AN EXPLORATION OF SELF-DETERMINATION THEORY IN INDIVIDUAL TRACK AND FIELD OLYMPIC MEDALISTS FROM THE UNITED STATES OF AMERICA AT THE 2012 LONDON GAMES

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DEDICATION

This work is dedicated to my wife, Shaylee, mother, Irma and father, Tom.

Without their endless love and support this would not have been possible. Thank you for the countless hours listening to me talk about my work and the numerous proofreads. You make me the best version of myself.
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ABSTRACT

The purpose of this study was to investigate the psychosocial aspects of the reported lived experience of Olympic medal winning athletes by the United States Track and Field athletes in the 2012 London Olympic Games, specifically focusing on an exploration of evidence of the elements of self-determination theory. This study utilized a qualitative approach and an interpretive phenomenological design to answer the research questions. Semi-structured interviews were used to obtain in-depth data about the three participant’s lived experience of winning an Olympic medal at the 2012 Olympic games in London. These interviews were transcribed and significant statements were coded. The codes were then clustered to form subordinate and ultimately master level themes. The master level themes that emerged from the lived experience of all participants in the study were 1) Support, 2) Psychological Factors and 3) Motivation.

Interpretive phenomenological analysis was used to compare the resultant themes of this study to the theoretical framework. This inductive process resulted in consistencies between the results of this study that and the pre-existing theoretical framework, thus supporting and strengthening self-determination and its sub-theory of organismic integration theory (Deci & Ryan, 1985). The results of this study are useful for athletes, coaches, sport leaders and anyone that is interested in performing their best leading up to and during their performance.
CHAPTER 1

Overview

Success at the Olympic games is the pinnacle of sport. Roger Bannister is one of the most recognizable figures in the sport of track and field. His accomplishment of being the first person ever to run under four minutes in the mile race has been regarded as the greatest achievement in the history of sport (Ewalt & Rose, 2005) and topped the list of Sports Illustrated Favorite Individual Feats of the 20th Century (Deford, 1999). In his book, The Four-Minute Mile, he speaks of his disappointment in the 1952 Helsinki Olympics where he finished 4th. “My opponents were stronger, physically and psychologically. I was not able to bear the responsibility thrust on my shoulders... I had tried to bear it alone by developing an attitude of isolation without any buffers between myself and success or failure” (Bannister, 2004, p.144).

Bannister found motivation to perform through his own internal drive and by the expectations of those around him. An example of this is prior to the 1952 Olympics Bannister had suspected that he had maneuvered himself into a tight position on purpose. Come the Olympic final, he would have an expectant crowd, the rush of competition, two years of dedicated training, the expectation that it was his last race before retirement, and nobody to blame but himself if he lost. This was motivation, as Bannister said himself, “Victory in Helsinki was the only way out” (Bascomb, 2004, p.15).

Following his disappointment in Helsinki, Bannister found motivation to pursue the four-minute mile through the thought of others viewing his training methods as a failure. “I wanted to prove that my attitude towards training had been
the right one, and hence restore the faith in myself that had been shaken by my Olympic defeat. I could accept being beaten in the Olympics – that had happened to many stronger favorites than me. What I objected to was that my defeat was taken by so many as proof that my way of training was wrong. I could not bear the thought that some other athlete might want to train along the lines that I had used, and that I might be held up as the bad example to dissuade him. This would happen unless I could bring myself to the sort of peak that I felt capable of achieving... If my attitude were right then it should be possible to achieve great success, and I wanted to see this happen – either for myself or my friends.” (Bannister, 1955 p.146).

This historical example emphasizes that psychological preparation is essential for success at the Olympic games. Additionally, it makes an important point in regards to autonomy, which is a significant element of self-determination theory (Deci & Ryan, 1985). Self-Determination Theory is a motivational theory that focuses on the degree to which an individual’s behavior is self-motivated and self-determined (Deci & Ryan, 2002). Autonomy in this theory does not mean independent of others, rather it is the universal urge to be causal agents of one’s own life and act in harmony with one’s integrated self (Deci & Vansteenkiste, 2004).

The self-coached Bannister in these examples illustrates evidence of autonomy, which a significant element of self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2000). Bannister, the athlete, making choices about things that are important to him, demonstrates autonomy in this example. Researchers have found when people/athletes have autonomy they are more intrinsically motivated
and experience improved satisfaction, well-being and performance (Deci & Ryan, 2000; Lafreniere, Jowett, Vallerand & Carbonneau, 2011; Mallet, 2005).

Roger Bannister’s pursuit of the 4-minute mile also highlights why success at the Olympic games is considered to be the pinnacle of sport. Success at the Olympic games is not solely determined by who is the best athlete in their sport, but rather who is the best athlete in their sport at the time of their Olympic moment. Given that the Olympic games take place once every four years, many athletes will only have the opportunity to compete at a single Olympic Games. Bannister’s pursuit of the 4-minute mile is a prime example of this; he might not have even competed after 1952 if he had won a medal at the Olympics that year. He would be practicing medicine by the time the next Olympics came around, he needed an alternative goal for the two serious years he would have left as a runner (Deford, 1999).

At the close of each Olympics, millions of athletes begin the pursuit of an Olympic medal in their event at the next Olympic Games four years away. Of these millions of aspiring athletes, only 18 to 32 per event, or approximately a total of less than 1,500 athletes earn the opportunity to compete in the United States of America Olympic Track and Field Trials (USA Track & Field, 2012). Of those approximately 1,500 athletes, at most only 3 athletes per event, or 126 total track and field athletes, in 2012 earned the right to compete at the Olympic Games for the USA (Branham, July, 2012). Of those 126 US athletes that competed at the 2012 Olympic Games in track and field, 23 athletes earned 25 medals in individual events (Branham, August, 2012).
Bannister, the man that would achieve a feat that would require physical and psychological skills that no one in history had ever achieved, two years earlier was self-admittedly unprepared for his one Olympic moment. While there have been a number of studies concerning biomechanical and physiological analysis of successful Olympians (Krzysztof & Mero, 2013; Ariel et. al., 2005), there have been relatively limited studies analyzing the psychology of Olympic Medal winners. Obviously it is important for coaches, athletes and Olympic committees to gain knowledge and understanding of how the athletes that were motivated to succeed in their Olympic moment did so.

The purpose of this study was to investigate the psychosocial aspects of the reported lived experience of Olympic medal winning athletes by the United States Track and Field athletes in the 2012 London Olympic Games, specifically focusing on evidence of the elements of self-determination theory. The primary research question for this investigation was:

1. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concept of autonomy, relatedness and competence as identified in Deci and Ryan’s Self-Determination Theory (1985)?

This study was part of a larger research study, which is being conducted in conjunction with the United States Olympic Committee (USOC) and United States of America Track and Field (USATF). As part of this larger study there was additional research questions, which supplemented this study’s primary research question. These additional research questions were:
2. What were the critical moments, critical events or critical incidents in the athlete's experience that led them to successful achievement of the individual Olympic medal (Gold, Silver or Bronze)? How did they recognize critical moments and respond?

3. What in the athlete's lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concepts of Well Being and of Flourish as identified in the PERMA model (Seligman, 2011). (PERMA is an acronym for Positive emotions, Engagement, positive Relationships, Meaning and Achievement).

4. What perceived aspects of the coach-athlete relationship helped in the process of developing an Olympic medal winner? Specifically, was there evidence that the Coach-Athlete relationship was consistent with, and potentially contributed to the experience of Intrinsic Motivation and well-being, as identified in the elements of Self Determination Theory and the Flourish: PERMA models?

The results of this study provided an understanding of the psychological aspects of success at the Olympic Games for these athletes. In particular, it provided insight into what motivates these athletes as well as the evidence of self-determination in their experience. Self-determination theory has been studied many times from a sport and exercise perspective. These studies focus on exercise adherence or youth participation (Teixeira et. al., 2012). This study expanded the body of knowledge by exploring self-determination theory in depth with athletes that experienced success at the highest level of competition, the Olympic Games.
CHAPTER 2

Review of Literature

Introduction

The purpose of this study was to investigate the psychosocial aspects of the reported lived experience of Olympic medal winning athletes by the United States Track and Field athletes in the 2012 London Olympic Games, specifically focusing on evidence of self-determination theory. The literature review provides an overview of the Olympic Games, and a review of the psychological research related to Olympic Athletes. It briefly provides a historical summary of motivational theories and an in-depth review of self-determination theory. The literature review concludes with research related to Olympians and self-determination theory.

The Olympic Games

The Olympic Games is the largest and most spectacular sports event in the world. Every four years it is watched by billions of people. The Games have the attention of most of the world, as international attention is focused on their country's athletes. The modern event draws approximately 20,000 media personnel, who provide stories and coverage of the Games to more than 200 nations. Host cities build facilities and infrastructure to accommodate the Games that transforms the city. Competitors train for years, employing the best equipment and scientific techniques, just so that they can be called an Olympian (Goodbody, 2012).

The ancient Olympic Games can be traced to as far back as 776 BC. These games which took place in Greece, were dedicated to the gods and continued for nearly 12 centuries until 393 A.D. when the Emperor Theodosius decreed that all
such “pagan cults” be banned (Ancient Olymics, n.d.). The modern Olympics Games begin in 1896, in large part because of the contributions of Pierre de Coubertin. This International event was held in Athens, Greece with 14 nations participating in this inaugural modern Olympic Games including the United States (2014, April 6).

Motivational Theories

Since the early 1900s the study of motivation and the psychological theories of motivation address two key aspects of behavior; energy and direction (Deci & Ryan, 1985). In motivational theory, energy is a matter of needs. A sound theory of motivation must take into account both the innate needs of the organism and those acquired through interactions with the environment. Direction in these theories gives meaning to the internal and external stimuli. This directs action toward the satisfaction of these needs. In summary, the field of motivation explores all aspects of an organism’s needs and the processes and structures that relate those needs to behavior; motivational theories organize the findings of these explorations (Deci & Ryan, 1985).

Built upon these sets of assumptions, motivational theories fall on a continuum ranging from mechanistic to organismic. Mechanistic theories tend to view the human organism as passive. This means that the person is being pushed around by the interaction of physiological drives and environmental stimuli. The organismic theories lean toward the concept of the organism playing an active role, being volitional and initiating behavior (Deci & Ryan, 1985).

The historical development of motivation theories began with Freud’s instinct theory (1915) and Hull’s drive theory (1943). Freud identified two
important human drives; sex and aggression, while Hull identified hunger, thirst, sex and avoidance of pain as the four human drives. These theories lacked explanations for motivation of pursuits that did not have physical reinforcement.

White (1959) coined effectance motivation in which he argued humans are innately motivated to be effective in dealing with their environment. He identified in this theory that humans experience a feeling of effectance that follows from competent interactions with the environment, and this behavior can be sustained independent of any drive based reinforcements. This was the first theory of intrinsic motivation.

Additionally in the mid 1900’s there was development of a number of content motivational theories, also known as motivational theories of needs. Among the theories developed at this time most notable was Maslow’s Hierarchy of Needs (1943 &1954). Maslow's Hierarchy of Needs is based off the premise that there are five levels of needs that humans are motivated to satisfy. The individual does not proceed to the next level until they satisfy the current need. The five needs that Maslow identifies are 1) Physiological needs; 2) Safety needs; 3) Love and belonging needs; 4) Esteem needs; and 5) Self-actualization needs. Maslow contends that human’s wish to be self-actualized, which he described as "A musician must make music, an artist must paint, a poet must write, if he is to be ultimately at peace with himself. What a man can be, he must be. This need we may call self-actualization. This term, first coined by Kurt Goldstein, is being used in this paper in a much more specific and limited fashion. It refers to the desire for self-fulfillment, namely, to the tendency for him to become actualized in what he is potentially. This tendency
might be phrased as the desire to become more and more what one is, to become everything that one is capable of becoming” (1954, p.93). Maslow’s Hierarchy of Needs is often depicted as a pyramid, as it is in the following diagram.

Figure 1: Maslow’s Hierarchy of Needs (Poston, 2009, p.348)

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**Self-Determination Theory**

Deci and Ryan’s self-determination theory (1985) began as an experimental study of the effects of environmental events on intrinsic motivation and moved to a broad motivational theory of personality. This theory is an organismic theory, as opposed to a mechanistic theory, recognizing that humans attempt to master the forces in their environment and the forces of drives and emotions. In mastering
these forces, human beings integrate these drives and emotions into the internal as part of self. Self-determination theory focuses on the degree to which an individual’s behavior is self-motivated and self-determined (Deci & Ryan, 2002). Deci and Ryan expanded on this organismic theory identifying three intrinsic needs involved in self-determination. These needs are competence, autonomy, and psychological relatedness, and are seen as universal necessities that are innate, not learned, and seen in humanity across time, gender and culture (Chirkov et al, 2003).

Competence, psychological relatedness and autonomy are essential to self-determination theory, they can be defined simply as follows; competence is the innate human desire to seek to control the outcome and experience mastery (White, 1959); relatedness is the universal want to interact, be connected to, and experience caring for others (Baumeister & Leary, 1995); autonomy is the universal urge to be causal agents of one’s own life and act in harmony with one’s integrated self. Autonomy does not mean to be independent of others in this theory (Deci & Vansteenkiste, 2004).

Self-Determination Theory approaches motivation differently than other theories of motivation. Instead of viewing motivation as a unitary concept it attempts to consider what motivates a person at a given time. This is similar to Maslow’s Hierarchy of Needs (1943 & 1954) in that the theory addresses that an individual will have different needs that motivate the individual to satisfy. However, Maslow’s theory views these needs as sequential, an individual will not have motivation to satisfy a need until their subsequent needs are met. Self-Determination Theory (Deci & Ryan, 1985) views motivation as an individuals
pursuit to satisfy innate psychological needs of competence, autonomy and relatedness, in contrast to Maslow they do not follow an order, they can be satisfied at anytime.

Self-Determination Theory makes further distinctions from other motivational theories by utilizing a number of sub-theories. In particular, Deci & Ryan (1985) uses Cognitive Evaluation Theory (CET) to explain external consequences on intrinsic motivation and Organismic Integration Theory (OIT) to explain extrinsic motivation (Deci & Ryan, 1985).

Cognitive Evaluation Theory (CET) focuses on competence and autonomy while examining how intrinsic motivation is affected by external forces. CET uses three propositions to explain how consequences affect internal motivation. First, “External events relevant to the initiation and regulation of behavior will affect a person's intrinsic motivation to the extent that they influence the perceived locus of causality for that behavior. Events that promote a more external locus of causality will undermine intrinsic motivation, whereas those that promote a more internal perceived locus of causality will enhance intrinsic motivation”; Second, “External events will affect a person's intrinsic motivation for an optimally challenging activity to the extent that they influence the person's perceived competence within the context of Self-Determination Theory. Events that promote greater perceived competence will enhance intrinsic motivation, whereas those that diminish perceived competence will decrease intrinsic motivation”; Third, “Events relevant to the initiation and regulation of behavior have three potential aspects, each with a functional significance. The informational aspect facilitates an internal perceived
locus of causality and perceived competence, thus enhancing intrinsic motivation. The controlling aspect facilitates an external perceived locus of causality, thus undermining intrinsic motivation and promoting extrinsic compliance or defiance. The amotivating aspect facilitates perceived incompetence, thus undermining intrinsic motivation and promoting amotivation. The relative salience of these three aspects to a person determines the functional significance of the event” (Deci & Ryan, 1985).

Deci, Koestner and Ryan (1999) performed a meta-analysis on the topic of CET. They examined the effects of extrinsic rewards on intrinsic motivation. As predicted, engagement-contingent, completion-contingent, and performance-contingent rewards significantly undermined free-choice intrinsic motivation, as did all tangible rewards and all expected rewards also significantly undermined self-reported interest. Positive feedback enhanced both free-choice behavior and self-reported interest so long as the feedback is not relayed in a controlling manner. Word choice can negatively influence autonomy even under conditions of positive feedback if the feedback is given in a controlling manner, such as by indicating that someone is doing a good job and that they “should” continue the work, as opposed to simply indicating that they are performing well. Tangible rewards tended to be more detrimental for children than college students, and verbal rewards tended to be less enhancing for children than college students. It is important to note that the findings of CET are usually based on the premise that the task is an interesting one so that the employee/student will want to engage in the task of their own volition, but when the task is not interesting the findings indicate that the use of rewards
does not damage the intrinsic motivation or satisfaction of the employees/student to a significant degree. In another CET study particularly applicable to this study, autonomy provided through choices offered by a track and field instructor during physical education lessons, instead of controlling every aspect of the class, resulted in students reporting higher levels of intrinsic motivation (Goudas et al, 1995).

Organismic Integration Theory (OIT) was developed by Deci & Ryan (1985) as a sub-theory of SDT to provide further explanation of how extrinsically motivated behavior is regulated. OIT differentiates between 4 types of external motivation which vary based on the amount of autonomy. These can also be classified as self-determined extrinsic motivation and non-self-determined extrinsic motivation. The two types of self-determined extrinsic motivation are Integrated Regulation and Identified Regulation. The two types of non-self-determined extrinsic motivation are External Regulation and Interjected Regulation (Mageau & Vallerand, 2003). These types of external motivations can briefly be defined as 1) Integrated Regulation: the most self-determined extrinsic form of behavioral regulation and the behavior is performed to satisfy important personal goals; 2) Identified Regulation: action motivated by an appreciation of valued outcomes of participation; 3) Interjected Regulation: the individual is acting out of avoidance of negative feelings, such as guilt, or to seek approval from others; 4) External Regulation: behavior is controlled by rewards, threats and possible coercion (Deci & Ryan, 1985, 2000). The following is a diagram representing the regulatory styles described in OIT along with the associated Loci of Causality and corresponding processes (Deci & Ryan, 2000 p.72):
In OIT autonomy, relatedness and competence are important (Vallerand, 1997; Ryan, Stiller & Lynch, 1994; Kuhl & Fuhrmann, 1998). Autonomy is particularly important when its regulations are trying to be integrated into a person’s sense of self. If an external context allows a person to integrate regulations they must feel competent, related and autonomous. They must also understand in terms of their other goals the regulation in order for a sense of autonomy to be facilitated (Kuhl & Fuhrmann, 1998). This was supported by Deci, Eghrari, Patrick and Leone (1994) who found in laboratory settings if a person was given a meaningful reason for uninteresting behavior along with support for their sense of autonomy and relatedness they internalized and integrated their behavior. Ryan, Stiller, and Lynch (1994) found that children internalized school’s external regulations when they felt cared for and secure with parent and teachers.
Self–Determination Theory and Olympic / Elite Athletes

Mageau and Vallerand (2003) applied this concept to sport as part of their proposed motivational model of the coach-athlete relationship. It extends Vallerand and Pelletier’s (1985; Vallerand et al., 1987) previous motivational model. In line with Cognitive Evaluation Theory (Deci and Ryan, 1980, 1985) and the hierarchical model of intrinsic and extrinsic motivation (Vallerand, 1997, 2000, 2001), they propose a motivational sequence where coaches’ personal orientation towards coaching, the context within which they operate, and their perceptions of their athletes’ behavior and motivation influence their coaching behaviors. In turn, coaches’ behaviors in the form of autonomy-supportive behaviors, provision of structure and involvement have a beneficial impact on athletes’ needs for autonomy, competence and relatedness. Finally, the satisfaction of these three psychological needs determines athletes’ intrinsic and self-determined extrinsic motivation. The following model depicts this motivational sequence.
Mageau and Vallerand's (2003) motivational model explains through the use of Deci & Ryan's (1985, 2000) multi-dimensional self-determination theory athlete's intrinsic and extrinsic motivation. Intrinsic motivation refers to doing an activity for the pleasure and satisfaction derived from engaging in the activity (Lepper et al., 1973; Deci, 1975; Deci and Ryan, 1985). Because the activity is pleasant, intrinsically motivated athletes will engage in sport with a strong sense of volition. In contrast, extrinsic motivation implies that athletes engage in their sport not out of pleasure but for external outcomes that will result from activity participation. When extrinsically motivated, the underlying reasons for participation vary greatly in the extent to which they are integrated within the person's value system and sense of self (Deci and Ryan, 2000). Extrinsic motives can either be imposed and coercive or they can be fully endorsed by the individual. As extrinsic reasons become internalized, they become coherent with the person's self
and thus become self-determined. The internalization process thus distinguishes between self-determined and non-self-determined types of motivation (Deci & Ryan, 2000), evoking the distinction between internalization and compliance (Kelman, 1961).

Self-determined types of motivation refer to behaviors that are coherent with one’s value system (Deci & Ryan, 2000). When experiencing self-determined extrinsic motivation, one volitionally decides to engage in the activity because the activity is important and concordant with one’s values (Sheldon and Elliot, 1999). Mageau and Vallerand (2003) use the following example when applying this concept to sport; “Athletes might not find weight training very exciting but volitionally choose to engage in muscular training because they value its marked benefits for improved performance. Conversely, non-self-determined types of motivation refer to behaviors that are imposed on the self by others, the situation or by one’s sense of obligation. When non-self-determined, one feels pressured to engage in the activity because the underlying reasons for participation have not been integrated into one’s value system and sense of self. Rather, they have been dictated by external or internal forces, such as others’ expectations, monetary incentives or one’s sense of guilt or obligation. Although the person behaves as prescribed, he or she does not value the emitted behaviors. For example, athletes who fail to see the benefits of weight training may engage in muscular training because they want to avoid any argument with their coach. Such athletes would not endorse the value and importance of their coach’s instructions and would not be self-determined in their extrinsic motivation” (Mageau & Vallerand 2003, p.880).
Research shows that both intrinsic motivation and self-determined types of extrinsic motivation, as opposed to non-self-determined extrinsic motivation, are necessary ingredients for athletes’ optimal functioning (Vallerand & Rousseau, 2001; Mageau & Vallerand, 2003). Because being involved in sports entails much training and discipline that are not always enjoyable, athletes cannot rely solely on intrinsic motivation and must, at times, turn to extrinsic forms of motivation to pursue their training. It is thus important for athletes to endorse the value and importance of their training for skill development. In fact, research shows that self-determined extrinsic motivation, as opposed to non-self-determined extrinsic motivation, is related to positive cognitive, affective and behavioral consequences very similar to the ones associated with intrinsic motivation (Vallerand, 1997). More specifically, research has shown that athletes who are intrinsically motivated and self-determined in their behaviors invest more effort (Pelletier et al., 1995; Williams & Gill, 1995; Fortier & Grenier, 1999; Li, 1999), report higher levels of concentration (Brie`re et al., 1995; Pelletier et al., 1995), are more persistent (Fortier & Grenier, 1999; Pelletier et al., 2001, 2003; Sarrazin et al., 2001) and perform better (Beauchamp et al., 1996; Pelletier et al., 2003) than athletes who rely on non-self-determined types of motivation.

An Olympic medal is a highly valued extrinsic reward. However, athletes' motivation is not necessarily controlled by this extrinsic reward. Instead it can be integrated into their self and their actions are still volitional. This self-determined extrinsic motivation combined with their intrinsic motivation can provide strong combination of motivation driving them toward winning an Olympic medal.
Mallett and Hanrahan (2004) conducted a multi-theory study of motivation using three major social-cognitive theories. The three theories that they used to provide the theoretical framework to examine the motivation process in their participants were Deci and Ryan’s self-determination theory (2000), Vallerand’s hierarchical model of motivation (1997) and Duda’s achievement goal theory (1992, 2001). Unique to Mallet and Hanrahan’s (2004) study was the elite level of the participants; the ten athletes examined had participated in either the Olympic Games or World Championships for Australia in the previous six years and placed in the top ten in their event. A qualitative methodology was used in this study utilizing 45-60 minute semi-structured interviews. Semi structured questions were designed to provide a consistent framework in which to operate across the participants, but also to allow opportunities to explore participant responses when appropriate (Mallett & Hanrahan, 2004) Hierarchical content analysis as adopted by Scanlan, Ravizza, and Stein, (1989) and Gould, Tuffey, Udry, and Loehr (1996), was employed in this study to identify and isolate themes.

The key themes that emerged were examined using the three social-cognitive theories of motivation and previous research conducted in this area. The three themes found in this study were that the participants (a) were highly driven by personal goals and accomplishment, (b) had strong self-belief, and (c) life revolved around track and field. The researchers concluded that the three motivational theories provided useful framework for examining the motivational process of elite athletes. Consistent with these theories the perception of competence was found to play an important role as a critical psychological mediator for the elite athletes who
participated in this study. The findings support the contention that the accomplishment of goals enhances perception of competence, which, in turn, positively influences self-determined motivation.

Mallett and Hanrahan (2004) also found that the elite athletes were characterized by multiple motivations and, in particular, self-determined motivation. Participation in elite sport does not always undermine self-determined motivation. Elite athletes in the Mallett and Hanrahan (2004) study are not always primarily motivated by external rewards such as money. External rewards can provide information about competence and also have a controlling influence on behavior. Mallett and Hanrahan (2004) suggest that the perception of competence is a strong mediating variable influencing self-determined motivation. It is suggested that elite athletes perceive external rewards as positively influencing their perception of competence, which subsequently enhances self-determined motivation. This explanation is consistent with the findings of Reeve and Deci (1996). Another explanation that they offer is that after a period of time, financial rewards for elite athletes lose their controlling influence, and the pursuit of being someone special is a more powerful motivator. The perceived locus of causality becomes more internal. It is suggested that after a period of time, money and winning are not the powerful motivating forces. Rather, it is the perception of being competent and accepted by others that is most influential. Motivations change over time and sensitivity to these changes requires strong consideration by the architect of an athlete’s training and competition environment.
The Mallett and Hanrahan (2004) study concluded with two implications for elite athletes and those who work with elite athletes. First, coaches should be sensitive to different types of motivation and those factors that influence motivation. It is suggested that for some elite athletes financial rewards provide them with information about their competence more so than controlling their behavior. Second, as elite athletes were driven by personal goals, it is recommended that athletes set personal goals with their coaches that are challenging and target both improvement and the pursuit of beating their opponents. In particular, coaches are strongly recommended to facilitate perceptions of competence through goal achievement. Additionally as proposed by SDT, integrated extrinsic motivation was found to exist.

Mallet and Hanrahan's study (2004) provides a substantial amount of quality information and findings related to elite level performers and their motivation, particularly the presence of self-determination theory in these performers. However there are a few areas of improvement for future research. First, the criterion of elite being top ten in the Olympics and/or world championships could be improved to medal winners (top three in the event). This would provide insight into the motivation of the athletes that not only participate in the competition but succeed based on a standard that is universally recognized by national Olympic committees and the general public. Medalists and medal counts are treated with extra importance that could affect motivation in these individuals. Additionally the findings of this study related to self-determination theory focus on competence. Further study could broaden the knowledge of this theory with relation to its other components relatedness and in particular autonomy.
Summary

Succeeding at the Olympic Games is considered to be the pinnacle of athletics. Every four years, millions of athletes begin the pursuit of an Olympic medal in their event at the next Olympic Games four years away. Of these millions of aspiring athletes, only approximately a total of less than 1,500 athletes earn the opportunity to compete in the United States of America Olympic Track and Field Trials (USA Track & Field, 2012). Of those approximately 1,500 athletes, only 126 total track and field athletes, in 2012 earned the right to compete at the Olympic Games for the USA (Branham, July, 2012). Of those 126 US athletes that competed at the 2012 Olympic Games in track and field, 23 athletes earned 25 medals in individual events (Branham, August, 2012). In this situation only a small percentage of athletes that set out to win an Olympic medal every four years accomplish this honor. It is of interested to research those United States of America track and field athletes who won an individual Olympic medal at the 2012 games in London to gain an understanding of their experience, and to create materials to assist future athletes in their pursuit of this honor. The purpose of this study was to investigate the psychosocial aspects of the reported lived experience of Olympic medal winning athletes by the United States Track and Field athletes in the 2012 London Olympic Games, specifically focusing on evidence of the elements of self-determination theory.
CHAPTER 3

Methods

Overview

This chapter addresses in detail the purpose of the study, the methodology, and the research design. In overview, the purpose of this study was to investigate evidence of self-determination in USA Track and Field Individual Olympic Medalists from the 2012 London Games. Qualitative methodology with a interpretive phenomenological approach was used to investigate the primary research question; What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concept of autonomy, relatedness and competence as identified in Deci and Ryan’s Self-Determination Theory? This chapter details the rational for the use of an interpretive phenomenological approach, and further discusses the research questions, theoretical framework, specific methodology, context of the study, data collection, data analysis and trustworthiness.

Research Questions

At the close of each Olympics, millions of athletes begin the pursuit of an Olympic medal in their event at the next Olympic Games four years away. Of these millions of aspiring athletes, only 18 to 32 per event, or approximately a total of less than 1,500 athletes earn the opportunity to compete in the United States of America Olympic Track and Field Trials (USA Track & Field, 2012). Of those approximately 1,500 athletes, at most only 3 athletes per event, or 126 total track and field athletes, in 2012 earned the right to compete at the Olympic Games for the USA (Branham, July, 2012). Of those 126 Team USA athletes that competed at the 2012 Olympic
Games in track and field, 23 athletes earned 25 medals in individual events (Branham, August, 2012). For these athletes, their preparation and performance allowed them to achieve their goal. The interest of the study was determining the key factors, beyond talent and physical/technical training, which impacted them in achieving success and by winning a medal at the Olympic Games, specifically focusing on evidence of self-determination theory. To examine these issues the following research questions were developed. The purpose of this study was to ascertain if these athletes reported experiences consistent with Deci and Ryan’s (1985) self-determination theory particularly related autonomy, relatedness, and competence. If so, the primary research question for this investigation was:

1. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concept of autonomy, relatedness and competence as identified in Deci and Ryan’s Self-Determination Theory?

This study was part of a larger research study, which is being conducted for United States of America Track and Field (USATF). As part of this larger study there was additional research questions, which will supplement this study’s primary research question. These additional research questions were:

2. What were the critical moments, critical events or critical incidents in the athlete’s experience that led them to successful achievement of the individual Olympic medal (Gold, Silver or Bronze)? How did they recognize critical moments and respond?
3. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concepts of Well Being and of Flourish as identified in the PERMA model (Seligman, 2011). (PERMA is an acronym for Positive emotions, Engagement, positive Relationships, Meaning and Achievement).

4. What perceived aspects of the coach-athlete relationship helped in the process of developing an Olympic medal winner? Specifically, was there evidence that the Coach-Athlete relationship was consistent with, and potentially contributed to the experience of Intrinsic Motivation and well-being, as identified in the elements of Self Determination Theory and the Flourish: PERMA models?

The intent of this study was to gain an understanding of the lived experience of 2012 Individual Olympic medal winners from the United States of America in the sport of Track and Field. The methodology that was best suited for exploring the lived experience and the phenomena of winning an Olympic medal was interpretive phenomenological analysis. Phenomenology is a philosophical “method/practice” of observing, recording, and interpreting “lived experience” through vivid and detailed descriptions. The practice of phenomenology seeks to expose, uncover, or reveal “universal” (transcendental) elements of human existence that are instantiated within practical, “particular” empirical situations (e.g., Sartre’s Being and Nothingness) (Magrini, 2012 p.2). Specifically, Interpretative Phenomenological Analysis was utilized, as it is an approach to psychological qualitative research with an idiographic focus, which means that it aims to offer insights into how a given person, in a given context, makes sense of a given phenomenon. Usually these phenomena relate to experiences of some personal significance, such as a major life
event, or the development of an important relationship (Gill, 2014). In this study the major life event of winning an Olympic medal was explored though Interpretive Phenomenological Analysis.

**Theoretical Framework**

The theoretical framework of this study was Deci & Ryan's (1985) Self Determination Theory. As discussed in detail in chapter two, this theory is an organismic theory recognizing that humans attempt to master the forces in their environment and the forces of drives and emotions. In mastering these forces, human beings integrate them into the internal as part of self. Self-determination theory focuses on the degree to which an individual’s behavior is self-motivated and self-determined (Deci & Ryan, 2002). Deci and Ryan expanded on earlier work identifying three intrinsic needs involved in self-determination. These needs are competence, autonomy, and psychological relatedness, and are seen as universal necessities that are innate, not learned, and seen in humanity across time, gender and culture (Chirikov et al, 2003).

Simply defining these components; competence is the innate human desire to seek to control the outcome and experience mastery (White, 1959); relatedness is the universal want to interact, be connected to, and experience caring for others (Baumeister & Leary, 1995); autonomy is the universal urge to be causal agents of one’s own life and act in harmony with one’s integrated self. Autonomy does not mean to be independent of others in this theory (Deci & Vansteenkiste, 2004).

**Introduction to Specific Methodology**
To best address the purpose of this study a qualitative design was chosen. Phenomenology was used to gain insight into the participants lived experience. In this approach the researcher collects open-ended, emerging data with the primary intent of developing themes from the data (Creswell, 2003). Phenomenology is the science of phenomena (Van Manen, 1990 p.183). This human science method developed out of hermeneutics, is a form of interpretation. This is used to reflect on the basic human structures of the lived human experience of human existence (Van Manen, 1990 & 2014). In this study the phenomena was winning an individual Olympic medal in track and field at the 2012 games. The study as interested in gaining insight into the lived experience of those who experienced this phenomenon and to see if the themes that emerge from the data were consistent with components of Deci & Ryan’s Self-Determination Theory.

Specifically interpretive phenomenological analysis was used as it aims to offer insight into how the participant makes sense of a given phenomenon. Van Manen (1990) in other terms refers to this as the lived meaning, “the way that a person experiences and understands his or her world as real and meaningful. Lived meanings describe those aspects of a situation as experienced by the person in it (p. 183). A social constructivism paradigm was used as an inductive method to identify emergent ideas (through consensus) obtained through methods such as interviewing, observing and analysis of text (Creswell, 2013 p.36).

This interpretive phenomenological design offered many advantages to this study. The qualitative nature allowed for data to be collected that was deep and rich, which is best, for a study in which only 23 people in the world have ever
experienced the phenomena. This design also allowed for the researcher to construct the common themes of the lived experience among participants and compared them to pre-existing theory to either determine that the theory does not apply to the population of study, suggesting additional research in the area or that it exists in the population, supporting and strengthening the theory.

*Context of the Study*

*Participants*

This study utilized purposeful sampling for participant selection. This technique is widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2002). In this study the limited resource was the number of people that experienced the phenomena of interest. There are only 23 individuals in the United States of America that won an individual track and field medal at the 2012 Olympic games. Additionally, ten of these athletes have previously participated and two have declined involvement in the larger study for USATF that made the pool of possible participants very small.

The rational for selecting this small and elite population for this study was that these are the athletes that have been able to navigate the difficult journey to the Olympic medal stand. Medal counts are what sport national governing bodies and Olympic committees use as their criteria of success for an Olympic games. By researching the lived experience of this population, those who have achieved success at the highest level as defined by these elite organizations, we were able to identify consistency with existing psychosocial theories and other potential areas
for research, which will benefit future generations of athletes by sharing the information obtained from their lived experience through a variety of outlets including USATF podium education programs, coaching education programs and direct dissemination to USATF coaching staffs, administrators and leaders.

The specific demographics for this study are Olympic medalists in track and field at the London 2012 Olympic Games that had spent the years preceding the Olympics (2009-2012), known as the Olympic quadrennial, training. Three United States of America track and field athletes (n=3) participated in the study. The athletes range in age from 30-32 and were a mix of female (1) and male (2). The athletes because of their elite performances provided a rare and unique set of participants that can be extremely valuable.

Location

The location for this study varied based on the availability of the participants. The interviews were performed in-person. For these in-person interviews they took place either at the athletes place of training or competition. In either case a quite isolated room was used for the athlete to be comfortable and feel free to share in confidentiality.

Researcher

The research team consisted of four doctoral students in sport psychology, trained in qualitative research methods. The lead researcher, Dr. Rick McGuire, has an in-depth background in track and field as a NCAA Division I head track and field coach for 28 years, and as a sport psychology consultant. He developed, and was involved as the co-chairman of, the United States Track and Field Sub-committee on
Sport Psychology. Additionally, he is considered an expert in the field of applied sport psychology by his peers (Aoyagi & Poczwardowski, 2012). He has been a part of the staff for several World Championships and Olympic Games for USA Track and Field.

I conducted the interviews and analyzed the data. Another doctoral student assisted with data analysis, and acted as a second independent coder. I am a white American male who is currently working as a lecturer at a private NCAA division 1 university, I additionally work as a mental performance consultant for their track and field / cross-country program. I previously have been a coach of collegiate track and field for six years, two years as a volunteer coach at a traditional top 25 NCAA Division I university, one year as a head coach at a NCAA Division II university, and three years as a volunteer at another NCAA Division I university. Prior to my coaching experience, I participated for 4 years in track and field and cross-country at a traditional top 5 in the nation NCAA Division II University, and four years at the high school level. My past experiences as an athlete and coach in track and field and cross-country for the last 15 years have helped to develop relationships and knowledge related to the study.

As the researcher, I was involved in reflexivity during the research investigation. I accomplished this using a journal to keep track of my thoughts, feelings, reactions and conversations with my research team, and advisor.

Data Collection

Data for this study was collected consistent with interpretive phenomenological analysis practices. The collection instrument for this design was
best suited because of its flexibility; this allowed the researcher and participants to engage in a dialog, which allowed the participant to share in detail their perceptions of the event of interest. To best accomplish this semi-structured interviews was used (Smith, 2008).

The semi-structured interview schedule served to guide the interview rather than dictate the interview as in a structured interview protocol. This format was an advantage as is facilitated rapport and increased flexibility allowing the interviewer to change the ordering of questions, probe interesting areas that arise and allow the interview to follow the participants interests (Smith, 2008).

Although the semi-structured interviews are dynamic and may change during the interview it is important to construct an interview schedule. This step allowed for forward thinking on the constructs that were to be addressed and potential difficulties that could be encountered in the interviews. Having thought in advance about the different ways the interview may precede allowed the researcher, when it comes to the interview itself the ability to concentrate more thoroughly and more confidently on what the respondent is actually saying. This advanced thinking was addressed in four steps: 1) determine the overall area to be tackled in the interview; 2) Place the topics in the most appropriate sequence; 3) Develop the appropriate questions related to each area in order to address the issue of interest; 4) Prepare possible probes and prompts which could follow answers may be given to some of the questions (Smith, 2008).

The questions were constructed to encourage the person to speak about the topic with as little prompting from the interviewer as possible. If required gentle
“nudging” or additional probing questions were used to elicit a satisfactory response. The overall schedule utilized a “funnel” technique in which the interviewer started with the most general question that is possible on a subject in hopes the response will be sufficient (Smith, 2008). Further, more specific questions were used to obtain a full response if not obtain from the first general question.

The questions were general and non-directive, encouraging the athlete to tell their story. The researcher who conducting the interviews was highly skilled at natural conversation. This assisted in allowing the narratives to form naturally. The interview schedule was as follows:

*Interview Schedule Questions*

1. What was your experience like in winning a medal at the Olympic Games? How does this compare to other World Championships, Olympic Games, major events? (Research Question: 1,2,3,4)

2. What were some defining moments in your life that led you to your athletic successes, to the Olympic Games, and to here? (RQ: 2)

3. What challenges were there at the Olympic Trials, from the Trials to the Games, and then at the Games? (RQ: 2)

4. Can you talk about your preparations for the Games and what really made a difference for you? (RQ: 1,2,3,4)

5. What will you remember most from the Games? (RQ: 2)

6. Let’s talk about the Olympic team, Olympic team training camp, Olympic village environment, and competition environment. What were some of the defining moments in that experience? Were there things that were different? Were you able
to make it be like normal? Did you have strategies? Talk about these different environments. (RQ: 1,2,3,4)

7. You are a person and an athlete. What guides you in your life? Core principles, core values about yourself? Life mission? Could you talk about principles, values, beliefs that you hold? (RQ: 3)

8. How has life been since the Olympics? (RQ: 3)

9. What are you looking forward to next? (RQ: 2,3)

10. Can you talk about your relationship with your coach (RQ: 1,3,4)

11. Is there anything else that you would like to say about your Olympic experience? (RQ: 1,2,3,4)

In-depth face-to-face interviews were conducted to collect all of the data from the participants. Follow up questions were only be asked under specific circumstances such as missed information, oversimplified responses, or when a new concept emerged. Interviews were audio recorded. The interviews were completed by September 1, 2015. IRB approval was granted for this study protocol. This study also employed an informed consent process.

The most important element in the study was the personal interview, where the athlete was able to think, reflect, and describe his or her performance behaviors and results (Thompson, Vernacchia, & Moore, 1998). In this part of the investigation the applied sport psychology professional can ask questions of the athlete to gain understanding of how the athlete perceives his or her thoughts and actions in relation to effective and ineffective performances (Thompson, Vernacchia, & Moore, 1998). Consistent with phenomenological approach the participant was
able to determine the direction of the interview after each initiating question with a conversational approach (Dale, 1996; Patton, 1990; Poczwardowski, Barott, & Henschen, 2002; Poczwardowski, Barott, & Peregoy, 2002). The researcher made every attempt to prevent leading the participant and each question followed the dialogue. Follow-up questions asked, for example: “What was that like? Can you tell me more about...? How did you feel when that happened? In asking these follow-up questions the researcher was again attempting to use the participant’s vocabulary (Dale, 1996). This process allowed for the participants to tell their story from their perspective.

Each athlete was initially be contacted through his/her coach. Contact was made with the coach in person, by telephone or through email initially to indicate their interest in participating in the study. All participants were then contacted by telephone to confirm a commitment to participate in the study and to determine a convenient time and location to conduct the interviews.

Data Analysis

The focus of a phenomenological study lies in the “descriptions of what people experience and how it is that they experience.” The goal is to identify essence of the shared experience that underlies all the variations in this particular learning experience. Essence is viewed as commonalities in the human experiences (Patton, 1990). Through careful analysis of the data the essence can be viewed. In this study the human experience is winning an Olympic individual track and field medal for team USA at the 2012 games in London. Phenomenological data analysis proceeds
through the methodology of reduction, the analysis of specific statements and themes, and a search for all possible meanings.

The researcher needs to set aside all prejudgments, bracketing his or her experiences (Creswell, 1998). Max Van Manen (2014) describes the epoche and reduction in detail for accomplishing this. He describes epoche is the greek word for abstention, to stay away from, Husserl adopted the term and used it interchangeably with the word bracketing. Reduction is referring to leading back. By bracketing the researchers experiences and prejudgments through the act of journaling, both prior and throughout the research process there is a “clean slate” to start investigating the phenomena. The reduction is then the way to gain access to the meaning structures of a phenomenon (Van Manen, 2014 p.216). In this study self-reflection and journaling was conducted prior and between all data collection and analysis in order to bracket the researchers experiences and prejudgments.

Consistent with phenomenological data analysis, five data analysis steps developed by Moustakas (1994) & Polkinghorne (1989) was used. First, Go through the data and highlight “significant statements,” sentences, or quotes that provide an understanding of how the participants experienced the phenomenon. (Horizontalization); Second, Develop clusters of meaning from these significant statements and in turn develop themes; Third, Significant statements and themes are used to write a description of what the participants experienced (textural description); Fourth, They are also used to write a description of the context or setting that influenced how the participants experienced the phenomenon (structural description); Five, Researcher also writes about their own experiences
and the context and situations that have influenced their experiences (Moustakas, 1994).

The first step involves identifying significant statements in the text. As with all parts of interpretive phenomenological analysis it revolves around the close reading and re-reading of the text (Smith, 2008). It is important in phenomenological research to meticulously transcribe the interviews including indications of pause, mis-hearings, apparent mistakes and even speech dynamics where as these are in any way remarkable (Biggerstaff & Thompson, 2008).

The process of grouping significant statements based on meaning forms clusters. These clusters in turn form themes. Van Manen (1990) makes the clarification that “theme analysis” is not a mechanical application of some frequency count or coding of selected terms in a transcript or text. “Phenomenological themes may be understood as the structures of experience. So when we analyze phenomenon, we are trying to determine what the themes are, the experiential structures that make up that experience” (Van Manen, 1990 p.79). Moustakas (1994) second through fourth steps are consistent with Van Manen’s (1990 p.93) detailed or line-by-line approach to uncovering themes. He recommends in this approach that every single sentence or sentence cluster is looked at and to ask “what does this sentence of sentence cluster reveal about the phenomenon or experience being described?”. As we study the lived – experience descriptions and discern the themes that begin to emerge, then we may note that certain themes recur as commonality or possible commonalities in the various descriptions we have gathered.
This focus of meaning in theme writing is accomplished in Moutaskas (1994) steps of writing the “Structural” and “Textural” descriptions of what the participant experienced. To assist in this process the two margin process (Dallos & Vetere, 2005) was used. In this process each transcript of the interviews was read and re-read, then the left hand margin will be used identify key words and phrases, or to summarize the meaning of small chunks of text, codes will be assigned in this margin. The right hand margins was used to annotate the researchers inferences, assumptions and reactions to the text, especially any connections made with existing theory. Once the whole transcript had been coded all of the left hand codes were listed chronologically and connections between the codes were made into clusters. The process of clustering was driven by the right hand comments. The clusters were given a category title and became emergent themes, these emergent themes were then clustered into superordinate themes and in some cases clustered again into master level themes. Each level of theme analysis was grounded in the text, direct quotations were used to support the theme analysis.

Interpretive phenomenological analysis design is a "bottom-up" process (Dallos & Vetere, 2005). Themes emerged from the data through this inductive process. The purpose of the data analysis was not to “test” the theoretical framework of the study, in this case Deci & Ryan’s Self – Determination Theory. Rather, it was to gain an understanding of the lived experience, winning an individual Olympic medal for 2012 Track and Field Olympians from the United States of America. If themes that are consistent with Self-Determination Theory
were present through this inductive process of data analysis then it would serve to strengthen the existing theory and its application to this unique and elite population.

**Trustworthiness**

Similar to Poczwardowski, Barott, and Henschen (2002) and Poczwardowski, Barott, & Peregoy (2002) and based on Patton (1990) this study developed trustworthiness by: thoroughness in data collection and analysis (e.g. in-depth description, study checking through on-going conversations with research team), the credibility of the researchers (e.g. reflexivity, ensuring ethical conduct), the precise research paradigms, and triangulation. Triangulation occurred from the data being analyzed and coded independently by research team members and then compared and discussed until agreement in order to establish inter-coder reliability (Patton, 1990).

**Ethical Considerations**

I anticipated minimal, if any, risks or discomforts for the participants. I asked the participants to share their preparations and perspectives regarding their experiences leading to and competing in the Olympic Games. By their very nature, these experiences with the Olympic Games preparation and competition were very intense, with extreme personal identification and personal investment. The information shared in the interviews was certainly personal and potentially sensitive. Thus, there was potential emotional risks in discussing their challenges and obstacles, which they faced in their Olympic experience. If emotional distress occurred, a licensed counseling sport psychologist was available for them to meet with.
To protect the privacy of the participants the following process was in place: First, the interviews were conducted in a quiet, private setting, free from distractions. Second, the data collected was reviewed with the athlete to best assure that what was recorded was accurate relative to what the athlete was attempting to share and convey. This protected the accuracy of the themes that developed from the interview. Third, each athlete was allowed to delete or change any information which they might felt concern regarding its inclusion in the study and report.

The informed consent process emphasized the purpose, procedures, risks and benefits of the study, as well as the voluntary nature of the study. The participant had the right to refuse to answer any unwanted questions or withdraw from the study at any time. Participants were given a written Letter of Consent, and investigators reviewed it with the participants. Participants signed a copy of the Letter of Consent, and kept one for their reference.

A unique aspect of this study and the process was that the participants of this study were the very best athletes in the world at their sport discipline. In participating in the study, they agreed to, and desire to be role models for the young aspiring athletes of the future. Any information they wish to be kept private was deleted from the interview immediately upon their review and request.

Summary

The purpose of this study was to investigate the psychosocial aspects of the reported lived experience of Olympic medal winning athletes by the United States Track and Field athletes in the 2012 London Olympic Games, specifically focusing on evidence of the elements of self-determination theory. To best address the purpose
of this study a qualitative design was chosen. Phenomenology was used to gain insight into the participants lived experience. Specifically, interpretive phenomenological design, as described in this chapter allowed for data collection and analysis that resulted in findings that addressed the primary research question, “What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concept of autonomy, relatedness and competence as identified in Deci and Ryan’s Self-Determination Theory?”
CHAPTER 4

Results

Introduction

The purpose of this study was to investigate the psychosocial aspects of the reported lived experience of Olympic medal winning athletes by the United States Track and Field athletes in the 2012 London Olympic Games, specifically focusing on an exploration of evidence of the elements of self-determination theory. The primary research question for this investigation was:

1. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concept of autonomy, relatedness and competence as identified in Deci and Ryan’s Self-Determination Theory (1985)?

This study was part of a larger research study, which is being conducted in conjunction with the United States Olympic Committee (USOC) and United States of America Track and Field (USATF). As part of this larger study there were additional research questions, which supplemented this study’s primary research question. These additional research questions were:

2. What were the critical moments, critical events or critical incidents in the athlete’s experience that led them to successful achievement of the individual Olympic medal (Gold, Silver or Bronze)? How did they recognize critical moments and respond?

3. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concepts of Well Being and of Flourish as
identified in the PERMA model (Seligman, 2011). (PERMA is an acronym for Positive emotions, Engagement, positive Relationships, Meaning and Achievement).

4. What perceived aspects of the coach-athlete relationship helped in the process of developing an Olympic medal winner? Specifically, was there evidence that the Coach-Athlete relationship was consistent with, and potentially contributed to the experience of Intrinsic Motivation and well-being, as identified in the elements of Self Determination Theory and the Flourish: PERMA models?

The research approach used to answer the research questions was qualitative. This allowed for an in-depth collection of data about the participants lived experience of the psychosocial aspects of winning an Olympic medal at the 2012 Olympic Games in London. The research design utilized was interpretive phenomenology. A strength of this design is that it allows the researcher to construct common themes from the data collected of all participants through an inductive process allowing the researcher to compare these themes to pre-existing theory to determine whether the theory applies to the population supporting and strengthening the theory or suggesting additional research in the area.

Data was collected by use of semi-structured interviews with three United States of America Olympic Medalists from the 2012 Olympic Games. This open-ended form of data collection allowed for the participants to share their experience with the phenomena of winning an individual Olympic medal. This emergent data was analyzed by the researcher coding significant statements and then clustering those codes into subordinate and master themes. The master level themes that emerged
from the lived experience of all participants in the study were 1) Support, 2) Psychological Factors and 3) Motivation. The chart below illustrates this emergent process.

Chart 1: Theme Results

<table>
<thead>
<tr>
<th>Raw Data Codes</th>
<th>Subordinate Theme Level 1</th>
<th>Subordinate Theme Level 2</th>
<th>Master Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Time Relationship with Coach {6}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Relationship with Coach {4}</td>
<td></td>
<td></td>
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<tr>
<td>Athlete Input on Training with Coach {4}</td>
<td></td>
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<tr>
<td>Coach is Positive {2}</td>
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<tr>
<td>Trust in Coach</td>
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<tr>
<td>Coach Support</td>
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<tr>
<td>Learned from Veteran Olympic Roommates {3}</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Values Teammates {3}</td>
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<tr>
<td>Watch Teammates Perform at Olympics</td>
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<tr>
<td>Enjoys Training with Others</td>
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<tr>
<td>Pressure watching teammates</td>
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<tr>
<td>Positive Relationships with Roommates at the Games</td>
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<tr>
<td>Worked with Sport Psychologist</td>
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<tr>
<td>Family &amp; Friends Support {6}</td>
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<tr>
<td>Shared Success at Olympics with Family {2}</td>
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<tr>
<td>Family relationships with sport</td>
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<tr>
<td>Youth Sport with Friends</td>
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<tr>
<td>Religiosity {2}</td>
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<tr>
<td>Overcome &amp; Learned from Failure {5}</td>
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<td>Positivity &amp; Optimism {3}</td>
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<tr>
<td>Perseverance {3}</td>
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<tr>
<td>Part of something bigger</td>
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<tr>
<td>Learns from Success</td>
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<tr>
<td>Prove Others Wrong</td>
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<tr>
<td>Values Hard Work</td>
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<tr>
<td>Self-Value tied to Performance</td>
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<tr>
<td>Balance the Olympic Experience with Goal of a Medal</td>
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<tr>
<td>Process Oriented</td>
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<tr>
<td>Performs better when having fun</td>
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<tr>
<td>Prepared to turn challenges into opportunities</td>
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<tr>
<td>Confidence {4}</td>
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<tr>
<td>Normal training before the Olympics {3}</td>
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<tr>
<td>Change in mindset improved ability to make the Olympic Team</td>
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<tr>
<td>Support {3}</td>
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<tr>
<td>Performance Support {3}</td>
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<tr>
<td>Teammates {3}</td>
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<tr>
<td>Friends &amp; Family {2}</td>
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<tr>
<td>Social Support {2}</td>
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<tr>
<td>Sport Psychologists {1}</td>
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<tr>
<td>Mindset {3}</td>
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<td>General Mindset {3}</td>
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<td>Psychological Factors {3}</td>
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<tr>
<td>Mindset Toward 2012 Olympics {3}</td>
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<td>Uses platform of successful Olympian to share personal story to others</td>
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<td>Extrinsic motivation / External Rewards (3)</td>
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( ) Number of times the code is present in the data

Each of the three master level themes are described in the following chapter from master theme to subordinate theme(s), to the coding of raw data, and finally to sharing examples of the statements from the participants’ interviews that rooted the themes into data. These themes later in the chapter are compared inductively to the pre-existing theories addressed by the research questions.

**Support**

A master level theme that emerged from the data of all three participants was **Support**. All participants indicated in their interviews that they were not alone in
their lived experience of winning an Olympic medal. They all experienced the psychosocial aspect of support from others during this experience. Significant statements by the participants in their interviews resulted in eighteen unique codes for a total of forty statements that emerged to form this master theme. Support was perceived by the participants as being provided by multiple people and groups. The codes were clustered into five subordinate level one themes, which were further grouped into two sub-ordinate level two themes. Sources of this support were grouped into sub-ordinate level two themes of Performance Support and Social Support. Performance Support included sub-ordinate level one themes of support from Coaching, Teammates and Sport Psychologists. The sub-ordinate level two theme of Social Support included sub-ordinate level one themes of Support from Friends and Family as well as Religion. In the following sections sub-ordinate level one and two themes will be described and verbatim data from the participant interviews will be provided to explore how this psychosocial theme existed in the lived experience of the participants.

Performance Support

All participants in the study experienced the sub-ordinate level two theme of Performance Support. Performance Support emerged from the data as a specific type of support that was provided by people or groups that encouraged and assisted the participants’ performance leading up to and at the Olympic Games in practice and competition. Thirteen unique codes for a total number of twenty-eight occurrences were identified in the data as codes that were clustered into subordinate level one themes and then onto the sub-ordinate level two theme of Performance Support. The
codes that ultimately formed this sub-ordinate theme were rooted in statements about relationships that included guidance, encouragement, and teaching of skills necessary beyond physical training that the participant identified as assisting them psychosocially in the experience of winning an Olympic medal. The people and groups that the participants identified as relationships that assisted them in this way included 1) coaching, 2) teammates and 3) sports psychologists.

Coaching

Of the significant statements that formed codes, coaching support statements were the most frequent of all sub-ordinate themes that formed the master theme of Support. In total, coaching support codes resulted in six codes that occurred eighteen times in the interviews. All participants shared statements that were coded that involved coaching support. The coach that each participant was speaking of in their interviews was their personal coach. None of the participants’ personal coaches were members of the Team USA coaching staff for the 2012 Olympic Games in London. It is common that the athletes that qualify for the Olympic Games have a personal coach that continues to be their primary coach leading up to and at the Olympic Games.

The most frequent code was long time relationship with coach, which all three participants in the study shared significant statements about during their interviews totaling six times that this code occurred. This theme was often combined with statements about the positive relationship that the participants had with their coach. All three participants shared this code as well, totaling four times in the data. This
The theme of Coaching Support is found in the data in statements about long time positive relationships with their coaches such as the following:

Participant One: "I've a really good relationship with my coach we have known each other for a long time since 2007."

Participant Two: "We both grew up in the same kind of background. Single-parent home and grew [up] kind of tough. He's just a nice guy man, he would give you the shirt off his back and he is, he is one of those coaches you hear people say, he is an athletes coach. Yeah, I think D2 is kind like an athlete's coach, he doesn't beat you down, he knows what buttons to push to get me to where I need to get and he's always had faith in my success and I have always had faith in him as a coach. He is willing to continue to work with me and push me to work... When I wasn't at my best and when I'm at my best, we're able to travel together and run and is just a great experience is almost like a father-son kind... I look to him for guidance, I looked at him as a father figure, you know what I'm saying besides coaching off the track. I was in his wedding, and if I ever get married he will be in mine and he's just always someone I've looked up to, who always gives the right advice, and he doesn't tell you things that you want to hear, he will tell you the things that you need to hear, even if it is kind of tough to swallow and it may not be what you want here at the time but, but he gives, he gives me good feedback and he tells me when I'm messing up or when I'm not running well and when I need to toughen up, even away from track... He cares about my life outside of track and what I am going to do after track, me being a good father to my kids, and being able to buy my first home and a kind of guide and to navigate me, the same way that he navigates me through track practice and through track and field, he has also help me navigate through life and I think that's a great thing and I love them to death. Yeah, he's a really good guy."

Participant 3: "Yes, I have a tremendous relationship with my coach. [my coach] and I started working together in 2005... I love my coach I look at him as like a second father and a really good friend and confidant and the best part is that he believed in me from day one and he still believes in me and I think that that's a big thing is having a coach that really believes that you're great and really think that they can help pull it out of you so yeah, he's my guy."

In addition to long time and positive relationships with their coach, athletes input on training emerged as a code that occurred in all three participants a total of 4 times. This was shared in the following ways by participant one and two.

Participant One: "We talk a lot more then I guess some coaches talk to their athletes. I feel like he, wants to understand what's going on with me and he wants my input on a lot of the things that he does before we do it. So, for example if I'm not feeling the best, he asks me every day how do you feel, and if I feel like crap then the
workout instantly changes. We do plan B and if I’m feeling great and we’ll proceed. A lot of coaches will be like you don’t feel great oh well, were doing this we’re doing the program [coach] is the type of coach that he wants to know how you’re feeling before you, before we, decide to do the workout. So it’s just it’s just different, he’s one of the few coaches that that do.”

Participant Two: “it’s not one of those things where it’s my way or the highway or this is it and I think that that works well because I am athlete but I am an adult, and I do, it is my career as well. So I feel that I have a say-so, I am not going to just blindly let you lead me but I am going to take your advice if there is something that I have a question about I should be able to raise that question to be able to figure it out as coach - athlete to move in the correct direction.”

Coach is positive was the other code in this sub-ordinate theme that was experienced by more than one of the participants. Participant two and three each shared statements that were coded in this way. Participant three shared an experience when her coach shared his positive outlook on her ability.

Participant Three: “I guess it was in the fall of [20]04 and, he said to me that, I reminded him of Michael Johnson and I believe that you are the best 400 m runner in the whole world, and I was like sold!”

Two additional codes of trust in coach, and coach support, were identified in the data that were clustered in this sub-ordinate theme.

The Coaching sub-ordinate theme under the master theme of Support is significant in that it shares what the lived experience of the coach-athlete relationship for an Olympic medalist is like. Based upon the codes found in this cluster a coach of an Olympic medalist is perceived by the athlete as sharing in a long term, positive coach athlete relationship in which the coach is positive and is open to athlete input.
Teammates

Another sub-ordinate group that eventually emerged into Performance Support and the master theme of Support was Teammates. Teammates both in training, leading up to the Games and teammates from Team USA were significant psychosocial parts of performance for the participants in the study. These relationships were a source of enjoyment as well as valuable resources for information that assisted in participants winning an Olympic medal at the 2012 Games in London. All three participant interviews emerged with codes about teammates totaling six unique codes and ten occurrences in the data.

Participant two three times in his interview shared statements that were coded as learned from veteran Olympic roommates. These statements included the following:

“They would tell me like don’t worry about all the interviews, if you don’t want to do interviews just do half of interviews, do as much as you want to don’t let them pull you out of your comfort zone because you need to be relaxed in you need to be focused on what you want to do. So even though they may want you to do interviews, want you to come down here and do a kids clinic or a show or walk around and do all this other stuff that’s good and if you want to do it, do it don’t put yourself, don’t spread yourself too thin to wear you doing too much maybe media or maybe other things that you won’t be able to focus on your race and do those things or whatever. So, I say those two guys really help me out to adjust to the whole experience, understand how to prepare and how to conduct yourself in a championship setting like that.”

“I think that that is where [Teammate one] and [Teammate two] came in, and those guys came in and had been there before so they know, “well we ain’t going to do that tonight, we going to chill out”, we’re to watch TV in the room, and just not do much, and not get out of hand with just going, going, going. There were a lot of guys and a lot of people there doing everything, so to speak. Burning the candle from both ends of the stick. Trying to experience every, single, thing of the Olympics in also trying to run. It’s hard to do that, so what I did is I saved a lot of it until after I ran.”
For participant one, teammates served as people that he could share the Olympic experience with. He began by watching them in person but felt pressure being in the stadium that caused him to watch them on television for the rest of the Games. He shared his experience watching his teammates in these statements:

“I did go into the stadium one time to watch the women’s 400 because [female team USA athlete] is a former [where he attended college mascot] and she is from [the same state] where I’m from... she was competing with of course [another team USA athlete] and who else was competing I think [another team USA athlete]. Everyone was competing and I want to see the women’s 400 and when I walked into that stadium and I was sitting down and they were getting ready run the amount of energy and the amount of pressure and the amount of stressed out I was just watching them compete. I couldn’t do it anymore, I couldn’t stand that stadium, I was getting just chills and shivers and it was just so strange. I was like what is going on so I talked to my coach and I’m like coach what’s going on, [coach said] don’t ever go back into the stadium again until its time for you to run. You’re not allowed to go into the stadium until you are competing because the amount of energy in the stadium was so explosive, so much of it is just overwhelmed me, I just couldn’t go into the stadium, period and I just did not go back”

“Every time someone competed I watch them on TV because they had it streaming live on all the TVs in the village”

Participants two and three shared that the experience with teammates is not limited to the experience at the Olympic Games. Teammates support is present in the training leading up to the Games. These statements included teammates at the team training camp as well as teammates from their personal training groups.

Participant three: “I think that I enjoy being out there with my teammates I love, I think that I draw strength from my other teammates and seeing how well that they train, you know it’s one of those things that you lose during college you have that environment right where you are cheering for each other and stuff and you, and I loved it and then you go to the training camp before you all start competing and that’s what you get, that environment of support and seeing athletes who are, who are at the highest level train, push you to be better, so I enjoy training camp I, I never missed training camp, some athletes do but I love it. So that part I really enjoyed”

Participant two: “I love my group, I think it’s very important for any athlete that is training to be in a group that they are comfortable in, where everyone wants
to see everyone succeed because at the end of the day we are all running different events but we all have the same goals, we want to be, we want to make world teams, we want to be USA champs”

With codes about teammates emerging from all three participant’s data it becomes clear that they are an important part of the lived experience of an Olympic medalist. Teammates increased the enjoyment of the experience as well as provide important information about how to handle the Olympic experience. Relationships with teammates are a productive part of the support experienced by Olympic medalists in this study.

Sport Psychologists

One participant shared of her experience with another person that significantly impacted her ability to succeed at the 2012 Olympic Games. This participant sought help from a sport psychologist following a disappointment in the 2008 Games. The participant described their relationship as follows:

“[My coach after the 2008 Games] kept trying, I think that’s the one thing about it is that everyone around me try but no one was really equipped with the skill set to help me. And so he said I think that you should see him because your best is still yet to come and I think that he can help us to bring that out of you and from the first day I met him we just hit it off and I’ve been working with him ever since.”

Under the master theme of Psychological Factors the participant makes statements about specific work and skills that the sport psychologist assists her with that has aided in her success of winning a medal at the 2012 Olympic Games. This person is included in the performance support as they assist in psychosocial factors that affected the lived experience for the participants.

Social Support
Emergent in the data were people and groups that supported the participants in their lived experience of winning an Olympic medal that did not have a direct influence or impact on the athletic performance leading up to or at the Olympic Games. However, two of the three athletes identified twelve significant statements that formed five unique codes. The indirect assistance provided by these individuals and groups was a significant psychosocial aspect of the lived experience for the participants in the study. This formed the sub-ordinate level two theme of Social Support under the master theme of Support. Social Support emerged from the clustering of significant statements that form two sub-ordinate level one themes; 1) Friends and Family Support, and 2) Religion. 

Friends and Family

The subordinate theme of Friends and Family emerged from the data through ten significant statements made by two participants that formed four unique codes. The support of friends and family in the lived experience of the participants occurred both leading up to and at the 2012 Olympic Games. An exceptionally powerful statement about the importance of this source of support was found in a statement by participant three in talking about the moments after her success at the Olympics:

“I remember the most, running around the track and literally stopping every 50 m to hug a family member or friend that was there and um, the most special my husband, who plays in [a professional sport league], didn’t, wasn’t able to come in 2008 because he had just signed with [a professional sport team] and it was unprecedented. In 2012 before he signed with [another professional sport team] he said listen I’ve got to get the weekend off to go there, to London. So, I remember winning, and he was, my husband my sister and my cousin were right across the finish line and I remember running over to him and hugging and kissing him and then like I said going around the track and hugging everybody, I think that that was probably the most special part of it.”
For this participant her family support was not isolated to after the successful Olympic experience they were integral in the lead up to the success in London. She shared multiple statements about their support in London leading to her performance:

“Yeah before my races I would go sit with my family, they were 5 miles away, I would go to the house and my mom would cook meals for me. It brought like you say some normalcy see to the Olympic experience”

This family support was not unique to her Olympic experience. Her family would support her throughout her training every season:

“Never, ever am I by myself my dad and my coaches are there”

Participant two shared similar support in his lived experience. For him he shared his Olympic success with family and a girlfriend that traveled to London:

“My girlfriend at the time came and my family came out, so and it was just a great experience”

For this participant the relationships and support from friends and family involved sport from an early age:

“I started sports pretty early I think I started with football I start with football maybe in about third or fourth grade I started playing football and all my uncles and cousins played sports football basketball track all sports basically, basically play sports so I always grew up around sports. My mother was a tumbler and a cheerleader whatever. So, so I’ve always been around sports I remember looking back in photo albums and seeing ribbons from my uncle’s running and letters from when they lettered in high school and things of that nature. So I think sports has always been something that.. That even at a young age I knew I knew and, even though I didn’t get in until little bit later it was something that I always knew. “

“I grew up in a single-parent home or whatever, um, back-and-forth from my grandmothers and my mother’s house. Sport was just a good outlet from and things to do and all my friends, we had a group of friends, we were all around the same age, that she came to see me run today, and we always played sports and always got together I think it was just something that sports was just something that almost like therapy like for a rough day maybe in the house or at home or at school something to get away from and you can go do and have fun”
Rooted in the data the participants in the study were supported in their athletic careers by friends and family. This support was not technical or directly performance enhancing but rather social support. This is an important theme that emerged from the data that when combined with performance support formed the master level theme of support.

Religiosity

Two of the participants made statements about their religiosity. These statements formed the sub-ordinate theme of Religiosity. These statements had less frequency than some of the other sub-ordinate themes but were significant in the context of their lived experience and their path to Olympic success. Participant two shared that his religious belief supported his choices that would not benefit him immediately but instead down the road. This statement supported his mindset change, which will be described under the master theme of Psychological Factors, after a disappointment in the 2008 Olympic trials that he identified lead to his qualifying for the Olympic team in 2012 and ultimately succeeding in winning an Olympic medal.

Participant 2: “I’m a Christian, I believe in God and God gives you free will to make your own decisions, and choices or whatever, so.. I think life is, all about choices and decisions in discipline. Doing the things that make you happy but sometimes may not benefit you now but will later.”

Participant three also shared of her religious beliefs. For her she believes that God gave her gifts and what she does is a gift back to god. This supports her through lived experience leading up to and at the Olympic Games:
“I am a Christian and I feel that God gave me this great gift and so I always use that as my greatest motivation, like you know, whatever I do is my gift back to God.”

This religious relationship along with the relationships with friends and family combine to form the sub-ordinate level two theme of Social Support that lead to the master theme of Support that was found in the lived experience of the participants in this study that experienced the phenomena of winning an Olympic medal at the 2012 Olympic Games. These sources of support did not provide support directly related to the participants performance but was a general form of support that aided in their psychosocial experience.

Psychological Factors

Another master level theme that emerged from the data was Psychological Factors. This theme was rooted in the data of all three participants through a total of forty-five significant statements that formed twenty-two unique codes. The statements that formed this master level theme were addressing their perspective toward their previous and future athletic performance as well as their mental preparation for performance. The twenty-two codes were clustered into two subordinate themes 1) Mindset and 2) Psychological Skills and Training. Nineteen of the codes were identified as being about the participants’ attitude and perspective toward their past and future athletic performance, as well as their general outlook on life, these codes were clustered to form the subordinate level one themes of 1) General Mindset and 2) Mindset Toward 2012 Olympics, combined these formed the subordinate level two theme of Mindset. The subordinate theme of Psychological Skills and Training is comprised of three codes that were about the participants
mental preparation and developed skills that aided in their lived experience of winning an Olympic medal at the 2012 Olympic Games in London.

Mindset

Through the analysis of the transcribed interviews thirty-five significant statements formed nineteen codes that were clustered because of their common topic to form subordinate level one themes of 1) General Mindset and 2) Mindset Toward 2012 Olympics, combined these formed the subordinate level two theme of Mindset. All the participants in the study shared statements that were included in forming this theme. The significant statements in this theme were pertaining to the participants’ attitude and general mental disposition toward life, athletics and their Olympic performance. This complex subordinate theme includes a wide breadth of constructs and perspectives experienced by the participants during the time leading up to and at the Olympic Games in London.

One of the codes that was shared by multiple participants that was included to form the subordinate level one theme of Mindset Toward 2012 Olympics was Confidence. This code which was coded a total of four times was the mental attitude that the participants made statements about leading up to their Olympic competition. Confidence was identified in the data by the following statements by participants One and Two:

  Participant Two: “[about winning the Olympic Trials] It gave me confidence because even when I ran at the Olympic trials I ran 48.83 and I knew if I wanted to win an Olympic medal I have to run 47 seconds that I had never ran before but I knew at the trials I ran but I shutdown and I ran 48 there and I shutdown, I put my hands in the air was just excited about winning.”

  “To win the USA trials like the Olympic trials that’s almost like winning a gold medal in itself.. People that usually win our trials, run well at our trials to make our
team or the US team always picked for a medal because we’re so we are so competitive in all the events, especially all the sprints and things of that nature so give me a lot of confidence going into Olympics.”

Participant One: “Off the plane I ran 12.93 [a personal best]. So I was like well shh.. I must be in good shape, it was an all-comers record and I was really, really pleased and I was also really excited.”

For participant two, he gained confidence by his victory at the Olympic Trials and running a time that he perceived as fast enough to compete for an Olympic medal while he did not put his full effort through the finish line because it was not required. Participant two had a similar experience by running a personal best at a meet in Europe after qualifying for the Olympic team leading up to the Olympic Games in London. The time he ran surprised him and he perceived this accomplishment as a sign he was in good shape. Both of these athletes’ successful races in terms of time and placing in the competitions leading up to the Olympic Games led to the psychosocial aspect of confidence for their upcoming Olympic performance.

Another code that was present in multiple participants lived experience was the mindset to overcome and learn from failure. This code emerged as a part of the subordinate level one theme of General Mindset. Participant one and three shared impactful statements about their failures and how their mindset enabled them to overcome and learn from that failure experience. Participant three while reflecting on her disappointing 2008 Olympic experience succinctly shared her mindset:

“I think the next defining moment was losing in Beijing, you know I think um, I think for most people you wish that it was the successes that pushed you and defined you but a lot of times it’s your failures.”
Her mindset of using the failure of loosing in the 2008 Beijing Olympic Games to push her was significant in her ability to be successful in the 2012 London Olympic experience. Participant one had a similar experience with his 2008 Olympic trial performance and a mindset that allowed for him to overcome instead of giving up. He shared his failure experience as:

“My defining moment was the disappointment in 2008, missing the team that kind of change my life moving forward because I was very talented before ... I thought talent would take me to the Olympic Games alone in 2008 but I didn't work.. as hard as I should in 2008. So I didn’t make the team I missed it by .01 and I was forth by .01 and I was devastated so that changed my life moving forward after that I never missed a team leading into 2012 and still I haven't missed a team since then because after that it was life-changing.”

Participant one shared another statement that was coded in a related code also clustered under the subordinate theme level one of General Mindset.

“I am the type of person that just never quits like even through all the adversity even through stress through all the injuries you just stay with it and eventually you'll be successful.”

This statement was coded as perseverance, which is broader than overcome and learn from failure as it encompasses other undesirable situations such as stress and injuries. Participant three shared a similar statement that was coded as perseverance:

“One of the greatest experiences of my career was all the ups and downs, showed me that if you work hard and you persevere that you will succeed”

These statements demonstrate how perseverance as well as overcoming and leaning from failure are important aspects of the psychosocial experience of Olympic medalists in this study. There are challenges and setbacks in the lived experience of the participants but because of their mindset they are able to succeed.
Related to perseverance is positivity and optimism. There were three significant statements identified in the interviews of two participants that were coded as *positivity and optimism*. Participant #2 shared this code in the following statement:

“My whole career I’ve been sponsored through Adidas and had a six-figure contract and been able to support my family even when I was running bad, and there are guys out there that aren’t making teams and don’t have a contract at all and they have to work a normal job and that let me put my life in perspective, that I may not be perfect and I may not have been running as well as I wanted to or doing things I was supposed to do but it could be a lot worse than what it is.”

Even when he was not running well and not qualifying for international competitions as part of team USA he was positive about his life situation. This disposition may be natural for some but participant three was able to develop this mindset through work with her sport psychologist. An example of this deliberate change in her mindset toward competition is shared in this statement:

“So one of the things that [sport psychologist] and I have worked on in the past was you know, everything was negative, I would use it to work with me. So one of things that would always come up for us was in the 400 we sometimes have really bad wind on the backstretch and it’s hard, or the homestretch and sometimes it kind of messes with the race and you know [coach] always gives me like, “the winds your friend”, and stuff like that and so I remember [sport psychologist] always telling me, “if there is something negative use it to work with you”, like to say yes, yes that’s a good part of the experience and so I just even though it was kind of, um, nerve-racking a little bit or something that I didn’t expect I have been trained to say, you know this is a positive part of the experience, use it as fuel, I’m ready to go it was something that we had, um, we didn’t talk about that specifically but I had worked with things that might have been distractions in the past and tried to use them as something positive for the race.”

This positive mindset training extended beyond event specific situations to a broader training of a positive mindset to handle the pressures of the Olympic Games.

“I think the expectations, from um, around me was still the same [as the 2008 Olympic Games]. Everyone expects me to win and I was favor going in. So I would say that was the same. I would say, and it’s funny because in some, in one vain, I feel
like I put less pressure on myself but at the same time I feel like I put about the same but the reason I say that is because I try to perceive it as less pressure, you know. I didn’t, I didn’t walk around heavy, like I have to win this race, Life depends on it but at the same time I wanted, I really wanted to win, you know. So it was, um, I think it was just the way that [sport psychologist] helped me to perceive the pressure that I put on myself. You know, and to make it something positive, like you know, this is just, you deserve this moment, you’ve worked hard for this moment, not you need this moment or, I think of the words that you used helped to make it either heavy or a little bit lighter, and so I think, I think the outside pressure was a probably the same, maybe even more in 2012 [compared to 2008 Olympic Games in Beijing] because I think that people are like if she doesn’t win this one, you know she’s just not who we think she, you know. So I think that that was the same but I was able to perceive it differently and help me a lot for my race.”

The attitude and perceptions of the participants toward life and the Olympic competition was a significant psychosocial factor in their lived experience of winning an Olympic medal in the 2012 London Olympic Games. Additional significant statements were coded and clustered in the subordinate level two theme of mindset theme. They included important constructs and perspectives such as, proving others wrong, being process oriented, experiencing relief after their success at the Olympic Games, performing better while having fun, maintaining focus on the next race and keeping normal training before the Olympics. Overall the consistent statements of the participants that gain an understanding of their lived experience are highlighted by having a mindset that includes confidence, overcoming and learning from failure, perseverance, as well as positivity and optimism. These mindsets occur naturally for some participants, whereas other participants required guidance and practice to form this mindset. No matter how the mindset was developed the participants have identified it as an important psychosocial aspect of performance in their lead up to and at the Olympic Games.
Beyond the statements about the participants’ general attitude and perception of life and the Olympic competition, there were additional statements directed toward psychological factors of performance. These additional statements were directed toward acute situations in which the participant specifically practiced or planned for the likely challenges of the Olympic contest. Two participants shared ten statements that formed three codes. These three codes were clustered to form the subordinate theme of *Psychological Skills and Training*. Participants two and three both identified statements that were coded into *mental preparation, focus and goals*.

Three significant statements were identified in the transcribed interviews that were coded as *mental preparation*. For participant three, her sport psychologist assisted her in the preparation:

“I know how to do that [Compete physically in her event] but it was for me being mentally prepared, being mentally focused and that’s what I think that [my sport psychologist] helped me with and to be specific with [my sport psychologist] we do a lot of visualization, we do hypnosis, we do hypnosis like positive suggestions that help me to fight, like you know, any negative thoughts that come to my mind, you know, my, my keywords, my phrases, that kind of help me to, you know, leave those, or forget those or to not focus on them, um, or to give them any life, so yeah, that would be the thing in 2012.”

She would engage in this preparation for the specific races that she would be competing in. She engages in this practice with her sport psychologist every couple weeks and leading into certain competition he travels with her for more frequent preparation. The sport psychologist traveled with her to the London Games. She shared:
“with my sports psychologist, I had ran that race 1 million times prior to getting there”

This mental preparation she identified as being a significant difference in her unsuccessful performance in 2008 Olympic Games in Beijing to her successful performance at the 2012 Olympic Games in London. For participant two the mental preparation came from the recommendation of a book to read by his strength coach. This recommendation resulted in him adding mental training to his training.

“[prior to reading the book] I just wanted to be a great athlete, I just wanted to run fast, hard work hard work, run hard, train hard and you’ll get there and I missed out on the whole mental side of things, that’s one of things that I think has propelled my, my track and field career is that mental toughness that I learned."

As part of his mental preparation he developed skills and strategies to handle the warm-up and staging process that is unique to the Olympic Games.

“[The staging] sometimes stopped your flow of warming up or, you really have to, you have to be mindful to warm your body up and getting it prepared to run and like you said wait an hour before you get in and then you have to walk and get in there”

“So it became a thing about time management to warm up and being prepared not getting too high or too low right before you get out the stadium.”

For participant three even the multitude of mental preparation races could not prepare her for everything that is experienced at the Olympic Games. For this she needed to rely on mental skills to assist her in her performance. For her one of the unexpected situations occurred on the starting line of her race:

“One of the things that sticks out in my memory the most about that final was [The home country favorite] was in the race and she is British and I’m not exaggerating to you it was deafening when they announced her name, and it kind of, like shook me for a little bit because it was the one thing that I didn’t prepare for and I kind I had to get back into my zone.”
Her success in overcoming this distraction was due to her mental ability to focus. Despite the deafening roars of the crowd she was able to get back into her zone and perform successfully, winning the Olympic Gold medal. For participant two he had to execute the skill of focus as well, however for him it was in the lead up to the Games following the Olympic Trials. He described the challenge as:

“All of a sudden you make the Olympic team, then I’m doing press conferences, doing press conferences, um having to do meetings and do all the stuff to have to prepare to go to London and then once you get there it’s like a whirl wind of things you’re seeing athletes everywhere and it’s a bit overwhelming at first because it’s just you did so much to make the team now you have to go that much further and like you said in less than a month and do it all over again on the biggest stage of your life”

He shared the following statement that provides an example of how he focused leading up to his Olympic performance:

“Take it race by race, race by race, day by day, and with that strategy it help me not to think about, the next day until I completed this day, until I completed what I did today.... That took a lot of pressure off of me too when I went to training, I didn’t have to go crazy, you know it’s stressful enough working out. “

Beyond mental preparation and focus the participants shared that they engaged in goal setting during their lived experience leading up to the 2012 Olympic Games in London. Goal setting is a form of psychological training. Participant three engaged in a detailed form of this practice.

“One of my practices I make a vision board every year. So by, between January and February every year, it probably takes me a month to do it because I’m still sorting through what my goals are, um, but I do a vision board every year and I put on there, time goals, you know, world or Olympic goals I have family goals I have personal goals all of those things kind ago on my board. Um, and yeah so I definitely make goals and I have my own kind of intermediate goals, I want to be running 49.2 by this point, I want to get to 48 bye this point and so I definitely set those kind of goals for myself and I think that seeing them, even makes them more real it helps me push through the really hard days when I really don’t feel like doing it.”
This extensive goal setting process mentally assisted her leading up to the Olympic Games.

For participant two his goal setting was simpler. He had a performance goal that would likely allow him to medal but the time was the primary goal for him:

“\(I\) felt that that's what makes you I an elite 400 hurdler. If you can run 47 seconds, that puts you in a different category and what I did that I know, like I said, since I've known with the hurdles was I've known what 47 seconds was I wanted to run it and to run, to run that and medal. If I would've run and won a medal and not run 47 seconds I would've been happy don't get me wrong. I would've still been hestatic but a little piece of me would've been like “\(man,\) I wish I could've ran 47 seconds.” To run the 47 seconds did more for me mentally”

*Mental preparation, Focus and Goal setting* emerged from the data as important psychosocial factors for the participants in their lived experience with the phenomena of winning an Olympic medal. These specific skills and preparation were identified in the data as making the difference for some of the participants in succeeding at the 2012 Olympics in London.

*Motivation*

Emergent from the data was the master level theme of *Motivation*. This theme was reflected in significant statements identified in the data by all three participants. This significant aspect of the psychosocial lived experience of the participants included twenty-seven individual statements that formed fourteen codes. These fourteen codes were clustered together into groups that addressed a common aspect of the participants lived experience winning an Olympic medal. The two subordinate themes that emerged from the clustering of codes were 1) *Intrinsic Motivation / Internal Rewards* and 2) *Extrinsic Motivation / External Rewards*. These subordinate themes combined formed the master level theme of *Motivation*. 
Intrinsic Motivation/ Internal Reward

All of the participants in the study made statements that were identified in the data as being significant and related to their intrinsic motivation or internal rewards gained by succeeding at the Olympic Games. A total of sixteen statements formed ten codes that were clustered to emerge as the subordinate theme of Intrinsic Motivation / Internal Rewards.

Of the ten codes that comprise the subordinate theme of Intrinsic Motivation / Internal Rewards one of them was shared by all three participants, this code was pride. All three participants described the feeling of pride as an emotion experienced after accomplishing success at the Olympic Games. Participant one shared this feeling in the following words:

“When you win a medal it is the greatest feeling that you can possibly have in the sport because it is the pinnacle of success in our sport. Being the Olympic champion is far better than bein’ the world champion because there’s so many world champions but there’s a few Olympic champions.”

Participant two also experienced a feeling of pride in achieving a life long goal of winning an Olympic medal.

“When I was able to win a medal, it [was] just [a] culmination of all those things I have been through, all the things I missed, all the let downs I had. It was just like I finally got, you know what I mean, I finally did it. As long as I’ve known what the 400 hurdles were and ran track, I always knew the Olympics because that’s the main thing you associate track with is the Olympics and it’s like I did what I seen growing up and what I’ve seen on TV. I seen Michael Johnson and all the great runners do and to win medals and to throw the flag on their shoulders and it was just a great moment and what I’ll never forget.

Participant three described her experience of achieving success at the 2012 Olympic Games is London as:

“Winning the gold medal for me in London was, um, like, a surreal fairytale, it was something that I had dreamt about for a long time”
The feeling of pride in the accomplishment of a successful experience at the Olympics which is an achievement that some of the participants identified as a lifelong goal that only few will ever achieve is a significant internal reward that initiated the strong intrinsic motivation these participants experienced leading up to and at the Olympic Games.

*Intrinsic motivation* emerged as a code that includes four significant statements by all three participants. In these statements the participants shared what motivated them to achieve at the Olympic Games. Each participant stated that their goal was to achieve the status of Olympic medalist (or gold medalist) and / or run fast which is tied to the internal reward of pride that each participant identified as part of their lived experience. Participant one shared of his intrinsic motivation in the following:

“Core values, life mission, my mission in life was pretty much accomplished in London. My mission and goal was to be Olympic gold medalist. I achieved that in London. I didn’t know when it would happen, it just so happened that it happened in London. And looking forward my goals and mission is to become legendary in the sport, I know I have a lot of things left that that I feel I need to do and so that’s pretty much what motivates me.”

Participant two had a similar lived experience as was identified in the data through this strong statement about his motivation to succeed:

“I want to be the best, that’s my selfish motivation, I wanted to win. I want to beat these guys. I felt like I belonged, I felt like I wanted to be a medalist, I felt like my career would be solidified, it wouldn’t be if I couldn’t get that seal of approval unless, I got a medal those are all my selfish motivations because I want to win, I want to run fast.”

Participant three’s intrinsic motivation to earn the internal reward of pride associated with winning an Olympic Gold medal started at a young age.
Participant three: “I’ve had this desire, like deep down inside of me to be
great, um, but I think pushes me to see how far I can go, how fast I can run, so I
definitely am self-motivated to be the best that I can be and I do feel that when I was
nine I told my grade schoolteacher I was going to be an Olympic champion, so
there’s been this thing that’s been inside of me for a long time and so I knew it
would happen if I just persevered, kept working hard, I felt like that moment was
mine, I just had to go out and claim it. So those are kind of my motivating factors to
win Olympic gold.”

Winning an Olympic medal does have significant external rewards. These
include money, prizes, fame, and even the medal itself is a tangible external reward.

These external rewards and their role in the participants lived experience will be
explained in the subordinate theme of extrinsic motivation / external rewards.

Participant two explained these multiple motivation in a statement coded primary
motivation to succeed:

“My motivation was strictly medal. Um, the funny thing is 2012 was my
contract year. My first contract was up in 2012 at the end of the season. So of course
making the team did a lot of things for my contract going forward but once I Made
that team and I, and I knew my contract was secure for the next years, and years to
come, I got to where it was all about trying to figure out how to get on the Medal
stand. Though after you do win a medal then you get all the bonuses and all of that
too. Which was Great, you know what I’m saying, which was needed, which I feel
should be more for what athletes go through to get to that point but um, yeah it was
all medal, it was all medal. It was all medal and to go 47. When I ran and I got second,
I was quiet and I was looking at the clock, I didn’t start celebrating I was just looking
at the clock, you know what I mean, it just popped up the time and I knew that I had
gotten silver, so I was excited, you know I’m saying.”

In this honest statement he addresses that there are financial rewards
associated with performing leading up to and at the Olympic Games but his primary
motivation was to medal and run his goal time which were tied to his internal
reward of pride.

The subordinate theme of Intrinsic Motivation / Internal Rewards also
includes codes for data pertaining to excitement, motivation to succeed again, and to
use the platform to share and be a role model to others. Through the consensus of all the participants in the study the lived experience of winning an Olympic medal at the 2012 Olympic Games in London includes the psychosocial aspects of pride, which is an internal reward experienced when the participant achieved their goal at the Olympic Games as well as intrinsic motivation, that for some started at a very young age to achieve the status that is tied to the feeling of pride.

*Extrinsic / External Reward*

*Beyond Intrinsic Motivation / Internal Rewards* there is another form of motivation and reward that was represented in the data of the participants in the study. All of the participants in the study were found to have made significant statements addressing motivation formed from the presence of external rewards such as financial gain or benefits from succeeding at the Olympics. In total eleven statements were present in the data and formed four unique codes. These codes were clustered to form the subordinate theme of *Extrinsic Motivation / External Rewards.*

All three of the participants made direct statements about external rewards and motivations. These four statements formed the code *external reward / motivation.* Participant three in this statement addressed the external reward of financial gain:

“The financial part of being a professional athlete is real and you know, you go out and you say hey, if I win this race I’m $40,000 richer, $100,000 richer, you can’t separate that”

Financial gain was a motivating factor for participants one and two as well:
Participant two: "two factors, motivating factors for me, my family and wanting to make money and to be able to support them showing my sons that you can chase your dreams and do it and make my family happy."

Participant one shared a similar outlook with specific reference to winning a medal and its impact of re-signing his sponsorship contract:

“In 2012 and I haven't had any medals yet so I was like oh my God I need to get some medals so then I won indoor and I had a gold from that and then if I can just get any kind of medal, it didn't matter what color, then I would be able to be re-signed for at least somewhere near what I was making when I came out of college and so there's a little bit stress there but I really wasn't worried about it I really just want to make the team because making the Olympic team pretty much takes care of itself, I mean in the US if you make an Olympic team you’re an American your chances of getting a medal are very high.”

Although there are significant external rewards for being an Olympic medalist there is also pressure that comes with these rewards. Participant three shared this in the following statement:

“Having an Olympic gold medal, you know appearance fees go up, everything goes up but also the pressure goes up, you know my dad always says “heavy is the head that wears the crown”. And so it’s not easy when you are that girl or that guy but um, it’s good for me to have people around me that keep me humble and help me to stay focused on the main prize and not worry about those things, and just kind of out on you, a benefit of being the best that you can be”

The last part of this statement fits with three other statements she made found in the data and coded as does not focus on external rewards. In these statements she talks about the external rewards being a result of achieving what she wanted to achieve without external reward. This is highlighted in the following statement:

“I sometimes even try to downplay the financial rewards and think about when I was a little kid nothing was on the line except for the pure joy of winning”

This conflict between external reward and intrinsic motivation is thoroughly described in the following statement:
“If you have an opportunity in front of you to win $1 million in your in great shape you’re going to take it advantage of it. I definitely had times for me when you feel like you know, I, I struggle with the fact that I am being financially rewarded for something that I love to do. At the end of the day I feel that that is what most people want to do, which is do their passion and get paid to do it and for me that is how I kind of, um, make it all makes sense...I balance it out yeah but sometimes it is a challenge to, to always be true to yourself, are you racing because there is a great appearance fee there or are you racing because you are ready to run and you know you just want to compete and have fun, so it’s not always easy”

This balancing act is made easier for her as the extrinsic rewards are in line with her intrinsic goals. This is made evident in her statement about the number of races she prefers to run leading up to an Olympic Games and the financial gain she receives for participating in races leading up to the Olympic Games.

“You do have to run X amount of races for the year. So regardless of if I wanted to or not if I want to keep my contract I have to run 10 - 12 races. So but to be honest that is about the number of races that I would like to run anyways to run fast because usually after about 4 - 5 races I just get my rhythm, I want to hit at least eight more races running well. So it’s, it is in line with our training being successful but for sure the majority of the money that we make is based on our success at the Olympics and World Championships in rankings. So, um, so yeah I think that but it’s in line with what we want to do, we want to run quite a few races and you want to be the best, so you’re rewarded according to that.”

The opportunity for external rewards such as substantial financial gain for the success in track and field leading up to and at the Olympic Games is a significant piece of the lived experience for the participants in this study. The resulting motivation for succeeding becomes multivariate as the athletes express a desire to succeed for internal rewards but also honestly admit that they also desire to receive external rewards, in particular financial gain in terms of being re-signed to contracts at or above their current pay, increased bonuses and appearance fees and other sources of monetary gain. However, some participants suggest that the external rewards are in line with their intrinsic goals. This creates a best of both worlds
scenario where the athlete earns external rewards through their motivation to pursue internal rewards.

*Exploration of Conceptual and Theoretical Frameworks*

The purpose of this study is to explore the psychosocial aspects of the lived experience leading up to and at the 2012 Olympic Games in London of the participants that won an Olympic medal. To investigate the phenomena of winning an Olympic medal the specific methodology of interpretive phenomenological analysis (IPA) was used. This approach to data collection and analysis allowed for insight to be gained of how the participant made sense of the phenomena of winning an Olympic medal at the 2012 Olympic Games in London, specifically addressing the psychosocial aspects of performance. Semi-structured interviews allowed for the participants to share their perspective of the lived experience of winning an Olympic medal in London. The interviews were transcribed and a thorough analysis of the data significant statements were identified, coded and clustered by common topic emerging as subordinate and ultimately master themes. The chart depicts the emergent, inductive process that resulted in master themes that reflect a consensus of the participants’ psychosocial aspects of the lived experience leading up to and at the 2012 Games in London and winning an Olympic medal. The master themes emerged as 1) Support, 2) Psychological Factors and 3) Motivation.

As an exploratory study the interpretive phenomenological design facilitates the formation of common themes of the lived experience among the participants that are then compared to pre-existing theory to determine if the theory exists in the population of study or if does not, resulting in either the support and
strengthening of the theory or suggesting additional research in the area. The following section explored the pre-existing theories that comprise the theoretical and conceptual frameworks for this study that are Deci and Ryan’s Self-Determination Theory (SDT) and their sub-theory of Organismic Integration Theory (OIT). This exploration specifically addressed the primary research question for this study that is:

1. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concept of autonomy, relatedness and competence as identified in Deci and Ryan’s Self-Determination Theory? For behaviors in the lived experience determined to be extrinsically motivated is the experience consistent with or reflect one of the four regulatory styles identified in the Self-Determination sub-theory of Organismic Integration Theory?

As a part of a larger research study for USATF additional research questions exist. These research questions were addressed later in the chapter through the same comparative process used to address the primary research question. The common themes that inductively emerged from the participants’ data will be compared to the additional research questions to explore if they are consistent with the pre-existing theories identified in the research questions both supporting and strengthening the pre-existing theory or suggesting additional research in the area. The additional research questions that will be addressed are:

2. What were the critical moments, critical events or critical incidents in the athlete’s experience that led them to successful achievement of the individual
Olympic medal (Gold, Silver or Bronze)? How did they recognize critical moments and respond?

3. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concepts of Well Being and of Flourish as identified in the PERMA model (Seligman, 2011). (PERMA is an acronym for Positive emotions, Engagement, positive Relationships, Meaning and Achievement).

4. What perceived aspects of the coach-athlete relationship helped in the process of developing an Olympic medal winner? Specifically, was there evidence that the Coach-Athlete relationship was consistent with, and potentially contributed to the experience of Intrinsic Motivation and well-being, as identified in the elements of Self Determination Theory and the Flourish: PERMA models?

*Exploration of the Lived Experience and Self-Determination Theory (Deci & Ryan, 1985)*

Through interpretive phenomenological analysis common themes emerged across the participants’ lived experience to form subordinate and master themes depicted in chart and described earlier in the chapter. As an exploratory study these themes will be compared to the pre-existing theory of Self-Determination by Deci and Ryan (1985) to determine if the theory exists in the participants lived experience of winning an Olympic medal at the 2012 Games in London, thus supporting and strengthening the theory or determining that it does not exist in the population, suggesting further research in the area of study.

Deci and Ryan's Self-Determination Theory focuses on the degree to which an individual's behavior is self-motivated and self-determined (Deci & Ryan, 2002).
In doing so they identify three innate needs for self-determination. These needs are competence, autonomy and psychological relatedness. Competence is the innate human desire to seek to control the outcome and experience mastery (White, 1959); autonomy is the universal urge to be causal agents of one’s own life and act in harmony with one’s integrated self. Autonomy does not mean to be independent of others in this theory (Deci & Vansteenkiste, 2004); relatedness is the universal want to interact, be connected to, and experience caring for others (Baumeister & Leary, 1995).

Through the inductive process of interpretive phenomenological analysis this study emerged with three master themes that are comprised of eleven subordinate themes. These three master themes and the eleven subordinate themes were compared to the three innate needs for self-determination, competence, autonomy and relatedness.

Upon initial analysis of the studies resultant themes with the concepts of Deci and Ryan’s Self-Determination Theory the studies master theme of Support and its comparativeness with Self-Determination Theory’s concept of relatedness became apparent. The master theme of Support was rooted in the data by statements about the participant’s relationships with others in the context of sport and life. Those relationships that were directly related to their athletic performance included the subordinate themes of Coaches, Teammates and Sports Psychologists. The relationships that indirectly related to their athletic performance but were a significant aspect of the psychosocial lived experience of winning an Olympic medal at the 2012 Olympic games in London included the subordinate themes of Friends
and Family and Religiosity. All of these subordinate themes represent groups and individuals who the participants made significant statements about their relationship with during their lived experience of winning an Olympic medal that reflect the concept of relatedness in self-determination theory.

Relatedness is the universal want to interact, be connected to, and experience caring for others (Baumeister & Leary, 1995). The participants shared many statements in their interviews that are consistent with this definition. The subordinate theme of Teammates demonstrates multiple statements from the data that reflect the participants’ experiences interacting, connecting and experiencing caring for others. Participant #2 shares the following that embodies the definition of relatedness:

“I love my group, I think it’s very important for any athlete that is training to be in a group that they are comfortable in, where everyone wants to see everyone succeed because at the end of the day we are all running different events but we all have the same goals, we want to be, we want to make world teams, we want to be USA champs”

The relationship that Participant #2 had with his teammates was not unique. This relatedness was a common theme of all the participants. Participant #3 shared her love for the Team USA training camp:

“I think that I enjoy being out there with my teammates I love, I think that I draw strength from my other teammates and seeing how well that they train, you know it’s one of those things that you lose during college you have that environment right where you are cheering for each other and stuff and you, and I loved it and then you go to the training camp before you all start competing and that’s what you get, that environment of support and seeing athletes who are, who are at the highest level train, push you to be better, so I enjoy training camp I, I never missed training camp um, some athletes do but I love it.”

Beyond the subordinate theme of Teammates the participants had significant statements in other subordinate themes that emerged to form the master theme of
support that reflect the concept of relatedness as a part of self-determination theory (Deci & Ryan, 1985). Coaching was another theme that all of the participants experienced and is consistent with relatedness. Participant #1 had a statement that highlights the concept of relatedness through his interactions with his coach:

“We talk a lot more then I guess some talk to their athletes. I feel like he, he, he, wants to understand what’s going on with me and he wants my input on a lot of the things that he does before we do it. Umm, so for example if I’m not feeling the best, he asks me every day how do you feel, and if I feel like crap then the workout instantly changes. We do plan B and if I’m feeling great and we’ll proceed. A lot of coaches will be like you don’t feel great oh well, were doing this we’re doing the program [coach] is the type of coach that he wants to know how you’re feeling before you before we decide to do the workout so it’s just it’s just different is he’s one of the few coaches that that do.”

Participant #3 made the following statement the demonstrates her connection with her coach:

“Yes, I have a tremendous relationship with my coach. [my coach] and I started working together in 2005... I love my coach I look at him as like a second father and a really good friend and confidant and the best part is that he believed in me from day one and he still believes in me and I think that that’s a big thing is having a coach that really believes that you’re great and really think that they can help pull it out of you so yeah, he’s my guy.”

Participant #3 expressed statements that were consistent with relatedness in the subordinate theme of Friends and Family as well when describing her victory lap after winning the gold medal:

“I remember the most um, running around the track and literally stopping every 50 m to hug a family member or friend that was there and um, the most special my husband, who plays in [a professional sport league], didn’t, wasn’t able to come in 2008 because he had just signed with [a professional sport team] and it was unprecedented. In 2012 before he signed with [another professional sport team] he said listen I’ve got to get the weekend off to go there, to London. So I remember winning, and he was, my husband my sister and my cousin were right across the finish line and I remember running over to him and hugging and kissing him and then like I said going around the track and hugging everybody, I think that that was probably the most special part of it.”
This statement demonstrates that the statements reflecting the concept of relatedness are not unique to relationships featuring performance support but also are present in the relationships that generally support the participant in their lived experience.

Through interpretive phenomenological analysis the theme of Support that emerged from the data to become a master level theme in this study is consistent with the definition of psychological relatedness found in Deci & Ryan’s self-determination theory (1985). This result strengthens the component of psychological relatedness in self-determination theory.

Through further analysis of the study’s resultant themes and the concepts of the three innate needs identified in Deci and Ryan’s Self-Determination Theory comparisons in the studies subordinate theme of Intrinsic Motivation / Internal Rewards and competence emerged. The subordinate theme of Intrinsic Motivation / Internal Rewards is comprised of statements made by the participants addressing rewards that were found within themselves and the pursuit of these rewards during the lived experience of winning and Olympic medal at the 2012 Olympic games in London. Consistencies are reflected in these statements with the definition of competence used in Deci & Ryan’s Self-Determination Theory; Competence is the innate human desire to seek to control the outcome and experience mastery (White, 1959).

All three participants sought to control the outcome of their lived experience and experience mastery by winning an Olympic medal. The experience of winning an Olympic medal, accompanied by the feeling of pride was identified in significant
statements by all of the participants. Pride was emerged as a code that was clustered with other similar codes to form the subordinate theme of Intrinsic Motivation / Internal Rewards. This experience of pride is reflected in self-determination theory as the innate need of competence because it reflects the experience of mastery for these participants. Participant #1 shared his feeling of pride in the context of what he perceived as success in the following statement:

“When you win a medal it is the greatest feeling that you can possibly have in the sport because it is the pinnacle of success in our sport. Being the Olympic champion is far better than bein’ the world champion because there’s so many world champions but there’s a few Olympic champions.”

This statement not only expresses the pride that he has in his accomplishment of winning the Olympic gold medal at the 2012 Olympic games in London but it is also consistent with the experience of mastery as identified in self-determination theory (Deci & Ryan, 1985). In the context of this participant’s environment mastery is only achieved by very few people and is defined by being the Olympic champion.

Experiences that were stated by the participants in the subordinate theme of Intrinsic Motivation / Internal Rewards that were consistent with the component of competence in self-determination theory (Deci & Ryan, 1985) was not limited to the code of pride. The code of intrinsic motivation contained statements that were also reflected in the theoretical framework of the study. Participant #2 shared this statement that is consistent with the definition of competence.

“I want to be the best, that’s my selfish motivation, I wanted to win. I want to beat these guys I felt like I belonged, I felt like I wanted to be a medalist, I felt like my career would be solidified, it wouldn’t be I couldn’t get that seal of approval
unless I got a medal. Those are all my selfish motivations because I want to win I want to run fast”

In this statement Participant #2 describes his intrinsic motivation to be the best as defined as being a medalist at the 2012 Olympic games in London. This statement also is consistent with the definition of competence; the innate human desire to seek to control the outcome and experience mastery (White, 1959). For this participant the solidification of his career would come through experiencing mastery and he desired to control that outcome which he did by winning an Olympic medal at the 2012 Olympic games in London. Competence as defined by the pursuit and accomplishment of mastery in terms of achieving success at the Olympic games in 2012 was not unique to Participant #2, Participant #1 shared a similar statement that was also coded as *intrinsic motivation*:

“Core values, life mission, my mission in life was pretty much accomplished in London my mission and goal was to be Olympic gold medalist I achieved that in London.”

The subordinate theme of *Intrinsic Motivation / Internal Rewards* is rooted in statements by all of the participants in the study that identify a lived experience that reflects the desire to control one’s outcome and experience mastery. In this study mastery is the phenomena of success at the Olympic games in London as described in the data as winning an Olympic medal. Thus the result of this study utilizing the inductive data analysis process of interpretive phenomenological analysis indicates that the subordinate theme of *Intrinsic Motivation / Internal Rewards* is consistent with the “Competence” component of Deci and Ryan's (1985) self-determination theory.
The final of the three innate human needs that are identified in self-determination theory (Deci & Ryan, 1985) is autonomy. This definition of autonomy used in self-determination theory is the universal urge to be causal agents of one’s own life and act in harmony with one’s integrated self. Autonomy does not mean to be independent of others in this theory (Deci & Vansteenkiste, 2004). Through the analysis of the three emergent master level themes and eleven subordinate themes of this study it was inductively determined that the data in the subordinate theme of Coaching under the master theme of Support reflected the concept of autonomy as described in Deci & Ryan’s Self-Determination Theory. This subordinate level theme includes the code athletes input on training that was identified in the significant statements of all participants.

In these statements the participants share their lived experience leading up to the phenomenon of winning an Olympic medal that includes making decisions and having input on their preparation and training for the Olympic games. These statements reflect the concept of autonomy in the lived experience of the participants as they share that they are the causal agent in their lives. Although the coach is an important source of support, that includes guidance in training and execution of their athletic performance, the participant is the one that ultimately makes decisions related to their life. Participant #1 had a serious of significant statements that exemplify this when discussing the changes he made in his life that he attributes to his success of winning the Gold medal in the 2012 Olympic games.

“The seven-step approach obviously had an impact on my season but that wasn’t the only thing. I changed my diet, I started supplementing for the first time ever. I never supplemented before in my life and I was like okay I need to get on something like something that will give me more energy. So I started doing protein...
before 2012. I start taking vitamins, I never taken vitamins before. I got with a specialist and they did blood work to say okay you’re deficient in iron, and in this, you need this and then once I got that information they need a plan for me, they took my eating habits. Eating habits is normally one of the last things an athlete will change and I change my eating habits. I took dairy out of my diet, cause it creates the mucous, and I didn’t want mucous building up because it causes inflammation and nasal block. Got the dairy out of my diet, changed my diet, changed my steps, supplemented, and I was able to recover better and that’s pretty much like the amount of things that happened in 2012 that led to [the success in] 2012 not just the seven step."

Participant #1 was asked after that statement who instructed him to make these changes, he responded:

“Yeah, you see people doing things. You see people doing things um and you just and you see that they’re doing things they’re taking this they’re doing this and they’re taken poking after practice and I am and I’m like okay I don’t take protein after practice why am I not taking protein after practice then you start asking questions and that’s when I was like okay I need to do this I need to do this now this is professional sport I need to get my life together and shape up.”

Then participant #1 was asked to clarify this statement and by asking if he chose to make those changes to which he responded:

“Exactly”

Participant #2 shared that he is not independent but he is the causal agent in what he does in training and preparation when describing the relationship between him and his coach:

“I mean it’s not one of those things where it’s my way or the highway or this this and I think that that works well because I am athlete but I am an adult, and I do, I do, it is my career as well so I feel that I have a say-so, I am not going to just blindly let you lead me but I am going to take your advice if there is something that I have a question about I should be able to raise that question to be able to figure it out as coach - athlete to move in the correct direction.”

Participant #3 also shared the same sentiment that she trusts her coach but ultimately is the causal agent in her lived experience when describing her goal
setting process that has similarities to Participant #2’s lived experience and ultimately being the causal agent in his life:

“We have talked about our goals he knows what’s best and if I do feel strongly about something, I will talk to him about it but for the most part I just let him do his thing and I trust that he is going to, that he is um, as invested in the process as I am and he wants to see me be great, so I just wanted to do it.”

The data that emerged in this study is consistent with Deci and Ryan’s innate need of autonomy as described in self-determination theory. This strengthens the theory, as it is reflected in the lived experience of the participants in this study leading up to and at the 2012 Olympic games where they experienced the phenomenon of winning an Olympic medal.

This exploratory study used interpretive phenomenological analysis to inductively compare this study’s emergent themes to the pre-existing Self-Determination Theory (Deci & Ryan, 1985). All three of the innate needs identified by Deci & Ryan for self-determined behavior where found to be reflected in the themes of this study. The master level theme of Support was consistent with “Psychological Relatedness”, the subordinate theme of Intrinsic Motivation/Internal Rewards was reflected in “Competence” and the subordinate level theme of Coaches was congruent with the concept of autonomy. These findings strengthen self-determination theory (Deci & Ryan, 1985) as this study finds that it is present in the lived experience of its participants.

Motivation and Organismic Integration Theory (Deci & Ryan, 1985)

Through the emergent data analysis process all of the participants made significant statements addressing rewards and the resultant motivation to earn the rewards. These statements were coded, clustered and remerged as the master
theme of Motivation, which encompasses both internal and external rewards along with the intrinsic and extrinsic motivation to earn these rewards as experienced by the participants. Through interpretive phenomenological analysis comparisons are made between the study's results and the theoretical framework of Deci & Ryan's Self-Determination Theory (1985). The master and subordinate themes of the study reflect the three innate needs identified by Deci & Ryan as necessary for self-determined behavior, which is an expression of intrinsic motivation. This is consistent with the data as the participants shared statements that resulted in the subordinate theme of Intrinsic Motivation / Internal Rewards. However, the participants additionally made statements addressing external rewards and behaviors to obtain those rewards. These statements were clustered together to form the subordinate theme of Extrinsic Motivation / External Rewards. To address this complex lived experience and the duality of motivations and rewards expressed by the participants Organismic Integration Theory, which is a sub-theory of self-determination theory (Deci and Ryan, 1985) will be used as a theoretical framework that the study's subordinate theme of “Extrinsic Motivation / External Rewards” will be compared with. If consistencies were found between the study's results and Organismic Integration Theory the theoretical framework would be strengthened, if not it would result in the recommendation for additional study to be conducted in the area.

Organismic Integration Theory (OIT) was developed by Deci & Ryan (1985) as a sub-theory of SDT to provide further explanation of how extrinsically motivated behavior is regulated. OIT differentiates between 4 types of external motivation,
which vary based on the amount of autonomy. These can also be classified as self-determined extrinsic motivation and non-self-determined extrinsic motivation. The two types of self-determined extrinsic motivation are Integrated Regulation and Identified Regulation. The two types of non-self-determined extrinsic motivation are External Regulation and Interjected Regulation (Mageau & Vallerand, 2003). These types of external motivations can briefly be defined as 1) Integrated Regulation: the most self-determined extrinsic form of behavioral regulation and the behavior is performed to satisfy important personal goals; 2) Identified Regulation: action motivated by an appreciation of valued outcomes of participation; 3) Interjected Regulation: the individual is acting out of avoidance of negative feelings, such as guilt, or to seek approval from others; 4) External Regulation: behavior is controlled by rewards, threats and possible coercion (Deci & Ryan, 1985, 2000).

In this section interpretive phenomenological analysis was inductively used to compare the subordinate theme of Extrinsic Motivation / External Rewards to the four forms of extrinsic motivation identified in Organismic Integration Theory to assess if the lived experience of the participants was consistent with this theoretical framework. The four unique codes and eleven total significant statements were compared for consistencies to the definitions of the four forms of self-determined and non-self-determined extrinsic motivation identified in Organismic Integration Theory. The data was found to be consistent with two of the four forms of extrinsic motivation, integrated and identified regulation.

Integrated Regulation is the most self-determined extrinsic form of behavioral regulation and the behavior is performed to satisfy important personal
goals (Deci & Ryan, 1985, 2000). Participant #2 shared the following statement that is in the subordinate theme of Extrinsic Motivation / External Rewards that is consistent with the definition of integrated regulation:

“two factors, motivating factors for me, my family and wanting to make money and to be able to support them showing my sons that you can chase your dreams and do it and make my family happy.”

This statement fits the definition of Integrated Regulation because the extrinsic reward of making money is present in this participants lived experience however, the pursuit of this extrinsic reward is congruent with the personal goal of demonstrating to his sons that achieving dreams are possible.

Other statements are consistent with this form of self-determined extrinsic motivation.

Identified regulation was also reflected in the data of this study. The definition of identified regulation is action motivated by an appreciation of valued outcomes of participation (Deci & Ryan, 1985, 2000). Participant #1 shared a statement that is consistent with this definition when addressing dietary changes that he made in order to succeed at the 2012 Games in London.

“I changed my diet, I started supplementing for the first time ever I never supplemented before in my life and I was like okay I need to get on something like something that will give me more energy so I started doing protein before 2012. Protein I start taking vitamins I never taken vitamins before. I got with a specialist and they did blood work to say okay you’re deficient in iron, and in this, you need this and then once I got that information they need a plan for me they took my eating habits. Eating habits is normally it’s one of the last things an athlete will change and I change my eating habits. I took dairy out of my diet, I cause it creates the mucous, and I didn’t want mucous building up because it causes inflammation and nasal block. Got the dairy out of my diet, changed my diet, changed my steps, supplemented, and I was able to recover better and that’s pretty much like the amount of things that happened in 2012 that led to [success in] 2012 [at the Olympic Games]”
For this participant he participated in dietary changes because he valued the performance outcome associated with these behaviors. The decision to take protein and vitamin supplements and remove dairy from his diet was externally motivated by his desire to succeed at the 2012 Olympic Games but was self-determined because he understood the value in engaging in these actions.

Consistencies were found between this subordinate theme of *Extrinsic Motivation / External Rewards* and two of the four forms of extrinsic motivation identified in Organismic Integration Theory. The two forms of extrinsic motivation present in the lived experience of the participants leading up to and at the 2012 Olympic games in London were identified and integrated regulation, which are classified as the most self-determined versions of extrinsic motivation. The absence of interjected and extrinsic regulation did not result in the conclusion that Organismic Integration Theory did not apply to the population. Rather, this demonstrated that the participants only experienced forms of self-determined extrinsic motivation and did not experience any non-self-determined forms of extrinsic motivation. The consistencies reflected in the data that emerged as the subordinate theme of *Extrinsic Motivation / External Rewards* not only strengthen the sub-theory of Organismic Integration Theory but also the entirety of Deci & Ryan’s self-determination theory.

**Summary**

This chapter answered the primary research question for the study:
1. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concept of autonomy, relatedness and competence as identified in Deci and Ryan’s Self-Determination Theory (1985)?

The study used interpretive phenomenological analysis to inductively compare the study’s results to the theoretical framework of Deci & Ryan’s self-determination theory, as well as the sub-theory of Organismic Integration Theory. All three of the innate needs identified by Deci & Ryan for self-determined behavior were found to be reflected in the themes of this study. The master level theme of Support was consistent with psychological relatedness, the subordinate theme of Intrinsic Motivation/Internal Rewards was reflected in competence and the subordinate level theme of Coaches was congruent with the concept of autonomy.

Consistencies were found between this subordinate theme of Extrinsic Motivation/External Rewards and two of the four forms of extrinsic motivation identified in Organismic Integration Theory. The two forms of extrinsic motivation present in the lived experience of the participants were identified and integrated regulation, which are classified as the most self-determined versions of extrinsic motivation.

This inductive process resulted in consistencies between the results of this study that emerged from the participant’s data and the pre-existing theoretical framework, thus supporting and strengthening self-determination and its sub-theory of organismic integration theory (Deci & Ryan, 1985).

Additional research questions exist as part of the larger study for United States of America Track and Field (USATF). These questions are:
2. What were the critical moments, critical events or critical incidents in the athlete’s experience that led them to successful achievement of the individual Olympic medal (Gold, Silver or Bronze)? How did they recognize critical moments and respond?

3. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concepts of Well Being and of Flourish as identified in the PERMA model (Seligman, 2011). (PERMA is an acronym for Positive emotions, Engagement, positive Relationships, Meaning and Achievement).

4. What perceived aspects of the coach-athlete relationship helped in the process of developing an Olympic medal winner? Specifically, was there evidence that the Coach-Athlete relationship was consistent with, and potentially contributed to the experience of Intrinsic Motivation and well-being, as identified in the elements of Self Determination Theory and the Flourish: PERMA models?

Initial analysis of this study’s resultant master and subordinate themes suggest that the participants identified and successfully responded to critical moments in their lived experience, experienced well being as defined in Seligman’s PERMA model and perceived that aspects of the coach-athlete relationship helped in the process of developing an Olympic medal winner. Further exploration of these research questions will be addressed in the larger study for United States of America Track and Field.
CHAPTER 5

Discussion

Introduction

This chapter will discuss the results of the study, its potential application to the field as well as its strengths and limitations. The purpose of this study was to investigate the psychosocial aspects of the reported lived experience of United States of America Track and Field athletes that won an Olympic medal at the 2012 London Olympic Games, specifically focusing on an exploration of the elements of self-determination theory. The primary research question for this investigation was:

1. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concept of autonomy, relatedness and competence as identified in Deci and Ryan’s Self-Determination Theory (1985)?

This study was part of a larger research study, which is being conducted in conjunction with the United States Olympic Committee (USOC) and United States of America Track and Field (USATF). As part of this larger study there were additional research questions, which supplemented this study’s primary research question. These additional research questions were:

2. What were the critical moments, critical events or critical incidents in the athlete’s experience that led them to successful achievement of the individual Olympic medal (Gold, Silver or Bronze)? How did they recognize critical moments and respond?
3. What in the athlete’s lived experiences, leading to and at the Olympic Games would be consistent with and reflect the concepts of Well Being and of Flourish as identified in the PERMA model (Seligman, 2011). (PERMA is an acronym for Positive emotions, Engagement, positive Relationships, Meaning and Achievement).

4. What perceived aspects of the coach-athlete relationship helped in the process of developing an Olympic medal winner? Specifically, was there evidence that the Coach-Athlete relationship was consistent with, and potentially contributed to the experience of Intrinsic Motivation and well-being, as identified in the elements of Self Determination Theory and the Flourish: PERMA models?

This study utilized a qualitative approach and an interpretive phenomenological design to answer the research questions. Semi-structured interviews were used to obtain in-depth data about the participant’s lived experience of winning an Olympic medal at the 2012 Olympic games in London. These interviews were transcribed and significant statements were coded. The codes were then clustered to form subordinate and ultimately master level themes. The master level themes that emerged from the lived experience of all participants in the study were 1) Support, 2) Psychological Factors and 3) Motivation.

A strength of interpretive phenomenological analysis is that it allows the researcher to construct common themes from the data collected of all participants through an inductive process then allowing the researcher to compare these themes to pre-existing theory to determine whether the theory applies to the population supporting and strengthening the theory or suggesting additional research in the area. This inductive process resulted in consistencies between the results of this
study that emerged from the participant’s data and the pre-existing theoretical framework, thus supporting and strengthening self-determination and its sub-theory of organismic integration theory (Deci & Ryan, 1985). The following chapter will discuss the study’s findings.

Exploring the lived experience

The purpose of this study was to explore the lived experience leading up to and at the Olympic games for United States of America track and field athletes who won an individual Olympic medal at the 2012 Olympic games in London. This study used an interpretative phenomenological design to collect and analyze qualitative data obtained through semi-structured in person interviews with three participants. A strength to this design is that it allows the researcher the ability to construct themes that emerge inductively through the data and then compare the themes to existing theory, either supporting and strengthening the existing theory or suggesting future research in the area. The results of the study identified three master level themes that emerged from the data, 1) Support, 2) Psychological Factors and 3) Motivation.

The master level theme of Support was consistent with psychological relatedness, the subordinate theme of Intrinsic Motivation / Internal Reward was reflected in competence and the subordinate level theme of Coaching was congruent with the concept of autonomy.

Consistencies were found between the subordinate theme of Extrinsic Motivation / External Rewards and two of the four forms of extrinsic motivation identified in Organismic Integration Theory. The two forms of extrinsic motivation
present in the lived experience of the participants were identified and integrated regulation, which are classified as the most self-determined versions of extrinsic motivation.

This inductive process resulted in consistencies between the results of this study that emerged from the participants data and the pre-existing theoretical framework, thus supporting and strengthening self-determination and its sub-theory of organismic integration theory (Deci & Ryan, 1985).

The support of self-determination theory (Deci & Ryan, 1985) in athletes is consistent with other studies findings on the topic (Brie’re et al., 1995; Pelletier et al., 1995; Williams & Gill, 1995; Vallerand, 1997; Fortier & Grenier, 1999; Li, 1999; Pelletier et al., 2001, 2003; Sarrazin et al., 2001; Vallerand & Rousseau, 2001; Mageau & Vallerand, 2003; Mallet & Hanrahan, 2004). This study specifically explored and found evidence of self-determination theory (Deci & Ryan, 1985) in an elite population of track and field athletes. This supports the findings of Mallett and Hanrahan (2004), who found that there was evidence of self-determined motivation in ten Australian track and field athletes whom either competed in the Olympic or World Championships. Their study primarily identified the presence of competence in the athletes as evidence of self-determined motivation as described in Deci & Ryan’s Self-Determination Theory (1985). The information used as evidence of competence was found in the external rewards the athletes received, they determined that the athletes viewed the external rewards as informative thus not undermining their self-determined motivation.
This study found evidence of competence as defined by Deci and Ryan’s Self-Determination Theory (1985). However, competence was identified as consistent with this study's sub-ordinate theme of *Intrinsic Motivation / Internal Rewards*. The subordinate theme of *Intrinsic Motivation / Internal Rewards* is comprised of statements made by the participants addressing rewards that were found within themselves and the pursuit of these rewards during the lived experience of winning an Olympic medal at the 2012 Olympic Games in London. Consistencies are reflected in these statements with the definition of competence used in Deci & Ryan’s Self-Determination Theory; Competence is the innate human desire to seek to control the outcome and experience mastery (White, 1959).

All three participants sought to control the outcome of their lived experience and experience mastery by winning an Olympic medal. The experience of winning an Olympic medal, accompanied by the feeling of pride was identified in significant statements by all of the participants. *Pride* emerged as a code that was clustered with other similar codes to form the subordinate theme of *Intrinsic Motivation / Internal Rewards*. This experience of pride is reflected in self-determination theory as the innate need of competence because it reflects the experience of mastery for these participants.

This study’s participants also shared of their experiences with external rewards. However, in contrast to the Mallet and Hanhran (2004) study this study did not use this data as evidence to support the competence component of self-determination theory (Deci & Ryan, 1985). This study instead used a sub theory of self-determination theory that was not used by Mallet and Hanhran (2004) to
explain why the presence of extrinsic rewards did not undermine self-determined motivation in the participants. The sub theory of self-determination theory used was Organismic Integration Theory (Deci & Ryan, 1985). The two forms of extrinsic motivation present in the lived experience of the participants leading up to and at the 2012 Olympic Games in London were identified and integrated regulation, which are classified as the most self-determined versions of extrinsic motivation. The absence of interjected and extrinsic regulation did not result in the conclusion that Organismic Integration Theory did not apply to the population. Rather, this demonstrated that the participants only experienced forms of self-determined extrinsic motivation and did not experience any non-self-determined forms of extrinsic motivation. The consistencies reflected in the data that emerged as the subordinate theme of Extrinsic Motivation / External Rewards not only strengthen the sub-theory of Organismic Integration Theory but also the entirety of Deci & Ryan’s Self-Determination Theory. If Mallet and Hanhran had utilized the Organismic Integration sub-theory it is possible that the studies could have come to the same conclusion. A reanalysis or future study with the Australian population could gain further insight in the role of Organismic Integration Theory in explaining the presence of external rewards while not undermining elite track and field athlete’s self-determined motivation. Another possible explanation that could be a topic for future research is if there is a difference in the role of external rewards in an athletes lived experience depending on whether they have only participated in the world championships or Olympic Games like the population studied by Mallet
and Hanhran (2004) and the participants of this study that experienced success in terms of winning an Olympic medal.

**Application**

As an exploratory qualitative study that utilizes an interpretive phenomenological design the study’s intent was to have the researcher construct common themes from the data collected of all participants through an inductive process thus allowing the researcher to compare these themes to pre-existing theory to determine whether the theory applies to the population supporting and strengthening the theory or suggesting additional research in the area. This inductive process resulted in consistencies between the results of this study that emerged from the participants data and the pre-existing theoretical framework, thus supporting and strengthening self-determination and its sub-theory of organismic integration theory (Deci & Ryan, 1985).

The intent of this study and its approach and design is not to make generalizations of the results to a greater population. The results of this study do however, allow for insight to be gained on the psychosocial aspects of the lived experience of the participants, all of which won Olympic medals at the 2012 Olympic Games in London. The insight these results provide would be informative for those interested in or involved with current or future Olympians. This population would include but is not limited to Olympic hopefuls and their coaches, as well as leaders of the United States Olympic Committee (USOC) and United States of America Track and Field (USATF). The results could be included in coaching education programs, athlete education programs and training manuals to increase
awareness of the psychosocial aspects of the lived experience of Olympic medal winners from the United States of America at the 2012 Olympic games in London. The results of this study will be included in a manual provided to Team USA athletes and coaches that qualify for future Olympic Games to assist them in succeeding in their Olympic experience. Similarly, those interested in performing their best in any performance leading up to and at their “Olympic moment” would find the results of this study informative.

Future Research

There are many directions for future research in this field of study. This study focused on the lived experience of United States of America Track and Field Olympic Medalists leading up to and at the 2012 Olympic Games in London. Additional research could include athletes from other Olympic sports, both team and individual; athletes from countries other than the United States; athletes that made the Olympics but did not medal; and athletes that did not make the Olympic team.

This study utilized a qualitative approach and an interpretive phenomenological design to answer the research questions. Future research could use other methodologies and research approaches to collect, analyze and interpret data from participants. These could include quantitative, qualitative and mixed methods approaches.

Evidence of Self-Determination Theory and the sub-theory of Organismic Integration Theory emerged from the data in this study. Future research and the
larger study for USATF could investigate this population for further evidence of Seligman’s PERMA model as well as the coach-athlete relationship.

**Strengths**

There are significant strengths to this study. The first is its qualitative approach of phenomenology. Phenomenology is the science of phenomena (Van Manen, 1990 p.183). This human science method developed out of hermeneutics, is a form of interpretation. This is used to reflect on the basic human structures of the lived human experience of human existence (Van Manen, 1990 & 2014). In this study the phenomena is winning an individual Olympic medal in track and field at the 2012 Olympic Games in London. This study was interested in gaining insight into the lived experience of those who experienced this phenomenon and found that the themes that emerged from the data were consistent with components of Deci & Ryan's Self-Determination Theory. This study was strengthened because of the research approach’s ability to use in-depth, rich data obtained through semi-structured interviews. The interpretative phenomenological design of the study is another strength as the nature of this design’s data collection and analysis enabled the researcher to construct emergent themes through a consensus of the three participant’s data.

An additional strength of the study is its population. All participants won an Olympic medal at the 2012 Olympic Games in London. This places these individuals in the category of “elite” for their discipline. “Few social researchers study elites because elites are by their nature difficult to penetrate. Elites establish barriers that set their members apart from the rest of society” (Hertz & Imber, 1995 p. viii).
Although difficult to recruit for participation in research, this population makes the study of great interest to those interested in the lived experience of the elites. In this case elite is defined as a track and field athletes from the United States of America that won an Olympic medal at the 2012 Olympic Games in London.

**Delimitations**

The qualitative approach used in this study has many advantages; it also comes with some boundaries. Most notably the aim of qualitative research is not to generalize the findings to a greater population. One common misunderstanding with qualitative research is the over-generalization of results. By nature qualitative findings are highly context and case dependent (Patton, 1999).

Another boundary that was set for the study was the population, which is also a strength of the study. This study’s participants are all Olympic medals winning athletes in the sport of track and field from the United States. It is a strength of this study to gain access to and have participation from this elite population. However, it is important to state that with an elite population there are additional considerations. These participants are public figures who are concerned with their public persona. Anonymity was assured and all available steps were taken to remove any identifiers from the interview excerpt provided in the study. The limitation to the study is that participants may still withhold or change information to protect their public image. Although this consideration can never be eliminated the researcher feels confident that the participants were truthful and non-withholding in their data as a strong rapport was built through mutual acquaintances or personal relationships. Additionally, the volume of data that
totaled over 3 hours and 47 pages of single space transcripts suggest thorough, useful data.

Summary

The purpose of this study was to investigate the psychosocial aspects of the reported lived experience of United States of America Track and Field athletes that won an Olympic medal at the 2012 Olympic Games in London, specifically focusing on an exploration of the elements of self-determination theory.

This study utilized a qualitative approach and an interpretive phenomenological design to answer the research questions. Semi-structured interviews were used to obtain in-depth data about the participant’s lived experience of winning an Olympic medal at the 2012 Olympic Games in London. These interviews were transcribed and significant statements were coded. The codes were then clustered to form subordinate and ultimately master level themes. The master level themes that emerged from the lived experience of all participants in the study were 1) Support, 2) Psychological Factors and 3) Motivation.

A strength of interpretive phenomenological analysis is that it allows the researcher to construct common themes from the data collected of all participants through an inductive process then allowing the researcher to compare these themes to pre-existing theory to determine whether the theory applies to the population supporting and strengthening the theory or suggesting additional research in the area. This inductive process resulted in consistencies between the results of this study that emerged from the participant’s data and the pre-existing theoretical
framework, thus supporting and strengthening self-determination and its sub-
theory of Organismic Integration Theory (Deci & Ryan, 1985).

The results of this study were consistent with and supports previous
research (Brie`re et al., 1995; Pelletier et al., 1995; Williams & Gill, 1995; Vallerand,
1997; Fortier & Grenier, 1999; Li, 1999; Pelletier et al., 2001, 2003; Sarrazin et al.,
2001Vallerand & Rousseau, 2001; Mageau & Vallerand, 2003; Mallet & Hanrahan,
expands upon Mallet and Hanhran (2004) by being more selective in its criteria of
being elite in the sport of track and field as well as using Organismic Integration
Theory (Deci & Ryan, 1985) as an additional theoretical framework that explains the
consistent finding that the presence of external rewards in these populations does
not undermined self-determined motivation. Future research should be conducted
to find if these results are consistent in other sport populations including athletes
from team and individual competitions as well as other countries.
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Appendix A

CONSENT FORM TO PARTICIPATE IN A RESEARCH STUDY

INVESTIGATOR’S NAME: Anne Shadle, Brian Zuleger, Robert Low and Derek Marr

PROJECT # 1205374

STUDY TITLE: Exploring the Psycho-Emotional Factors and the Coach-athlete relationship Influencing Performance and Achievement in 2012 USA Track and Field Olympic Medal Winners

INTRODUCTION

This consent may contain words that you may not understand. Please ask the investigator or the study staff to explain any words or information that you do not clearly understand.

This is a research study. Research studies include only people who choose to participate. As a study participant you have the right to know about the procedures that will be used in this research study so that you can make the decision whether or not to participate. The information presented here is simply an effort to make you better informed so that you may give or withhold your consent to participate in this research study.

Please take your time to make your decision and discuss it with your family and friends.

You are being asked to take part in this study because you were a medal winner or coach of a medal winner in the Sport of Track and Field in the 2012 Olympic Games in London.

This study is being sponsored by the USA Track and Field Sports Sciences and Coaches Education Committees, along with the University of Missouri’s Institute for Positive Coaching.

In order to participate in this study, it will be necessary to give your written consent.

WHY IS THIS STUDY BEING DONE?

Many athletes dreamed and prepared to make the Olympic team and to win an Olympic medal. Only a very few succeeded in standing on the Olympic Games medal awards podium. For these athletes, their process of preparation and performance delivery worked. We are interested in determining what were the key factors, beyond talent and physical/technical training, that impacted their achieving success and winning their medal(s) at the Olympic Games.

We are seeking to understand the influence and impact of specific deliberate practice,
preparations, focus, sense of self, core values and beliefs, motivation, commitment, and sense of autonomy on their Olympic medal winning performance.

This research is being done with the intention to learn from these athletes, to develop better understandings, and ultimately to create appropriate educational materials to assist coaches and sport leaders in their efforts to teach, coach, develop and support future young athletes in their training and preparations in their pursuit performance excellence, and culminating in winning even more Olympic medals.

Furthermore we are seeking to understand the interaction that takes place between coach and athlete and the role the coach plays in the above-mentioned processes.

HOW MANY PEOPLE WILL TAKE PART IN THE STUDY?

Specifically, 24 athletes and their respective coaches as available will be invited to take part in this study. These are the 24 members of the 2012 United States Olympic Track and Field Team who won 25 individual medals in London and their respective coaches as available.

WHAT IS INVOLVED IN THE STUDY?

Each of the 24 medal winners from Track and Field and their coaches as available will be invited to participate in this research project. Those who choose to participate will be scheduled for one on one interviews that will last 60-90 minutes at their convenience. The environment for these interviews will take place in a quiet, comfortable and safe setting of their choice.

Interviews will be semi-structured, utilizing open-ended qualitative questions.

Interviews will last approximate 60-90 minutes, and will be both audio and video recorded. Additional interview sessions will be conducted as indicated.

HOW LONG WILL I BE IN THE STUDY?

Your actual participation in the study will be limited to the 60-90 minute initial interview, and a second interview involving you (athlete/coach) and your (athlete/coach) with the possibility of 1-2 short follow up interviews as indicated as our analysis of the data unfolds. Furthermore there will be observations where the researcher will be observing your interactions with your (coach/athlete). We expect to have all of the interviews completed by August 1, 2015.

You can stop participating at any time.

WHAT ARE THE RISKS OF THE STUDY?

We anticipate minimal, if any, risks or discomforts for the participants. We are asking the participants to share their preparations and perspectives regarding their experiences.
leading to and competing or coaching in the 2012 Olympic Games. By their very nature, these experiences with the Olympic Games preparation and competition were very intense, with extreme personal identification and investment. The information shared in the interviews will certainly be personal and potentially sensitive. Thus, there could be potential emotional risks in discussing their challenges and obstacles. But, these risks should be minimal. The interviewer will be a fellow athlete, with whom they are very comfortable. And, most of the participants are experienced in answering these types of questions in public or semi-public settings.

If at any time you are uncomfortable with a question, you are perfectly free to not answer it, or even withdraw from the interview and study.

We anticipate that the participants will enjoy recounting and sharing their Olympic experiences, culminating in winning their Olympic medal or coaching a medal winner.

ARE THERE BENEFITS TO TAKING PART IN THE STUDY?

If you agree to take part in this study, there may or may not be direct benefits to you. You may expect to benefit from taking part in this research to the extent that you are contributing to the education and preparation of coaches and athletes in the future. We hope and intend that the information learned from this study will benefit our finest junior athletes and their coaches in their quest for future Olympic medal celebrations. You, the 2012 Olympic medal winners and coaches are exactly the role models of success for future athletes and coaches to follow.

WHAT OTHER OPTIONS ARE THERE?

The options essentially are to either choose to participate, or to choose not to participate.

WHAT ABOUT CONFIDENTIALITY?

All data and digitally recorded materials will be held confidential by the research team. It will be stored in locked files in locked offices.

Beyond that, this study has a rather unique feature to it regarding confidentially.

We acknowledge that, having won their Olympic medals in London in 2012 and as their coaches, all of the participants in the study are highly prominent and recognizable individuals. To suggest that these participants’ identities would be held confidential would not be realistic.

In fact, and in truth, these participants are potentially ideal role models for young athletes who are dreaming and working to become the Olympic athletes or coaches of the future. The intention of this study is to uncover and to refine important understandings from the experiences of these participating Olympic medal winners and their coaches, and to facilitate the impact and influence of their role as a model for others.
To this end, each participant will have final approval of any aspect of their interviews that they wish to be included in the data that will be retained and analyzed, and to any identifiable information that could be shared in any research report or ensuing educational materials or publications.

WHAT ARE MY RIGHTS AS A PARTICIPANT?

**Participation in this study is voluntary. You do not have to participate in this study.** If you decide to participate, you can change your mind and drop out of the study at any time. Leaving the study will not result in any penalty to you the participant.

WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?

If you have any questions regarding your rights as a participant in this research and/or concerns about the study, or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the University of Missouri Campus Institutional Review Board (which is a group of people who review the research studies to protect participants’ rights) at (573) 882-9585.

You may ask more questions about the study at any time. For questions about the study contact Dr. Rick McGuire at 573-882-0727 (o) or 573-268-4263 (c) or Anne Shadle at 402-250-3391 or Brian Zuleger at 573-884-4949 (o) or 608-628-5479 (c) or Derek Marr at 989-329-3370 (c) or Robert Low 801-362-4791

A copy of this consent form will be given to you to keep.

WHERE CAN I GET MORE INFORMATION?

You may get further information regarding the study from the Principle Investigator, Dr. Rick McGuire at McGuireR@missouri.edu or Anne Shadle at ahshb7f@mail.mizzou.edu or from Brian Zuleger at bmz6f4@mail.missouri.edu or Robert Low at rglt2d@mail.missouri.edu or Derek Marr at marrd@missouri.edu

SIGNATURE

I confirm that the purpose of the research, the study procedures, the possible risks and discomforts as well as potential benefits that I may experience have been explained to me. Alternatives to my participation in the study also have been discussed. I have read this consent form and my questions have been answered. My signature below indicates my willingness to participate in this study.

Participant______________________________________________ Date__________________

SIGNATURE OF STUDY REPRESENTATIVE
I have explained the purpose of the research, the study procedures, identifying those that are investigational, the possible risks and discomforts as well as potential benefits and have answered questions regarding the study to the best of my ability.

Study Representative____________________________ Date____________
Dear ________________,

We are writing to you as a 2012 Olympic Medalist to invite you to join us in a very exciting research project, intended to glean important and impacting understandings from the experiences of you and your fellow Track and Field Olympic Medal Winners, that will serve to guide American coaches and athletes in the future in their efforts to attain success and more medals at the Olympic and World levels!

USA Track and Field, in collaboration with the research team of Dr. Rick McGuire and Anne Shadle are looking for participants for their research study. You are receiving this invitation because you are an individual Olympic Medal Winner from the London Games. Your email address was obtained from USA Track and Field.

This study is exclusively about the athletes who won individual Olympic Medals. Only the 23 of you succeeded in standing on the Olympic Games Medal Awards Podium! For each of you, your process of preparation and performance delivery worked. We are interested in determining what were the key factors, beyond talent and physical/technical training, that impacted your achieving success and winning your medal(s) at the Olympic Games.

You are the Medal Winners, and you are the role models for our young junior athletes in their dreaming, and striving and preparing for their chance to stand where you have stood – on the Medal Awards Podium at the Olympic Games! We are specifically and intentionally trying to help that modeling effect to have its greatest impact!

This research is being done with the intention to learn from you, the athletes, to develop better understandings. Ultimately, the long-term objective is to create appropriate educational materials to assist coaches and sport leaders in their efforts to teach, coach, develop and support future young athletes in their training and preparations in their pursuit performance excellence, and culminating in winning even more Olympic Medals.

If you choose to take part in this study, a 60 -90 minute interview will take place at your convenience. Derek Marr will conduct the actual interviews with each of you. The environment for these interviews will take place in a quiet, comfortable and safe setting of your choice. Interviews will be semi-structured and consist of ten questions. The interviews will be both audio and video recorded.

If you are interested in participating or have any questions about the study, please contact one of the following:

- Rick McGuire McGuireR@missouri.edu Phone # 573.268.4263
- Derek Marr: MarrD@missouri.edu Phone #989.329.3370

Attached to this email is the informed consent document, which further explains the study. Thank you all for helping us out with this! Looking forward to hearing your personal story in your journey to your Olympic Medal!

Sincerely, Rick, Derek and USA Track & Field.
VITA

Derek Marr is a graduate of Grand Valley State University (MI), where he earned a Bachelor's of Science degree in Movement Science with an emphasis in Physical Education. He was a four-year letter winner as a member of the Grand Valley State University Track and Field / Cross-Country teams.

Following his undergraduate success Marr earned a Master's of Science in Education degree from Baylor University with an emphasis in Sport Pedagogy. During his time in Waco he held a graduate assistantship teaching courses for the Human, Health Performance and Recreation Department (HHPR). Additionally, he started coaching with the Baylor University Track and Field / Cross-Country teams as a volunteer assistant coach.

Upon graduating Baylor University Marr continued coaching at Northwood University (MI) where he was the Head Men's and Women's Cross-Country and Assistant Track and Field Coach. In 2016 he graduated with a Ph.D. degree from the University of Missouri in Educational, School and Counseling Psychology with an emphasis in Health Education and Promotion & Sport Psychology. While in Columbia he was a graduate assistant Mental Performance Coach with the University of Missouri Athletic Department and Volunteer Coach with the Track and Field / Cross-Country teams.

Marr is currently a Lecturer at Southern Methodist University (SMU) in Dallas, Texas. He teaches in the Sport Performance Leadership concentration of the
Applied Physiology and Sport Management department. The courses he specifically teaches are Psychology of Sport, Communication in Sport and Senior Project. He additionally serves as a Mental Performance Consultant for the SMU Track and Field / Cross-Country teams.