A HEURISTIC INQUIRY OF SPIRITUALITY,

MARATHONER FLOW, ATHLETIC IDENTITY, AND ATHLETIC INJURY

A dissertation proposal presented to the Faculty of Saybrook University

in partial fulfillment of the requirements for the degree of

Doctor of Philosophy (PhD) in Mind-Body Medicine

by

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Approval of the Dissertation

A HEURISTIC INQUIRY OF SPIRITUALITY,

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Abstract

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Dedication

Acknowledgments

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# CHAPTER 1: INTRODUCTION

“What I know now: it is very, very simple, and there are no tricks, really. Play the game by your lonesome. On short rations, as hard as you can, and if you keep your mind on the search and your eyes open, you will eventually find it. And after you’ve found it once, twice, and again, it will begin to stick – the power and the bliss will work itself into the grain of your life, changing everything. It is true, and that’s that.”

- Rob Schultheis

*Bones Games: Extreme Sports, Shamanism,*

*Zen, and the Search for Transcendence (1996, p.166)*

For many people, running marathons is not just a form of exercise, but also a means of establishing one’s athletic identity. The nature of marathon participation has the potential for evoking more introspection and reflection on the marathoner’s athleticism. That perception of athleticism influences athletic identity. One experience that may contribute to the strength of athletic identity is reaching the state of flow during running.

While training for or running marathons, many marathoners are able to experience a state of flow. Flow is being completely absorbed in the moment where both action and awareness of the moment are combined. Flow continues to be a personal, subjective experience that can only be perceived as “unknowable in cognitive, emotional and intuitive ways” (Senreich, 2013).

This state of flow could be identified as a spiritual experience or awareness. This spiritual awareness becomes part of a marathoner’s athletic identity. The perceptions and experiences of the state of flow and the marathoner’s own athletic identity continue to be both subjective and a part of the inner, lived experience (Csikszentmihaly & Asakawa, 2016; Hunter & Csikszentmihalyi, 2000; Jackman, Hawkins, Crust, & Swann, 2019).

In this study, the holistic and integrated nature of the state of flow and its potential for transformation will be explored through the lens of marathon running as it relates to the participant, who is also the researcher. The study will include further analysis of the state of flow, spiritual awareness, and athletic injury as they relate to athletic identity within the researcher-participant’s experience. This chapter includes an overview of the proposed research and discussion on five constructs that serve as a scaffold supporting the development of this dissertation proposal.

# Background

I have run 20 marathons and a 50-mile race. During this time, my own athletic identity was that of a marathoner. I became injured and unable to train consistently for the last six years. I asked myself, “could I still consider myself a marathoner without being able to run?”. I have experienced the state of flow in both my fastest marathon and my fastest half marathon. I know what it feels like to be completely absorbed in the moment because I was completely absorbed in each of these two races. I chose before each of these races to let the race come to me.

Due to this running athletic identity that I earned over the years of running, when a podiatrist who had followed me for the previous 10 years told me that I would not be able to run anymore and I was devastated. Because of the frustration, I found the situation unacceptable. In time, I began to question what I was experiencing and wondered how the state of flow was relevant to me as an injured runner. I was motivated to discover the perceptions and experiences with spiritual awareness, marathoner flow, and athletic identity as an injured marathoner. I wanted to discover how an injured marathoner describes and perceives these experiences.

The relationship between spiritual awareness and the state of flow is embodied in the identity of the marathoner. Allowing athletic identity to shift and morph into something new could also facilitate the state of flow (Eryucel, 2019; Jackman, Hawkins, Crust, & Swann, 2019; Marty-Dugas & Smilek, 2019; Meggs, Chen, & Koehn, 2019; Poltrick-Donato, 2019; Roychowdhury, 2019; Swann, Jackman, Schweickle, & Stewart, 2019). The marathoner could experience flow outside of marathoning, and I, as an injured marathoner, wanted to discover how. Flow is a way for me to experience spirituality. The change in my athletic identity made it difficult for me to experience flow which served as a realization that for me, flow and spirituality were intrinsically interrelated. The question became, if I could find a different way to experience flow, could I regain my sense of spirituality.

The first contribution of my research is determining the relationship between athletic identity and athletic injury as well as the relationship of spirituality to marathoner flow. The combination of these constructs, because of their multidimensionality and nonlinearity (Rubik, 2002), relative to one’s own lived experience can become spiritual. Flow can only be perceived as “unknowable in cognitive, emotional and intuitive ways” (Senreich, 2013).

My living experience as a marathoner was the setting where these things happened. I integrated the intuitive nature of spiritual awareness into an almost emotional feeling of awe, which I refer to as a sense of flow to designate the experience as nonreligious. Spiritual awareness becomes the means to know this sense of flow. An injury for a marathoner presents the void, the non-known, which is experienced as a lack of flow. The void creates an opportunity to choose the existential meaning of the marathoner identity. I did this both consciously and allowed it to happen like when I allowed the race to come to me.

# Purpose Statement

The purpose of this qualitative heuristic inquiry is to explore the perceptions and experiences of marathoner flow, changing athletic identity, and athletic injury, relative to spirituality. Heuristic inquiry is a narrative and descriptive qualitative approach that will allow for the integration of the experience of the researcher with the data collected (Moustakas, 1990). An injured marathoner can re-experience the state of flow and clarify the relationship between athletic identity and athletic injury and what I refer to as the spirituality of marathoner flow.

This inquiry might also present findings that are not only descriptive of the experience of the phenomenon but also explanative (Throne, 2019). Heuristic inquiry also recognizes the need to surrender to each of Moustakas’s (1990) six heuristic phases without any anticipation for outcomes. The researcher-participant will be guided solely by introspection and intuition, which may not involve a linear path. In fact, most often, this path is nonlinear (Throne, 2019).

# Rationale

The potential contributions of this proposed qualitative heuristic study may include the articulation of a spiritual, nonlinear, multidimensional, and inclusive experience of awe (Flower, 2017; Ronkainen, Tikkanen, Littelwood, & Nesti, 2015; Rubik, 2002). Combining the spirituality of marathoner flow and the injured marathoner’s identity using heuristic inquiry from a researcher-participant’s positionality is unique. This study might also convey the possibility of transformation from the negative mental and emotional consequences of injury to a more positive outcome.

According to Flower (2017), altered states of consciousness are inherent in the spirituality of marathoner flow (Meyer & Johnson, 2018; Miller, 2008; Schultheis, 1996) that can facilitate an alternative means by which the injured marathoner or athlete could still experience the state of flow. This shift occurs by making a change in the mental paradigm and performing at a whole new level, involving an integration of the mind and body in a conscious manner. The resulting multidimensional and biopsychosocial narrative may also address the gap in the literature referenced by past researchers (Flower, 2017; Reardon et al., 2019) explicitly between spiritualty and marathoner flow and how these both interact with athletic identity and athletic injury.

# Research Question

The primary research question of this inquiry is:

**RQ.** What are the perceptions and experiences with spirituality, marathoner flow, and athletic identity of the injured marathoner?

# Definition of Terms

To clarify the operational terms used in this inquiry, the following definitions are offered.

**Athletic identity**: Brewer et al. (1993) defined athletic identity as “the degree to which an individual identifies with the athlete role, within the framework of a multidimensional self-concept” (p. 237).

**Athletic injury**: Rice et al. (2019) described athletic injury as any specific distress that results in athlete psychological strain.

**Flow**: Jackson (1996) referred to the state of flow for elite athletes as “total concentration on the task at hand, [a] merging of action and awareness, and the paradox of control” (p. 76).

**Marathoner**: A marathoner is one who trains for and runs a 26.2-mile race.

**Spirituality**: One’s own lived experience of awe that is a “personal, subjective experience and [*a*] relationship to what some perceive as unknowable” (Senreich, 2013, p. 548) except in a spiritual way. Cognitive, emotional, and intuitive means of knowing do not lead to spiritual knowledge.

# Summary

In this study, the researcher and participant are the same, articulating an alternative, narrative view for the injured marathoner. Moustakas (1990) offered heuristic inquiry as a way of knowing that includes a “consciousness, perception, sense, and knowledge to collectively elucidate further knowledge, and ideally a better understanding of new regions of the self to inform the greater human experience through reflexivity” (Throne, 2019, p. 3). This study will include the experience of the spirituality of marathoner flow, a changing athletic identity, and an athletic injury as a nonlinear, holistic framework that continues to be both multidisciplinary and inclusive. An IRB application and supplemental documents will be submitted.

This study will also involve my experience of injury vis-a-vis the spirituality of marathoner flow and my own athletic identity as an injured marathoner. This may be important and worthy of further inquiry because other injured marathoners and injured athletes could benefit from my experience. The next chapter will include the discussion of relevant literature reviewed to support this heuristic inquiry into the mystery of the phenomenon researcher-participant as I study the experience of the injured marathoner negotiating my own changing athletic identity via-a-vis flow.

# CHAPTER 2: LITERATURE REVIEW

We have at present no conception of what an explanation of the physical nature of a mental phenomenon would be. Without consciousness the mind-body problem would be much less interesting. With consciousness it seems hopeless. The most important and characteristic feature of conscious mental phenomena is very poorly understood.

Thomas Nagel, 1974

“What is it like to be a bat?” *Philosophical Review,* *83,* 435–50

*The mind is everything. Muscle–pieces of rubber. All that I am, I am because of my mind.*

Paavo Nurmi

Finnish middle- and long-distance runner and nine-time Olympic gold medallist

Pfitzinger and Douglas,

*Advanced Marathoning*, 2001

# Introduction

This chapter discusses literature relevant to the phenomena in question as well as further defining and illuminating the concepts of this heuristic inquiry. Based upon the lived experienced of the researcher-participant, five constructs are being reviewed: spirituality, marathoner, flow, athletic identity, and athletic injury. These constructs are relevant to this heuristic inquiry because, together, they provide a glimpse into the lived experience of an injured marathoner trying to reclaim the state of flow (Swann, Jackman, Schweickle, & Stewart, 2019). Because of the possibility of choices available during changing athletic identity in correlation with an athletic injury, the necessity for awareness of the multidimensional, nonlinear nature of this lived experience increases (Rubik, 2002). It is within this nebulous tacit dimension that spirituality becomes part of the active process of choosing (Polanyi, 1962).

In addition to providing a framework for investigation, this literature review identifies a gap regarding the relevance of the researcher-participant and the spirituality of marathoner flow, athletic identity, and athletic injury. This gap is explicitly between the academic research on spiritualty and marathoner flow and how these both interact with athletic identity and athletic injury. Being the researcher-participant in this study further fills this gap.

These constructs are being explored as interconnecting pieces of this proposal’s inquiry. The spirituality of marathoner flow may be further regarded as an avenue for a journey to the self (Poltrick-Donato, 2019). This journey to the self, akin to the Heroes Journey (Campbell, 2008) is well supported within humanistic psychology as an articulation of transformation but is decidedly absent in the arena of sport psychology (Eryucel, 2019; Harris, Vines, & Wilson, 2019; Meggs, Chen, & Koehn, 2019). Although studies on the spirituality of marathoner flow exist, research from the perspective of an injured researcher-participant unable to train for or run a marathon was not found. The following five constructs support a perspective of organization for the researcher-participant, in an effort to provide a framework for deeper inquiry.

## Construct 1: Spirituality

Senreich (2013) discussed spirituality as a human being's subjective relationship (cognitive, emotional, and intuitive) to what is unknowable about existence and how a person integrates that relationship into a perspective about the universe, the world, others, self, moral values, and one's sense of meaning. (p. 553). Spirituality in the context of this inquiry is identified similarly as a cognitive, emotional, and intuitive relationship with the unknowable. For a marathoner, this relationship with the unknowable could be experienced within the state of flow. The focus of the following studies was on an exploration of spirituality as it relates to sport psychology.

Researchers have found that the athlete’s responses to injury affect a variety of psychological factors (Arvinen-Barrow & Clement, 2017; Roy, Mokhtar, Karim, & Mohanan, 2015). While these factors are well supported, this inquiry questions the singular approach devoid of discussions including spirituality. A review of the literature reveals that many researchers appear to ignore the non-linearity of change and the elements of spirituality like flow, identity, and injury in their potential for authenticity and awe. This proposal will review a “non-linear, dynamical, nonequilibrium living systems” approach to both change and spirituality (Rubik, 2002, p. 703). Multidimensional approaches, such as the biofield hypothesis, indicate a biopsychosocial approach including the possibility of spirituality as essential to sport injury rehabilitation and healing.

Of particular interest is the relationship of spirituality and positive psychological states such as flow and peak performance for the marathoner. The construct of spirituality or awe is relevant because a marathoner with a spiritual sense places a high value upon authenticity (Flower, 2017). Authenticity is important to the marathoner because it is where the spirituality resides and is experienced for the inclined marathoner. Authenticity is where the marathoner chooses to not try in a conscious manner. Many marathoners work with coaches to learn best practices to achieve peak performance. Coaches often acknowledge the importance of physical and mental enhancements such as injury prevention, nutrition, communication, goal setting, and athletic development. They often overlook the spiritual component (Roychowdhury, 2019) inherent in marathoner flow.

There is a small but growing pool of literature discussing spirituality and athletes (Hagan 2019; Lomas, 2019; McInytre et al., 2019; Meyer and Jonson, 2018; Poltrick-Donato, 2019; Roychowdhury, 2019). Researchers from this pool point to the emerging importance of spirituality and sport and suggest that providers treating athletes should incorporate aspects of spirituality, particularly with injured athletes.

For example, Brymer and Schweitzer (2017) witnessed the construct of spirituality in extreme sport when these activities involve both physical prowess and a certain attitude towards the world and self. Investigating this experience using a phenomenological approach, Brymer and Schweitzer interviewed 15 extreme sports participants across three continents from which three themes emerged: (a) extreme sport as invigorating experience, (b) inadequacy of words, and (c) participants’ experience of transcendence (p. 63). Brymer and Schweitzer investigated the experience of athletes engaged in extreme sports using a phenomenological approach and found little academic understanding.

Attempts to describe the indescribable changes both the intensity and power of the experience because the definitions limit the verbalizations and conceptualizations. Findings demonstrated that attempts to clarify language or descriptions can result in loss or destruction of the experience. The focus of this article by Brymer and Schweitzer (2017) emphasizes an important element of the human experience exists beyond words. Findings provided insight into both human volition and the range of human experience incorporating the spirituality of marathoner flow.

Dillon and Tait (2000) examined the relationship between spirituality and being in the zone in team sports at nonsectarian Western New England College. In this study being in the zone is described as “very positive states of consciousness” (p. 91). Sixty-two student-athletes from this Division III College participated in the study. Of the 62 volunteers, 42 participants were on a Division III team with the remainder having played on a high school or recreational team.

The participants included 39 men, 20 women, and three who did not answer the question of gender. The purpose of this study was to examine the relationship between The Spirituality in Sport Test and The Zone Test. Based upon the results, Dillon and Tait (2000) found both tests statistically significant and related to each other, providing empirical verification for the relationship between spirituality and being in the zone.

The reported experiences of athletes during peak performance was examined by Flower (2017) who also found many athletes interpreting peak episodes such as the runner’s high or the state of flow as having not only physiological but also spiritual aspects. Flower contested that while current best practice, peak performance coaches acknowledge the importance of physical and mental enhancements, such as injury prevention, nutrition, communication, goal setting, and athlete development, the spiritual component is often overlooked. Flower reviewed the origins and historical development of spiritual, transcendent states in the West during medieval times, the early 1900s, the postmodern age, and the New Age era, to present-day occurrences in sport. Altered states of a consciousness need to be more clearly understood and Flower suggested her review provided a greater understanding of these transcendent states within a coaching context for peak performance spiritual experiences.

The relationship among gratitude and spiritual and religious identification among collegiate athletes was studied by Gabana, D’Addario, Luzzeri, Soendergaard, and Wong (2019). These researchers found an athlete’s identity helped determine how practitioners understood and worked with both the athlete’s mind and body. Spirituality, along with what Gabana et al. referred to as gratitude and religiosity, has been researched together in past academic literature. Any difference in articulated gratitude based on the athlete’s identification was noted. Gabana et al. revealed, “results indicated that among 331 NCAA Division I-III athletes, those who identified as both spiritual and religious scored significantly higher in dispositional gratitude than self-identified spiritual/non-religious and non-spiritual/non-religious athletes” (p. 1). In other words, people who identify as spiritual and religious also display more gratitude than people in other categories. Gratitude is a major component of spirituality and religiosity.

While Hagan, Schack, and Schinke (2019) saw a separation between religious and spiritual observances when reviewing indigenous populations particularly in South and North America, Oceania, and Sub-Saharan Africa, Hagan et al. reflected that “These two phenomenological constructs have been shown to provide individuals with psychological resilience in the face of life adversities (e.g., coping) as well as offer other psychological support aimed at athletes’ optimal functioning, performance enhancement, and general well-being” (p. 183).

Hagan et al. (2019) further suggested new perspectives such as the athlete-centered model and approaches like reflective practice to facilitate increased potential for spirituality which could be useful in both the athlete’s training and performance. Additionally, these researchers call for further study, “future researchers should target the empirical and functional effects of these indigenous religious and spiritual practices through applied work on sport performance-related constructs (e.g., flow and peak experiences, counseling interventions) in Sub-Saharan Africa” (p. 183).

In a related article, Hagan and Schack (2019) suggested integrating pre-game rituals and pre-performance routines in a culture-specific context. Rituals are spirituality embodiments. These researchers believed that these same issues about spirituality were not only found in indigenous Sub-Saharan culture but elsewhere and should not be ignored or allowed to remain on the fringes of applied sport psychology. Hagan and Schack concluded that sport psychologists, coaches, and trainers deliver evidence-based interventions that maintained respect for and consideration of cultural characteristics including religion, spirituality, and the health status of athletes.

For Jirasek (2015), the last five years have been a time of growing interest in both religious and spiritual aspects of sport and human movement. Jirasek noted the need for a distinction between religion and spirituality. After delimiting religious and spiritual modes of experience, Jirasek addressed Coubertin’s *religio athletae* and demonstrated this should have spiritual and not religious content. Jirasek further saw religious values as external to achievements in sport, while spirituality is authentic and should be an inner aspect of human movement activity. According to Jirasek, to gain a deeper understanding of the religious and spiritual aspects of sport, spiritual health should be one of the main goals for teachers, coaches, and athletes.

Lomas (2019) also saw the notion of spirituality increasing in prominence in academic literature, but the problem was that “spirituality still remained a nebulous concept, capable of diverse interpretations, particularly cross-culturally” (p. 131). As a consequence, Lomas’ inquiry was conducted into concepts of spirituality across cultures. This inquiry looked at what Lomas referred to as “so-called untranslatable words, that is, those that lack an exact equivalent in another language [*in this case, English*]” (p. 131).

Through a quasi-systematic search, together with conceptual snowballing, over 200 relevant terms were located. A grounded-theory analysis identified three key dimensions: (a) the sacred, (b) contemplative practice, and (c) self-transcendence. Based on these, a conceptualization of spirituality was formulated that may be valid cross-culturally, namely, engagement with the sacred, usually through contemplative practice, with the ultimate aim of self-transcendence. (p. 131)

Lomas’ quotation could serve as an indirect reference to the mystical nature of flow.

Perceptions about extreme sport athletes as disconnected from nature and a risk-taking population permeated academic research, according to McIntyre et al. (2019). The purpose of their study was to gain insight and understanding into eight athletes' attitudes towards the benefits of extreme sport activities. McInytre et al. drew their conclusions from perspectives of positive psychology, organizations, and the environment by exploring the lived experience of four male and four female extreme sport athletes.

These eight volunteer athletes with an average age of 40 years old provided written informed consent to participate in the researcher’s semi-structured interviews. Each of these athletes provided written consent allowing the publication of their identifiable data and the sharing of their autobiographical experiences. The following meta-themes emerged from the researchers’ analyses: (a) early childhood experiences, (b) the challenge of the outdoors, (c) their emotional response to nature, (d) nature for coping, (e) restorative spaces, and (f) environmental concern (p. 1). Findings conveyed commonalities with regard to mindset and emotional well-being as well as connectivity with nature and attitudes toward the natural environment.

McIntyre et al. (2019) highlighted the cognitive-affective-social-behavioral linkage of the benefits of extreme sport participation for well-being, psychological recovery and pro-environmental behavior. Their study examined the lived experiences of these eight extreme athletes and provided a contribution to understanding their relationship to nature and its impact upon well-being and pro-environmental attitudes. McIntyre et al also concluded that extreme sport had psychological benefits ranging from evoking positive emotions, developing resilience and life coping skills to cultivating strong affinity to and connection with nature and the natural environment.

McKnight and Juillerat (2011) conducted a survey of 2000 athletic trainers of four-year colleges and universities, which concluded with a recognized consensus for integration of the mind and body in the treatment of an injured athlete. However, less agreement on including spiritual needs as part of an integrated treatment was evident lending voice to the value of this proposed inquiry. McKnight and Juillerat measured athletic trainers’ practices and perceptions related to the spiritual care for injured athletes and found a positive relationship between the athlete’s spirituality and “items favoring implementing spiritual care” (p. 303). McKnight and Juillerat also found that although the athletic trainers in their study understood the spiritual needs of athletes, the particulars of definition, skills, and practice remained unresolved. This study indicated a gap in the literature for integrating spiritual care when treating injured athletes.

Looking at sport and spirituality, Miller (2008) defended the historic potential of the spirituality of sport and explored sport as a spiritual enterprise and looked at spirituality from three levels: (a) self, (b) others, and (c) a higher being or purpose. Miller examined 10 dominant themes of the world’s sacred scriptures: (a) a supreme being and the mystery of sport, (b) self and play in the zone (or the state of flow), and (c) spiritual paths and practice. Additional themes included (d) knowledge-wisdom and creativity-innovation in sport, (e) the good life and the team, and (f) love and service as sportsmanship. The final themes were (g) devotion and worship through love of the game, (h) fate and free will in miracles and mystery, (i) death and the big picture, and (j) the spiritual sage and the sport hero.

Poltrick-Donato (2019) compared the marathon with the pilgrimage and found a link between the two in terms of the trials and triumphs of the runner. Both were a kind of journey to the self. Poltrick-Donato drew existential and statistical parallels between these two forms of journey and then referenced the suffering and accompishments of running as a form of secular pilgrimage. Subsequently on this journey, the marathoner or pilgrim could experience the spirituality of marathoner flow.

Spirituality and authenticity provide an existential framework for athletic integrity and meaning, according to Ronkainen et al. (2015). As an athlete encounters the influences of competitive sport and increases in physical prowess, the athlete experiences a nebulous quality to their identity. As a result, a changing athletic identity could encompass value conflicts, affecting the athlete’s sense of authenticity, stress of failure, and performance anxiety. Ronkainen et al interviewed 10 athletes and interpreted these athletes’ reflective writings. These 10 athletes shared responses that varied from love for competitive sports to the opposite: “disidentification from high-level performance sport” (p. 253). Maintaining spiritual integrity allowed athletes to sustain their love for competitive sport. So despite the fact that some participants reported disidentification from high-level performance sport, they were able to sustain their love for competitive sport by maintaining spiritualty integrity.

Spirituality also plays an essential role in athletes’ lives and in enhancing their sport performance, according to Roychowdhury (2019), because spirituality enhances athletes’ personal growth and overall well-being. Researchers have looked at the role of spirituality, religion, and psychological constructs to understand more clearly how these three relate to both training and performance. Because spirituality receives little attention in sport psychology literature, Roychowdhury proposed spirituality be incorporated in training, recovery, and advising athletes. Doing so would help enhance sport performance while aiding athletes to cope with stress-related sport experiences.

Spirituality was essential in consulting with the athlete. Roychowdhury (2019) suggested future research should utilize biopsychosocial approaches using qualitative data to add value to quantitative measures. Roychowdhury concluded this was because of the experiential nature of spiritual elements as well as the transient nature of psychological constructs. For Roychowdhury, research indicates that spirituality is essential in enhancing sporting performance, personal growth, and well-being. Even though many researchers have attempted to examine the integration of religion, spirituality, and psychological constructs in sport and exercise performance and even though spiritual well-being plays a crucial role in athletic excellence and acts as a buffer against a wide range of stressors and negative behaviors, it has received little attention in academic research. Roychowdhury proposes that spiritual well-being be incorporated into sport and exercise psychology training as well as consultancy to improve and enhance service delivery. Sport and exercise psychology research and practice should focus on a holistic understanding of spiritual well-being in sport and exercise contexts. In this regard, Roychowdhury suggested understanding what constitutes spiritual well-being for individuals, examining the role spiritual well-being plays in athletic performance and excellence, and then incorporating spiritual well-being practices into existing models of mental skills training in sport and exercise psychology consultancy.

In 2005, Watson and Nesti conducted an analytical review of related literature. Based upon their review, the researchers suggested that spirituality should be considered seriously within sport psychology. Of relevance to this inquiry were the following four key research areas:

(1) how spirituality may be reconciled into the athlete-centered model; (2) the integration of spirituality and religious observances into mental skills training (MST); (3) the relationship between spirituality and positive psychological states such as flow and peak experiences; and (4) . . . spirituality in counseling. (p. 228)

Spirituality remains an overarching experience for the researcher-participant in understanding the opportunities and choices of an injured marathoner. Spirituality could help the injured marathoner become more aware of the flow implications of such choices like having corrective surgery with a specific surgeon. Spirituality can also inform postsurgical experiences of the researcher-participant and also remain central to the potential morphing and nonlinear narrative (Rubik, 2002).

## Construct 2: Marathoner

A marathoner is a runner who trains for and runs 26.2-mile races. There are many researchers who have called for more research into the marathoner (Hoogkamer, Addona, & Hanley, 2019; Hoogkamer et al., 2019; Qiu et al., 2019; Thierry et al., 2019). Each source listed will be discussed in terms of the marathoner who trains for and runs these races.

Based on a review of the literature, Deaner et al. (2019) noted current researchers neglected the variations of psychological factors in marathoners, necessitating research. These researchers conducted an online survey of over 1,300 marathon runners, testing whether any of five psychological constructs–competitiveness, goal achievement, risk taking in pace, domain-specific risk taking, and willingness to suffer in the marathon – predicted slowing in runners’ most recent marathons (p. 1). Deaner et al. discovered that risk taking in pace–the extent to which runners agreed that they began the marathon at a pace that was so fast that it would jeopardize their capacity to maintain this pace throughout the event–was a robust predictor of marathon slowing.

Risk taking in pace also proved a substantial predictor even in regression models controlling for the other psychological constructs, training, experience, and other known pacing correlates. Level of risk taking in pace precipitated slowing down, which interfaced with both the marathoner’s training and experience. This suggests that marathoners consider trade-offs when making pacing decisions and vary in pacing decision making.

Roebuck et al. (2018) centered on two characteristics of the marathoner. These characteristics were (a) the acute mood effects of ultrarunning that appeared to increase in fatigue and decrease in both vigor and tension and (b) the opportunity to achieve personal growth (p. 43). Four databases (PubMed, Scopus, Web of Science and PsycINFO) were searched until December 2017 and 51 studies met the inclusion criteria.

Roebuck et al. (2018) concluded that ultrarunning seemed to be associated with a psychological drive to explore both the runner’s mental and physical limits. Roebuck et al. assumed that the literature they reviewed did articulate these runner’s emotional states, motivations, and phenomenology. Further research was necessary to explore the psychology of these same runners.

Thierry et al. (2019) described the incidence, prevalence, and impact of running-related injuries or illness symptoms in marathoners. Their study focused on a 16-week period before the Utrecht marathon, where these researchers found that out of the 161 included runners in their study, nine out of every 10 marathoners reported a running-related injury or illness symptom prior to the marathon. In any two-week period, one in seven marathoners reported a new running-related injury or illness-related symptom.

Locomotor muscle fatigue (LMMF) and exercise-induced muscle damage (EIMD) are related to marathoners according to Venhorst et al. (2018). Based on their study of long-distance running, marathoners experience what they considered to be the pooled effect of mechanical and metabolic strain on the locomotor muscles. Venhorst et al. found little research on what they referred to as the instant effects of combined LMMF and EIMD on pacing behavior and performance during the decisive final stages of real-world, long-distance running events like marathons. In their study, Venhorst et al. had 22 highly trained runners complete two maximal, self-paced, 20-km treadmill time trials.

According to Venhorst et al. (2018) indicators of muscle damage, muscle metabolic strain, and endocrinological stress were assessed to investigate the physiological effects on the marathoners. Applying a three-dimensional framework of perceived fatigability, Venhorst et al. investigated the perceptual effects of running with LMMF and EIMD on performance fatigability. Venhorst et al. further found that LMMF and EIMD caused restrictions in work capacity and medium increases in blood leucocyte and neutrophil count, interleukin-6, and cortisol concentrations. These blood results collectively constituted a physiological milieu that was not conducive to high performance.

Results also indicated LMMF and EIMD caused large increases in perceived physical strain and large decreases in valence as well as large increases and decreases in action crisis and flow state, respectively. Venhorst et al. (2018) found that under the constraint of amplified physical impact, marathoners experience a goal disengagement process. Venhorst et al. concluded that dynamic changes in physiological and perceptual effects of LMMF and EIMD resulted in a significant biopsychosocial change.

According to Venhorst et al. (2018), the integration of mind and body became apparent with the observed alterations in pacing behavior and performance fatigability during long-distance running. The muscle damage, muscle metabolic strain, and endocrinological stress comprising the applied three-dimensional framework helped to clarify the imprint of LMMF and EIMD on the marathoners. The results of the study yielded a more comprehensive understanding of what Venhorst et al. referred to as a goal disengagement process in centrally regulated and goal-directed exercise behavior. The goal disengagement process becomes an opportunity to experience the state of flow--a sought-after lived experience to repeat where rather than having the goal of finishing or PR ing the race, the goal becomes the experience of flow. This proposal offers a springboard for this lived experience.

## **Construct 3: Marathoner Flow**

The findings of Venhorst et al (2018) anticipated studies on achieving the state of flow possible when disengaging from the goal (Carraca, Serpa, Rosado, & Palmi-Guerrero, 2019; Csikszentmihalyi & Asakawa, 2016; Swann et al., 2019). Getting into the state of flow could be contemplative (Hunter & Csikszentmihalyi, 2000), and marathoner narrative could facilitate its articulation, especially on the *whats* and *hows* of the marathoner’s choices. The state of flow is something experienced after the marathoner has completed training and then mindfully chooses to strive without intentionality before the competition (Brymer & Schweitzer, 2017; Orta, Sicilia, & Fernandez-Balboa, 2017).

According to Krippner (2013), countering the studies resulting in spiritual growth, the state of flow may have some negative consequences on the marathoner. Krippner described dissociative behavior in terms of identity. He also discussed several incidents and presented a model that both described and compared these, even though they took place at various times and in various places. According to Krippner, “these events and their descriptions portray the many ways in which images and selves can be broken and, in some instances, reconstructed” (p. 38).

Partington, Partington, and Olivier (2009) also studied the negative side of the state of flow. Fifteen elite surfers completed in-depth, semistructured interviews and it seemed clear from the results that the surfers experienced positive consequences of flow. This state of flow has been described as an optimal state directly related to peak performance. Experiencing this flow state was not always beneficial, however, because one negative side of the state of flow could involve contributing to dependence on the activity that initiated the flow experience. Partington et al. (2009) went on to explore this dichotomous consequence of flow, using case studies of Big Wave Surfers indicating an association between the state of flow and compulsion to engage in the specific activity. Partington et al. concluded with their recommendations for further research into the relationship between the state of flow and exercise dependence. While Krippner (2013) and Partington et al. focused on the negative nature of the flow experience, Carraca et al. (2019) claimed that accepting potential negative emotions could lead to a positive flow experience.

Not trying to achieve the state of flow and the experience of the state of flow are separate and distinct. While the idea of not trying is preliminary to the state of flow, the state of flow becomes the goal desired by many marathoners. Several researchers have called for more research into the state of flow (e.g., Eryucel, 2019; Swann et al., 2019).

Brymer and Schweitzer (2017), while conducting their study, *Evoking the Ineffable: The Phenomenology of Extreme Sports,* found a consensus among participants identifying that the experience of the ineffable was invigorating because of the involvement of positive emotional states. The study draws upon interviews with 15 extreme sports participants across three continents to explicate unique themes: (a) extreme sports as invigorating experience, (b) inadequacy of words, and (c) participants’ experience of transcendence (p. 63) and referenced above in the spirituality section. These researchers found a positive mental attitude was partly a result of controlled breathing, which could correlate with the state of flow. According to Brymer and Schweitzer, these positive emotions were related to the changing nature of a nonlinear biopsychosocial reality.

Carraca et al. (2019) recognized acceptance of negative emotions as something that had a positive effect on both the athlete’s self-confidence and the state of flow. This process could lead the marathoner to be more mindful and, according to these researchers, “mindfulness-based interventions have consistently demonstrated associations with multiple aspects of flow and sport performance” (p. 34). In their study, 57 elite soccer players (Portuguese 2a league) from two different cohorts participated in a mindfulness-based program. This exploration included training on self-compassion, mindfulness, psychological flexibility, sport performance, and flow.

Examining how the relationship between “mindfulness, psychological flexibility, and self-compassion . . . predicted flow and performance measures” (p. 34), Carraca et al. (2019) assessed the influence of “baseline psychological flexibility, self-compassion, and mindfulness facets on flow” (p. 34). These also included sport performance measures at post intervention. Combining mindfulness, self-compassion, and “direct forms of performance and flow improved from pre- to post-intervention and psychological inflexibility decreased. The practice of mindfulness predicts higher flow at post intervention, and psychological inflexibility predicts lower dispositional flow at post intervention” (p. 34).

The practice of mindfulness was related to improved athletic performance and the potential for the athlete to achieve and experience the state of flow (Cathcart, McGregor, & Groundwater, 2014). This study by Cathcart et al. (2014) involved an examination of the relationship between the practice of mindfulness in 92 elite athletes and their ability to experience the state of flow. One of their conclusions indicated the relationship between mindfulness and the different facets of the state of flow might vary by gender and sport type. Another conclusion was that athletes from individual and pacing sports scored higher on the Five-Facet Mindfulness Questionnaire than athletes from team-based and nonpacing sports.

Harris, Vine, and Wilson (2017) investigated the relationship of effective attention control and the state of flow. Harris et al. developed an experimental method to study flow using what they referred to as balance manipulation and applied it to self-paced netball and basketball shooting tasks. Harris et al. particularly looked at point of gaze recorded through a mobile eye-tracking device called the Quiet Eye. This Quiet Eye of Harris et al. was used to help index factors identified as the best control of visual attention, articulating the stages leading to the state of flow.

Even though Harris et al. (2017) found no evidence of attention control via Quiet Eye recording, identified factors remained associated with the state of flow. These researchers also discovered that meditation influenced participants, changing what was recorded by the Quiet Eye. This result provided the basis for the belief that manipulations in visual attention preceded the state of flow.

In a related study on flow, Harris, Vine, and Wilson (2019) countered the reported reduction of athletic conscious attention and effort since it seemed difficult to reconcile superior focus and lack of distraction. These researchers explored this tension by testing predictions for subjective and objective mental effort as well as assessing visual attention control using a research design that was experimental.

Harris et al. (2019) predicted that attention could “dissociate across 3 conditions of a simulated car-racing task designed to manipulate the level of flow: too easy, matched to skill (flow), and too difficult” (p. 103). The highest in the matched condition were task absorption, objective mental effort, and focused gaze. At the same time, reported fluency, objective performance, and mental effort showed a linear relationship across conditions where the participants performed worse and reported more effort and less fluency as the difficulty increased. Harris et al. concluded a relationship between objective and reported effort and suggested that flow was “underpinned by efficient attentional control” (p. 103).

Jackman, Hawkins, Crust, and Swann (2019) conducted the first systematic review of flow research in exercise. These researchers suggested that exergame design features, music, and virtual stimuli could affect some flow dimensions. Addressing a range of conceptual and methodological issues, based upon initial qualitative findings, Jackman et al. offered a potential step towards explaining the occurrence of the state of flow.

## Using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses

(PRISMA) guidelines in their systematic review, Jackman et al. (2019) searched eight electronic databases in February 2019. The exclusion criteria stipulated that studies must include both exercise and nonexercise participants and not focus on instrument development or validation. Jackman et al. further extracted and reported data from these studies in a narrative synthesis and a total of 26 studies met this inclusion criteria and were conducted with 4478 participants.

Jackman et al. (2019) also identified several issues including both the conceptualization and measurement of flow in exercise about which they then drew conclusions. These researchers found tentative evidence that exergame design features, music, and virtual stimuli could affect at least some dimensions of the state of flow. Even though not much research attention has been directed towards developing an explanatory theory, their findings concerning the contexts and process underlying the state of flow could lead to future research. Future research should be directed to developing an explanatory theory for states of flow in exercise.

Krippner (1999, 2013) presented a model of what he referred to as dissociative experience that includes a transpersonal perspective. The first aspect of the model focused on whether an experience represented controlled flow, uncontrolled flow, controlled dissociation, or uncontrolled dissociation. The second aspect of Krippner’s model addressed the alterations in one's identification with the ego-self or whether one transcended the ego-self, making contact with a hypothetical All-Self. The third aspect of Krippner’s model was concerned with whether the particular experience under investigation is life affirming or life denying. These three aspects are useful in determining whether or not a dissociative experience is psychopathological or truly a mystical experience of awe.

Conceptualizing the construct of flow, Marty-Dugas and Smilek (2019) studied effortless concentration by developing two scales designed to index differences in the state of flow during concentration. These scales were used to measure (a) flow and thinking (meditation) and (b) flow during sport. The scales were internal and later external and correlated by these researchers who indicated that those who experienced the state of flow externally during sport would also most likely experience it internally (while thinking or meditating). Marty-Dugas and Smilek found their measurement model fit the data better because the model allowed internal and external flow as separate experiences.

Marty-Dugas and Smilek (2019) explored the associations between the state of flow and daily inattention. These researchers explored the relation between the state of flow and the Tellegen Absorption Scale, as well as the Big Five personality traits (Buecker, Maes, Dennisen, & Luhmann, 2020). The state of flow was negatively related to inattention. This indicated that those who experience the state of flow more frequently experience less inattention day to day (Marty-Dugas & Smilek, 2019).

Meggs et al. (2019) examined the relationship between mental toughness and subjectively perceived performance, and dispositional flow in a sample of 114 high-performing Ironmen and standard distance triathletes. Meggs et al. recruited triathletes for their study from various triathlon clubs and these triathlete volunteers filled out the Mental Toughness Questionnaire, Dispositional Flow Scale, and self-rated perceived performance. Meggs et al. tested for correlations between mental toughness and subjective performance ratings as well as between global mental toughness and dispositional flow results.

Based on their analysis, Meggs et al. (2019) found mental toughness accounted for 64% of dispositional flow experiences (p. 241), while subjective performance ratings did not significantly add to their regression model. Meggs et al. further suggested that mental toughness could contribute to Ironman competitors’ and triathletes’ efforts with both cognitive and emotional control. The test results indicated that mental toughness was necessary to experience the state of flow and perform optimally.

Niksirat, Park, Silpasuwanchai, Wang, and Ren (2019) conducted a cross-sectional study with a high number of healthy employed Japanese adults to examine flow proneness as a dispositional tendency to experience the state of flow. These researchers believed the state of flow was a subjective tendency in various athletes. Niksirat et al. cited an earlier study on flow proneness and addressed the availability of dopamine receptors in the dorsal striatum, as well as a composite of the caudate and putamen all located in the center of the brain. These locations were responsible for movement in the limbs and needed to be studied because of their role in flow proneness (Niksirat et al., 2019).

Whether flow proneness was associated with gray matter volume variations in the brain was unclear. Niksirat et al. (2019) investigated the neuro-anatomical basis of flow proneness, and measured flow proneness in different domains of the everyday life of their Japanese participants. Everyday life meant work, household maintenance, and leisure time.

Niksirat et al. (2019) used a Japanese translation of a Swedish flow proneness questionnaire to investigate gray matter volume using optimized voxel-based morphometry (p. 25). Voxel-based morphometry is a “computational approach to neuroanatomy that measures differences in local concentrations of brain tissue through a voxel-wise comparison of multiple brain images,” in this case, different sections of the caudate (p. 25).

First, Niksirat et al. found a region in the dorsal striatum and an increase in gray matter volume in the right caudate. This discovery of more gray matter in the right caudate was associated with an increase in overall flow proneness in everyday life. Niksirat et al. concluded that their resulting correlation was small and discussed potential reasons for this, suggesting their findings might have further implications for flow research.

After conducting a biopsychosocial analysis on the narratives of flow experiences and identity of three elite sportsmen within the athletes’ unique autobiographical sport articulations, Orta, Sicilia, and Fernandez-Balboa (2017) found five major themes. In their narratives, these sportsmen expressed (a) a strong athletic identity, and (b) withdrawal from sports perceived as a real threat to the athlete’s identity. Other themes were (c) each athlete’s narrative revealed the experience of the state of flow and where the athletes placed them. The final themes were (d) the importance of the athlete’s unique autobiographical flow account, and (e) the “silence and devaluations” of the athletes (p. 187).

For Orta et al. (2017), analyses of these narratives showed a relationship between the state of flow experience and athletic identity. Orta et al. concluded that athletes’ narratives had an ontological role asserting athletes’ threatened identity. Studying these narratives clarified the “internal coherence of the narrative fragments into which flow experiences are inserted, but also the role that they play regarding the autobiographical narrative” (Orta et al., 2017, p. 187).

Soulliard, Kauffman, Fitterman-Harris, Perry, and Ross (2019) studied differences in body and functionality appreciation between student athletes and non-athletes. Soulliard et al. examined the relationships between positive body image and other sport-related variables. Seventy-nine National Collegiate Athletic Association Division I student athletes and 175 non-athletes filled out a survey articulating measures of body appreciation and functionality appreciation. These students further completed measures of sport confidence, the flow state, and subjective sport performance. Based on their survey, Soulliard et al. found these same students showed a much higher level of both facets of positive body image. The survey results also yielded an important connection between this positive body image and the state of flow.

Narrative can serve as a means to facilitate researchers’ focus on both the *whats* and *hows* of interaction in sports psychology, according to Sparkes and Partington (2003). These researchers referred to the state of flow as a “relational performance shaped by a number of narrative resources and auspices that operate differently according to gender” (p. 29). Because the majority of research on the state of flow was focused more on the *whats* than on the *hows,* Sparkes and Partington suggested using narrative instead to help yield different understandings of how the athlete experiences the state of flow.

Sugiyama and Inomata (2005) examined what they considered to be the psychological elements of the state of flow experienced by top Japanese athletes during competition. Sugiyama and Inomata also explored the psychological states leading to the state of flow by interviewing 29 Japanese athletes who could experience 100% of their abilities and enjoy them at the same time. Of the interviews, 92.6% agreed with Csikszentmihalyi’s model of the state of flow.

Sugiyama and Inomata (2005) referenced the nomenclature of Jackson’s (1996) categories: (a) unambiguous feedback, (b) concentration on the task at hand, and (c) autotelic experience. These three categories could be the basic characteristics of the state of flow. Based on the results, athletes with an autotelic personality would experience the state of flow more often than athletes with other personalities. These athletes may show higher self-esteem and lower anxiety and improve the use of coping strategies more frequently, using passive coping strategies less frequently compared to the less autotelic athletes.

The interviews with these Japanese athletes yielded six psychological states leading up to the state of flow. These psychological states included (a) relaxed, (b) self-confident, (c) highly motivated, (d) completely focused, (e) lack of negative thoughts and feelings, and (f) extremely positive. Sugiyama and Inomata (2005) suggested these basic characteristics were primary elements for an optimal experience with the state of flow.

Swann, Jackman, Schweickle, and Stewart (2019) investigated optimal psychological states during exercise. Eighteen participants were interviewed within two days of rewarding exercise activity. Because promoting rewarding exercise was important for athletes, these researchers aimed to investigate psychological states by interviewing these participants as soon as possible after exercise perceived as rewarding. Swann et al. did this to maximize the athletes’ accuracy of recall and found the state of flow among the flexible outcomes of that recall. The athletes described this particular experience as enjoyable and involving little effort.

The clutch state represents a time when athletes need to summon strength, concentration, and whatever else is necessary to perform well and even change the game’s outcome. According to Swann et al. (2019), their athletes perceived clutch states as performing under pressure, usually in the last minutes of a game. Some athletes seem to rely on the clutch states in order to run faster, jump higher, and throw farther.

Swann et al. (2019) found outcomes of the state of flow energizing, whereas outcomes of the clutch state were considered fatiguing. Findings yielded insight from the athlete’s perspective into the outcomes of both clutch and flow states, as well as insights into the occurrence of and experience with the state of flow. Swann et al. concluded that these insights could inform future flow and clutch state research, facilitating each of these states during exercise.

Earlier, Swann, Keegan, Piggott, and Crust (2012) aimed to provide a summary of flow in elite sport relating in the following three categories: (a) how flow is experienced; (b) how these states occur; and (c) the potential controllability of flow. In their systematic review, these researchers searched SPORTdiscus, PsycINFO, SAGE journals online, INGENTA connect, and Web of Knowledge in August 2011. Their searching yielded 17 empirical studies published between 1992 and 2011.

The mostly qualitative findings were analysed thematically and synthesized using a narrative approach. Swann et al. found three factors: (a) some flow dimensions appeared to be experienced more consistently than others; (b) key factors were consistently reported to induce or inhibit flow occurrence. The third factor was (c) the perception that flow experiences could be controllable to some extent and were not merely coincidental.

Swann et al. (2012) suggested that physiology was also relevant in flow, and that these experiences could also be psychophysiological. Based on these findings, Swann et al. recommended researchers move from description to explanation of the state of flow using new methodologies, “greater focus on the role of personality factors, and possible refinements of existing flow theory to be more specific to sport” (p. 807).

In a related article, Swann, Piggott, Schweickle, and Vella (2018) viewed the state of flow as both relevant and desirable in sport and exercise and argued flow research has followed a pattern they referred to as *normal science*. Swann et al. proposed research on the state of flow was in a crisis, highlighting problems based on what they considered to be nine traditional dimensions of flow conceptualization: (a) challenge-skills balance, (b) action-awareness merging, and (c) clear goals. Other dimensions included (d) unambiguous feedback, (e) concentration on the task at hand, (f) sense of control, (g) loss of self-consciousness, (h) transformation of time, and (i) autotelic experience. Swann et al. concluded by offering theoretical and methodological suggestions for creating both an innovative and practical flow theory.

The marathoner’s experience with the state of flow is facilitated by learned mental skills. These skills involve improving attention and resilience and preventing injury (Rusciano et al., 2017). These skills also involve facilitating the athlete’s self-regulation (Mirifar, Beckmann, & Ehrlenspiel, 2017) and aiding the marathoner to develop psychophysiological control over competitive anxiety. All of these mental skills can help the marathoner experience the state of flow. Mirifar et al. (2017) found athletes’ personality traits included persistence and a desire to perform activities for intrinsic reasons. Flow is about focus and leads to a harmonious experience where mind and body are working together effortlessly, leaving the marathoner feeling that something special has just occurred. The marathoner can then begin to identify within a multidimensional self-concept (Brewer, Van Raalte, & Linder, 1993).

## Construct 4: Athletic Identity

It is within this multidimensional self-concept that a marathoner constructs athletic identity. Athletic identity is specific to the experience of the athlete. Changing with the athlete’s unique perceptions and choices, the identity of the athlete also changes with continued personal growth and recovery (Brewer et al., 1993; Menke & Germany, 2019). A value-orientation towards authenticity also reflects the nonlinear experience of a marathoner’s changing athletic identity. This non-linearity becomes valuable in instances that may compromise identity, such as injury. Athletic identity is a biopsychosocial phenomenon playing a significant role as the athlete’s identity shifts in social interactions with others, self, and with injury (Rubik, 2002).

Brewer et al. (1993) discussed the athletic identity construct. These researchers’ initial evaluation study had 243 undergraduates with two follow-up studies including 449 undergraduates and 90 college football players. Brewer et al. considered The Athletic Identity Measurement Scale (AIMS) a reliable and valid measure of athletic identity. These researchers defined the degree to which an athlete identified with his or her athlete role within the framework of a multidimensional self-concept and considered both positive and negative factors. According to Brewer et al., the AIMS, a measure of athletic identity, was a helpful tool they used to analyze their data from various studies.

Evans, McLaren, Budziszewski, and Gilchrist (2019) explored the social endeavor in running groups, building upon identity theory to articulate how group membership is connected to personal identities. As a result, a runner’s identity becomes integral to his or her self-worth (p. 227). Evans et al. purported that running was an inherently independent form of exercise, often experienced as a social endeavor conducted in groups.

Evans et al. (2019) tested how group membership and social contexts were associated with running identities and behavior by conducting two studies. In their first study, 103 running group members read vignettes imagining training on their own or within their group. As a result, group imagery participants reported stronger running identities. Evans et al. observed this effect was mainly among females. In their second study, these researchers examined 227 runners reporting running identity and behavior along with the extent that they ran in formal as well as in informal groups. Evans et al. concluded that runners who ran in *both* groups experienced stronger identities and increased behavior.

Hacliyan and Cosh (2019) investigated athletic identity, changes in physical and motor fitness when the elite athlete retires. Hacliyan and Cosh interviewed 18 former and 18 current elite athletes, who took tests on a range of physical and motor fitness based on AIMS. Hacliyan and Cosh isolated characteristics associated with present athletic identity. Following the AIMS tests, the athletes articulated their identity during their careers.

Hacliyan and Cosh (2019) then observed no differences between current and retired athletes regarding physical fitness, but found current athletes performed much better on all tests of motor fitness. These researchers also observed no significant differences between current and retired athletes regarding physical fitness or between retired athletes’ current and former identity. The results contributed to the limited literature on both physical and bodily changes after retirement, indicating that physical rather than motor fitness might be more closely tied to athletic identity.

Previous research on athletic identity indicated strong athletic identity could force an athlete to neglect other aspects of life in order to fulfill this perceived role (Horton & Mack, 2000). To assess the effect of athletic identity on the athlete’s priorities and experiences, Horton and Mack (2000) engaged 236 marathoners to complete a questionnaire on athletic identity. The focus of the questionnaire was on “demographic information, priorities and commitment to sport, sport performance, and psychological, physical, and social consequences of marathon training” (p. 101). By using both bivariate and extreme group analysis, these researchers investigated the relationship between scores on the AIMS and each of the above variables.

Horton and Mack (2000) found no evidence supporting the belief that marathoners with high athletic identity neglected other aspects of life. Two hundred thirty-six runners completed a questionnaire assessing demographic information. This information included athletic identity, life priorities, and commitment to sport, sport performance, and psychological, physical, and social consequences of marathon training.

These researchers found strong athletic identity associated with “better athletic performance, more commitment to running, an expanded social network, and relatively more frequent experiences of both positive and negative effects of marathon training” (para. 1). Horton and Mack (2000) concluded their study by discussing the relevance of age in the assessment of athletic identity.

The conflict of college athletes faced with balancing academic and athletic choices relative to maintaining an athletic identity was explored by Huml (2018). Huml saw this challenge since the NCAA passed legislation to ensure the academic excellence of athletes, and as a result, athletic departments have increased their expectations of academic performance. This balancing affected athletes’ self-concept and athletic identity.

Huml (2018) used a targeted group of 17 different NCAA institutions, which he chose using a stratified random sampling technique by division. 7,098 college athletes were invited to participate in this study. 576 active student-athletes responded. After reviewing the initial responses, Huml removed 30 responses because of incomplete data or consistency concerns. The remaining 546 athlete participants constituted a response rate of 7.7% with 217 college athletes from Division I institutions, 228 from Division II institutions, and 101 from Divisions III institutions.

Conducting research on sport events as a setting for social identity, Lee, Brown, King, and Shipway (2016) examined and researched a variety of disciplines and events. Based on their research, Lee et al. discovered certain characteristics providing space for the state of flow. These same researchers found that sport events facilitated career progressions and development of social identity. Lee et al. drew from research on a variety of disciplines and sport events, concluding these characteristics helped provide space for “cocreation of values, liminality, communities, flow experiences, and authenticity” (p. 491).

Reporting on elite athlete mothers in sport psychology, McGannon, Gonsalves, Schinke, and Busanich (2015) noted little available research, especially within the biopsychosocial context of motherhood and sport. The purpose of this study was to provide a more comprehensive understanding of the topic researching how the media constructed elite athlete identities of well-known athlete mothers during the 2012 Olympic year. McGannon et al. used a qualitative approach to examine motherhood and athletic identity as an aspect of cultural sport psychology. These researchers assumed the inherent psychological consequences of a biopsychosocial creation formed by the media.

McGannon et al. (2015) presented 80 stories in North American media collected from January 27, 2011, through to December 31, 2012, of 10 elite U.S. athlete mothers. McGannon et al. also looked at 99 images and four videos to contextualize the inherent textual meaning. Motherhood and athletics comprised a transformative journey from which identities both emerged and were constructed. McGannon et al. further considered meaning and implication in this narrative when differences emerged, depending on how the identities of two athlete mothers were constructed in the media.

As a result of their research, two themes emerged: (a) athlete and mother in conflict and (b) athlete mother as a superwoman. Unfortunately, society’s good mother ideals often constrained exercise. McGannon et al. (2015) believed their results extended the nature of cultural sport psychology in the qualitative literature by exploring elite mother athlete’s identities and their (dis)engagement from an athletic career.

The central theme of the second related article by McGannon, Tatarnic, and McMahon (2018) reconfigured the performance narrative of one mother-athlete’s identity. This mother-athlete won gold as a runner and this mother-athlete’s own performance narrative illustrated the tensions she experienced within her motherhood identity. For McGannon et al., these tensions were grounded in her family relationships and how the accumulation of these tensions affected both her training and competitive goals. This article reflects the nonlinear aspects of a changing athletic identity.

Orta et al. (2017) analyzed personal narratives of the flow experience of three elite athletes within their own life context. These researchers used a holistic analysis to examine these narratives and found the following five themes: (a) early socialization as the basis of a strong athletic identity and (b) withdrawal from sports because of the threat of athletic injury. The remaining themes included (c) the weight of the narrative plots within which the experiences of flow were inserted, (d) biographical sporting flow accounts, and (e) silences and devaluations in the flow narrative (p. 187). Findings indicated a relationship between the state of flow and athletic identity. State of flow narratives safeguarded threatened athletic identities by clarifying “the internal coherence of the narrative fragments into which flow experiences are inserted, but also the role they played regarding the autobiographical narrative” (Orto et al., 2017, p. 187).

Exploring yet another group of runners while discovering the passion and the psychology inherent in physical activity, especially in sport, Salama-Younes (2018) researched passion and physical activity. Her research was focused on older adult runners. Salama-Younes concluded that vitality-connected passion and life satisfaction were inherent in the runner’s identity. Salama-Younes conducted two studies with 1,277 adult runners (642 men; 612 women); with an average age of 60.

In her first study, this researcher aimed to test the psychometric properties of the adapted passion scale. In her second, Salama-Younes (2018) examined for two criteria. These were: (a) to test the mediation of subjective vitality in the relationships among harmonious passion (HP), obsessive passion (OP), and life satisfaction and (b) to test the effect of selected variables on HP and OP (p. 177).

Age was another factor studied relative to athletic identity. Athletic Identity is a construct of note for this proposed study. Because changes in identity occur in a nonlinear fashion, any research on the involvement of age should be nonlinear as well (Rubik, 2002). A biopsychosocial, multidisciplinary narrative would be best suited for this study because of the complex interaction of factors noted. Rubik’s conclusions reflected the nonlinear involvement of age in a developing athletic identity (Horton & Mack, 2000; Salama-Younes, 2018). The next construct explores athletic identity with relation to injury. In question is whether an athlete can still identify as an athlete if unable to participate in their sport.

## **Construct 5: Athletic Injury**

Athletic injury is any specific distress or potential mental health symptom that results in athlete psychological strain, according to Rice et al. (2019). The experience of athletic injury or ending of a sports career can affect the athlete’s identity. Many researchers have called for more research into athletic injury and how to treat the injured athlete (Aron et al., 2019; Reardon et al., 2019; Thierry et al., 2019). Athletic injury is associated with loss of athletic identity, resulting in emotional and psychological trauma. Treatment should require a biopsychosocial and multidimensional approach for both the mental and physical aspects of recovery, rehabilitation, and healing.

According to Aron, Harvey, Hainline, Hitchcock, and Reardon (2019), athletic injury could involve trauma-related disorders or mental conditions where trauma was incurred in sports participation through “direct physical injury, secondary/witnessed traumatic events, or abusive dynamics within sports teams” (p. 779). Aron et al. examined post-traumatic stress disorder (PTSD) and other trauma-related disorders in elite athletes. These researchers considered these disorders mental health conditions with complex diagnosis and treatment considerations.

Athletes may exhibit greater rates of PTSD (up to 13%–25% in some athlete populations) and other trauma-related disorders relative to the general population. Aron et al. (2019) described common events leading to these same symptoms of PTSD in elite athletes. Athletic injury also affects both biopsychosocial, multidimensional, and sport-related functions through “avoidance, hypervigilance and dissociative behaviors, which, in turn, may delay recovery from musculoskeletal injury” (Aron et al., 2019, p. 779).

Injured athletes benefit from biopsychosocial and medical therapeutic interventions because athletic injury includes physical and mental health symptoms and disorders and other sport-related manifestations that impair athletic performance (Aron et al., 2019). These researchers concluded that current evidence supports facilitating athletic awareness of PTSD and providing more accurate screening tools. Opportunities will arise to help identify athletes who could benefit from trauma-informed psychotherapeutic and medical interventions.

In concert with Aron et al., Arvinen-Barrow and Clement (2017) noted rehabilitation and healing should evolve from purely physical treatment to a more holistic approach involving mental manifestations of injury. These researchers concluded that very little research had explored the views and experiences of injured athletes in such a holistic, biopsychosocial, and multidimensional approach. Arvinen-Barrow and Clement (2017) examined sport psychology consultants’ (SPCs) views and experiences as an interprofessional team approach to athletic injury rehabilitation.

Arvinen-Barrow and Clement (2017) distributed a cross-sectional online survey previously used with athletic trainers via a US-based sport/exercise psychology list-serve. A total of 62 (27 men, 35 women) participants with 10 years of experience as an SPC were included in the final analyses. On average, SPCs felt that it was important for athletes to have access to an interprofessional care team. Of the sample, 64.5% typically worked as part of an interprofessional care team 44.7% of the time. The SPCs also indicated that the primary treatment providers made up primarily of athletic trainers and physical therapists were typically serving as the primary point person for such teams (para. 1).

Arvinen-Barrow and Clement (2017) concluded that to help ensure injured athletes’ successful return to sport, different individuals and professionals should work together for the benefit of the injured athlete. In this way, adapting and adopting biopsychosocial, multidimensional care during athletic rehabilitation and healing would be more feasible.

Further study by Collinson and Hockey (2007) expressed that “athletes learn to define sacrifice, risk . . . pain, and injury as the price one must pay to be a true athlete in competitive sports” (p. 381). The athlete’s self-concept is derived from an association with athletics together with their value and emotional significance. A growing body of academic literature represents researchers’ attempts to explain the experience of the state of flow relative to athletic identity (Brown, Webb, Robison, & Colgreave, 2019).

Collinson and Hockey (2007) looked at the sociology of the body and identity of the runner. Collinson and Hockey examined the results of long-term injury on the identity of two elite middle and long-distance runners. These researchers explored the role of these two runners during their long-term injury and rehabilitation. Both injury and rehabilitation posed a significant challenge to these runners’ identities.

Currie et al. (2019) proposed mental health emergencies with elite athletes should require a rapid, effective response in their narrative review. These researchers searched the literature on mental health emergencies in athletes and found only five papers, none of which addressed athletes. The possibility of common mental health emergencies in sports places both the athlete and others at risk. Because of this concern, Currie et al. recommended that sports teams and organizations prepare and determine beforehand how medical and support staff could best respond. These responses should be based on general non-sporting guidelines which remain to be established, articulated, and codified.

Athletic identity, social support, and coping skills influenced both the injured athlete’s emotional state and the injured athlete’s “physical self-esteem” (Green & Weinberg, 2001, p. 40). Thirty injured recreational athletes unable to engage in physical activity for at least 6 weeks completed questionnaires. Questions included athletic identity, social support, coping skills, emotional well-being, and physical self-esteem.

Green and Weinberg found athletes’ satisfaction with their social support network was significantly related to their emotional well-being. Lockhart (2010) proposed athletic trainers should help athletes become familiar with concepts of self-acceptance, self-esteem and athletic identity. Implementing such an approach facilitates the healing of psychological trauma accompanying injury. Lockhart believed that the more an athlete identified with athletics, the more difficult it was to deal with their injury.

Psychological trauma could be severe because the loss of identity was significant. Using the Worth Index, Lockhart (2010) articulated the differences between self-esteem resulting from self-acceptance and self-esteem resulting from achievement(p. 26). This index demonstrated to Lockhart the possibility for athletes to perceive their personal worth and athletic identity as distinct from their behavior. By understanding and practicing these concepts, the injured athlete could put a physical injury in a different perspective and strengthen their commitment for rehabilitation and healing to avoid complications resulting from emotional trauma.

Treating the mind and body of injured athletes in a biopsychosocial, multi-dimensional manner is essential, according to McKnight and Juillerat (2011). This was a cross-sectional study where McKnight and Juillerat used a survey instrument emailed to a random sample of 2000 athletic trainers at 4-year colleges and universities. Of the 2000 trainers, 564 participants (296 men, 234 women, 34 who did not specify gender) responded.

This comprehensive approach to treatment, despite the lack of consensus in treating injured athletes’ spiritual needs, is the most sustainable and effective approach in rehabilitation and healing. As a consequence, these researchers sought to determine both the perceptions and practices of athlete trainers working in the college or university setting regarding the spiritual care of injured athletes. McKnight and Juillerat (2011) correlated an injured athlete’s spirituality with the need for implementing spiritual care. Although athletic trainers have some conceptual understanding of the value of spiritual care for injured athletes, the researchers concluded the practicalities of definitions, skills, and specifics of spiritual care practice remained unresolved.

According to Reardon et al. (2019), an International Olympic Committee Consensus Work Group critically evaluated the current science. As a result, a consensus of the group provided recommendations to help advance a standardised, evidence-based approach for elite athletes dealing with both mental health symptoms and disorders. Reardon et al. found these impaired sport performances and stressed that mental health cannot be separated from physical health. Mind-body integration was evidenced by mental health symptoms and disorders increasing the risk of physical injury and delaying subsequent recovery and healing.

Reardon et al. (2019) saw no evidence, consensus, or codification of guidelines for either diagnosis or management of mental health symptoms and disorders for elite athletes. Any diagnosis must differentiate character traits particular in elite athletes from what these researchers referred to asmaladaptations. Managers should address all contributors to mental health symptoms and consider factors that researchers felt relevant to athletes, maximizing benefit and minimizing harm. Management must also involve treatments of the athlete as well as paying attention to the environment in which the elite athlete trains and competes.

Both Reardon et al. (2019) and Rice et al. (2019) referred to athletic injury as an event that results in mental strain to an athlete. Athletic injury includes mental health symptoms and disorders and other sport-related manifestations that impair athletic performance. Athletic injury includes those characteristics directly related to the athlete’s biopsychosocial choices because they either positively affect the athlete’s health and minimize injury or negatively affect identity. Rice et al. believed that injured athletes could benefit from both psychotherapeutic and medical interventions and recognized a problem with both valid and reliable screening instruments.

Such instruments should identify early indicators of specific athletic distress and symptoms. With this in mind, Rice et al. (2019) sought to develop a screening instrument by using the Athlete Psychological Strain Questionnaire. Rice et al. undertook a two-stage psychometric validation study to collect self-reported data from 1,007 currently competing Australian elite male athletes, considering their ethnicity and their levels of education.

These researchers randomly partitioned the sample into calibration and validation samples before conducting exploratory and confirmatory factor analysis. Their calibration sample supported a three-factor solution with subscales assessing Self-Regulation, Performance and External Coping. Rice et al. (2019) found their confirmatory factor analysis supported this three-factor model, yielding a model fit to the appropriate indices. The Athlete Psychological Strain Questionnaire, concluded Rice et al., could be used to identify symptoms of athlete psychological strain to improve management of the injury.

Roy, Mokhtar, Karim, and Mohanan (2015) highlighted an injured cyclist’s cognitive appraisal from the onset of injury to full activity. A 22 page narrative account provided by the cyclist offered a holistic and integrated experience from the onset to return to activity. Two qualified psychologists and two medical practitioners analyzed this six-step narrative. Roy et al. used narrative to articulate how an injured athlete built a sense of self within his or her personal and situational experience during rehabilitation. Following an examination of both this injured cyclist’s cognitive appraisal and psychological response, Roy et al. found three themes reflecting the cognitive appraisal and lived experience of this injured cyclist. These themes were: (a) injury and consequences in athletic life; (b) childhood experiences, emotions, and social support; and (c) trusting relationship, behavioral outcomes, and a hopeful future (para. 13-16).

Roy et al. (2015) further indicated the influence of biopsychosocial, multidimensional factors in this injured cyclist’s cognitive appraisal that they believed were connected to his emotional and behavioral response during rehabilitation and healing. These researchers concluded how individual experience for the athlete becomes a dynamic core of psychological response during athletic rehabilitation. Cognitive appraisals and emotional upheavals provide an understanding of how biopsychosocial and multidimensional factors affect the psychological responses of an injured athlete. The need is evident to develop a holistic, biopsychosocial and multidimensional approach for the injured athlete to help ensure efficacy and facilitate treatment.

Thierry et al. (2019) described the incidence, prevalence, and impact of running-related injuries (RRIs) and illness symptoms in half marathon and marathon runners during the 16-week period before the Utrecht Marathon. These researchers used the Oslo Sports Trauma Research Center questionnaire to record RRIs and symptoms of illness every two weeks during this 16-week period. Every time an injury or illness symptom occurred, questions were added to this questionnaire regarding the nature of injury or symptom.

Out of 161 runners, nine out of 10 reported an RRI or illness symptom at risk during a 2-week period. The most frequent injuries were in the lower leg and knee, and the most frequent illness symptoms were rhinorrhea/sneezing and coughing. Thierry et al. (2019) also concluded that one in seven runners reported a new RRI or illness symptom

leading up to a half or full marathon.

Athletic injury is any specific distress or potential mental health or physical symptom. Athletic injury is an event that results in both mental and physical strain. It includes both mental health disorders and musculoskeletal manifestations that impair athletic performance. Athletic injury includes those characteristics directly related to the athlete’s biopsychosocial and multidimensional choices because they either positively affect the athlete’s health and minimize injury or negatively affect the identity of the injured marathoner.

This concludes the discussion of constructs. Literature for this section was reviewed by sourcing scholarly articles. These sources included ABI/INFORM Complete, Academic Search Premier, Emerald Fulltext, ERIC, Google Scholar*, Journal of Transpersonal Psychology*, *Journal of Alternative and Complementary Medicine,* and *Research on Paradigm, Practice, and Policy*. Other sources included Medline, PAIS Index, PsychoAnalytic*E*lectronic Publishing Archive, ProQuest Psychology Journals, ProQuest Research Library, PsycARTICLES, PsycINFO, SAGE Journals Online. Finally, sources consulted included the Science Direct Collections (Health Sciences, Neuroscience, and Psychology), Science Direct Psychology Journal Collection, Taylor and Francis Social Science and Humanities Library, and the Wiley Online Core Journals Collection.

The search terms included *spirituality, marathoner, flow,* and *athletic* *identity, identity of athletes, athletic injury,* and *sports performance*. Selected articles for this review were particularly relevant to the state of flow for endurance athletes like the marathoner. Literature on flow and identity, flow and spirituality, and the lived experience of flow were also included. Efforts were made to obtain sources dated within the past 5 years. The statistical studies are included because they help quantify the mind’s involvement in sports performance. The qualitative studies are included because they provide a framework to train the mind with the same vigor and consistency as an athlete would his or her body. The majority of studies included in the literature review involve qualitative research located through searches of databases using key words.

# **Summary**

Spirituality is inherent in a marathoner’s peak performance. Athletic identity correlates with the state of flow and changes with the athlete’s perceptions, choices, and growth. Athletic injury is related to the spirituality of marathoner flow because injury is associated with loss of athletic identity.

To contribute to the body of literature on spirituality and marathoners, the proposed heuristic study will be based upon the researcher-participant’s lived experience of experiencing spirituality, marathoner flow within the context of my own athletic identity and athletic injury. In the next chapter, discussion will entail the methodology to be used in this proposed study. Discussion will also involve the choice of method and design with the processes of data collection and analysis.

# CHAPTER 3: METHODOLOGY

This chapter provides discussion of the methodological approach and procedures for the proposed study. It includes identification of the research design and the research setting. This chapter also includes the data collection strategy and the processes of data analysis. Relying on the framework of Moustakas’s (1990) six phases of heuristic inquiry, the researcher-participant will conduct an analysis of the data, concluding with the research limitations and the summary.

## Researcher-Participant

Throne (2012) described researcher positionality as “tantamount to the complex and contextual perspective of a researcher who decisively strides across practice and theory, and one who becomes cognizant of the social, political, economic, and environmental influences of a researcher’s singular worldview” (p. 4). Bourke (2014) defined positionality as “the self-conscious awareness of the relationship between a researcher and ‘another’” (p. 2). This definition is similar to what is referred to as our own “insider/outsider relationships with other professionals in the field” (Throne, 2012, p. 5).

The proposed study is based on the researcher-participant’s biases, experiences, and interpretation of those experiences. The researcher-participant’s self-search will involve assumptions and preconceptions and will also evolve and change as reflection on the relationship between the self as researcher and the self as participant continues. This self-search is nonlinear (Rubik, 2002), and this qualitative study of spirituality, marathoner flow, a changing athletic identity, and an athletic injury is heuristic in nature.

The choice of the heuristic influence is intended to allow for articulation of a living experience gathered from inductive data contained in personal journals. Personal authenticity leads the researcher-participant to combine spirituality, marathoner flow, and the injured marathoner’s identity using heuristic inquiry. An articulation of the methodological approach and procedures of this proposed study follows.

In this study the researcher-participant experiences identity as a wounded healer, anticipating the experience of the state of flow. As a healer, the researcher-participant will continue to facilitate numerous marathon clients in achieving their goal: remaining free of injury and running successful marathons. Continuing to practice as a sport massage therapist, albeit a temporarily wounded one, the researcher-participant will explore and document the lived experience of rehabilitation and healing.

## Methodological Approach and Procedures

In this chapter, discussion on both the rationale and approach to this inquiry will occur. Utilizing the methodology of heuristic inquiry, this study is an exploration of the perceptions and experiences with spirituality, marathoner flow, and athletic identity of the injured marathoner. The research setting is mainly the researcher-participant’s home. The primary instruments for data collection will involve self-interviews and journaling. This chapter concludes with procedures involved with data collection and analysis.

Moustakas (1990) articulated six phases to help guide the researcher through analysis of heuristic research. Moustakas suggested what he considered to be both processes and concepts fundamental to heuristic inquiry. These processes and concepts include tacit knowing, intuition, indwelling, focusing, and keeping an internal frame of reference.

Tacit knowing was intuitive insight for Moustakas (1990) that went beyond words. Intuition manifests between explicit and tacit knowing. Indwelling refers to taking the necessary and appropriate time to reflect inwards, seeking a broader and more profound understanding of the phenomenon to be examined. Through indwelling, focusing involves attending to the experience until it can be expressed in pictures, dance, sonnets, or other narratives as a creative synthesis (Moustakas, 1990).

Focusing is always a way to move inward where thoughts and feelings are let go of to allow space for a deeper exploration of the phenomenon under investigation (Moustakas, 1990). An internal frame of referenceinvolves doing what the researcher wants to do, using thoughts, feelings, and frames as the authority. The researcher acts without seeking permission or needing approval.

## Research Design

The choice of a qualitative research approach (Greene, 2014) results from an intuitively felt attraction to the framework. Within qualitative research, heuristic inquiry emphasizes the essence of the researcher’s feelings and lived experience of a particular phenomenon (Moustakas, 1990; Sela-Smith, 2002). This research design places the experience as an injured marathoner, beyond numbers, rooted in tacit knowledge.

Heuristic inquiry leads to a deeper, subjective, and creative connection between researcher-participant and the phenomenon of spirituality and marathoner flow (Sela-Smith, 2002) within the context of the injured marathoner’s athletic identity. Data collection as researcher-participant will be informed by Moustakas’s (1990) six phases. Each of these heuristic phases will be discussed.

## Research Setting

Most of the journal entries occurred at the researcher-participant’s home office between December 2019 when I had my surgery to the summer of 2020 when I was able to maintain up to 30 miles a week running. I wrote longhand because I really enjoy the experience of drawing the letters. I mainly employed stream of consciousness adhering to no structural conventions. These entries followed medical appointments and physical activity. The structure of events that inspired the researcher-participant to journal informed perceptions of these events and how they informed in turn both the identity and desire to experience the state of flow.

## Data Collection

Journal writing will articulate the living experience of the researcher-participant. The time frame will support the emergence of heuristic data collection, while the self-interviews will be mirrored from journal entries. Journal entries and self-interviews, which may take the form of journal entries, will be the only data in this proposed study. Journal entries will be both on a computer and in hard copy.

The five self-interview questions in Appendix B are designed to elicit (a) descriptions of feelings of the state of flow, (b) a situation when the state of flow was experienced, and (c) ways that the state of flow affects daily life of the researcher-participant. Descriptions will include (d) a recent situation where the researcher-participant noted any difference between training in the state of flow and without the state of flow, and (e) the researcher-participant’s perceptions of the state of flow.

The interview questions mentioned above will be useful in structuring and processing data collection. Journaling daily about these experiences will enhance the researcher-participant’s ability to clarify and elaborate on the data. As a present, on-going activity, journaling will provide insights throughout the entire data collection process. The researcher-participant will continue with medical appointments and engage in similar activities while starting to run again.

## Moustakas’s Procedures of Data Analysis

This analysis and review will culminate with explication and conclude with creative synthesis of the materials. To complete the data analysis, the researcher-participant will use Moustakas’s (1990) phases. The analysis will involve three procedures. The researcher-participant (a) will engage with the six heuristic phases to help structure the process, (b) will continue to attend medical appointments, journaling about these experiences, and (c) will analyze data using the six phases.

Moustakas’s (1990) Six Heuristic Phases of Heuristic Inquiry will serve as a guide for the researcher-participant’s “unfolding investigation” (p. 27). These six phases make up the basic research design for the proposed study. The data must undergo the same processes as those found in any analysis: coding, clustering, categorizing, and being gathered into themes. The same principle will apply to this study, requiring an objective mindset on the part of the researcher-participant.

Phase I: Initial engagement**.** Moustakas’s (1990) first phase is Initial Engagement. In this phase, the focus will be on interests and concerns including the compelling implications for running of an injury. This will invite self-dialogue to determine the athletic identity of the injured researcher-participant.

This phase will be where inner search results emerge. This phase will also be where the researcher-participant continues to encounter himself, his own autobiography, and other significant relationships within an existential, social context like the ones with running peers, sport psychologists, and swimming coaches. All these influences will come together to form and justify the research question.

The engagement of a question will hold power for the researcher-participant. The experience requires receptiveness and a willingness to enter fully into the exploration of the state of flow. Once engaged, the researcher-participant’s experience of being an injured marathoner will lead to clarifying and expanding the knowledge inherent in the research question. Because of this clarification, the researcher-participant will be able to comprehend the question more fully and perhaps provide an answer.

During this engagement, the researcher-participant will reach inward, waiting for further elucidations from which the question will take form and significance (Moustakas, 1990). This will be the beginning of re-engagement with the question. The researcher-participant will then reflect, doing without doing, allowing concepts to surface naturally without artificial constraints.

Phase II: Immersion**.** Moustakas’s (1990) second phase is immersion*.* After the question is clarified, the researcher-participant will live it waking, sleeping, and in dreamtime. Following this research, Moustakas’s phase of immersion will again be exercised with deliberation, anticipating that the answer to the question will eventually surface.

During this second phase of immersion, most everything will begin to revolve around the question. The dominating concern will be, “What are the perceptions and experiences with spirituality, marathoner flow, and athletic identity of the injured marathoner?“ This immersion will enable the researcher-participant to become even more intimate with the question.

The knowledge and understanding of the question will expand for the researcher-participant, who will become increasingly alert to all possibilities for meaning and authenticity the question offers from various perspectives. Whenever the question expresses itself with client athletes, the researcher-participant will notice it and address it. Anything that could be connected to the question will be material for the researcher-participant. Some clients, places, readings, and nature, even the swimming pool and the gym—all will offer some sort of existential understanding of the question.

Journal entries will consist of both self-dialogue and self-searching. The researcher-participant will reread specific emails. These activities will help the researcher-participant pursue intuitive paths drawing from the lived awe and mystery as sources of energy and knowledge associated with the spirituality of marathoner flow.

This form of introspection will comprise what Moustakas (1990) referred to as the “tacit dimension” (p. 28). In this specific dimension, Moustakas claimed, we can know more than we can tell--a knowledge that cannot be fully codified but can be acquired without language, a description of spirituality (Polanyi, 1962). For the researcher-participant, these statements on the tacit dimension hold promise and possibility for a wordless experience.

Phase III: Incubation**.** Moustakas’s (1990) third phase is incubation*.* According to Moustakas, incubation is the process whereby the researcher-participant retreats from focusing on the research question. The researcher-participant consciously detaches from involvement with the question, so the question detaches from the researcher-participant in a nondual, nonlinear manner. The researcher-participant avoids pondering the question’s nature and meanings.

Knowledge will continue taking place on a different level where the researcher-participant will become unabsorbed in the research. This phase reflects a marathoner training and working hard and then choosing not to try before the marathon. This choosing to not try after doing the work is essential. This is the junction between consciously choosing and relaxing into the experience naturally without any artificial constraints.

Moustakas (1990) noted this phase allowed “the inner tacit dimension” (p. 28) to maximize its potential. This period of incubation allowed the inner workings of the tacit dimension and intuition to continue to clarify and extend understanding on levels outside the immediate awareness (Moustakas). This inner tacit dimension will be wordless.

Phase IV: Illumination**.** Moustakas’s (1990) fourth phase is illumination. This process occurs naturally when the researcher-participant stays open and receptive to what Moustakas referred to as “tacit knowledge and intuition” (p. 29). This insight is a breakthrough into knowing clearly what Moustakas referred to as “a clustering of qualities” of the constructs inherent in the research question. This clarification will occur for the researcher-participant who, having reflected on the literature review and life experience, thinks about revising the order of importance of the five constructs in this proposed study.

This phase will also lead the researcher-participant to new experiences and added new dimensions to enhance the understanding of the question. Entering this phase also will lead to insights into the question and reveal meaning that is not initially apparent. This will happen when the researcher-participant chooses to reflect on the question, doing without doing, allowing the research to come to him naturally without any artificial constraints.

This process is much like choosing to not try after marathoner training and then running a personal best marathon time, letting the marathon come naturally without any artificial constraints. This degree of reflectiveness will be necessary because the experience, according to Moustakas (1990), requires “tacit workings to uncover meanings and essences” (p. 29). The contemplative nature of the state of flow (Hunter & Csikszentmihalyi, 2000) for the researcher-participant become clearer, yet more abstract.

Phase V: Explication**.** Moustakas’s (1990) fifth phase involves explication. According to Moustakas, “once illumination relevant to themes, qualities, and components of a topic or question occur, the heuristic researcher enters into a process of explication” (p. 31). In this phase, the researcher-participant examines what was awakened in his or her consciousness in order to understand its different meanings. The researcher-participant will practice several heuristic approaches to arrive at the current elucidation of the five constructs in this proposed study.

During this phase as well, the experiences will evolve into constructs of thought: the emergence of new constructs like athletic identity instead of just identity and athletic injury. During this phase, the researcher-participant will use “focusing, indwelling, self-searching, and self-disclosure” (Moustakas, 1990, p. 31). The researcher-participant will also become aware that meanings are unique to an experience and depend on the framework of the experience from which they arise. This phase will mean that the researcher-participant attends to his own “awareness, feelings, beliefs and judgments” (Moustakas, 1990, p. 31) as a means to understand more clearly discourse with both others and with himself. Journal entries will reflect this phase.

Focusing and indwelling will help create the inner space from which the researcher-participant will discover the inherent “nuances, textures, and constituents” (Moustakas, 1990, p. 31) of the spirituality of marathoner flow. That experience of the state of flow will arise within both contexts of athletic identity and athletic injury. In this phase, a clearer understanding of the key parts of the experience will surface. “Ultimately a comprehensive depiction of the core or dominant themes [will be] developed” (Moustakas, 1990, p. 31).

Phase VI: Creative synthesis**.** DuringMoustakas’s (1990) sixth phase of heuristic research, the researcher-participant will become completely familiar with all the data as well as the various meanings of the five constructs of this proposed study. Based on the research articles, the researcher-participant was able to explicate the question. The final revelation in the form of creative synthesis will allow for non-verbal, non-linear, or non-equilibrium expressions of this creative whole, thereby retaining the full dynamic of the experience in question. The literature suggests poetry as an appropriate and valid form of stream of consciousness, nonlinear expression in additional to linear narrative. The researcher-participant determines which one to use by intuition and feeling the path and its wordless articulations.

## Research Limitations

The limitations associated with this study will include only one subject: the researcher-participant. A study involving only one participant defies any suggestion of generalization. This study will present a candid representation of one individual’s experiences and perceptions of those experiences. These perceptions will further be framed within the study’s five constructs. To guard against research bias, the researcher-participant can review findings with peers, check for alternative explanations, and verify with more data sources if available and appropriate.

An important limitation of heuristic inquiry is the lack of external evidence. Data will be wholly subjective and limited to the insights and lived experience of one individual as mentioned. Heuristic inquiry forms a new dimension for research, dates from the 1990s (Moustakas, 1990), and reaches beyond the known into new areas of inner knowledge.

Researchers are able to use such a design where no theory applies yet. As a result, not much literature is available on this design to provide guidance. Finally, another important delimitation in the literature review in Chapter 2 includes emphasis on mostly descriptive phenomenology and less on transcendental or interpretive phenomenology.

## Summary

This chapter included the methodological approach and procedures as well as both the research design and research setting surrounding the researcher-participant and researcher positionality. Procedures for this dissertation proposal, the data collection, and data analysis were discussed. Chapter 3 also included the role of researcher-participant who must implement Moustakas’s (1990) six phases on data provided within a conceptual framework while cognizant of inherent biases. The chapter concludes with research limitations. Despite these limitations, this proposed study intends to provide data that will inspire more holistic approaches and applications for athletes and relevant practitioners experiencing the topic of inquiry.

Having undergone posterior tibialis tendon surgery on December 27, 2019, the researcher-participant plans to return to marathon training. Continuing to practice as a sport massage therapist, albeit a temporarily wounded one, the researcher-participant will explore and document the lived experience of rehabilitation and healing. In this work, the researcher-participant will seek to identify the value of including spirit and meaning and other ways of knowing in the recovery and healing process.

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# APPENDICES

# APPENDIX A Self-Interview Guide

1. Describe the feeling of flow.
2. Describe a situation when you have felt flow.
3. Describe a way that flow impacts your daily life.
4. Describe a recent situation that you experienced while training and

how it might have gone differently with or without flow.

# 5. Describe your perceptions of flow.