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An Investigation of Motivations Influencing Participation in Marathons

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An Investigation of Motivations Influencing Participation in Marathons

By

Courtney Hague

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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Abstract

This study examined the varying motivations of runners participating in marathon races. Several variables were explored including age, gender, marathons attempted, marathons completed, and best personal performance time. Five hypotheses were considered: 1) Younger runners will most likely be motivated by Achievement Motives (competition and personal goal achievement) than the older runners. 2) Females will be more motivated by Physical Health Motives (weight concern and general health) than males. 3) Males will participate in marathons more for Achievement Motives (competition and personal goal achievement) than females. 4) Females and males will be similar along Psychological Motives (self-esteem and psychological coping) for running. 5) Runners who reported being more motivated by Achievement Motives (competition and personal goal achievement) would have faster personal best marathon finish times. To test these hypotheses, 551 marathoners completed a demographic questionnaire and the Motivation of Marathoners Scale (MOMS). Participants were recruited during the La Salle Bank Chicago Marathon pre-race exposition. Significant findings supported the third and fifth hypotheses. Male marathoners were higher on achievement motives, and males and females with higher achievement motives had faster personal best finish times. Non-significant findings provided support for the fourth hypothesis that there would be no difference for males and females along psychological motives for running. Implications of these findings and suggestions for further research are addressed.
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**My Creator:** This acknowledgement would not begin to be complete without acknowledging the sole reason that I am even here. My faith has held me up throughout life and has shown me what is truly important. I thank You everyday for life and the ability to be the person You created me to be. I appreciate the gift of my health, which has provided with all kinds of rich athletic experiences

**My Mom:** Thank you for never ever giving up on me even when I have wanted to give up on myself. You have always encouraged me from day one to be the best that I can be, and that was all you would ever ask. Thanks for showing me that you will always love me, and all your children more than we can imagine. That means more than you know!!

**My Dad:** Thanks for supporting me through all my endeavors. I know I am your broke little “princess”. I feel blessed to know that I am always taken care of and that you hold nothing back from providing all that I need to make it in the “real world.”

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Jodi: Where would this project be without your help? I can’t thank you enough for all of your help that weekend. Boy, were we ever beat! I mean who cruises in Chicago with two little cell phone runts. “Hey party at my place.” Girl, if anything we worked it. I mean after all we met “Paul.” Just don’t forget riding the bus... You were an instrumental part of this project and are a very special friend... Keep workin’ it.

Aaron: You are truly the best and you came at a time when I least expected. As India says, “her wedding day and she’s thinking about how he won her affection...” You definitely have it. What would running be without my “babe”? After all, what would we be without runnersworld.com?!! How cool is that.

Caryn: “Roxy” My little surfer sister. I want to thank you for being cool and wanting to run a marathon together that summer. I am amazed that you continued to train alone even after I left for school. That was amazing!! Even though Tampa Bay wasn’t the most memorable experience you survived!! Hey, just remember GO CHICAGO!!

Christine: Thanks for being such a great sister and having such wonderful children all of whom I love to death!!!!

Ralph and Rory: Thank you both for always being there to encourage me with my athletic endeavors and to make me into the “tough” person that I am. “Ror” it must have been the time that you paid me off for not telling mom and dad that the baseball nailed me in the face after you decided to throw your Fernando Venezuela curveball! Ralph, you are an awesome inspiration when it comes to training and being dedicated. After all, biking across the country... running a marathon... then another... climbing mountains... persisting through injuries... you will do a triathlon soon... you can swim...©

Fr. Chris Brey: I thank you for being the kind of priest and friend I needed here in Charleston. God placed you in my life for a reason. One of the first times we met, I think I recall hearing, “who would run a marathon... that’s insane... I would never do one of those...” Then the story goes on... yes he is up and training... Congratulations!! I am proud of you for completing a marathon, but I am more proud of the excellent person and minister you are of God’s love.

Ryan Mitchell: I told you that you’d make it in here. Thanks for helping me scramble in the end to get this complete even when I was freaking out on the computer!! You were patience when it was much needed.

“I run because there’s a feeling of independence to it... a sense of accomplishment... a sense of I can.”

RUNNERS... YEAH WE’RE DIFFERENT... Adidas
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The importance of cardiovascular fitness for both physical and psychological health is well documented. Physical benefits of aerobic training include decreases in blood pressure, cholesterol levels, triglycerides, as well as resting heart rate (Boyd, Weinmann, & Zenong, 2002). Psychological benefits for those who engage in regular aerobic exercise include reduction of both anxiety and depression (Craft & Landers, 1998). Unfortunately, it is estimated that fifty percent of those individuals who initiate an exercise regime discontinue participation within six months (Dishman, 1988). The percentages are likely to be much higher among those beginning unsupervised programs. As a result, exercise psychologists have directed considerable research attention to psychological constructs potentially related to both initiation of, and adherence to an exercise regime (Boyd et al., 2002).

Although, there are well documented protective health benefits conferred by regular physical activity, most individuals of all ages are not physically active at a level for sufficient maintenance of health (Bauman, 1999). In June 1998, the American public was jolted by the release of new medical guidelines from the National Institute of Health that lowered what scientists believe to be a healthy weight. According to these new guidelines, 97 million Americans (55 percent of the population) are now overweight or obese (Runner’s World, 2002). Physical activity is now considered a major modifiable factor for preventing and reducing the mortality from cardiovascular disease, diabetes, obesity, and some cancers, as well as
improving musculoskeletal and mental health. Increasing epidemiological evidence confirms the health benefits of moderate physical activity. A dose response relationship exists, with greater benefits derived from increased intensity and duration of physical activity (Bauman, 1999).

Conditions related to obesity such as hypertension, diabetes, and cardiovascular disease pose significant threats to health (Dishman, 1994, p.361). There has been extensive research to examine the relationship of exercise to weight loss. The results are clear: Regular exercise is a central component of losing weight and is the single best predictor of long-term weight maintenance (Dishman, 1994, p.362). Exercise psychologists constantly seek to examine determinants and barriers to regular exercise.

Marathon runners may also provide a model of adherence due to the fact that they train more than is needed to maintain fitness and continue their regimens for extended periods. If researchers, practitioners, and others can better understand the motivations that drive marathon runners, then we may be able to apply this knowledge to facilitate adherence to exercise in the general population.

While theories that address the general topic of exercise have merit, Crandall (1980) recommended that researchers concentrate their efforts on a particular activity since the motivating factors that are important in one activity may or may not be important in another. Individuals who engage in marathon running and weightlifting will, for example, differ in their reasons for participating and maintaining these activities. Thus, it seems wise to follow Crandall's (1980) advice and investigate the
reasons for initiating and maintaining behaviors within specific domains (Masters & Ogles, 1995).

**Motivation in Sport**

Motivation is at the heart of many of sport’s most interesting problems, both as a developmental outcome of social environments such as competition, and as a developmental influence on behavioral variables such as persistence, learning, and performance (Duda, 1989; Vallerand, Deci, & Ryan, 1987). Several conceptual perspectives have been proposed to better understand athlete’s motivation. One perspective that has been found to be useful in this area posits that behavior can be intrinsically motivated, extrinsically motivated, or amotivated (Deci, 1975; Deci & Ryan, 1985, 1991). In general, intrinsic motivation (IM) refers to engaging in an activity purely for the pleasure and satisfaction derived from doing the activity (Deci, 1975). When a person is intrinsically motivated he or she will perform the behavior voluntarily, in the absence of material rewards or external constraints (Deci & Ryan, 1985). Deci and Ryan (1991) posit that internal motivation (IM) stems from the innate psychological needs of competence and self-determination. Thus, activities that allow individuals to experience feelings of competence and self-determination will be engaged in because of IM.

Contrary to intrinsic motivation, extrinsic motivation (EM) pertains to a wide variety of behaviors that are engaged in as a means to an end and not for their own sake (Deci, 1975). It was originally thought that extrinsic motivation referred to non-self-determined behavior-- behavior that could only be prompted by external contingencies (e.g., rewards). More recently however, Deci and Ryan, along with
their colleagues (e.g., Ryan, Connell, & Grolnick, 1990), have proposed that there are
in fact, different types of extrinsic motivation that can be ordered along a self-
determination continuum. From lower to higher levels of self-determination, they are
external regulation, introjection, and identification (Pelletier, Tuson, Fortier,
Vallerand, Briere, & Blais, 1995).

External regulation refers to behavior that is controlled by external sources,
such as material rewards or constraints imposed by others (Deci & Ryan, 1985).
Athletes who participate in their sport in order to receive praise from others or
because they feel urged to do so by their parents or others are motivated by external
regulation. In this case, the sport is performed not for fun but to obtain rewards (e.g.,
praise) or to avoid negative consequences (e.g., criticisms from others). With
introjection, the formerly external source of motivation has been internalized such
that its actual presence is no longer needed to initiate behavior. Instead, these
behaviors are reinforced through internal pressures such as guilt or anxiety. Athletes
who participate in sports because they feel pressure to be in good shape for aesthetic
reasons, and feel embarrassed or ashamed when they are not in their best form,
represent an example of introjected regulation (Pelletier et al., 1995). Identification is
the last type of extrinsic motivation. This occurs when the individual comes to value
and judge the behavior as important and, therefore, performs it out of choice. The
activity is still performed out for extrinsic reasons (e.g., to achieve personal goals);
however, it is internally regulated and self-determined. Pelletier et al. (1995) found
that athletes who participate in sport because they feel their involvement contributes
to a part of their growth and development as a person represent an example of identified motivation.

The final form of motivation, amotivation, is quite similar to the concept of learned helplessness (Abramson, Seligman, & Teasdale, 1978). That is, amotivated individuals do not perceive contingencies between their actions and the outcomes of their actions. They experience feelings of incompetence and lack of control (Deci & Ryan, 1985). They are neither intrinsically motivated nor extrinsically motivated. When athletes are in such a state, they no longer identify any good reasons for why they continue to train. Deci and Ryan’s motivational approach has grown in importance because the different types of motivation have been associated with important psychological consequences, and because their theory identifies determinants of these different types of motivation (Pelletier et al., 1995).

Because motivation refers to the why of behavior (McClelland, 1985; Weiner, 1992), the reasons reported for doing an activity are generally perceived as indicative of the person’s motivation toward a given activity. There may be several reasons for which athletes take part in sport, such as to seek new sensations, conquer new challenges, or to gain recognition. In this respect, athletes are seeking certain goals (e.g., having fun, improving their performance, etc.) through their sport involvement. According to self-determination theory (Deci & Ryan, 1985, 1991), these goals are fueled by psychological needs. Three psychological needs are especially crucial in the development of human action: the needs for autonomy, competence, and relatedness (cited in Vallerand & Losier, 1999). DeCharms (1968) described the need for autonomy as the desire to be self-initiating in the regulation of one’s actions. On
the other hand, Harter (1978) suggested the need for competence implies that individuals want to interact effectively with their environment. Finally, Richer and Vallerand (1993) stated that the need for relatedness pertains to the desire to feel connected with significant others (cited in Vallerand & Losier, 1999).

Indeed, conditions that are perceived by individuals as providing opportunities to satisfy their needs of autonomy, competence, and relatedness will also facilitate their motivation. According to self-determination theory (Deci & Ryan, 1985, 1991), the individual’s perceptions of autonomy, competence, and relatedness represent psychological mediators of the impact of social events on his or her motivation. Thus social factors that are generally perceived as supportive of one’s feelings of autonomy, competence, and relatedness will have a positive impact on one’s motivation. Similarly, events that bear negative influences on individuals’ perceptions of autonomy, competence, and relatedness, will likely undermine their motivation. Furthermore, because social conditions vary greatly and also because individuals perceive them differently, an individual’s reasons for doing an activity will vary accordingly (Vallerand & Losier, 1999). Self-determination theory makes a relatively clear statement concerning the relationship between perceptions of competence and motivation. Situations that provide failure feedback should generate feelings of incompetence and undermine one’s intrinsic motivation for the given activity. However, success feedback should increase one’s feelings of competence and subsequent intrinsic motivation. Bandura & Schunk (1981) showed that in general empirical evidence supports this analysis: experiencing failure is conducive to lower levels of intrinsic motivation, while success promotes intrinsic motivation.
Goal Perspective Theory

Besides the external approach to adherence, another important aspect to consider is intrinsic theories. A social-cognitive model for studying motivation in sport and exercise is goal perspective theory, which asserts that individuals engage in achievement behavior in order to demonstrate competence and avoid the demonstration of incompetence (Boyd et. al, 2002). According to Nicholls, two goal perspectives, task and ego orientation, are related to the amount of effort expended on a given task, and are also associated to subsequent referents of intrinsic motivation such as task choice, performance, and persistence (cited in Boyd et. al, 2002). A task orientation involves a self-referenced conception of ability where mastery of skills, or improvement, induce perceptions of competence. An ego orientation, rather, represents a normatively referenced conception of ability where perceptions of competence are based upon the demonstration of superior ability or performing as well as others with less effort (cited in Boyd et. al, 2002). This framework has been used extensively in the study of intrinsic motivation in sport and physical activity (Duda, 1995).

The study conducted by Boyd, Weinmann, and Yin (2002) demonstrated that physical self-perceptions and task orientation for exercise were associated to intrinsic motivation for exercise. This same study found ego orientation to be unrelated to intrinsic motivation for exercise. Proponents of competence motivation theory maintain that perceptions of physical competence lead to higher degrees of intrinsic motivation for physical activity (Boyd et. al, 2002). Application of the theory to exercise behavior has demonstrated that perceived physical competence, in the form
of physical self-perceptions, is predictive of exercise behavior. Physical activity perceived to be interesting, challenging, and providing feelings of pleasure and satisfaction is postulated to enhance intrinsic motivation (Vallerand & Fortier, 1998). In support of this theory, Boyd and his colleagues concluded that feelings of competence in the form of physical self-perceptions were found to be intimately associated to intrinsic motivation for exercise.

As Boyd and his colleagues (2002) suggest, a task orientation may not only induce greater enjoyment for exercise, but also leads to lower levels of tension/pressure. Focusing upon mastery, self-improvement, and effort, rather than evaluating one’s unique level of fitness in relation to others, who may already be in an exercise maintenance stage, appears to be a functional strategy for maintaining intrinsic motivation and may also play a significant role in adherence to an exercise regime (Boyd et al., 2002). Individuals who are either initiating involvement in an exercise program or are not currently in a desirable state of cardiovascular condition, as well as more experienced exercise enthusiasts would do well to take a task-oriented approach to exercise while pursuing a steady fitness improvement over time (Boyd et al., 2002).

Perhaps, the attraction of the marathon lies partly in its unique ability to satisfy such a wide range of needs both extrinsic (e.g., competition, social recognition) and intrinsic (e.g., mastery, self-fulfillment). There would appear to be few, if any, other activities in modern society demanding so little skill-yet carrying such high social approval—that allow such a diversity of achievement goals to be accomplished (Summers et al., 1983).
Types of Running Addiction

Controversy exists regarding the psychological effects of distance running. While running has been used as an adjunctive form of treatment for depression and anxiety, it has also been characterized as a negative addiction (Leedy, 2000). While, distance running was initially popularized as a means of achieving physical health, it has been promoted as an aid to maintaining or achieving mental health as well (cited in Leedy, 2000). Glasser (1976) argued that runners become “positively addicted” to running because of the beneficial psychological effects. According to Glasser, running is the “hardest but surest way to positive addiction”, assisting people in finding strength and power, and leading a fuller life. In particular, Glasser has linked running addiction to the occurrence of an “altered state of consciousness” during which runners experience a euphoric “runner’s high” (Glasser, 1976, p.100).

A further characteristic of the addicted runner is the experience of psychological withdrawal symptoms when the individual is deprived of exercise for periods greater than 24 to 36 hours (cited in Leedy, 2000). The most frequently reported withdrawal symptoms include feelings of anxiety, guilt, restlessness, depression, and irritability (Summers et al., 1983). Although running has generally been regarded as a positive addiction, Morgan (1979) warned that for some individuals running can actually be a negative addiction. Negatively addicted runners are characterized by a compulsive need to run at least once a day. They arrange their daily schedules to meet the need to run, continue to run even when injured, and neglect the responsibilities of work, home, and family. Running in particular has been viewed as resulting in “negative addiction”, in that runners have been reported
to use their running to help them cope with daily stresses, just as some people turn to drugs or alcohol (Leedy, 2000).

Training for a marathon necessitates committing a major portion of one’s life to running. It is among these strongly committed runners that the symptoms of negative addiction are most likely to occur. As the daily mileage increases, the runner becomes less concerned with external matters (cited in Summers et al., 1983). Married runners pay less attention to their spouses and children. Robbins and Joseph (1980) found that 44% of the full-time runners (averaging at least 40 miles a week) in their sample reported that their spouses or partners complained of neglect. Summers et al. (1983) found an increased emphasis in the strain on relationships category for married runners (34%) compared to single runners (11%). The time and energy required to train for a marathon can lead to a certain amount of conflict in the relationships of married runners.

For running to be accurately characterized as a “negative addiction”, it must be shown that running results in impairments, and that the running continues despite these impairments. While distance running is associated with several kinds of musculoskeletal injuries, these are generally associated with a recent change in training, and can often be treated with modifications of the training program (Leedy, 2000). Evidence that such injuries are related to “addiction” is quite limited. Leedy (2000) concludes that a more careful look at the research indicates that this commitment does not necessarily indicate a “negative addiction.” She says, that “to follow through with the analogy of distance running to substance dependence, there must be evidence that runners continue to run even though it results in impairments in
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physical or mental health, work, social, or family life. In agreement, Martinsen and Morgan conclude that the relationship between regular physical activity and psychological well-being has been very well established (cited in Leedy, 2000).

**Running and Psychological Well-being**

A number of studies have reported that running is associated with improvement in psychological well-being, ranging from reduction in anxiety and depression, to increasing self-sufficiency (Summers, Machin, & Sargent, 1983). Clinical depression is a prevalent problem in today's society. Depression affects 2% to 5% of Americans per year, and it is estimated that 6% to 8% of patients seen in general medical practices suffer from clinical depression (Craft & Landers, 1998). During the 1990's there has been increased governmental pressure to reduce health care costs in America. Alternative, low-cost therapies that do not have negative side effects need to be incorporated into treatment plans if available and effective. Exercise has been proposed as an adjunct to more traditional approaches for treating depression (Craft & Landers, 1998). The findings of the North, McCullagh, and Tran (1990) meta-analysis found that aerobic and nonaerobic types of exercise programs are both beneficial in alleviating clinical depression. In addition, they found that those individuals who are initially more depressed will benefit the most from exercise. Finally, they concluded that exercise is as beneficial as group or individual psychotherapy and similar to other behavioral interventions.

In support of these findings, Craft and Landers (1998) found that both aerobic and nonaerobic exercise programs were effective in alleviating clinical depression. They further reported that running produced the largest effect; however, this effect
was not significantly different from the effect produced by nonaerobic exercise (Craft & Landers, 1998). The fact that exercise can be as effective as more traditional therapies is encouraging. Changes in health care have led to time limits for therapeutic treatments as well as limits on the amount of insurance coverage provided (cited in Craft & Landers, 1998). This concept should not override the positive benefits derived from psychotherapy, but exercise should be viewed as positive adjunct to treatment.

Exercise and Self Image

Self image might motivate people to devote the time and effort needed to exercise regularly. Swan (1985) found that to the extent that people consider themselves to be exercisers, they should be motivated to engage in behavior, such as exercise, that verifies their self-image (cited in Dishman, 1994, p.138). A self-schema approach (Markus, 1977) was chosen as a framework for conceptualizing an exerciser's self-image. Although cognitive psychologists differ in their use of the term, there is a general agreement that schema is an organized body of knowledge (Dishman, 1994, p.139-140). Self-schemata are cognitive structures involving generalizations about the self that are derived from experience and focused on those aspects of the self that are regarded by the individual as important (Dishman, 1994, p.139).

As defined by Markus (1977), individuals are schematic in regard to a particular attribute when they consider that attribute to be extremely self-descriptive (as do exerciser schematics) or extremely non-descriptive (as do nonexerciser schematics), and they consider that attribute extremely important to their self image.
Likewise, individuals are aschematic when they consider the attribute only moderately descriptive or nondescriptive, and they do not consider the attribute important to their self-image. Schematicity requires both that people view their behavior as very reflective of the attribute in question and that they consider the attribute an important part of their self-image (cited in Dishman, 1994, p.140).

Engagement in exercise behavior alone will not lead to an exerciser schema unless the individual comes to view being an exerciser as important to his or her self-image.

It has been suggested that having an exerciser self-image provides the motivation to expend the time and effort necessary to follow through on exercise intentions. The basic model being proposed by Dishman (1994) is that both favorable exercise intentions and some motivation to implement them are required for exercise behavior to occur. It is further suggested that, in addition to whatever motivations individuals may have for exercising, exercise schematics should be motivated to exercise as a means of verifying their self-image as exercisers (Dishman, 1994, p. 147).

Given that people can move among many dimensions of the self, researchers have become interested in the relative salience of some common dimensions of the self-concept. Identity salience can be conceptualized as the probability that a given identity will be activated at a given situation. For example, the extent to which athletics is an important part of a person's self-concept will determine how likely it is that thoughts and behaviors associated with the athlete role (e.g., motivation, competition, social relationships, performance) will be expressed in, or used to interpret, a given situation (cited in Horton & Mack, 2000).
Athlete Identity

Recent research has confirmed the importance of athlete role in the way people define themselves. Brewer, Van Raalte, and Linder (1993) have shown that athletic identity (extent to which a person identifies with the athlete role) is a unique and important dimension of the self-concept that can be regarded as both a cognitive structure (a schema) and a social role. As a cognitive structure, Athlete Identity (AI) provides a framework for interpreting information, determines how an athlete copes with career-threatening situations, and inspires behavior consistent with the athlete role. As a social role, Athlete Identity (AI) may be determined by the perceptions of those close to the athlete. Often, an individual whose friends, family members, or coaches emphasize the athletic dimension of the individual will internalize the perceptions of these important people and will define the self as others define him or her: as an athlete. In addition, people strong in AI may surround themselves with other athletes who encourage a self-definition centered on athletics (Brewer et. al, 1993).

Athlete Identity (AI) has been empirically linked to health and fitness benefits, and increased social relationships and confidence. Thus, a strong AI should increase commitment to athletic participation (Horton & Mack, 2000). While there are potential benefits to a strong AI, detrimental effects of AI have also been demonstrated. The problems related to strong AI occur when there is a commitment to the role of the athlete at the expense of other aspects of life. Over commitment to the athlete role may lead to two types of problems. First, over commitment to the athlete role may lead to dysfunctional practices within the athlete role: over training,
anxiety when not training, or in extreme cases, the use of performance enhancing drugs. Having identified the potential detriments of AI, it is important to note that researchers have confirmed that AI does not necessarily lead to dysfunctional commitment (Horton & Mack, 2000).

A study conducted by Horton and Mack (2000) assessed the relative importance of different life roles in the self-concepts of a unique population of athletes: adult marathon runners. Many of the studies conducted have examined Athletic Identity (AI) among college athletes. Previous research suggests that marathon runners who are high in AI should assign high relative importance to the athlete role and low relative importance to non-athlete roles, such as family, friendship, and romantic partner roles. It has been speculated that AI dominates the self-concept and leads to neglect of other life roles (cited in Horton & Mack, 2000). Horton and Mack (2000) found no evidence that runners with strong AI were neglecting other aspects of life in order to fulfill the needs of the athlete role. High AI was associated with better athletic performance, more commitment to running, expanding social network, and relatively more frequent experience of both positive and negative effects of marathon training. AI is independent of other aspects of the self and is more salient for some runners than it is for others (Horton & Mack, 2000).

Barrell et al. (1989) provided a detailed discussion on how marathon runners must work to make available the time necessary for training. They reported that for many marathon runners the cooperation of a number of individuals, including family and friends, is often necessary for them to be able to continue running marathons (Masters & Ogles, 1995). In many cities in the United States there is a running
culture where many of the same participants are involved in numerous events and get to know each other, sometimes even belonging to the same road running or track club. It was also noted that when runners were asked to list how many marathon runners they knew personally, they found that the veterans (those who have participated in more than three marathons) reported knowing an average of 19.52 as compared to 9.6 for the mid-level runners (those who have participated in two or three marathons) and 5.0 for the first-time marathoners. So it appears that those individuals who run many marathons depend to some extent on motivation generated from others in their social networks that recognize them as marathon runners (Masters & Ogles, 1995).

**Motivation for Marathon Participation**

Relatively few studies have addressed the motivation issues among marathon runners. In contrast to less serious exercisers, marathon runners must endure extremely challenging circumstances during both training and competition, and thus provide a compelling model of exercise motivation and adherence. The most obvious reason for participating in endurance or aerobic exercise is to obtain health and fitness benefits; however marathoner runners voluntarily expose themselves to stress and strain well beyond what is necessary to achieve these advantages. This raises the question of: Why do they do it?"

In an article written by a runner, Gotfredson (2002) states the following:

People run for so many different reasons: to lose weight, to go faster, to gain self-esteem, to regain some of their youth or to check something off their list of life goals. The marathon becomes a focal point for many. Rich or poor, young or
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old, it is a huge accomplishment, a landmark. Something even a Hollywood celebrity or a CEO can point to with pride and say, 'I did that.' The preparation takes months of work, hours and hours every week. It means focusing on your training, changing your diet, and your lifestyle (p. 6).

Previous research has provided a valuable starting point in the study of motivations for marathon running, but this research has been limited due to the fact that no single instrument had the psychometric properties needed to adequately assess the broad range of motivations of marathon runners (Masters, Ogles, & Jolton, 1993). Open-ended response formats were of limited usefulness in multivariate analyses; however runners were likely to participate based on a complex and interacting set of motivations (Masters et al., 1993). The pattern of past results had not led to a cohesive understanding of the motivation of marathon runners. For example, there is conflicting evidence over the roles of physical fitness and health variables as motivating factors for marathon runners. Many of the past problems could have been addressed with a more psychometrically sophisticated tool designed to measure the reasons runners participate in the marathon. In 1993, Masters and Ogles designed a very useful instrument: The Motivation of Marathoners Scales (MOMS). The MOMS was formed based on previous studies investigating the motives of long distance runners (Carmack & Martens, 1979; Curtis & McTeer, 1981; Johnsgard, 1985; Masters & Lambert, 1989; Summers et al., 1983).

Previous researchers have explored the motives for participation of runners using self-report methods. Carmack and Martens (1979) studied 250 non-marathon runners who were recruited at various locations and events throughout Indiana and
Illinois. The subjects completed questionnaires about their reasons for running, outcomes of running, commitment to running, training practices, and demographics. The investigators found that serious runners tended to de-emphasize physical health as a reason for running, and instead, placed increasing emphasis on psychological reasons (Masters & Ogles, 1995). In another self-report study, Johnsgard (1985) asked a large sample of readers of a running magazine, and a second sample of runners over age 50 years why they began running and why they continued to run. He found that both groups indicated a shift toward psychological factors and away from fitness and weight control, although fitness remained the top ranked reason (Masters & Ogles, 1995).

Curtis and McTeer (1981) were among the first to investigate the motivations of marathoners. They used an open-ended question format to examine the motives of 740 marathoners and why they moved up from shorter distances to the marathon. The full set of responses were viewed and combined into several broad categories. They found that 77% of the respondents stated “goal attainment” as their main reason for participating in a marathon, followed by 20% reporting “influence of others” and 19% stated “psychological well-being.” Interestingly, they found no runners who reported that they moved to marathon running for reasons of health, fitness, or weight loss (Masters et al., 1993).

Masters and Ogles (1995) looked at different motivations of marathon runners with varying degrees of experience. Results indicated that veteran runners, those who ran more than three marathons, were generally more motivated by a “social identity” as a marathon runner which included both competitive and health aspects
An Investigation of Motivations (Masters & Ogles, 1995). These individuals constitute a unique subset of experienced runners who are distinguished by their repeated participation in marathons and a unique set of motives for running. In trying to understand the motivations of marathon runners, it seems that those who continue with the event focus on it as an important part of their personal and social identity and they desire recognition from others based on their marathon running (Masters & Ogles, 1995). This finding is understandable when the time and effort involved in continued marathon participation are considered. Perseverance in a venture that requires this much involvement will certainly be enhanced by, and may even require, social reinforcement.

Previous research (Masters & Lambert, 1989) found that veterans (those who participated in more than three marathons) were also competitive. Summers et al. (1982) studied runners after they completed their first marathon and found that reasons for running a second marathon were largely oriented around performance enhancement as well as psychological variables (cited in Masters & Ogles, 1995). These results agree with findings pertaining to the mid-level marathoners (those who have participated in two or three marathons). It was found that this group was motivated by a desire to perform better than they had previously, and who had derived the most psychological benefit from marathon running. Their focus was internal, centering on psychological beneficence and intrapersonal performance enhancement (Masters & Ogles, 1995).

Similar to Crandall's (1980) work, it is questionable how far the results can be generalized beyond marathon runners to other runners or exercisers. The results of this study imply that adherence to exercise may be enhanced if initial efforts are
directed toward psychological variables. These could include careful and flexible
goal setting (Martin et al. 1984), emphasis on the relaxation and mood enhancement
effects often associated with exercise (Morgan & Goldston, 1987), and talking to
participants about exercise as part of a healthy philosophy of life including what this
may mean in terms of other important areas of functioning such as job and family.
The program could then introduce social reinforcers that would facilitate the
acquisition of an identity based on the activity performed (Dubbert, Rappaport, &
Martin, 1987). Examples include public rewards for achieving certain milestones,
announcements in company or agency publications, and the ever popular awarding of
t-shirts displaying emblems or logos that identify the wearer as a particular type of
exerciser (Masters and Ogles, 1995).

Purpose of Study

Motivation has long been a topic of concern in general psychology as well as
other specific fields of psychology. One reason for studying the motivation of
marathon runners has to do with the centrality of this event in the lives of the
participants. The marathon is the result of months, and sometimes years of
preparation. Apart from the obvious physical and psychological effort that running a
marathon requires, the participants may also alter work, spend time away from the
family, cancel or postpone engagements. Marathon training is not a trivial event in
the lives of either the runners or those with whom they have significant relationships.
Finally, gaining a greater understanding of motivational patterns of marathon runners
may provide insight into beneficial motivational antecedents for adherence to exercise
in less experienced exercisers.
Marathon running has been rapidly increasing. For example, in 1975 the New York City Marathon attracted 575 entries; in 1982 the number had risen to over 15,906 with over 20,000 entries being rejected. Recent marathons have attracted male and female runners of all ages and abilities and often those with little previous athletic involvement (Summers et al., 1983). Research examined the overall motivations of marathoners and several studies have been conducted on specific differences between gender and levels of experience. The present study actually extends the research of Masters and Ogles (1995) who designed the MOMS scale. They suggested that future research be conducted with this scale to analyze the motivations along different variables. Therefore, the current study examined specific motives in relationship to level of experience, gender, performance, and age. This study advances the existent knowledge base by examining why people participate in marathons and the outcomes they derive.

Specific hypotheses being explored include the following: 1) Younger runners will most likely be motivated by Achievement Motives (competition and personal goal achievement) than the older runners. 2) Females will be more motivated by Physical Health Motives (weight concern and general health) than males. 3) Males will participate in marathons more for Achievement Motives (competition and personal goal achievement) than females. 4) Females and males will be similar along Psychological Motives (self-esteem and psychological coping) for running. 5) Runners who reported being more motivated by Achievement Motives (competition and personal goal achievement) would have faster personal best marathon finish times.
Method

Participants

The sample for the present study included 551 participants. Participants included both male ($n = 297$) and female ($n = 254$) runners who either completed or would soon be completing at least one marathon. The individuals ranged in age from 18 to 69 years, with a mean age of 36 ($SD = 9.66$). Participants had completed anywhere from 0 to 128 marathons ($M = 3.57, SD = 8.53$). Runners were recruited to participate in the study during pre-race registration at The 2001 LaSalle Bank Chicago Marathon in Chicago, Illinois. Participation was voluntary, each of the participants was at least 18 years old, and each had participated or would be participating in a marathon.

Instruments

Materials included a demographic questionnaire and the Motivation of Marathoners Scale (MOMS; Masters, Ogles, & Jolton, 1993). Participants were asked to provide demographic information (e.g., gender, age, best marathon performance time, and the number of marathons each runner attempted/completed). (See Appendix A for a copy of the demographic information form).

The Motivation of Marathoners Scale (MOMS) was used to measure the range of motivations among the participants. (See Appendix B for a copy of the MOMS). The MOMS is a 56-item instrument which consists of nine scales. Four broad categories of motives for running a marathon are identified: psychological, physical, social, and achievement. Within these broad categories nine specific motives for running a marathon are measured; psychological coping, self-esteem, life meaning,
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general health orientation, weight concern, affiliation, recognition, competition, and personal goal achievement.

Psychological motives comprised of maintaining or enhancing self-esteem, providing a sense of life meaning or aesthetics, and problem solving or coping with negative emotions. Examples of Self-Esteem items include “To improve my self-esteem” and “To improve my sense of self-worth.” Life Meaning items are exemplified by “To make my life more complete.” Finally, Psychological Coping items included the following: “To become less anxious” and “To improve my mood.”

Physical motives for marathon running include general health benefits, and weight concern. General Health items included “To improve my health” and “To become more physically fit,” whereas Weight Concern items were represented by “To help control my weight” and “To look leaner.”

Social motives include affiliation with other runners, and recognition or approval from family of friends. Examples of items on these scales include “To socialize with other runners” (Affiliation), “To meet people” (Affiliation), “To earn respect of peers” (Recognition), or “Brings me recognition” (Recognition).

Finally, achievement motives for marathon running include competition with other runners, and personal goal achievement. Examples of these include “To compete with myself” and “To push myself beyond my current limits.”

Subjects are asked to rate each item on a 7-point Likert scale ranging from 1 ("not a reason") to 7 ("a very important reason") for training and running a marathon. Items scores are summed to produce scale scores. The nine scales of MOMS are
adequately reliable both in terms of internal consistency (Cronbach’s alpha range .80 to .92) and test-retest estimates (intraclass correlations range from .71 to .90). In addition, evidence for the validity of the instrument has presented in several studies (Masters & Ogles, 1995; Masters & Ogles, 1998; Masters, Ogles, & Jolton, 1993; Ogles, Masters, and Richardson, 1995).

Procedure

The runners who participated in the study during the pre-race registration were required to sign an informed consent document outlining the general nature of the study before the survey was completed. (See Appendix C for a copy of the informed consent document). To maintain anonymity, participants were given the option of providing their name only if they wished to do so. The demographic questionnaire and the Motivation of Marathoners Scale were administered to participants as they registered one to two days prior to the race. Completion of the forms took approximately 5 to 10 minutes. Upon completion of the survey materials, respondents were given debriefing statements and thanked for taking part in the project. (See Appendix D for a copy of debriefing statement).

Analysis

Motivation was categorized using four interval scales measuring psychological, physical health, social, or achievement motives. The measurement scales that were used for each of the demographic variables analyzed were age (ratio scale), gender (nominal scale), and performance time (interval scale).

Pearson product-moment correlation coefficients were used to examine the relationship between the participant’s age and the degree of achievement motives.
Three independent *t*-tests were conducted to examine the relationship between the participant's gender and the degree of psychological, achievement, and physical health motives. Furthermore, two Pearson's product-moment correlations were used to examine the relationship between the participant's best reported performance time and the degree of achievement and social motives. Additionally, correlations were calculated for each of the following categories: age, number of marathons attempted/completed, best performance time, degree of physical health, achievement, social, and psychological motives.

**Results**

Of the 700 surveys distributed, 551 participants accurately completed the Motivation of Marathoners Scale (MOMS). There were 149 participants who did not complete the reverse side of the MOMS and therefore their response sheets were not usable. Out of the completed surveys, 297 (53.9%) were from male and 254 (46.1%) were from female participants. Their best reported performance times ranged from the fastest (128 minutes), while the slowest reported performance time was (708 minutes).

To test Hypothesis 1, that younger runners will more likely be motivated by achievement motives than older runners, a Pearson product-moment correlation coefficient was calculated. Results indicated that participants' age was not significantly related to their degree of achievement motives, \( r = .006 \). However, it was found that the older the runner the higher the degree of health motives (\( r = .22, p \))
<.001), and only slightly greater among psychological motives ($r = .15, p < .01$). (See Table 1).

To test Hypothesis 2, that females will be more motivated by physical health motives than males, an independent $t$-test was conducted. Results indicated that participant's gender was not significantly related to the degree of physical health motives. (See Table 2)

To test Hypothesis 3, that males are more likely to participate in marathons for achievement motives than females, an independent $t$-test was conducted. Results indicated that participant's gender was significantly related to the degree of achievement motives. Results showed that males ($M = 40.82, SD = 11.83$) had significantly higher achievement scores than females ($M = 34.67, SD = 10.56$), $t(549) = -6.378, p < .001$. (See Table 2).

To test Hypothesis 4, females and males will be similar along psychological motives for running, an independent $t$-test was conducted. Results indicated that participants' gender was not significantly related to the degree of psychological motives. This lack of significance supported the hypothesis that females and males would be similar along psychological motives for running. (See Table 2).

To test Hypothesis 5, that runners who reported being more motivated by achievement motives would have faster personal best marathon finish times, Pearson product moment correlation coefficients were conducted. Results indicated that participant's best performance time was significantly correlated with the level of achievement motives ($r = -.34, p < .01$), with faster marathon times associated with higher levels of achievement motives. (See Table 1).
Discussion

The purpose of this study was to examine why individuals participate in marathons and the outcomes they derive. The first hypothesis predicted that younger runners would more likely be motivated by achievement motives (competition and personal goal achievement) than older runners. Results revealed that there was no significant difference between the age of the participant and their degree of achievement motivation. Although, results revealed that the older runners especially endorsed physical health motives, and also slightly greater psychological motives than younger runners.

This current study supports the work of Ogles and Masters (2000) which found that older runners do in fact endorse different reasons for training and running a marathon when compared to younger runners. They reported that as a group, older runners more heavily endorsed developing and maintaining a level of fitness and health, including weight benefits, as reasons for running. On the other hand, younger runners more heavily endorsed personal goal achievement (Ogles and Masters, 2000). While older and younger runners differed in personal goal achievement, they did not differ in terms of their endorsement of competition as a motive for running a marathon. In fact Ogles & Masters (2000) found that neither group heavily endorsed competition as an important reason for training and running a marathon.

Maehr and Kleiber (1981) suggested three main types of achievement goals: to demonstrate competence, mastery, and to gain social approval for striving or meeting one's goals. Furthermore, they speculated that age might bring certain shifts
in preference for the types of achievement goals. For example, while the young may emphasize competence in reference to others, older persons may shift to a more intrinsic concern with mastery.

Summers, Machin, and Sargent (1983) stated, “that the marathon is no longer the domain of the elite athlete. Recent marathons have attracted male and female runners of all ages and abilities—and often those with little previous athletic involvement” (Summers et al., 1983). Summers et al. (1983) conducted a survey of 363 middle-aged runners who attempted their first marathon. They found a majority of these runners saw the marathon as a challenge, a test of the individual’s capabilities both physical and psychological. Overcoming the challenge produced feelings of deep personal awareness and an enhanced self-image that seemed to extend beyond the event itself. Many of the runners also perceived positive changes in the attitude of others towards them as a result of their participation in a marathon. Some interesting trends emerged as a result of age. In particular, there was a suggestion of a shift in motivation with increasing age toward the intrinsic goal of mastery over one’s body (Summers et al, 1983). Therefore, perhaps the unique attraction of the marathon to runners of all ages and abilities is that it is ideally suited to the accomplishment of a variety of achievement goals.

My second hypothesis is consistent with Masters and Ogles (1995) in that it was also predicted that females would be more motivated by physical health reasons (weight concern and general health) than the male runners. Results from the current study revealed that there was no significant difference between the gender of the
participant and the degree of physical health motivation. However, results showed that both males and females endorsed physical health reasons as motivation.

This finding could be largely associated with the well documented benefits of regular physical activity for both males and females. Physical activity is now considered a major modifiable factor for preventing and reducing the mortality from cardiovascular disease, diabetes, obesity, and some cancers, as well as improving musculoskeletal and mental health (Bauman, 1999). Therefore, it is likely that more men and women are endorsing physical health motives as a way of combating the deterioration of physical health.

Thirdly, I hypothesized that a greater number of males would participate in marathons for achievement motives. Results revealed that males endorsed achievement motives (competition and personal goal achievement) as a reason for participating in marathons more frequently than females. This is one of the more interesting findings of this present study because it highlights the significant difference in achievement motives between men and women. Male marathon runners are motivated more by competition and personal goal achievement than females.

In examining exercise motivation, several variables have been shown to influence motivation for exercise, including gender. In general, research on exercise motivation has consistently revealed the existence of gender differences. Specifically, men tend to exercise more for competitive reasons than women do (Biddle & Bailey, 1985). These competitive motives include competition against oneself. Mathes and Battista (1985) also found men were more highly motivated by competition against others. By contrast, previous studies suggest that women
exercise more frequently than men do for appearance and weight control purposes. In particular, women endorse motives such as staying slim or losing weight more frequently than men do (Gammage, Hall, & Rodgers, 2000).

These gender findings tend to be generalized to the entire public sphere of “exercisers,” but interesting findings may surface among marathon runners. Brownell (1991) claims that today’s aesthetic ideal is extremely thin and physically fit. He believes current standards about ideal body weight and shape, the overstated health benefits of slenderness, and the symbolic connotations of having the ideal body (self-control, success, and acceptance) are important factors responsible for the upsurge in dieting and exercise behavior (Dishman, 1994, p. 381). Hence, biology may make certain people prone to gain weight or have specific body shapes and thus may hinder attempts to lose weight. This creates conflict between cultural pressures and biological realities (Brownell, 1991). A survey conducted by Runner’s World magazine revealed that among the 4,000 runners who responded, 48% of the females and 21% of the males said they were often, usually, or always “terrified of being fat” (Dishman, 1994, p. 383).

According to Ogles and Masters (2000) runners more heavily endorsing competitive reasons for running tended to train more miles per week, participate in more marathons, and have faster personal best finish times. Current findings indicating that men are more achievement oriented should not be used to underestimate the achievements of women in running. Women have made tremendous inroads into distance running in the past two decades. According to a 1999 statistic released by the Boston Athletic Association, the percentage of women
runners has now increased to over 30% which allowed women to compete for the first time in 1972. Furthermore in 2002, the percentage of female runners participating in the Boston Marathon has increased to over 37% (Boston Athletic Association, 2002).

The fourth hypothesis predicted that both males and females would report a gained sense of self-esteem and psychological benefits from running. Results from the current study revealed that there was no significant difference between the participants' gender and the degree of psychological motives, supporting the hypothesis that females and males would be similar along psychological motives for running.

This finding is plausible due to the current literature regarding psychological benefits derived from running. This suggests that both males and females alike derive psychological benefits from running. Distance running, initially popularized as a means of achieving physical health, has been promoted as an aid to maintaining or achieving mental health as well (Leedy, 2000). Martinsen and Morgan concluded that there is sufficient evidence to support exercise as an antidepressant for those persons who are clinically depressed or who have elevated depression scores. Running has been associated with decreased levels of depression, comparable to that seen with counseling (cited in Leedy, 2000).

Similarly, Raglin (1997) concluded that acute vigorous exercise can reduce transient levels of anxiety, while chronic exercise programs reduce trait anxiety levels, or general dispositions for anxiety. This reduction in anxiety, like that reported for depression, is most apparent in clinical populations or for those subjects with elevated anxiety levels prior to exercise. The specific effects of distance running
on mood states in non-clinical populations have also been studied (Raglin, 1997). It was also determined that distance runners experience a decreased negative mood and an increased positive mood just after a run (Leedy, 2000).

The fifth hypothesis predicted that male runners who reported being more motivated by achievement motives would have lower personal best marathon finish times. Results revealed that the participants' performance times were significantly correlated with the level of achievement motives.

This finding is likely supported by the strong desire for those with lower personal best performance times to compete and achieve personal goals. Sport psychology literature has conceptualized competitiveness largely in terms of its motivational components. Competitiveness has been defined as an athlete's tendency to demonstrate high levels of goal-oriented behavior such as seeking out competitive situations and striving for satisfaction against a standard in the presence of evaluative others (Ryska, 2002).

Another possible distinction may exist between those with faster personal performance times and the more recreational runner due to different training patterns. A study conducted by Ogles, Masters, and Richardson (1995) formed homogenous samples of runners that appeared to represent obligatory and recreational styles of running. Although, obligatory males runners have been characterized as addictive, compulsive, and even pathological, their results suggested that male obligatory runners were characterized by striving for 'recognizable success.' The behaviorally identified obligatory runners reported being more influenced by achieving personal running goals, improving themselves, performing well enough to beat competitors,
and as a result receiving recognition from family and peers for their accomplishments which extended beyond psychological well-being (Maters et al., 1995). It seems that obligatory runners would place an emphasis on personal best performance times each event.

Another possible reason that those who have faster personal best performance times score higher on achievement motives may be a result of their role as an athlete. Recent research has confirmed the importance of athlete role in the way people define themselves. Brewer, Van Raalte, and Linder (1993) have shown that athletic identity (extent to which a person identifies with the athlete role) is a unique and important dimension of the self-concept that can be regarded as both a cognitive structure (a schema) and a social role. Thus, a strong athletic identity should increase commitment to athletic participation. Further, the extent to which athletics is an important part of a person’s self-concept will determine how likely it is that thoughts and behaviors associated with the athlete role (e.g., motivation, competition, social relationships, performance) will be expressed in, or used to interpret a given situation (Horton & Mack, 2000).

Some limitations of the current study should be acknowledged. One factor is that the current study included some participants who had trained for, but not yet completed their first marathon upon survey completion. This may have created a response bias because their responses may have been different due to their mood state after completing the marathon. Although, it is impossible to determine whether or not the responses would have differed significantly.
Another limitation of the current study was that results were only examined along the four main scales (achievement, physical health, psychological, and social motives) of the Motivation of Marathoners Scale (MOMS). Further analysis might examine the data along the nine different subscales of the MOMS. This would allow for more specific information to be obtained regarding self-esteem, weight concern, and other areas of importance.

Due to the significant number of elite runners (those who compete for prize money) obtained in this sample size, further examination of data could be conducted by performing a case series study on the elite group of runners. These findings could produce some interesting results because of the centrality running has to their career and livelihood.

Also, future research might consider reconstructing the Motivation of Marathoners Scale (MOMS) or constructing an instrument which includes a wider variety of possible motivations. Several participants in this study commented that they were participating in the marathon to raise money for a charity organization. For example, the Leukemia & Lymphoma Society Team in Training is a group of athletes who organize in a local chapter to raise money, train, and participate in an endurance event together. Their mission is to cure leukemia, lymphoma, Hodgkin’s disease and myeloma, and to improve the quality of life of patients and their families. More than 76 percent of their expenditures are directed to research and patient services. The Society has dedicated itself to being one of the top-rated voluntary health agencies in terms of dollars that directly fund its mission (Leukemia & Lymphoma Society,
The MOMS instrument does not assess this increasingly popular motivation for training and participating in an event to raise money for local charities.

In summary, the current findings demonstrate that individuals have different motivations for running in marathons. Results revealed that males are more influenced by achievement motives than females. It was also found that older runners had a higher degree of physical health and psychological motives than younger runners. Further, results confirmed that runners with faster personal best marathon finish times are more likely to endorse achievement motives as reasons for training and participating in marathons.
References


Runner’s World Home Page. [http://www.runnersworld.com](http://www.runnersworld.com)


Appendix A

Demographic Information

Participant's Name: (optional) ________________________________

Your gender________

Your age________

Number of marathons you have attempted_____

Number of marathons you have completed_____

Your best marathon performance time (personal record)__________
Appendix B

Motivations of Marathoners Scales (MOMS)

Motivations of Marathoners Scales (MOMS)

Please rate each of the following items according to the scale below in terms of how important it is as a reason for why you trained for and ran a marathon. A score of 1 would indicate that the item was "not a reason" for training for and running the marathon; a score of 7 indicates that the item was "a most important reason" for your training for and running the marathon; and scores in-between represent relative degrees of each reason.

<table>
<thead>
<tr>
<th>Not A Reason</th>
<th>A Most Important Reason</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1. ___ To help control my weight.
2. ___ To compete with others.
3. ___ To earn respect of peers.
4. ___ To reduce my weight.
5. ___ To improve my running speed.
6. ___ To earn the respect of people in general.
7. ___ To socialize with other runners.
8. ___ To improve my health.
9. ___ To compete with myself.
10. ___ To become less anxious.
11. ___ To improve my self-esteem.
12. ___ To have something in common with other people.
13. ___ To add a sense of meaning to life.
14. ___ To prolong my life.
15. ___ To become less depressed.
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Not A Reason
A Most Important Reason
1 2 3 4 5 6 7

16. ___ To meet people.
17. ___ To become more physically fit.
18. ___ To distract myself from daily worries.
19. ___ To make my family or friends proud of me.
20. ___ To make my life more purposeful.
21. ___ To look leaner.
22. ___ To try to run faster.
23. ___ To feel more confident about myself.
24. ___ To participate with my family or friends.
25. ___ To make myself feel whole.
26. ___ To reduce my chance of having a heart attack.
27. ___ To make my life more complete.
28. ___ To improve my mood.
29. ___ To improve my sense of self-worth.
30. ___ To share a group identity with other runners.
31. ___ It is a positive emotional experience.
32. ___ To feel proud of myself.
33. ___ To visit with friends.
34. ___ To feel a sense of achievement.
35. ___ To push myself beyond my current limits.
36. ___ To have time alone to sort things out.
37. ___ To stay in physical condition.
38. ___ To concentrate on my thoughts.
39. ___ To solve problems.
40. ___ To see how high I can place.
41. ___ To feel a sense of belonging with nature.
42. ___ To stay physically attractive.
43. ____ To get a faster time than my friends.
44. ____ To prevent illness.
45. ____ People look up to me.
46. ____ To see if I can beat a certain time.
47. ____ To blow off steam.
48. ____ Brings me recognition.
49. ____ To have time alone with the world.
50. ____ To get away from it all.
51. ____ To make my body perform better than before.
52. ____ To beat someone I've never beaten before.
53. ____ To feel mentally in control of my body.
54. ____ To get compliments from others.
55. ____ To feel at peace with the world.
56. ____ To feel like a winner.
Appendix C

Informed Consent

I need your help. My name is Courtney Hague and I am doing a study of what motivates marathon runners for my Master's degree. Please help me by filling out this questionnaire. It should only take about five minutes of your time. Thank you very much for your time. Good luck.

I understand that this is voluntary and completely confidential. (Signature/date)
Appendix D

Debriefing Statement

**Purpose of Study:** The purpose of this study is to examine motivation among four main categories of motivation (physical health, social, achievement, and psychological). We expect to find: 1) Younger runners will more likely be motivated by achievement motives than older runners. 2) Females will be more motivated by physical health motives than males. 3) Males are more likely to participate in marathons for achievement motives than females. 4) Females and males will be similar along psychological motives for running. 5) Runners who reported being more motivated by Achievement Motives (competition and personal goal achievement) would have lower personal best marathon finish times.

**Results:** If you would like a copy of the results you may write your name and address on a sheet of paper and I will be happy to send them to you.

**Thank you for your participation.**
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Table 1

Correlations Between Motivation of Marathoners Scale (MOMS) and Demographic Variables for Males

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2. Attempted</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Completed</td>
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<td></td>
<td></td>
<td>.34**</td>
<td>1.00**</td>
<td></td>
<td></td>
<td></td>
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<td>4. Personal Record/minutes</td>
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<td>.26**</td>
<td>-.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Psychological Motives</td>
<td></td>
<td>.15*</td>
<td>.14*</td>
<td>.14*</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Physical Health Motives</td>
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<td>.08</td>
<td>.08</td>
<td>.06</td>
<td>.51**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Achievement Motives</td>
<td></td>
<td>-.08</td>
<td>.06</td>
<td>.06</td>
<td>-.34**</td>
<td>.47**</td>
<td>.38**</td>
<td></td>
</tr>
<tr>
<td>8. Social Motives</td>
<td></td>
<td>.08</td>
<td>.13*</td>
<td>.13*</td>
<td>-.06</td>
<td>.60**</td>
<td>.46**</td>
<td>.48**</td>
</tr>
</tbody>
</table>

Correlations Between Motivation of Marathoners Scale (MOMS) and Demographic Variables for Females

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attempted</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Completed</td>
<td></td>
<td></td>
<td></td>
<td>.39**</td>
<td>1.00**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Personal Record/minutes</td>
<td></td>
<td>.12</td>
<td>-.36**</td>
<td>-.32**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Psychological Motives</td>
<td></td>
<td>1.00</td>
<td>.12</td>
<td>.12</td>
<td>-.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Physical Health Motives</td>
<td></td>
<td>.21**</td>
<td>.19**</td>
<td>.19**</td>
<td>-.00</td>
<td>.60**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Achievement Motives</td>
<td></td>
<td>.01</td>
<td>.13*</td>
<td>.13*</td>
<td>-.16</td>
<td>.57**</td>
<td>.45**</td>
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</tr>
<tr>
<td>8. Social Motives</td>
<td></td>
<td>-.03</td>
<td>.07</td>
<td>.07</td>
<td>-.05</td>
<td>.59**</td>
<td>.48**</td>
<td>.53**</td>
</tr>
</tbody>
</table>

* $p < .01$, two-tailed

** $p < .01$, two-tailed
Table 2

T-tests Comparing Males and Females on the Four Main Scales of the Motivation of Marathoners Scales (MOMS)

<table>
<thead>
<tr>
<th>Psychological Motives</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>Δ</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Males</td>
<td>88.36</td>
<td>28.88</td>
<td>1.354</td>
<td>.00</td>
<td>-1.55</td>
</tr>
<tr>
<td>Females</td>
<td>91.80</td>
<td>30.67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Achievement Motives

|                       |         |         |         |        |          |          |
|                       |         |         |         |        |          |          |
| Males                 | 40.82   | 11.83   | -6.38*  | .07    | -8.03    | -4.25    |
| Females               | 34.69   | 10.56   |         |        |          |          |

Physical Health Motives

|                       |         |         |         |        |          |          |
|                       |         |         |         |        |          |          |
| Males                 | 41.96   | 12.71   | -1.44   | .00    | -3.72    | .57      |
| Females               | 40.38   | 12.82   |         |        |          |          |

Social Motives

|                       |         |         |         |        |          |          |
|                       |         |         |         |        |          |          |
| Males                 | 37.51   | 14.31   | .181    | .00    | -2.24    | 2.69     |
| Females               | 37.73   | 15.12   |         |        |          |          |

Note. Males n = 297, Females n = 254. *p < .001.