirable or not (McLachlan et al., 2012). The subjective norm refers to the social pressure that individuals perceive from their significant others, colleagues, or superiors with respect to engaging in the desired behavior. Intention is a gauge of the effort and motivation an individual plans to apply towards the given target behavior. Finally, the perceived behavioral control refers to how strongly the individual believes that they can control the situation. Individuals are more likely to attempt a certain behavior if it seems favorable or is under their control. Taking Figure 1 from Appendix A and putting it into strength and conditioning coaches' terms might go along the lines of the following:

Attitude: the coach's attitude towards PST and its implementation

Subjective norm: what the coach perceives to be the norm of PST used by strength and conditioning coaches across the field

Perceived behavioral control: the self-confidence the coach has on successful implementation of PST into their work with athletes

These three aspects influence the intention of the strength and conditioning coach. Identifying each aspect, one can evaluate the coaches' plan to implement PST and how frequently. Identifying the strength of the intentions, through the three other areas can help predict the behavior/behavior change of the strength and conditioning coach. One study evaluating teacher's intentions in ongoing education addressed the theory of planned behavior and found interesting results (Dunn et al., 2018). The authors noted that behavioral intention was predicted significantly by perceived behavioral control, subjective norm, and attitude. Their statistical analysis identified perceived behavioral control as the most powerful predictor of behavioral intention (Dunn et al., 2018). Demir (2010) suggested an increased importance on the aspect of perceived behavioral control and the influence that it may have on behaviors that require skills and resources. This research shows that resources and their accessibility are the strongest factors in changing a behavior, providing stronger evidence for this project.

Psychological Skills Training and its Avoidance

Using TPB, one can attempt to evaluate when and where breakdowns of implementation may occur. It is not exactly known why strength and conditioning coaches avoid using PST in their work with athletes, but there is some speculation that it falls back to their perceived behavioral control. Educational programs specific to strength and conditioning lack the inclusion of sport psychology in their programs. Most programs have courses dedicated to injury rehabilitation and sport nutrition as supplemental education, which are essential to their position

and influence. However, even with mental health and sport psychology becoming a bigger topic in the sport world, educational paths are still deficient in their instruction of PST. Thus, as individuals complete their education and move into the field as a strength and conditioning professional, they lack the skills to implement PST successfully in their immediate environment (Weinberg & Gould, 2014).

Chapter 3: Outline of Project

To accomplish the goal of teaching strength and conditioning coaches about mental skills and how to implement them within their work, every detail was highly considered and modified to best fit the training environment. The resource is formatted as a website. This format was chosen for a number of reasons, the top two being ease updating information and accessibility. Having a website makes it possible to constantly update the information as I learn more through research and personal experience. Accessibility was a big consideration when deciding the format of this resources. Strength and conditioning professionals are often on the go, either traveling with teams or moving between lift groups, this format allows them to keep the resource with them and easily reference it to expand their knowledge.

The next big challenge to consider was the content. In this review, I had already laid out the theory, background, and information regarding each skill, but that alone is not applicable for learning or teaching. In following the theory of planned behavior (TPB) my goal was to change the behavior of coaches towards the use of mental skills. The theory of planned behavior dictates that beliefs, subjective norms, and perceived control work to strengthen intentions which, in turn, changes behavior. To address the challenge of changing beliefs held by strength and conditioning coaches, pages were created to help coaches see the need and notice their own desire to fulfill that need. To assist in changing beliefs, stigmas surrounding counseling had to be debunked. To successfully debunk the stigmas, information specifically curated for strength and conditioning was provided. The goal of providing this information was to show coaches the main concepts and how they can incorporate it into their work to assist athletes on their journey to peak performance. Moving to address the subjective norms felt by the coach, quotes from high caliber athletes and articles sharing other coaches' use were provided. The hope is that this shows the

coach that other people within the field, athletes and coaches, are using psychological skills training to up their game and overcome opponents. To address the third aspect of TPB, behavior control, information was provided to help coaches help themselves. There's this old saying "help yourself before you help others," and that strongly applies to this area of the theory. To help coaches help themselves, information and resources are provided to increase their confidence and self-awareness.

After addressing the theory of planned behavior, it was time to tackle the main part, the mental skills. In determining the skills to include, I researched to find the most common skills athletes, sometimes without knowing it, and what additional skills go best with those. The chosen skills to be included are imagery, self-talk, goal setting, attentional focus, pre-performance planning (contingency planning, and pre-performance routines), and energy management (relaxation and psyching-up). To provide information about these skills, each will get its own page dedicated to teaching background, models, and implementational tools. These implementational tools will include informational pamphlets and infographics, worksheets with facilitator guides, prompts, and examples. Along with these resources there will be an annual plan provided that lays out a rough guideline on when and how to teach mental skills alongside a physical preparation annual plan.

Using all these resources, the goal of changing coaches' behavior can be accomplished. This is accomplished by addressing the beliefs, subjective norms, and their personal perceived behavioral control to influence their intentions. The strength of their intentions is what most strongly influences the changed behavior of coaches. Through the process of using this resource, I hope that coaches see the need to implement psychological skills training to help athletes in their journey to peak performance. Positive

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Appendix A

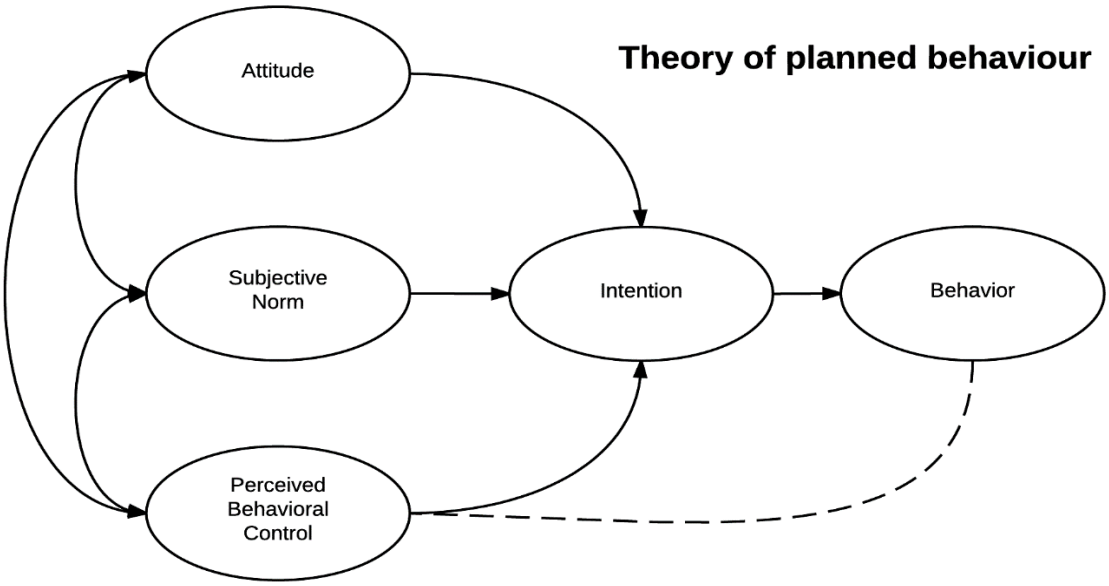

Figure 1. The theory of planned behavior (Ajzen, 1991).