

MOTIVATION OF FIRST TIME MARATHONERS TO ADHERENCE TO  
MARATHONING

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Submitted to  
The Temple University Graduate Board

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in Partial Fulfillment  
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DOCTOR OF PHILOSOPHY

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by  
Elizabeth A. Loughren

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## ABSTRACT

Motivation of first time marathoners to adherence to  
marathoning

By Elizabeth A. Loughren, M.S.

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Doctoral Chair: Dr. Michael Sachs, PhD

As the number of marathons offered in the United States continues to increase, so does the number of marathon participants, including first time marathon runners. The purpose of this study was to examine race motivators for newbie marathoners and their likelihood of adherence to the sport of marathoning.

A total of 906 first time marathon participants, who ran their debut race within the past year, were included in this study. Participants were chosen on the basis of their willingness to complete an online survey. The survey consisted of demographic questions and the Motivation of Marathoners Scales (MOMS) (Masters et al., 1993).

Through a frequency analysis of the MOMS, mean values revealed participants utilized primarily personal goal achievement, self-esteem, and health orientation as reasons for training for and running a marathon. In terms of gender comparisons and the MOMS, males had higher means for

personal goal achievement and competition; females had higher means in the remaining seven categories. Females and males also had significant differences in response means on seven of the MOMS subscales to run a marathon. A significant difference was also found between charity and non charity runners with the MOMS for weight concern. Significance was found in the intended time frame to run another marathon for females and males.

A frequency count showed the top three reasons to run another marathon were to lower my finish time (82.9%), to include the race as part of a vacation weekend (73.8%), and to improve upon my training (62.9%). Significance was found between females and males in their chosen reasons for running another marathon. Gender differences were significant for to lower my finish time, attempt a different course, to raise money for charity, to run with family or friends, to include the race as part of a vacation weekend, and to improve upon my training. Significance was also found between charity and non charity runners and running another marathon to stay in shape, to have fun, to attempt a different course, as part of a vacation weekend, and to improve upon training. Based upon input from the 'other' category, 21 additional categories were created for reasons to run another marathon.

## TABLE OF CONTENTS

	Page
ABSTRACT . . . . .	v
LIST OF TABLES . . . . .	ix
LIST OF FIGURE . . . . .	xi
CHAPTER	
1. THE PROBLEM	
Introduction . . . . .	1
Statement of Problem . . . . .	6
Research Questions . . . . .	6
Limitations . . . . .	7
Delimitations . . . . .	8
Definition of Terms . . . . .	8
2. REVIEW OF LITERATURE	
Marathon Numbers . . . . .	11
Newbies and Sport Activities . . . . .	14
Exercise Adherence . . . . .	15
Marathon Adherence . . . . .	20
Motivation for Running . . . . .	26
Perception of a Marathon and a Marathon Runner . . . . .	28
Demographic Factors . . . . .	31
Marathon Vacation and Party Atmosphere . . . . .	35
Charity Runners . . . . .	37
3. METHODOLOGY	
Research Design . . . . .	41
Participants . . . . .	41
Instrumentation . . . . .	42
Procedures . . . . .	45
Data Analysis . . . . .	47
4. RESULTS	
Descriptions of Participants . . . . .	48
Results of Research Questions . . . . .	52
Discussion of Research Questions . . . . .	70
General Discussion . . . . .	79
Implications for Researchers . . . . .	86
Implications for Practitioners . . . . .	88

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH	
Summary . . . . .	91
Conclusions . . . . .	94
Recommendations for Future Research ..	96
REFERENCES . . . . .	98
APPENDIX A	
Consent Form. . . . .	103
APPENDIX B	
Demographic Questions. . . . .	105
APPENDIX C	
Motivation of Marathoners Scales (MOMS). ..	108
APPENDIX D	
Additional Information. . . . .	111
APPENDIX E	
Frequencies and Percentages of Runners Age	113
APPENDIX F	
Overall Ethnicity Demographics . . . . .	117
APPENDIX G	
Overall Education Demographics . . . . .	119
APPENDIX H	
Frequencies and Percentages of Runner Finish Times . . . . .	121
APPENDIX I	
Rotated Component Matrix for MOMS Subscale Questions . . . . .	125

## LIST OF TABLES

Table		Page
1	Number of Marathon Races and Participants From 1969-2007 in the United States . . . . .	13
2	Future Intentions of Runners . . . . .	23
3	Actual Running Behaviour of the Male Runners Contacted in the Follow-Up Questionnaire ...	24
4	Total Number of Marathon Finishers and Percentage of Male and Female Marathon Finishers from 1980-2007 . . . . .	34
5	Ethnicity Demographics Based Upon Running One Marathon . . . . .	50
6	Education Demographics Based Upon Running One Marathon . . . . .	50
7	Number of Marathons Run . . . . .	52
8	Cronbach Alpha Levels for all MOMS Subscales	54
9	Means and Standard Deviations for MOMS Subscales Based Upon Running One Marathon . .	55
10	Correlations and Significance of Age and Education Level for the MOMS Subscales Based Upon Running One Marathon . . . . .	56
11	Female and Male Means and Standard Deviations for MOMS Subscales Based Upon Running One Marathon . . . . .	57
12	Charity and Non Charity Runner Means and Standard Deviations for MOMS Subscales Based Upon Running One Marathon . . . . .	58
13	Plan to Run Another Marathon Based Upon Running One Marathon . . . . .	58
14	Female Plan to Run Another Marathon Based Upon Running One Marathon. . . . .	59

15	Male Plan to Run Another Marathon Based Upon Running One Marathon. . . . .	59
16	Charity Runner Plan to Run Another Marathon Based Upon Running One Marathon . . . . .	61
17	Non Charity Runner Plan to Run Another Marathon Based Upon Running One Marathon . .	61
18	Descriptives for Certainty of Time Frame for Next Marathon Based Upon Running One Marathon	62
19	Frequency and Percentages of Reasons to Run Another Marathon Based Upon Running One Marathon . . . . .	64
20	Correlation and Significance of Age and Education and Reasons to Run Another Marathon Based Upon Running One Marathon . . . . .	65
21	Other Reasons to Run Another Marathon . . . . .	66
22	Female Reasons to Run Another Marathon Based Upon Running One Marathon . . . . .	69
23	Male Reasons to Run Another Marathon Based Upon Running One Marathon . . . . .	69
24	Charity Runner Reasons to Run Another Marathon Based Upon Running One Marathon . .	71
25	Non Charity Runners Reasons to Run Another Marathon Based Upon Running One Marathon . .	71
26	Means and Standard Deviations for MOMS Subscales Study Comparisons . . . . .	72
27	Charity Runner Means and Standard Deviations for MOMS Subscales Study Comparisons . . . . .	74

## LIST OF FIGURE

Figure	Page
1 Certainty of Running Another Marathon and Time Frame Based Upon Running One Marathon. .	62

## CHAPTER ONE

### Introduction

In ancient Greece, Pheidippides, a messenger, ran from Marathon to Athens as a means to relay information and proclaim a war victory. He covered the distance between the cities via foot and over several days (Hopkins, 1966). Although he never knew it, Pheidippides forever left his legacy of running such a great distance, which ultimately led to the creation of a sport known as the marathon. In the late 1800's, the Greeks established the first organized marathon for a number of local runners. Over time, the marathon was introduced to more areas of the world, and gained popularity and intrigued more individuals to attempt such a feat. Today, the marathon has boomed in appeal to over 407,000 US marathon runners in 2007 alone (Marathon Guide, 2008). In the United States the sport of marathoning has been gaining popularity since Dr. Kenneth Cooper, a physician, established fitness tests and running conditioning programs in the mid 1960's (Cooper, 1968; Steffny, 1979).

Due to the increasing popularity of aerobic fitness for conditioning and wellness benefits, the running boom started to take off in the 1970's. Some attributed the major growth in the sport at the time to Frank Shorter receiving Olympic medals in the marathon at the 1972 (gold) and 1976 (silver) games (Steffny, 1979), the media attention garnered by his success, as well as the start of more organized marathon races (Henderson, 1978). In the 1980's and 1990's the number of participants and races offered surged in comparison to the modest number of marathon opportunities in the early 1970's (Lebow & Averbuch, 1992).

In the late 1990's a female presence was more prevalent at races as compared to other decades, and the number of non-elite participants was also on the rise (Cooper, 1998). Several destination type of marathons were in their infancy, and in 1997 the development of a Rock 'n' Roll Marathon, with bands every mile for entertainment, was created to encourage runners to have fun while completing the 26.2 miles (Monahan, 2008). In the past few years, the marathon scene has seen a tremendous growth in the number of runners participating for a charity or foundation, as well as a larger demographic breakdown of participants. Older runners and runners of different ethnicities have

taken up the sport versus the initial male Caucasian runners of the 1970's to the 1990's.

Today the popularity of marathon running continues to attract new runners to the sport and, with its mounting status, the marathon has reached both video game and media outlets. A company in Japan created a marathon video game called *Let's Run a Marathon*, available for Play Station 2, which allows gamers to manage a running team, recruit sponsorships, and create training schedules and provide motivational speeches with your recruited team ("Let's Run," 2004). A recent movie, *Spirit of the Marathon* (Harris, Twist, & Dunham, 2008), is a documentary that follows both veterans and newbies, first time marathon runners, as well as elite and recreational runners in their quest of conquering the 2005 LaSalle Bank Chicago Marathon (Sachs & Loughren, 2008). Another movie, *Run, Fat Boy, Run* (Curtis & Schwimmer, 2008), depicts an overweight man who left his fiancée at the altar and thinks that by running a marathon he will be able to gain her respect and win her back. Both movies have generated mass society appeal for those who have completed a marathon or for those who are contemplating attempting the distance.

In addition to the video and media exposure of the sport, numerous high profile athletes and celebrities have

helped to spotlight various marathon races and draw upon mainstream publicity. Talk show host Oprah Winfrey ran the Marine Corps Marathon in 1994, Sean "Diddy" Combs raised money for New York City schools at the 2002 New York City Marathon, comedian Will Ferrell completed the 2003 Boston Marathon, chef Gordon Ramsay has run numerous marathons and recently ran the 2008 Flora London, and seven time Tour de France winner Lance Armstrong ran the 2006 and 2007 New York City Marathons, as well as the 2008 Boston Marathon.

Dean Karnazes, an ultramarathon runner, also brought media attention to the sport in 2007 when he ran 50 marathons in 50 days, with one marathon in each of the US states and completing his final race at the New York City Marathon. As 2008 was an Olympic year, the US men's and women's Olympic trials were held on the same weekends as the New York City and Boston Marathons, respectively. Non-runners, debut runners, and veterans alike, were able to see first hand the skill level of the top US marathoners, such as Deena Kastor and Ryan Hall, and get a better sense of what the marathon encompasses both physically and psychologically. With the involvement of more celebrities and the tie-in of the Olympic Trials with big time US races, the marathon has gained more exposure versus any other preceding decade.

Individuals often cite various reasons for choosing to complete the 26.2 mile distance. For some this is a personal goal, while for others it can be an opportunity to raise money for a charity or foundation. At the same time, others may choose to cite the health benefits affiliated with training for such a distance. Often, each runner has pre-established motives for choosing to participate in a marathon. Although these motives do vary by individual, some common reasons for running a marathon include completing a lifelong goal, to become healthier, to set a positive example to family members and friends, or to see how far the runner could push her/himself. These motives have been well researched, in terms of justifications for marathoning, using the Motivations of Marathoners Scales (MOMS) (Masters & Ogles, 1995; Masters, Ogles, & Jolton, 1993; Ogles & Masters, 2000, 2003), yet currently a research gap exists on how these motives impact whether a newbie runner will choose to run another marathon and the reasons for adhering to marathoning. Upon crossing the finish line, the question that is often posed to a first time marathon runner is "Will you run another one?"

Research is currently lacking in order to be able to best establish the motivations that are occurring for newbie marathon runners. Granted, there has been a second

running boom with the marathon, but why and what brings a newbie back to want to complete another race? Do the measures that were used in the late 1980's and early 1990's identify with the potential changes in today's newbie running population? Do female runners have different motives for marathoning as contrasted to males? Are charity runners more likely to adhere to the sport versus some who completed training runs and marathons by themselves? Although marathon motivation is often evaluated, currently no research has looked specifically at the adherence of newbie marathoners to the sport of marathoning and the impact this could have on attracting more runners to the sport, as well as an overall healthy lifestyle and wellness ramifications for marathon participants.

#### Statement of Problem

The purpose of this study was to examine race motivators for newbie marathoners and their likelihood of adherence to the sport of marathoning.

#### Research Questions

The following research questions were examined in this study:

1. What were newbie marathon participants' reasons for running a marathon?

2. Following completion of a first marathon, how many newbie marathon participants intended to complete another marathon?

3. What were newbie marathon participants' reasons for running additional marathons?

In addition, two sub-research questions were examined:

1. Were there differences in motivators between females and males for newbie marathon participants running marathons?

2. Were there differences in charity versus non-charity motivators for newbie marathon participants running marathons?

#### Limitations

The following limitations were present in this study:

1. The extent to which the individuals selected to complete the survey were representative of the marathon running population is unclear.

2. It is not certain that participants completed the questionnaire honestly and accurately.

3. The wording of question 11 on the survey may have been interpreted as why runners in general would run another marathon, versus participants' own reasons for why they would chose to run another marathon.

4. The time elapsed between completion of their first marathon and taking the survey may reflect different motivations and intent over time.

5. Due to the large number of respondents to the survey, some areas may be significant due to the sheer number of responses.

6. Although steps were taken to prevent individuals from taking the survey multiple times, some may have taken the survey more than once.

7. No data are available on whether the first time runners from the current study did complete another marathon.

#### Delimitations

This study was delimited to:

1. Participants were individuals who completed their first marathon and did so within the past year.
2. The questionnaires were limited to self-report.
3. A one-time data collection did not account for changes in participation over time.
4. Only those who had access and felt comfortable using the internet participated.

#### Definition of Terms

The following were definitions for terms in this study:

*Charity Runner.* A charity runner is an individual who runs a marathon in order to raise money and generate awareness for a certain cause or foundation. An example of this is Team in Training ([www.teamintraining.org](http://www.teamintraining.org)) or the American Cancer Society ([www.cancer.org](http://www.cancer.org)). Often these individuals can be picked out from fellow runners because of their race gear supporting the charity for which they are running.

*Destination Marathon.* A destination marathon is a marathon that is held in a location to specifically draw runners to that area to complete a marathon, as well as to have a vacation. For instance, one may travel to Maui in order to complete the marathon, while still vacation on the island at the same time.

*Exercise Adherence.* Exercise adherence constitutes running or exercising on a regular basis, and can be based on American College of Sports Medicine (ACSM) guidelines for physical activity of at least 30 minutes of moderately intense physical activity five days of the week or vigorously intense physical activity 20 minutes a day three days a week (ACSM.com, 2007).

*Marathon.* A marathon is a running race that is based upon a distance of 26.2 miles (26 miles, 385 yards) or 42 kilometers, 195 meters.

*Marathon Adherence.* Marathon adherence is the decision to either run or not run another marathon within a year time frame and can also be referred to as the intent to run another marathon.

*Marathon Running Boom.* Marathon running boom is a trend based on the increase in the number of marathon participants over the past 30 years and the increase in the number of marathon races being offered in the United States.

*Marathoning.* Marathoning is the act of participating in (a) marathon(s).

*Motivation.* Motivation is one's justification(s) for choosing to run a marathon.

*Newbie. (also known as a debut runner)* A newbie marathon participant is a first time marathon runner.

*Training Runs.* Training runs are runs that are completed in order to enhance cardiovascular and muscular endurance and can be of varying mileage each week.

## CHAPTER TWO

### Review of Literature

The purpose of this study was to examine race motivators for newbie marathoners and their likelihood of adherence to the sport of marathoning. This review of literature is presented in the following sections: marathon numbers, newbies and sport activities, exercise adherence, marathon adherence, motivation for running, perception of a marathon and a marathon runner, demographic factors, marathon vacation and party atmosphere, and charity runners.

#### *Marathon Numbers*

The 1970's introduced the first running boom in the United States. Since 2000, a second running boom has occurred with an increase in the number of marathon runners, as well as an increase in the number of marathon races offered in the United States (Marathon Guide, 2008). A sport that was once viewed as only conquerable by a handful of runners has resurged in recent years due to the number of non-elite participants.

Marathon races and the number of marathon participants in the United States have been on a steady increase since

the late 1960's (see Table 1). Whereas in 1969 only 40 marathon races were offered, today over 340 races are run throughout the United States. In 1977, only 22,000 runners had completed a marathon, whereas in 2007 at least 407,000 runners completed a marathon.

The second running boom brings with it many newbie participants to the sport of marathoning. At the 2006 Chicago Marathon, of the 33,659 finishers, one out of three participants was a first time marathon finisher (33% or 11,107 runners) (LaSalle Bank Chicago Marathon, 2006). At the 1991 New York City Marathon, newbies accounted for 31% (7,997) of the 25,797 finishers (Lebow & Averbuch, 1992), a stark contrast in comparison to the 2007 New York City Marathon, where 40% (15,722) of the overall finishers (38,607) were newbie runners. At the 2007 New York City Marathon, of the overall total number of female finishers (12,535), 41% were newbies, and of the overall total number of male finishers (26,072), 40% were newbies. Just within the newbie finishers alone (15,722), there were 67% male finishers (10,485) and 33% female finishers (5,237) (ING New York City Marathon, 2007). In 2008, the number of newbie participants also increased at the New York City Marathon. Of the total registered runners (38,011), 43% were newbie runners (16,257). Of the overall total number

Table 1: Number of Marathon Races and Participants from 1969-2007 in the United States

Year	Marathon Races	Marathon Participants
1969	40	
1970	73	126*
1971	102	
1972	124	
1973	127	
1974	135	
1975	148	
1976	166	
1977	197	22,000
1989		246,000
1990		263,000
2000		299,000
2001		295,000^
2002		324,000
2003		334,000
2004	302	362,000
2005	331	382,000
2006	350	397,000
2007	340	407,000#

Note. \* = only runners from the New York City Marathon; ^ = decrease attributed to 9/11 since larger races are held in the fall; # = numbers may be higher due to timing issues at the Honolulu Marathon and the closure of the Chicago Marathon due to heat. (Henderson, 1978; Lebow & Averbuch, 1992; Marathon Guide, 2008; Steffny, 1979)

of female registrants (12,855), 45% were newbies

(5,786), and of the overall total number of male registrants

(25,156), 42% were newbies (10,471). Just within the newbie registrants alone (16,257), there were 64% male participants (10,471) and 36% female participants (5,786) (ING New York City Marathon, 2008). Some marathon races are even directed more towards newbie runners: "About half of the participants running the Rock 'n' Roll Marathon are running their first marathon. They are bound to meet many people with the same experience." (Monahan, 2008). Being surrounded by other newbies can assist in the goal of reaching the finish line.

#### *Newbies and Sport Activities*

The term newbie was initially developed in the British school system to refer to a new boy in the class, and was also used in military circles to designate a new member of the troop or platoon ("Newbie", 2008). The term further progressed to describe any new participant in an activity ("Newbie"). Within the context of sport and physical activity, a newbie is considered new to the sport or very novice in experience. As newbie marathon runners, individuals may not know the ins and outs of the sport very well, what to expect or anticipate running their initial race, how their body will react, be knowledgeable about running gear, or training methods, but this would be true for participants in other sporting areas as well. Some of

these include being an Olympic swimming newbie ("The newbies", 2008), learning how to hang glide (Pantall, 2007), cycle (Fiske, 2006), kayak (Catalano, 2005), triathlon (Zohlman, 2007), golf (Adams, 2006), ultramarathon (Staudhammer, 2008), and mountain marathon backpacking (Willis, 2007).

Once submersed in the activity, participants receive a better understanding of the process and operation of their activity. For many individuals, it is their "greenness" and lack of understanding that motivates them to continue with the activity. It may be their opportunity to tackle a new challenge or endeavor, while learning more about themselves and pushing their limits at the same time. Therefore, this is an important group to study because, as newbie sport participants, it is critical to track and determine what motivates or drives novices to want to continue with their chosen sporting activity. Is there something that can be shown as a universal marker for participating, or do the individual differences of the people truly make an overall impact on their sport choice and continuing the activity?

### *Exercise Adherence*

One of the most researched adherence theories is based on the Stages of Change or Transtheoretical Model (TTM) of

Behavior Change (Prochaska & DiClemente, 1983). Prochaska and DiClemente, as a means of smoking cessation, developed stages of change based on current behavior patterns. They wanted to determine how and why people were able to quit smoking without receiving professional assistance (Marcus & Forsyth, 2003).

The TTM was the wider framework that included the stages of change and processes across psychotherapy (Biddle & Mutrie, 2001), while the stages of change were based upon smaller steps or stages that individuals progressed through in order to discontinue smoking (Marcus & Forsyth, 2003). The model was created with six stages and allows individuals to move through the stages in a step-like fashion. The stages are: precontemplation, contemplation, preparation, action, maintenance, and termination. Placement in a stage is determined by one's current behavior level. Based upon one's initial level, one can progress either upward in the model for positive behaviors, or regress and relapse to a lower level for negative behaviors (Biddle & Mutrie, 2001). Within this model, individuals may reach a particular level and have no more changes, or can progress throughout the stages of change and reach a level of termination (Prochaska & DiClemente, 1983). A six-month time frame is needed for an individual

to reach the maintenance stage, which demonstrates a continuous change in behavior.

Marcus, Selby, Niaura, and Rossi (1992) used the stage of change theory in application to exercise determinants. The researchers decided to remove the cessation level and kept the five other categories the same, but different dimensions were attached to each level to determine where the individual should be placed based upon current physical activity levels. The five stages were still set in a step like manner, but time dimensions were created in order to determine appropriate progressions throughout the stage process in regard to exercise and physical activity (Biddle & Mutrie, 2001). Each stage in regard to physical activity is discussed below.

*Precontemplation.* Precontemplation is determined by the individual having no intentions of becoming physically active within the next six months (Biddle & Mutrie, 2001). Many see lack of time, energy, and facilities as a justification for non-participation over the positive physical outcomes such as less risk for disease, more energy, or psychological benefits affiliated with exercise. In this stage, individuals rarely utilize the processes of change as a determinant for initiating physical activity (Marcus et al., 1992).

*Contemplation.* Contemplation can be determined by an individual thinking about becoming more physically active within the next six months (Biddle & Mutrie, 2001).

Individuals in this stage are evaluating the benefits and costs of initiating physical activity. This may include reading more on the topic of wellness or learning about exercise facilities within one's living area (Health Education Authority, 1995).

*Preparation.* Preparation is determined by creating a plan of action or initiation of a new physical activity (Biddle & Mutrie, 2001). This may include purchasing a gym membership, running shoes, or beginning to read literature on ways to improve fitness. The individual has decided to make a behavior change and is now determining ways to implement the activity, as well as engaging in the physical activity, but not on a regular basis.

*Action.* In the action stage, individuals have become more physically active, but have only sustained the activity for six months (Biddle & Mutrie, 2001). For example, an individual may begin a new aerobics class at the local fitness center or wake up an hour earlier each day to include a morning jog.

*Maintenance.* In this stage the individual has participated in the physical activity on a regular basis,

for at least a six-month duration, with no intention of quitting the new activity (Marcus et al., 1992). An indication of this stage is when a morning jog is now a daily occurrence in one's routine or regular participation in an aerobics class over one's lunch hour.

Previous exercise adherence research has depicted behavioral factors which influence individual adherence to exercise programs. Some of these factors include decisional balance, exercise enjoyment, self-efficacy, social support, or determining exercise barriers. Often these determinants are used in conjunction with the TTM for biopsychosocial theory base and incorporating motivation and adherence principles. Currently no research has been conducted as to the individual justifications for adhering to marathon running, particularly for a first time or newbie runner, and specifically based upon depicted time frames as the TTM suggests.

With running a marathon, determining adherence may be difficult to identify in a six month time frame as the TTM suggests. Most marathon runners would be included within the maintenance phase of the TTM even though there may be gaps in their level or pattern of exercise. Often following a race, individuals will take a few weeks off to allow muscles to heal, many may cut back on their running

mileage, as well as others will cite the time commitment needed to train for another race of that distance. Another influential factor is that the majority of US marathons are held during the fall months to accommodate for cooler weather for the distance (Marathon Guide, 2008). Although determining adherence for marathoners can be difficult to compartmentalize to a six month time frame, an easy way to determine this is based upon when the runners sign up for their next race. Even though the race may be run in the fall, training for such a distance would need to begin much earlier in the year, thus narrowing the rest and down time in the training gap. Another means to determine exercise adherence can be based upon the American College of Sports Medicine (ACSM) guidelines for physical activity. The ACSM recommends at least 30 minutes of moderately intense physical activity five days of the week or vigorously intense physical activity 20 minutes a day three days a week (ACSM.com, 2007). Even though the newbie has not yet run another marathon, the intent through training would be evident in physical activity participation and demonstrated exercise adherence.

### *Marathon Adherence*

Upon crossing the finish line of one's first marathon, anecdotally the question most posed to the participant is,

"Do you plan to run another?" Contemplating another 26.2 mile race erases all of the unknown factors, unlike in training for an initial marathon. Finishing bestows knowledge about how one's body will react to the distance, how taxing a race can be both physically and psychologically, and the post-race soreness (Armstrong, 2004).

Committing to running your second marathon is nothing like contemplating your first. Like pregnancy or marriage, the first time around is ignorant bliss, and hereafter you have a healthy combination of weariness, responsibility, and respect. A first marathon is idealized and unknown. The second one comes with reminders of sore knees; crippled, can't-sit-down-to-pee, can't-go-down-the-stairs post race gimp/walk; the long-run GU tummy that feels like a combination of a hangover and a trip to Mexico; and the reminder of the sheer pain of going when you want to stop. (Armstrong, 2004, p. 58)

Summers, Sargent, Levey, and Murray (1982) found of those runners who completed their first marathon, the reasons to attempt a second marathon were to run a faster time, because they had fun, to run the entire course, to see the difference of performance with better conditioning, and the distance is still a challenge. Masters and Ogles (1995) noted that mid-level marathon runners, defined as runners who had run two to three marathons, were also motivated to run and adhere based upon a desire to perform better in a subsequent race versus their initial marathon. Goals, such

as to lower their overall finish time, and personal goal achievement were most identified as reasons for continued participation. The current study added to the existing research via providing insight of debut runners and their time frame intent to complete their next marathon, as well as what factors (such as race location, to have fun, to run with family and friends, etc.) would impact their decision in choosing to run another marathon.

Clough, Shepherd, and Maughan (1989) tracked runners after the 1985 Aberdeen Milk Marathon, held in England. Of the 1286 registered runners, 586 people finished the race. Initial questionnaires were sent to finishers, non finishers, and pre-race drop outs in order to gain a better understanding of the adherence of the participants to marathoning. Of the 586 finishers, 521 runners responded ( $n = 489$  male;  $n = 32$  female), and 29% of the finisher respondents were newbie marathon participants. Of the 696 runners with no finish times recorded, 510 people responded ( $n = 459$  male;  $n = 51$  female). Both groups were asked their future intentions as a runner (see Table 2). The outcome from the surveys indicated that a runner who finished the race was more likely to intend to run another marathon versus a runner who did not complete the race (Clough et al., 1989). A secondary questionnaire was

Table 2: Future Intentions of Runners

	Finishers (n = 489)	Drop-Outs (n = 440)
I will run a marathon in the next 12 months	426 (90%)	325 (74%)*
I will run a half-marathon in the next 12 months	381 (78%)	305 (69%)#
I will run a shorter race e.g., 10k in the next 12 months	289 (59%)	208 (47%)#
I will stop running altogether	5 (1%)	16 (4%)

Note. \* = significant difference between finishers and drop-outs ( $p < 0.01$ ); # = significant difference between finishers and drop-outs ( $p < 0.001$ ). Table taken from Clough, Shepherd, & Maughan (1989).

also sent out 12 months following the initial questionnaire to track how many runners actually completed another marathon as they had originally indicated (see Table 3). Of the finishers who had indicated they would complete another marathon, 70% did so, versus only 31% of the drop-outs. Clough et al.'s research also revealed the transition of runners to other distances such as a half-marathon or shorter races were higher for marathon finishers versus non-finishers. Some runners may have decided the training for another marathon was too great or time consuming, yet still continued with running via a shorter race distance. Also of note was the finding that

Table 3: Actual Running Behaviour of the Male Runners Contacted in the Follow-Up Questionnaire\*

	Finishers (n = 330)	Drop-Outs (n = 296)
Number of runners who indicated they would run a marathon and who did so	231 (70%)	92 (31%)
Number of runners who indicated they would run a half-marathon and who did so	219 (66%)	119 (40%)
Number of runners who indicated they would run shorter races and who did so	171 (51%)	69 (23%)
Number of runners who had stopped running completely	36 (11%)	71 (24%)

Note. \* = All the runners who stated that they would not run in a particular type of race or who indicated they would stop running altogether kept faith with their plans; There was a significant difference between finishers and drop-outs in all categories ( $p < 0.001$ ). Table taken from Clough, Shepherd, & Maughan (1989).

11% of the marathon finishers completely stopped running versus 24% of the non-finishers. This information could have greater ramifications in terms of establishing a physical activity pattern, as well as incentives for health and wellness programming.

Although these three studies were able to find justifications for adhering to marathon running, some issues with these studies need to be noted. All three

studies, due to a low number of female respondents, may not have accurately depicted gender reasons for adhering to a marathon. In Summers et al. (1982) and Clough et al. (1989), the number of female respondents were so few that either the female data were collapsed in with the males for analysis or not included at all. The lack of female participants may be indicative of the decade when the research was conducted, the 1980's, when a smaller number of females were running marathons. In the Masters and Ogles (1995) study, there were 472 participants, with 80% of them male. Even though the research was published in 1995, again a lack of female representation may have an overall impact on the results.

A second issue is the context of the study method. Unlike the Masters and Ogles (1995) study, which is theory derived and validated, Summers et al.'s (1982) research lacks a theory base. Even though the information obtained is exceptionally helpful in determining reasons for choosing to continue with marathon running, the lack of theoretical basis makes it difficult to compare to other study outcomes. One needs to be mindful that the responses received from Summers et al. must be read within its own context.

A final issue is the time frames in which the studies were completed. Summers et al. was published in 1982, Clough et al. was published in 1989, and Masters and Ogles was published in 1995. In the one to two decades since these publications were written, the demographics of marathon runners have changed immensely. Today, more older runners, females, and charity runners have crossed the finish line versus any decade preceding it. The newer array of marathon runners may have different justifications for choosing to participate in and complete a marathon.

#### *Motivation for Running*

The motives for running a marathon are highly varied, and are different from individual to individual. What one person finds to be exceptionally motivational and a key component for participating may be completely different from another runner. For example, some runners will be driven by being able to compete against other runners in terms of finishing times and overall placing, while other runners are looking to improve their performance (Ogles & Masters, 2003). Runners have also cited motives of weight loss, stress relief, meeting the distance goal (Curtis & McTeer, 1981), sense of accomplishment, overcoming both physical and mental challenges, improved physical fitness (Summers, Machin, & Sargent, 1983), more social

involvement, status (Clough et al., 1989), they find running enjoyable, want to overcome a lifestyle challenge (Ogles & Masters, 2000), find a release from or stop an addiction (Johnsgard, 1985), or raise money for charity (Havenar & Lochbaum, 2007).

With such variations for deciding to run a marathon, it can often be a mass undertaking in determining a runner's motives and incentives. In 1993, Masters, Ogles, and Jolton created the Motivations of Marathoners Scales (MOMS) in order to better decipher why marathoners decide to run a race. The MOMS is based upon four scale areas of psychological, achievement, social, and physical, and includes nine sub-scales that have shown that marathon runners are motivated by self-esteem, personal goal achievement (Ogles & Masters, 2000), and health orientations (Havenar & Lochbaum, 2007; Ogles & Masters, 2000, 2003). Although it is a validated scale, it was constructed at a time when there were a much smaller percentage of charity runners completing marathons.

With the latest surge of marathoning, many runners have begun to use raising money as a motivator for completing the 26.2 miles. The MOMS lacks questions that lend well to individuals who choose to run with charity as their primary basis of motivation (B. Ogles, personal

communication, February 8, 2008). A second area that the scale lacks, since the creation of the MOMS, is the impact of the increase in female participants. A female may have different motives in comparison to a male for continuing to run marathons and adhere to the sport (B. Ogles, personal communication, February 8, 2008). These two areas need to be further addressed in terms of the impact on newbies for running another marathon.

#### *Perception of a Marathon and a Marathon Runner*

When asked to think about a marathon and a marathon runner, various connotations come to mind. For non-runners the impressions of being crazy, seeing 26.2 miles as unfathomable, admiration for the time commitment, confusion as to why you would want to do this to your body, a basis of merit, and a healthy individual are descriptors given to the 26.2 mile challenge and its participants (Loughren, in preparation). For some people, a marathon seems unnatural and brings with it a challenge of superhuman feats (Reischer, 2001).

Emil Zatopek, a three-time Olympic gold medalist stated, "If you want to run, run a mile. If you want to experience another life, run a marathon." (Switzer, 2007, p. 112). For a marathoner, a race is an opportunity to be in an adventure of the limits of the self, a struggle of

self-discovery (Lebow & Averbuch, 1992), about personal achievement, the ability to say I did it (Reischer, 2001), and the chance to transcend everyday life (Cooper, 1998).

Runners often report an aspect of feeling tougher, more accomplished, empowered, unique, and more confident (Reischer, 2001). Other runners note feeling heroic in conquering their struggle of completing a marathon (Bauman, 1983). Summers et al. (1983) echoed these sentiments in their research study on marathon runners. For individuals who had completed the race, they felt as though they had gained the ability to persevere under stress, accomplished what they set out to do, knew their own limits and capabilities, felt more confident, and found qualities within themselves which they felt they lacked. Marathon runners also realize that being categorized as a marathoner changes others' perceptions of them. They are viewed as having endurance and perseverance, as well as other highly socially desired traits such as strength, fortitude, discipline, hard working, and task oriented (Reischer). For some runners, it is others' perceptions of their accomplishments that garners them recognition and gets them points from peers and co-workers, which assist in fueling their desire to continue running (Reischer).

The importance and perception of these marathon runner traits has even encouraged runners to fake or falsify running a marathon. One of the most famous to do this is Rosie Ruiz (Switzer, 2007). In 1979, at the New York City Marathon, Ruiz boarded the subway in Brooklyn and got off a few stops prior to the finish and rejoined the marathon and crossed the finish line. She mistakenly was placed as one of the top 10 female finishers. The next day her boss saw her name in the newspaper and she gained high admiration and much respect for her accomplishment of placing. She was then encouraged, by her boss, to run the Boston Marathon. Again knowing she would not be able to run the full course, Ruiz entered the course somewhere near the finish line. In doing so, Ruiz failed to take into account where the other female runners were located along the race, and jumped in ahead of the leader to take first place. The media truck had been following the first female runner, and knew no other female runners had passed the leader along the course. Some speculated that Ruiz did this because, "how glamorous success as a runner must have appeared to someone with no such image of aspiration and attainment in her life" (Switzer, 2007, pp. 362-363).

### *Demographic Factors*

To cross the finish line of a marathon inducts that individual into a highly select group, with only one-tenth of one percent of the population to ever conquer such a feat (Galloway, 2001). Over the years there have been changes in the demographics of those who cross the finish line. Initially, marathons in the United States were run by males who belonged to particular athletic clubs and were often affiliated with a set ethnicity, such as an Irish American or Scottish American club (Cooper, 1998). Over the years the marathon continued to grow, drawing in more male participants, who were primarily Caucasian, middle to upper class, and highly educated (Lebow & Averbach, 1992). Male runners were the greatest make-up of the participants. "Twenty-five years ago, the marathon was a man's sport and a highly rarefied one at that. Only 120,000 runners completed a 26.2-miler in 1980. Ninety percent of them were male" (Reynolds, 2004, p. 74). In the late 1960's and early 1970's women were starting to enter marathon races, but mass female participation was not seen until the mid to late 1980's. Those females who were running tended to be of more affluent stature, educated, health conscious, and Caucasian (Cooper). Therefore, it is important to study female marathon runners due to the fact that females have

been increasing their participation in the marathon over the past two decades, and many times the female marathon demographic is overlooked in terms of why they chose to complete a race, and what factors may impact their running another marathon.

The attention to female marathon running came to the forefront in 1967, when Kathrine Switzer was the first female to register for, wear a bib number (number 261), and complete the Boston Marathon. Although Roberta Gibb had run the race a year earlier and had finished, she was not able to register because she was a female (Switzer, 2007). Gibb entered the race as a bandit, which is to run in a race even though you are not registered, or have been issued a race number for the course. Switzer had registered under K.V. Switzer and was not questioned about her gender when the Boston Athletic Association, at the time, only allowed male runners to register for the marathon. During the marathon the race organizers, once they realized a female was participating, unsuccessfully attempted to remove her race numbers, and created a mass media and sporting debate on female participation in marathons. Switzer was a pioneer in female marathoning, and paved the way for other females to be able to compete in the sport and assisted in establishing the female

marathon being included as an Olympic sporting event in 1984, as well as numerous female only races (Switzer, 2007). In doing so, she assisted in creating an environment where today a female presence is accepted and a norm at marathons, and lead to the research question for this study regarding gender differences and marathon justifications.

The resurgence of the marathon has dramatically changed the demographics of today's field of runners. More females than ever have started to participate in marathons (see Table 4). In 1997, in the US, one-fourth of marathon finishers were female (Cooper, 1998), and in 2004, about 400,000 people ran a marathon and almost 40% of them were women (Reynolds, 2004). Some marathons today, such as the Nike's Woman Marathon, where finishers receive a Tiffany's necklace, are dedicated to an all female field. What was once seen only as a male and Caucasian sport has now become a better representation of societal cross section in the US (Cooper). Not only has there been a change in the gender make-up, there is also an increase in the age span of runners. In 2007, the largest group of male race finishers was 40-44 years old, whereas the largest group of female finishers was 25-29 years old (Marathon Guide, 2008). With an increase in older runners, the need to expand age

Table 4: Total Number of Marathon Finishers and Percentage of Male and Female Marathon Finishers from 1980-2007

Year	Total Finishers	Male	Female
1980		89.5	10.5
1995		74.0	26.0
1998		66.0	34.0
2000	299,000	62.5	37.5
2001	295,000	62.1	37.9
2002	324,000	61.5	38.5
2003	334,000	60.9	39.1
2004	362,000	60.5	39.5
2005	382,000	60.0	40.0
2006	397,000	60.1	39.9
2007	407,000	60.5	39.5#

Note. # = percentages may be higher due to timing issues at the Honolulu Marathon and the closure of the Chicago Marathon due to heat. Data taken from Galloway (2001), *Marathon You Can Do It*; Marathon Guide.com, 2007 USA Marathon Report.

categories has also been a common occurrence. Some races now include categories for runners ranging from 75 to 80 to 85 years old. Recently a 94 year-old runner completed the 2008 London Flora marathon ("Buster busted", 2008).

### *Marathon Vacation and Party Atmosphere*

Growing in popularity among the marathon running set is picking out a vacation destination and incorporating a marathon as part of the trip. Listed in the back pages of each month of Runner's World magazine is information for upcoming races. With a plethora of races listed, there is at least one race location to spark an interest. For some runners it can be running in Greece at the site where the first marathon occurred, soaking up the sun along Maui's beaches, drinking an authentic Irish pint along the race course in Dublin, running the Great Wall of China, experiencing Napa Valley via foot, running by the Magic Kingdom in Disney World or, for those who enjoy a colder running climate, there is the Antarctica Marathon (Ryan, 1994). Among some runners there is also a goal to complete a race in all 50 states or to run a marathon on each of the seven continents. For other runners it is not necessarily the location of the marathon, rather it's about spending time with your friends. On the Rock 'n' Roll San Diego Marathon website it listed, "More than 50 percent of Rock 'n' Roll Marathoners are female making race weekend an ideal girl's getaway" (Monahan, 2008), to which they also posted a Girls Weekend Getaway raffle,

The Rock 'n' Roll Marathon is inviting women to register for a Girls Weekend Getaway. Any woman who registers during the month of January will be entered into a drawing to win an ultimate vacation with three of her closest friends. The package includes a three-night stay at a luxurious San Diego hotel, a relaxing spa package, and dinner at a gourmet restaurant, matching running apparel and much more (Monahan, 2008).

Along with the vacation idea for those runners who are seeking a less serious minded marathon, many races have turned into a party atmosphere. These races are for runners who are not as worried about their finish, but rather having a good time (Allison, 2007). For instance, the Rock 'n' Roll marathon series "is known as a 26.2-mile block party with a live band at every mile along the course, hundreds of cheerleaders, themed water stations, and a post-race concert" (Monahan, 2008). It is also not uncommon at many of these races for runners to enjoy the course dressed up as their favorite super hero, in full Elvis attire, in a prom dress with high heels, juggling balls, or attempting to balance cups. Some marathons, such as the London Flora, encourage the runners to sport costumes during the race. At the 2002 London Marathon, Lloyd Scott took his costume to the extreme. Scott donned a 1940's vintage deep sea diving suit, weighting 130 pounds, including lead weighted boots and a massive helmet. He ended up recording the slowest marathon finish in Flora

history in five days, eight hours, 29 minutes, and 46 seconds, while also raising money for children's cancer research ("The 5 day marathon", 2002).

### *Charity Runners*

With a more mass population participating in marathons, some runners have chosen to run a marathon and raise money for a charity or foundation at the same time. Certain marathons have specified charities which allocate a set number of race entries to these charities. At the 2008 Boston Marathon, 1,275 of the highly coveted 25,000 race entries were given to non-profit charity groups (Kolata, 2008). Based upon which race you enter, there may be a different charity team on which to be a part. For instance, at the Boston Marathon some of the charities are Miles for Miracles, Tedy's Team, Good Sports, and Run for Research. At the New York City Marathon various charities include Fred's Team, Livestrong, the Reeve Foundation, and the American Heart Association. At the Chicago Marathon, charities include American Cancer Society, AIDS Marathon team, Girls on the Run, Make a Wish Foundation, and Ronald McDonald House Charities. Often charities will assist in training runs, offer support teams, provide a race singlet to garner more publicity and public awareness, and designate an area pre and post finish specifically for

their runners. Certain marathons have also been known to have more of a charitable runner feel. For instance, the San Diego Rock 'n Roll Marathon partners with Team in Training,

The Leukemia & Lymphoma Society's Team In Training (TNT) is celebrating its 20th anniversary in 2008. TNT offers runners and walkers professional training, support, travel and accommodation to the Rock 'n' Roll Marathon in exchange for fundraising efforts, which will help make a difference in the lives of more than 785,000 Americans living with blood cancers. (Monahan, 2008)

Rock 'n Roll runners have been able to make large contributions to the research and promotion of cancer awareness,

Over the past 10 years, TNT has raised \$122.1 million (net) at the Rock 'n' Roll Marathon in the fight against blood cancers: leukemia, lymphoma and myeloma. This year, TNT runners and walkers will raise more than \$12 million (net) at the Rock 'n' Roll Marathon. (Monahan, 2008)

Running for charity may provide an added motivation and justification for increased adherence for some runners. Either the runners themselves, or a loved one, may have dealt with the disease or issue against which they are trying to champion. It is not uncommon to hear runners tell you they had previously had cancer or currently have a family member dealing with a disease, and became motivated to run a marathon to bring more attention to the cause. While some runners race for health issues, other runners

may run to generate funds for the community. In 2006, Sam Thompson ran 51 marathons in 50 days in order to raise funds for rebuilding houses for hurricane Katrina victims in his home state of Mississippi ("Katrina victims", 2008). Overall, the increased number of charity runners has reshaped the values and justifications for wishing to complete a marathon and the impact covering 26.2 miles can provide.

In summary, individuals have varying motives as to why they choose to complete a marathon. Some may run because they want to experience a new challenge, while others run to garner a healthier lifestyle. Overall, the sport of marathoning has seen a significant change since its initial race development. The sport has increased in terms of the number of participants and the number of marathon races offered. Marathoning has become more diversified in terms of gender, ethnicity, and age of the runners, as well as the type of runner, such as a charity versus non-charity participant. The atmosphere for races has also changed dramatically. With more vacation or party oriented races, the sport has embraced both newbie and veteran runners alike in their quest of completing 26.2 miles. Each of these factors has assisted in making the marathon into what

it has become today, and why completing a marathon has such a special value for first time runners.

Based upon the current literature and findings from other studies, the current study's goal was to add to research findings by obtaining a large sample size in order to better decipher if differences have occurred in runners within a 10 to 20 year time span. In addition, the current study hoped to add increased information on female marathoner reasons to train for a marathon, and what motivates these runners to decide to complete another marathon. Finally, the current study hoped to fill a research gap on charity runners and marathon participation.

## CHAPTER THREE

### Methodology

The purpose of this study was to examine race motivators for newbie marathoners and their likelihood of adherence to the sport of marathoning. This chapter includes: research design, participants, instrumentation, procedures, and data analysis.

#### Research Design

This study employed a non-experimental design with a deliberate sampling method. The strength of this design allowed for evaluation of participants' justifications for running a marathon. A weaknesses of this design included no pre-post evaluation of participants' justification for participation.

#### Participants

The overall participants in this study ( $N = 1073$ ) were comprised of female ( $n = 594$ ) and male ( $n = 479$ ) newbie marathon runners. The overall age range of participants was between 18-72 years old, with a mean age of 35.47 ( $SD = 9.85$ ). However, this study looked specifically at runners who had completed only one marathon within the past year. This was comprised of 906 runners, with 507 female and 399

male participants. The age range for the 906 runners was 18-72 years old, with a mean age of 35.01 ( $SD = 9.84$ ). Participants indicated their willingness to complete an online survey.

#### Instrumentation

The participants were asked to complete a 69-item online questionnaire based upon their debut marathon experience. The instrument used in this study was the Motivations of Marathoners Scale (Masters et al., 1993), and follow-up questions based upon their marathon experience. The 69-item questionnaire consisted of the following:

##### *Consent*

Participants were informed about the purpose of the study, the length of time it would take to complete the survey, the benefits of the research, the age requirement (18 years) to participate, that all participation was voluntary, and whom to contact if they had questions regarding the research. Participants were then asked to check either yes or no for consent to participate in the study (see Appendix A).

##### *Demographics*

For those who checked yes and agreed to the consent, they were then asked 11 questions regarding their gender,

age, ethnicity, education level, if they had completed the race as a charity runner, the number of marathons completed, the date of their first marathon, the finish time of their first marathon, whether they plan to run another marathon, their certainty of their plan to run again, and their reason(s) to run another marathon (see Appendix B). This information was used to provide an idea of the participants' backgrounds and to compare the sample to typical marathon runner demographics.

#### *Motivation of Marathoners Scales (MOMS)*

The Motivation of Marathoners Scales (Masters et al., 1993) is a 56-item scale based upon a seven-point Likert scale from "not a reason" to "a most important reason" in determining why one trains for and runs a marathon (see Appendix C). The scale consists of four general category motives: physical health, social, achievement, and psychological. Within each general category are additional subscales. The physical health motive contains general health orientation and weight concern subscales. A sample statement for the subscales would be "to improve my health" or "to look leaner." The social motive contains affiliation and recognition subscales. A sample statement of these subscales would be "to share a group identity with runners" or "to earn respect of peers." The achievement

motive contains competition and personal goal achievement subscales. A sample statement of these subscales would be "to see how high I can place" or "to compete with myself." The psychological motive contains psychological coping, self-esteem, and life coping subscales. A sample statement of these subscales would be "to improve my mood," "to feel proud of myself," or "to feel at peace with the world."

Scores are determined by averaging the items on each of the nine subscales. A higher score on a subscale indicates greater likelihood an individual is to use that motivation, whereas the lower an individual scores on a subscale the lower the likelihood of use. Cronbach alphas range was .80 to .93 and the retest reliability was .71 to .90 (Masters et al., 1993). The Cronbach alphas range for the current study was .79 to .91, which was similar to Masters et al. (1993) alphas range.

#### *Additional Information Question*

Participants were asked if they were interested in possibly being contacted in the future regarding their marathon experiences. If participants were interested they were instructed to provide their email addresses for future contact (see Appendix D). This would allow for additional longitudinal tracking of the survey participants to determine how many did indeed complete another marathon, as

well as whether they had done so within their intended time frames. Of the overall respondents ( $N = 1073$ ), 526 participants (49%) provided their contact information for potential follow ups.

#### Procedures

Temple University Institutional Review Board (IRB) approval was obtained for the use of human subjects, protocol #12114. Following IRB approval, the survey was placed online via [surveymonkey.com](http://surveymonkey.com). The online survey was available for a seven month time frame from November, 2008 through May, 2009. Participant solicitation was sent to running blogs and forums, such as Runner's World, Active.com, Marathon Guide, the Fairmount Runners Association, and the Exercise and Sport Psychology (SPORTPSY), Temple University Exercise and Sport Psychology Department (ESPD), and American Psychological Association (APA) Division 47 listservs. On the running forums, postings were listed under beginning marathoners, marathon topic in general, under specific races, such as the Chicago Marathon, and under female marathoner topics. An email solicitation for participants was also sent to 350 US marathon race directors for races listed on [MarathonGuide.com](http://MarathonGuide.com), to 206 running clubs registered with Road Running Clubs of America, and to various charity

teams, such as the American Cancer Society, Breast Cancer Network of Strength Illinois, Children's Memorial Hospital Marathon Team Chicago, Diabetes Action, Fred's Team, NF Endurance Team, Run to Remember, Run Walk Ride, Tug McGraw Foundation, Team in Training/The Leukemia and Lymphoma Society, and Run Walk Ride, directing them to the surveymonkey website. An overall response and survey posting was not tracked, but email and individualized phone contact was completed with race directors, charity teams, and running clubs, who followed up with the initial request. They provided assistance via posting the study information and survey link on their marathon websites, distributing the survey link to runners identified as first time participants at their races, sending mass emails to all race or club participants, posting on the race or running club blogs or forum sites, citing the information in their monthly newsletters, or distributing the study flier in their upcoming race goody bags. Contact was also made with Philadelphia Runner, a local running store, who posted the information on their monthly e-newsletter. Upon logging onto the survey website, participants were presented an electronic copy of the study consent form in order to inform them of the purpose, justifications, and

procedures of the study. All participants were informed that participation was confidential.

#### Data Analysis

Frequency and percentage counts of participants were conducted for gender, age, ethnicity, education level, runner type (charity versus non-charity runner), the number of marathons completed and finish times. To evaluate the research questions, correlation and an analysis of variance (ANOVA) ( $p < .05$ ) were conducted, to determine overall marathon justifications for male versus female runners, as well as charity runners versus non-charity runners. A Pearson Chi square was conducted ( $p < .05$ ) to evaluate the motivation of runners with their MOMS overall and subscale scores, and  $t$ -tests were conducted ( $p < .05$ ) to evaluate motivations of runners who had completed only one marathon. A qualitative theme grouping was also used with additional open ended responses in regards to participants' reasons to run another marathon. All like responses were grouped together, which created 21 additional justification areas, and an overall percentage of individuals who listed that theme as a reason for further marathon participation was computed.

## CHAPTER FOUR

### Results

The purpose of this study was to examine race motivators for newbie marathoners and their likelihood of adherence to the sport of marathoning. This chapter includes: description of participants, results and discussion of the research questions, general discussion, and implications for researchers and practitioners.

#### Descriptions of Participants

Surveys were administered online via [surveymonkey.com](http://surveymonkey.com) for a seven month time frame from November, 2008 through May, 2009. Participants were individuals who had completed their first marathon within the past year. Of the 1,434 surveys that were started, 1,120 (78.1%) were totally completed, with 1,073 (75%) surveys usable within the study's required parameters of having completed their first full marathon within the past year's time frame.

In terms of overall gender, 594 (55%) females and 479 (45%) males participated in the study. The overall age range for participants was 18-72 years, with a mean of 35.47 years ( $SD = 9.85$ ). The overall mean age for female

participants was 34.39 years ( $SD = 9.36$ ), and for male participants was 36.81 years ( $SD = 10.27$ ). The modal age for the entire sample and for the female runners was 25 years. The modal age for males, on the other hand, was 37 years (see Appendix E for frequency table). Regarding ethnicity, most overall participants were White (91%) (see Appendix F) and, in terms of education, most participants had a college degree (39.1%) (see Appendix G).

However, this study looked specifically at runners who had completed only one marathon within the past year. This was comprised of 906 runners, with 507 (56%) female and 399 (44%) male participants. The age range was 18-72 years old, with a mean age of 35.01 ( $SD = 9.84$ ). The mean age for females was 33.99 ( $SD = 9.39$ ) and the mean age for males was 36.30 ( $SD = 10.26$ ). Females aged 25 years and males aged 30 and 37 years had the highest frequency rate of runner participants. An independent samples t-test was run to evaluate age and gender of the runners. There was no significant difference in age between female and male participants. Regarding ethnicity, most first time participants were White (91.4%) (see Table 5) and, in terms of education, most participants had a college degree (39.8%) (see Table 6).

Table 5: Ethnicity Demographics Based Upon Running One Marathon

Ethnicity	Responses	Percentage
American Indian/Alaska Native	1	0.6
Asian	25	2.8
Black or African American	12	1.3
Hispanic or Latino	17	1.9
Native Hawaiian or Other Pacific Islander	1	0.1
White	828	91.4
Other	18	2.0

Note.  $N = 906$ .

Table 6: Education Demographics Based Upon Running One Marathon

Education Level	Responses	Percentage
High School	31	3.4
Some College	124	13.7
College Degree	361	39.8
Some Graduate school	98	10.8
Masters Degree	213	23.5
Doctoral Degree	36	4.0
Other (J.D., M.D.)	43	4.7

Note.  $N = 906$ .

Participants were also asked to indicate if they completed their initial marathon for charity. Of the overall respondents ( $N = 1073$ ), 267 (25%) designated themselves as charity runners versus 806 (75%) who were not charity runners. Of the respondents ( $N = 906$ ) who had completed only one marathon, 222 (25%) designated themselves as charity runners versus 684 (75%) who were not charity runners. No significant differences were found among gender, age, ethnicity, and level of education comparing charity runners to non charity runners.

Participants were asked to provide the number of marathons they had completed. The majority of runners had completed only one marathon, with a mean of 1.25 ( $SD = .77$ ) (see Table 7). A significant difference showed those who were more educated completed more marathons ( $\chi^2(54) = 74.59$ ,  $p = .033$ ). No significant differences were found among age, gender, or ethnicity for number of marathons completed.

For the context of this study, only the 906 runners who had completed one marathon within the past year were included within the statistical analysis and reports. Runners who had completed two or more marathons were considered outliers and not included in any of the statistical analysis or reports, other than to report for

Table 7: Number of Marathons Run

Number of Marathons	Responses	Percentage
1	906	84.4
2	112	10.4
3	34	3.2
4	9	0.8
5	6	0.6
6	2	0.2
7	1	0.1
8	1	0.1
13	1	0.1

Note. ( $N = 1072$ ).

frequency count purposes for overall runner findings.

Participants were asked to provide their finish time for their first marathon. Finish times ranged from 2:56 to 8:03 with a mean of 5:36 ( $SD = 1.06$ ) (see Appendix H for finish time frequency table). Only 72 valid responses were included with this study. No significant differences were found among charity and non charity runners, gender, education, ethnicity, or age in participant finish times.

#### Results of the Research Questions

Question 1. What were newbie marathon participants' reasons for running a marathon?

This question examined participant responses from the Motivations of Marathoners Scale (MOMS) (Masters et al., 1993) and how important each construct was for them in training for and running their initial marathon. Reliability of the MOMS subscales was conducted. The Cronbach alpha range was .71 to .91 for all subscales (see Table 8).

A frequency analysis was run to determine means and standard deviations for the subscales. The highest ranking subscales were personal goal achievement, self esteem, and health orientation (see Table 9). Age and education were correlated with the nine MOMS subscales. It is notable that there was a positive correlation between health orientation and age, and a negative correlation between personal goal achievement, competition, recognition, and psychological coping in terms of age. There was a negative correlation between personal goal achievement, competition, recognition, affiliation, life meaning, and self-esteem in terms of education (see Table 10). However, even though there were numerous significant correlations it should be noted that the magnitude of the correlations was quite low.

In terms of female and male differences and the MOMS, descriptive statistics were run for each gender (see Table 11). Males had higher means for personal goal achievement

Table 8: Cronbach Alpha Levels for all MOMS Subscales

Subscale	Alpha Level
Psychological Coping	.91
Recognition	.91
Life Meaning	.89
Self-Esteem	.87
Health Orientation	.86
Weight Concern	.86
Affiliation	.84
Competition	.80
Personal Goal Achievement	.79

(4.81) and competition (2.59), while females had higher means in the remaining seven categories.

A t-test compared female and male response means of the MOMS subscales. Statistical significance was found between females and males in terms of weight concern ( $p = 0.001$ ), competition ( $p = 0.001$ ), recognition ( $p = 0.024$ ), affiliation ( $p = 0.001$ ), psychological coping ( $p = 0.001$ ), life meaning ( $p = 0.001$ ), and self-esteem ( $p = 0.001$ ) as motivators to train for and run a marathon.

In relation to charity and non charity runners' reasons for running their first marathon, the MOMS was used

Table 9: Means and Standard Deviations for MOMS Subscales Based Upon Running One Marathon

Subscale	Mean	SD
Personal Goal Achievement	4.74	1.20
Self-Esteem	4.50	1.37
Health Orientation	4.40	1.38
Weight Concern	3.85	1.67
Affiliation	3.24	1.46
Recognition	3.19	1.54
Life Meaning	3.07	1.51
Psychological Coping	3.02	1.45
Competition	2.37	1.33

Note.  $n = 736$ . Number is less than 906 because not all participants completed the MOMS.

to determine if any differences were present between runner type. A descriptive analysis was run to examine MOMS subscale scores for both charity and non charity runners (see Table 12). Non charity runners had higher mean values for personal goal achievement (4.75) and competition (2.38), while charity runners had higher mean values on the remaining seven subscales. A t-test was significant for charity runners training for and completing a marathon for weight control ( $p = .023$ ).

Table 10: Correlations and Significance of Age and Education Level for the MOMS Subscales Based Upon Running One Marathon

Subscale	Age	Education Level
Affiliation	.048 (.164)	-.126 (.000)
Competition	-.072 (.036)	-.121 (.000)
Health Orientation	.152 (.000)	-.049 (.151)
Life Meaning	-.054 (.120)	-.077 (.025)
Personal Goal Achievement	-.075 (.030)	-.091 (.008)
Psychological Coping	-.116 (.001)	-.021 (.551)
Recognition	-.074 (.032)	-.102 (.003)
Self-Esteem	-.004 (.899)	-.116 (.001)
Weight Concern	-.039 (.251)	-.017 (.616)

Question 2. Following completion of a first marathon, how many newbie marathon participants intended to complete another marathon?

This question examined the responses to questions 9 and 10 on the survey. A frequency count was run to determine runner plans to run another marathon. Of the participants who completed only one marathon, the highest frequency was to run another marathon within the next year (37.3%), followed by within the next six months (36.3%) (see Table 13). Approximately 1% of the runners had

Table 11: Female and Male Means and Standard Deviations for MOMS Subscales Based Upon Running One Marathon

Subscale	Female (SD)	Male (SD)
Affiliation	3.44 (1.49)	2.98 (1.36)
Competition	2.20 (1.27)	2.59 (1.37)
Health Orientation	4.42 (1.31)	4.37 (1.47)
Life Meaning	3.23 (1.54)	2.87 (1.45)
Personal Goal Achievement	4.68 (1.21)	4.81 (1.19)
Psychological Coping	3.17 (1.46)	2.81 (1.42)
Self-Esteem	4.75 (1.27)	4.17 (1.42)
Recognition	3.29 (1.59)	3.05 (1.47)
Weight Concern	4.13 (1.61)	3.48 (1.68)

Note.  $n = 410$  females,  $n = 326$  males. Number is less than 906 because not all participants completed the MOMS.

already run another marathon.

In terms of gender differences and plan to run another marathon, a chi-square was run for both females and males to determine time frames for their next race (see Tables 14 and 15). A Pearson chi-square revealed significance between females and males in intended time frame to run another marathon ( $\chi^2(4) = 16.823, p = 0.002$ ). No significant differences were found among age, education, or ethnicity of either group.

Table 12: Charity and Non Charity Runner Means and Standard Deviations for MOMS Subscales Based Upon Running One Marathon

Subscale	Charity (SD)	Non Charity (SD)
Affiliation	3.41 (1.38)	3.19 (1.48)
Competition	2.34 (1.26)	2.38 (1.35)
Health Orientation	4.51 (1.32)	4.36 (1.41)
Life Meaning	3.17 (1.49)	3.04 (1.51)
Personal Goal Achievement	4.69 (1.17)	4.75 (1.21)
Psychological Coping	3.12 (1.45)	2.98 (1.46)
Recognition	3.24 (1.54)	3.17 (1.54)
Self-Esteem	4.65 (1.32)	4.45 (1.38)
Weight Concern	4.07 (1.56)	3.78 (1.70)

Table 13: Plan to Run Another Marathon Based Upon Running One Marathon

Plan	One Marathon
Within next six months	329 (36.3%)
Within next year	338 (37.3%)
With next five years	88 (9.7%)
Someday, but not sure	99 (10.9%)
Not planning another	46 (5.1%)
Already ran another	6 (0.7%)

Note.  $n = 906$ .

Table 14: Female Plan to Run Another Marathon Based Upon Running One Marathon

Plan	One Marathon
Within next six months	168 (33.1%)
Within next year	186 (36.7%)
With next five years	66 (13.0%)
Someday, but not sure	57 (11.2%)
Not planning another	28 (5.5%)
Already ran another	2 (0.4%)

Note.  $n = 507$ .

Table 15: Male Plan to Run Another Marathon Based Upon Running One Marathon

Plan	One Marathon
Within next six months	161 (40.4%)
Within next year	152 (38.1%)
With next five years	22 (5.5%)
Someday, but not sure	42 (10.5%)
Not planning another	18 (4.5%)
Already ran another	4 (1.0%)

Note.  $n = 399$ .

In relation to charity versus non charity runners, and their plan to run another marathon, frequency counts were run for both charity and non charity runners to determine time frames for their next race (see Tables 16 and 17). A Pearson chi-square revealed no significant difference between charity and non charity runners ( $\chi^2(4) = 3.698, p = 0.451$ ) in their intended time frame to run another marathon. No significant differences were found among age, ethnicity, or education for charity and non charity runners.

A descriptive analysis was run to look at differences among certainty of running another marathon based upon the time frame given in question 9. Those who planned on running another marathon within the next six months had the highest certainty in terms of running another marathon based upon the time frame they chose for their next marathon (see Table 18 and Figure 1). A one-way analysis of variance (ANOVA) was also run to determine how certain the participants were of completing their next race in the time frame indicated in question 9. Results were significant based on the time frame chosen to run their next marathon and their certainty of running their next marathon ( $F[1, 4] = 56.61, p = .001$ ).

Table 16: Charity Runner Plan to Run Another Marathon Based Upon Running One Marathon

Plan	One Marathon
Within next six months	70 (31.5%)
Within next year	85 (38.3%)
With next five years	25 (11.3%)
Someday, but not sure	26 (11.7%)
Not planning another	14 (6.3%)
Already ran another	2 (0.9%)

Note.  $n = 222$ .

Table 17: Non Charity Runner Plan to Run Another Marathon Based Upon Running One Marathon

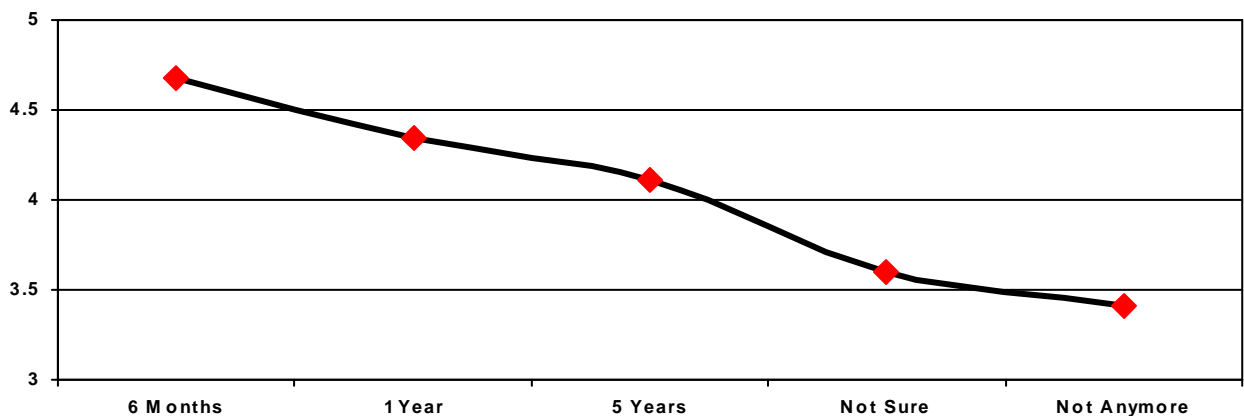
Plan	One Marathon
Within next six months	259 (37.9%)
Within next year	253 (37.0%)
With next five years	63 (9.2%)
Someday, but not sure	73 (10.7%)
Not planning another	32 (4.7%)
Already ran another	4 (0.6%)

Note.  $n = 684$ .

Table 18. Descriptives for Certainty of Time Frame for Next Marathon Based Upon Running One Marathon

Group	Mean	SD	Std. Error	95% CI	
				Lower	Upper
Next 6 months	4.68	.593	.033	4.62	4.75
Within next year	4.34	.743	.040	4.26	4.42
Next 5 years	4.11	.718	.077	3.96	4.27
Someday, not sure	3.60	1.186	.119	3.36	3.83
Not another	3.41	1.107	.163	3.08	3.74

Figure 1: Certainty of Running Another Marathon and Time Frame Based Upon Running One Marathon



Question 3. What were newbie marathon participants' reasons for running additional marathons?

This question examined the responses from the survey that related to question 11. A frequency count was conducted for each of the eight reasons to run again in

order to determine the overall means and the number of participants who indicated these as factors to run another marathon (see Table 19). The three most selected reasons were to lower my finish time (82.9%), to include the race as part of a vacation weekend (73.8%), and to improve upon my training (62.9%). Correlations of age and education were run against the eight factors to run another marathon (see Table 20). It is notable that a negative correlation was revealed with age and to stay in shape, to have fun, to incorporate as a vacation weekend, and to improve upon my training. In terms of education, there were no significant correlations. However, even though there were numerous significant correlations it should be noted that the magnitude of the correlations was quite low.

In addition, participants also were able to enter a reason to run another marathon that was not listed among the eight options. A qualitative theme grouping was used to organize like-minded responses. A total of 21 categories (Boston Marathon, Accomplishment-Enjoyment, Goal-Purpose, Ironman-Triathlon-Ultra, Location-Set Race, Health, Injury-Physical Limitations, Challenge, 50 State-Marathon Maniac, Other, Finisher Feeling-Experience, Age Impact, Prove to Self, Because I Can, Competition, Confidence, Religion, Training, Completion, Glory, and

Table 19: Frequency and Percentages of Reasons to Run Another Marathon Based Upon Running One Marathon

	A Reason	Not A Reason
Lower Finish Time	751 (82.9%)	155 (17.1%)
Vacation Weekend	669 (73.8%)	237 (26.2%)
Improve My Training	570 (62.9%)	336 (37.1%)
Run with Family/Friends	399 (44.0%)	507 (56.0%)
Have Fun	348 (38.4%)	558 (61.6%)
Raise Money for Charity	316 (34.9%)	590 (65.1%)
Attempt Different Course	135 (14.9%)	771 (85.1%)
Stay in Shape	133 (14.7%)	773 (85.3%)

Note.  $n = 906$ .

Motivate-Be An Example) were devised. Please see Table 21 for category responses and percentages.

An example from the Boston Marathon grouping was, "to qualify for the Boston Marathon." An example from the Accomplishment-Enjoyment grouping was, "in order to accomplish something great one more time." Examples from the Goal-Purpose grouping were, "to qualify for the Olympic Trials 2012," and "achieve a sense of purpose with setting and meeting a goal." Examples from the Ironman-Triathlon-Ultra grouping were, "preparing for an ultramarathon," "to

Table 20: Correlation and Significance of Age and Education and Reasons to Run Another Marathon Based Upon Running One Marathon

Reason	Age		Education	
	r	p	r	p
Lower Finish Time	-.019	(.563)	-.042	(.203)
Vacation Weekend	-.066	(.048)	-.033	(.324)
Improve My Training	-.106	(.001)	-.052	(.120)
Run with Family/Friends	-.033	(.316)	-.027	(.414)
Have Fun	-.144	(.001)	-.043	(.200)
Raise Money for Charity	-.004	(.905)	.029	(.387)
Attempt Different Course	-.057	(.084)	-.018	(.592)
Stay in Shape	-.087	(.009)	-.062	(.064)

Note. ( $N = 906$ ).

prepare for Ironman Wisconsin 2010," and "enhance my triathlon training."

An example of Location-Set Race included, "I have always wanted to run the New York City Marathon." Examples of Health responses were, "to help control my weight," and "to fight off depression." An example of Injury-Physical Limitations was, "do it without cramping the last few miles." An example of the Challenge responses was, "to face the next challenge." Examples of the 50 State-Marathon Maniac responses were, "to be eligible to join the Marathon Maniacs club," and "run all 50 states." Examples

Table 21: Other Reasons to Run Another Marathon

	Responses	Percentage
Boston Marathon	29	31.6
Accomplishment-Enjoyment	15	8.3
Goal-Purpose	15	8.3
Ironman-Triathlon-Ultra	14	7.7
Location-Race	13	7.2
Health	12	6.6
Injury-Physical Limitations	11	6.1
Challenge	9	5.0
50 State-Marathon Maniac	8	4.4
Other	8	4.4
Finisher Feeling-Experience	7	3.8
Age Impact	4	2.2
Prove to Self	4	2.2
Because I Can	3	1.6
Competition	3	1.6
Confidence	3	1.6
Religion	3	1.6
Training	3	1.6
Completion	2	1.1
Glory	2	1.1
Motivate-Be an Example	2	1.1

Note.  $n = 180$  responses.

of Other responses were, "to promote hand cycling and inclusion for people in wheelchairs," "to run a whole marathon barefoot," and "honor a soldier serving in Afghanistan." Examples of Finisher Feeling-Experience were, "I love the adrenaline rush close to and at the finish line," and "I have never felt such a high as finishing a marathon and I can't wait to experience that feeling again."

An example of an Age Impact response was, "to feel more alive in mid life." An example of Prove to Self was, "Prove to myself that I can do not just one, but two." An example of Because I Can was, "Because I can." An example of a Competition response was, "just for the sake of competition against myself and others." An example of Confidence was, "to continue to boost my self confidence." An example of Religion was, "to celebrate 50 years of being an Atheist."

An example of a Training response was, "to test my conditioning from my last event." An example of a Completion response was, "to have done more than one marathon." A Glory example was, "the glory and bragging rights." An example of a Motivate-Be An Example response was, "motivate others and get them to join in."

Gender differences were evaluated for reasons to run another marathon (see Tables 22 and 23). Females cited as main reasons, lowering their finish times, incorporating their race as part of a vacation weekend, and improving training, whereas males overwhelmingly cited to lower their finish time. A t-test was also conducted for gender and reasons for running another marathon. Significant differences were found between females and males in their responses to lower my finish time ( $p = .004$ ), to raise money for charity ( $p = .002$ ), to run with family or friends ( $p = .012$ ), to include the race as part of a vacation weekend ( $p = .001$ ), to attempt a different course ( $p = .050$ ) and to improve upon training ( $p = .012$ ). No significant differences were noted with to have fun or to stay in shape.

Charity versus non charity runner differences to complete another marathon were also evaluated. A frequency count was run to evaluate the differences in deciding to run another marathon (see Tables 24 and 25). Charity and non charity runners alike, cited to lower my finish time and the race as part of a vacation weekend as the two main reasons to run an additional marathon. A Pearson Chi-square analysis was also conducted to find any significant differences between runner type and reasons for running

Table 22: Female Reasons to Run Another Marathon Based Upon Running One Marathon

	A Reason	Not A Reason
Lower Finish Time	471 (79.3%)	123 (20.7%)
Vacation Weekend	464 (78.1%)	130 (21.9%)
Improve My Training	402 (67.7%)	192 (32.3%)
Run with Family/Friends	282 (47.5%)	312 (52.5%)
Have Fun	241 (40.6%)	353 (59.4%)
Raise Money for Charity	233 (39.2%)	361 (60.8%)
Attempt Different Course	109 (18.4%)	485 (81.6%)
Stay in Shape	98 (16.5%)	496 (83.5%)

Note.  $n = 594$ .

Table 23: Male Reasons to Run Another Marathon Based Upon Running One Marathon

	A Reason	Not A Reason
Lower Finish Time	409 (85.4%)	70 (14.6%)
Vacation Weekend	327 (68.3%)	152 (31.7%)
Improve My Training	285 (59.5%)	194 (40.5%)
Run with Family/Friends	198 (41.3%)	281 (58.7%)
Have Fun	187 (39.0%)	292 (61.0%)
Raise Money for Charity	135 (28.2%)	344 (71.8%)
Attempt Different Course	68 (14.2%)	411 (85.8%)
Stay in Shape	57 (11.9%)	422 (88.1%)

Note.  $n = 479$ .

another marathon. Significance was found in runners running another marathon to stay in shape ( $p = .007$ ), to have fun ( $p = .001$ ), to attempt a different course ( $p = .001$ ), for a vacation weekend ( $p = .002$ ), to improve upon training ( $p = .001$ ). No significance was found for the other reasons.

#### Discussion of Research Questions

RQ1. The first research question looked at newbie marathon participants' reasons for running a marathon. The MOMS was used to determine participant reasoning for training and running their initial marathon. In overall reports on the MOMS, participants indicated personal goal achievement (4.74), self-esteem (4.50), and health orientations (4.40) as the three highest reasons in deciding to run a marathon. In comparison to Masters et al.'s (1993) development study of the MOMS, the responses for the current study were similar in ranking. In the Masters and Ogles (1995) study on rookie marathon runners ( $N = 472$ ), the participants in their study listed health orientation as their primary reason, followed by self-esteem, and personal goal achievement (see Table 26). Although the responses from all three studies were similar, overall variation in responses and means could be attributed to the differences in the sample of the research

Table 24: Charity Runner Reasons to Run Another Marathon Based Upon Running One Marathon

	A Reason	Not A Reason
Lower Finish Time	186 (83.8%)	36 (16.2%)
Vacation Weekend	175 (78.8%)	47 (21.2%)
Improve My Training	140 (63.1%)	82 (36.9%)
Run with Family/Friends	100 (45.0%)	122 (55.0%)
Raise Money for Charity	81 (36.5%)	141 (63.5%)
Have Fun	77 (34.7%)	145 (65.3%)
Stay in Shape	69 (31.1%)	153 (68.9%)
Attempt Different Course	36 (16.2%)	186 (83.8%)

Note.  $n = 222$ .

Table 25: Non Charity Runners Reasons to Run Another Marathon Based Upon Running One Marathon

	A Reason	Not A Reason
Lower Finish Time	565 (82.6%)	119 (17.4%)
Vacation Weekend	494 (72.2%)	190 (27.8%)
Improve My Training	430 (62.9%)	254 (37.1%)
Run with Family/Friends	299 (43.7%)	385 (56.3%)
Have Fun	271 (39.6%)	413 (60.4%)
Raise Money for Charity	235 (34.4%)	449 (65.6%)
Attempt Different Course	99 (14.5%)	585 (85.5%)
Stay in Shape	64 (9.4%)	620 (90.6%)

Note.  $n = 684$ .

Table 26: Means and Standard Deviations for MOMS Subscales Study Comparisons

Subscale	Current Study	Masters & Ogles	Masters, Ogles, & Jolton
Personal Goal Achievement	4.74 (1.20)	4.42 (1.30)	4.91 (1.25)
Self-Esteem	4.50 (1.37)	4.58 (1.44)	4.75 (1.33)
Health Orientation	4.40 (1.38)	4.64 (1.52)	4.52 (1.60)
Weight Concern	3.85 (1.67)	4.01 (1.81)	3.38 (1.66)
Affiliation	3.24 (1.46)	2.42 (1.30)	3.26 (1.39)
Recognition	3.19 (1.54)	2.95 (1.51)	3.06 (1.48)
Life Meaning	3.07 (1.51)	2.90 (1.56)	3.26 (1.54)
Psychological Coping	3.02 (1.45)	3.11 (1.53)	3.14 (1.56)
Competition	2.37 (1.33)	2.14 (1.27)	2.91 (1.49)

Note. Masters & Ogles (1995); Masters et al. (1993).

participants. In the Masters et al. (1993) study, 84% of the overall respondents were male, and in the Masters and Ogles (1995) study over 80% were also male. The current study had a higher female response rate, as well as a larger sample of runners. These attributes could possibly explain the differences in ranking for the top three reasons in deciding to run their first marathon for participants in the current study.

In terms of gender differences and the MOMS, males had higher mean values for competition and personal goal achievement. Females had higher mean values for affiliation, health orientation, life meaning,

psychological coping, self-esteem, recognition, and weight concern. These outcomes could be attributed to how each gender views marathoning as a reason to train, what outcome they are trying to reach by running a marathon, as well as how each gender perceives physical activity, not just marathoning, as a whole. Further research needs to evaluate the differences in why each gender highlights different reasons to train for a marathon and the impact it has on the sport.

In terms of charity versus non charity runners and the MOMS, the findings from the current study reflect similar rank outcomes to Havenar and Lochbaum's (2007) study on first time marathon charity runners (see Table 27). In the Havenar and Lochbaum (2007) study, charity runners had higher means for health orientation and placed more emphasis on weight concern. Charity runners for the current study had higher means for personal goal achievement, self-esteem, life meaning, affiliation, recognition, psychological coping, and competition. These differences may be attributed to the respondents for each study, with Havenar and Lochbaum's (2007) study only including 31 participants versus the 222 charity runners for the current study. The current study was also able to draw charity runners from multiple charities or

Table 27: Charity Runner Means and Standard Deviations for MOMS Subscales Study Comparisons

Subscale	Current Study	Havenar & Lochbaum
Personal Goal Achievement	4.69 (1.17)	4.16 (1.37)
Self-Esteem	4.65 (1.32)	4.35 (1.62)
Health Orientation	4.51 (1.32)	5.32 (1.38)
Weight Concern	4.07 (1.56)	4.32 (1.72)
Affiliation	3.41 (1.38)	2.52 (1.11)
Recognition	3.24 (1.54)	2.14 (1.21)
Life Meaning	3.17 (1.49)	3.05 (1.51)
Psychological Coping	3.12 (1.45)	2.90 (1.73)
Competition	2.34 (1.26)	1.73 (1.05)

Note. Havenar and Lochbaum (2007).

foundations. Havenar and Lochbaum's study only included participants from one pre-selected charity. The variation in responses may represent the differences in training programs and emphasis for each charity.

RQ2. The second research question further looked at intent of completing another marathon. In terms of overall number of races completed and time frame for intent to run another marathon, 73.6% of first time marathoners planned to run another marathon within the next six months or next

year, and 16.0% may someday run another marathon, but are not sure or do not plan on running another marathon. In comparison to Clough, Shepherd, et al.'s (1989) future intention findings, 90% of their participants intended to run a marathon within the next 12 months and 1% would stop running altogether. These responses were based upon all marathon finishers, not just first time runners, and the study had a larger male sample population. In the current study, a greater number of responses, a greater number of female participants, and the inclusion of charity runners may account for the differences in outcomes.

A sub-research question focused on the intent to run another marathon as a function of gender. For female participants who had completed one race, 354 (69.8%) planned to run another marathon within the next six months (33.1%) or year (36.7%), and 85 (16.7%) were not sure (11.2%) or did not plan on running another marathon (5.5%). Of the male participants who had completed one race, 313 (78.5%) planned to run another marathon within the next six months (40.4%) or year (38.1%), and 60 (15%) were not sure (10.5%) or did not plan on running another marathon (4.5%). With approximately 70% of females and 79% of males indicating intent to run another marathon within the next six months or year, further research needs to explore

gender differences of adherence and marathoning, as well as the 16% and 15% respectively who were unsure or were not planning on running another marathon.

A second sub-research question on charity and non charity runners revealed of the charity runner participants who had completed one race, 155 (69.8%) planned to run another marathon within the next six months (31.5%) or year (38.3%), and 40 (18%) were not sure (11.7%) or did not plan on running another marathon (6.3%). Of the non charity runner participants who had completed one race, 512 (74.9%) planned to run another marathon within the next six months (37.9%) or year (37%), and 105 (15.4%) were not sure (10.7%) or did not plan on running another marathon (4.7%). Currently the research is limited on charity runners' intent to run another marathon. With charity runners having a higher not sure or discontinuation rate (18%) versus non charity runners (15.4%), continued evaluation needs to occur in order to determine if charity runners are transitioning into shorter distances, such as a half-marathon or 5K, or if they chose to run one marathon specifically to benefit a cause and then discontinue running altogether.

RQ3. Frequency counts revealed the overall reasons to run another marathon were to lower my finish time (82.9%),

to include the race as part of a vacation weekend (73.8%), and to improve upon my training (62.9%). The three least cited reasons were to raise money for charity (34.9%), to attempt a different course (14.9%), and to stay in shape (14.7%). The first two of the top three responses for the current study echoed the findings in the Summers et al. (1982) and Masters and Ogles (1995) studies with a lower finish time as a reason to compete in another marathon, as well as the Ogles and Masters (2003) study to improve upon their performance.

Participants were also able to enter their own reasons for running a marathon. Response groupings such as accomplishment, challenge, health, goal, and enjoyment were similar to other study findings (Curtis & McTeer, 1991; Ogles & Masters, 2000; Summers et al., 1983). Additional reasons were to train for Ironman-ultra-triathlon races, run a race in all 50 states and become a member of the Marathon Maniacs Club, and the highest cited reason to qualify for the Boston Marathon. It would be interesting to determine how some of the other additional reasons, such as to run a marathon in all 50 states, impact reasons for completing another marathon.

In evaluating gender differences and reasons to run another marathon, both females and males cited their top

three reasons were to lower my finish time, to include the race as part of a vacation weekend, and to improve upon my training. Although the males overwhelmingly had a higher reason of to lower my finish time (87.0%) versus female respondents (79.7%), females had higher responses to include the race as part of a vacation weekend (78.3%) versus males (68.2%), and to improve upon my training (66.5%) versus (58.4%) males. Interestingly, both genders had congruency in their hierarchy rankings on their top six reasons to run a marathon.

Charity and non charity runner motives to complete another marathon were evaluated. Both runner types were congruent in their top three reasons of to lower my finish time, to include the race as part of a vacation weekend, and to improve upon my training. Charity runners cited 83.3% of the time to lower my finish time versus non charity runners response of 82.6%. Charity runners also revealed 78.8% would include their next marathon as part of a vacation weekend versus 72.2% of non charity runners. Charity runners indicated that 63.1% would include to improve upon my training as a reason to run another marathon versus 62.9% of non charity runners. The two lowest ranking reasons by both runner types were to stay in shape and to attempt a different course.

## General Discussion

The main purpose of this study was to examine race motivators for newbie marathoners and their likelihood of adherence to the sport of marathoning. In order to see how the MOMS questions ranked in comparison to mean responses, a Rotated Component Matrix factor analysis with Kaiser Normalization was conducted to determine factor loadings for each subscale question. Ten components were identified. The first component contained responses of have time alone with the world, get away from it all, time alone to sort things out, concentrate on my thoughts, solve problems, blow off steam, feel at peace with the world, and feel a sense of belonging in nature. All of these responses fit under the psychological motives main grouping and included responses from the life meaning (three responses) and psychological coping subscales (five responses) (see Appendix I and see Appendix C for MOMS Scale question listings).

The second component also fit under the psychological motives main grouping and contained four life meaning subscale questions, two self-esteem subscale questions, and one psychological coping subscale question. The third component contained all recognition subscale questions, six, from the main social motives scale area.

In comparison with the Masters et al. (1993) development study of the MOMS factor analysis, their rank order was: first, psychological motives of psychological coping, self-esteem, life meaning; followed, second, by physical health motives of health orientation and weight concern; followed, third, by social motives of affiliation and recognition; and finally, achievement motives of competition and personal goal achievement. The current study is congruent with the Masters et al. (1993) study's top three component matrix rankings with the exception of recognition. The marathon population of today may be using recognition as more of a motivator to run a marathon. This could easily bode with motivation of charity runners and their desire to run to garner more support and awareness for a set cause or foundation, as well as the need for all first time runners to have their training and accomplishment of completing a marathon validated by others around them. Completing a marathon is not an easy task, and perhaps today's marathon population feels they deserve to have greater acknowledgement of what they completed.

Also of interest, the 10th component contained the affiliation question of to participate with family and friends. Of the overall responses in deciding a reason to run another marathon, participants listed to run with

family or friends as a fourth reason to complete an additional marathon in overall, female, male, charity, and non charity runner reasons to run an additional race. Perhaps this could be attributed to compartmentalized questions that related to runners' reasons to complete another race making the reason of running with a family member or a friend more visible and an added justification.

In looking at the current study's adherence for marathoning, a few areas need to be further evaluated. Based upon the runners who had completed only one marathon, 5.1% did not intend to complete another marathon. An overarching question is where do these participants go? Will they continue to be physically active, but scale back and take on smaller distances, such as a 5K, or are they using the marathon as a springboard for more physically demanding sport activities, such as an ultramarathon or Ironman competition? Do they transfer to a different sport context altogether or do they become sedentary? Unfortunately a limitation with the current study was that no question was asked of those who do not plan on running another marathon what their next step is in terms of physical activity endeavors. It would be an interesting follow-up to track what activities marathoners transfer to once they are finished competing the 26.2 mile distance.

Question three looked at reasons for running additional marathons. The overall reasons to run an additional marathon were to lower my finish time (82.9%), to include the race as part of a vacation weekend (73.8%), and to improve upon my training (62.9%). To lower my finish time, as well as to improve upon training were also supported in other research studies (Masters & Ogles, 1995; Summers et al., 1982, 1983). With the changing demographics of the marathon running population, the current study was able to find that first time marathon runners would be enticed to complete another marathon as part of a vacation weekend. In particular, 79.7% of females cited incorporating a vacation as a reason to complete another marathon, as well as 78.8% of charity runners.

Perhaps an area that has not been fully tapped into is the notion of marathoning and incorporating a vacation. In the July 2009 edition of Runners World magazine, an advertisement with a big tag line of "Finally, a running vacation!" (Runners World, p. 104) draws attention to those interested in running as part of a Caribbean Islands Marathon Cruise, or a Great Alaskan Marathon Cruise. Other marathon running vacation companies, such as Marathon Tours and Travel, Run Amok, or Irish Running Tours, provides the

opportunity to run marathons in Kenya, Florence, Costa Rica, Dublin, and many other picturesque locales. In addition to the marathon, runners are treated to tours or informational guides to the scenic location and a greater understanding of the country or area they are visiting.

The cost for some of these trips can be quite expensive. For instance, the Kenya trip is \$3,820 per person double occupancy, plus additional money for guaranteed entry fee, travel visas, and park fees. Those wishing to stay longer or upgrade accommodations may do so at the cost of \$1,670 and \$300 respectively (Marathon Travel & Tours, 2009). Even with travel within the United States, it is not uncommon for runners to spend a few extra days taking in the cities' sites and relaxing after completing a race. This has important ramifications for race directors in deciding how to market their marathons, as well as what types of runners may consider incorporating a vacation themed race weekend.

In evaluation of the sub-question related to gender differences, the MOMS revealed that males had higher means for personal goal achievement and competition based, and females were more focused on health orientation, weight concern, recognition, affiliation, psychological coping, life meaning, and self-esteem. The differences could be

attributed to the fact that the male participants sampled were more competition based, whereas the females sampled may want more from the marathon experience than a competition outcome. Runners of both genders are often proud to complete a marathon, but anecdotally male finishers are often the ones asking other males, "what was your finish time?" or "how did you place overall?" Males seem to validate themselves more as a runner based upon how well they compare against their fellow runners that day. Were they faster versus a friend, colleague, or training partner? Will they have bragging rights until the next race? This may add to why males indicated greater importance for competition versus females.

In terms of having completed one marathon and planning to run another marathon, 78.5% of males intend to run another marathon within the next six months (40.4%) or within the next year (38.1%), as compared to 69.8% of females who intended to run another marathon within the next six months (33.1%) or within the next year (36.7%). Fifteen percent of male runners may run another marathon some day, but are not sure (10.5%) or are not planning on running another marathon (4.5%), as compared to 16.7% of the females who may run another marathon some day but are not sure (11.2%) or are not planning on running another

marathon (5.5%). Further evaluation needs to be completed as to why females have a higher discontinuation rate as compared to males, as well as the approximate 10% difference in intent between male and female runners for planning to run another marathon.

In evaluating gender differences and reasons to run another marathon, both genders had the same hierarchy ranking responses for the top six listed reasons. As stated before, perhaps having the responses compartmentalized did not allow for greater variations in the responses. In terms of responses, though, males overwhelmingly did indicate that to lower my finish time was their main reason to run another marathon. This relates to the males' high response rate on the MOMS for competition.

As for the second sub-question of evaluating differences of charity and non charity runners, the MOMS revealed significant difference on runner type for weight control. Further exploration needs to occur to decipher if the MOMS is sensitive enough of a measure in evaluating charity runners' reasoning for completing an initial marathon. In addition, charity runners had the highest discontinuation percentage (18%) of response for someday but not sure (11.7%) and do not plan on running another

marathon (6.3%) out of any group (overall, female, male, and non charity runner) in their plan of running another marathon. This may be attributed to the low number of charity runners ( $n = 222$ ), and the fact that charity runners tend to complete a race more for a purpose, such as to raise money for a cause or greater good.

#### Implications for Researchers

Based upon the study outcomes, a few suggestions are noted to researchers interested in this field. The first concern is participant recruitment. For the current study, a higher percentage of females completed the research survey, which is not representative of the overall gender demographics of marathon runners (Marathon Guide, 2007). This could possibly be attributed to the bias of the participants towards the author. As a female, the author noted in her recruitment posting that she was also a marathon runner, posted the listing under female runner web forum areas, and received outreach research and support from a number of female race directors, running club presidents, and charity runners, as well as female based events open to assisting with the research study. This may have created a larger female participant impact for this particular study and may possibly not be replicated with similar studies. Future studies may want to take these

factors into account when recruiting participants and how it can shape the demographic component of the study.

A second area to further explore is the component of charity runners and higher recruitment rates. The author noted some charities were willing to pass along the survey information, but other charities could not do so due to confidentiality issues and identification of runners affiliated with their charity. Perhaps having a greater connection with charity based runners would ease the recruitment process, as well as allow gaining access to charities that will not allow outside surveying or research endeavors.

Finally, the researcher found the ease of an online survey exceptionally helpful in terms of participant recruitment and data collection. With the online survey, participants were recruited from races all over the United States and were not limited to a small geographical area. The online survey provided the opportunity to draw from participants who had completed both small and large number based races, as well as races that took part in varying times throughout the year. This may have had greater ramifications on participant feedback and insight of their marathon experience.

### Implications for Practitioners

Based upon the study outcomes, a few suggestions are noted to practitioners interested in this field. The participants listed their top three reasons to run another marathon, with to improve upon training as their third reason to run again. Currently a number of training programs cater to the first time marathon runner, but what about the individuals who are preparing for their second marathon? Is there a niche for training programs specifically targeted at individuals who are planning on running their second race? These runners have a greater understanding of the marathon process, how their body reacts to the training and overall distance, and could incorporate technique and strategy based upon their initial experience of what went well and what they would like to improve upon or change. A group training principle would allow those who completed their first marathon the opportunity to grow based upon the initial experience, have social interactions with other new non-newbie status runners, allow the opportunity to share their first marathon story with others who can easily relate to the process, while at the same time still working on achieving a better training goal.

A second area to further explore is based upon the accomplishment of the newbie marathon runner. When given the opportunity to list an aspect that would be a reason to run another marathon, some participants noted the accomplishment they felt by running a marathon via wanting to "accomplish something great one more time." Practitioners may want to tap into this feeling of accomplishment, as a driving and motivating force for wanting to continue marathoning and the positive experience they gain from running. For an athlete who is looking for an added dimension of training, an imagery video with the focus on the feeling of accomplishment at the end of a race may assist in keeping the runner's enthusiasm high throughout a long training period, as well as help to relieve the feeling that crossing the finish line can bring to an individual.

A third area to evaluate is the difference in training programs for charity runners. Some charities, such as Team In Training, have a regimented training time frame, a set workout program, and assist with training leaders throughout the process. Other charities are much smaller and do not have the capabilities to provide such extensive training programs. Further exploration needs to evaluate how the type of charity runner training program impacts the

runners' overall adherence to the sport of marathoning, as well as if the training programs help to retain more charity runners to continue to complete races on that charity's behalf. With over 31% of charity runners listing to stay in shape as a reason to run another marathon, this may impact how the program is created and the overall emphasis on life-long fitness and well-being.

Finally, practitioners need to be aware that female and male marathoners' reasons to run another marathon vary considerably. For the current study, males mainly emphasized to lower their finish time. Females on the other hand, in addition to lowering their finish time, cited to improve upon training and use the race as part of a vacation weekend. This could have further ramifications in terms of motivators for training, reasons for picking a particular race location, and adherence and enjoyment within the sport.

## CHAPTER FIVE

### Summary, Conclusions, and Recommendations for Future Research

The purpose of this study was to examine race motivators for newbie marathoners and their likelihood of adherence to the sport of marathoning. The researcher also examined newbie marathon runners' reasons to run a marathon, intent to complete another marathon, and reasons to run an additional marathon. Additionally, sub-research questions further evaluated gender and charity versus non charity runner differences for running a marathon.

#### Summary

A total of 1,073 overall first time marathon participants, including 906 participants who completed only one marathon within the past year (see Chapter 4 for detailed demographics), were respondents in this study. Participants were chosen on the basis of their willingness to complete an online survey. The survey consisted of demographic questions based upon gender, age, ethnicity, education level, charity runner, number of marathons completed, date of first marathon, finish time, plan to run

another marathon, certainty of running another marathon, and reasons to run another marathon (see Appendix B). Also included was the Motivation of Marathoners Scales (MOMS) (Masters et al., 1993) (see Appendix C), and the opportunity to provide contact information for potential follow-up questioning (see Appendix D). Data were analyzed based on the 906 runners who had completed only one marathon.

Through a frequency analysis of the MOMS, mean values revealed that participants utilized primarily personal goal achievement (4.74), followed by self-esteem (4.50), and health orientation (4.40) as reasons for training for and running a marathon. In terms of gender comparisons and the MOMS, males had higher means for personal goal achievement (4.81) and competition (2.59), and females had higher means on the remaining seven categories. A t-test also revealed significance ( $p = 0.001$ ) between female and male response means on seven of the MOMS subscales. A significant difference ( $p = .023$ ) was found between charity and non charity runners with the MOMS on weight concern.

Utilizing a Pearson chi-square, significance was revealed between females and males intended time frame to run another marathon ( $p = 0.002$ ). No significant difference was found between charity and non charity

runners in terms the intended time frame to run another marathon ( $p = .451$ ). The results from an ANOVA were also significant ( $p = 0.001$ ) based upon time frame chosen and certainty of running their next marathon.

Based upon a frequency count, the top three reasons to run another marathon were to lower my finish time (82.9%), to include the race as part of a vacation weekend (73.8%), and to improve upon my training (62.9%). A t-test displayed significant differences between females and males and their chosen reasons for running another marathon. Differences were significant for to lower my finish time ( $p = .004$ ), to attempt a different course ( $p = .050$ ), to raise money for charity ( $p = .002$ ), to run with family or friends ( $p = .012$ ), to include the race as part of a vacation weekend ( $p = .001$ ), and to improve upon my training ( $p = .012$ ) in terms of reasons to run another marathon. A Pearson chi-square also revealed significance between charity and non charity runners in choosing to run another marathon to stay in shape ( $p = .007$ ), for fun ( $p = .001$ ), to attempt a different course ( $p = .001$ ), as part of a vacation weekend ( $p = .002$ ), and to improve upon training ( $p = .001$ ). Based upon input from the 'other' category, 21 additional categories were created for reasons to run

another marathon, including Boston Marathon, accomplishment, and prove to self.

Overall, this study provided greater insight into the reasons why first time marathoners chose to train for and run a marathon, their intent and time frame to run an additional marathon, and their reasons to run another marathon. Additionally, gender differences and runner type, charity versus non charity, were further explored as well as their motives for running marathons.

### Conclusions

The following conclusions were made according to the findings from the current study. Each conclusion was derived from the research questions 1 through 3 and the two additional sub-questions.

1. Overall, the main reasons to train for and to choose to run a marathon were for personal goal achievement, self-esteem, and health orientation.

2. In terms of gender differences on reasons to train for and run a marathon, males had significant higher mean values in personal goal achievement and competition. Females had significant higher mean values in self-esteem, health orientation, weight concern, affiliation, recognition, life meaning, and psychological coping.

3. Weight concern was significant difference found between charity and non charity runners in reasons to train for and run their first marathon.

4. Of the overall participants, 36.3% planned to run another marathon within the next six months, and 37.3% plan on running another marathon with the next year.

5. Significance was found for females and males in relation to the time frame to run another marathon (six months, one year, five years, someday, but not sure, or do not plan to run another marathon) and the intent to run their next marathon based upon the certainty in the time frame they had indicated to run another marathon.

6. No significance was found between charity and non charity runners with the time frame to run another marathon (six months, one year, five years, someday, but not sure, or do not plan to run another marathon) and the intent to run their next marathon based upon the time frame they had indicated.

7. Overall, the top three reasons to run another marathon were to lower my finish time, to include the race as part of a vacation weekend, and to improve upon my finish time.

8. For females, the main reasons to run another marathon were to lower their finish times, to incorporate

the race as part of a vacation weekend, and to improve upon training. Males, however, overwhelmingly cited their reason to run another marathon was to lower their finish time. Significance was found between females and male reasons to run another marathon.

9. Charity and non charity runners both chose to lower my finish time and to include the race as part of a vacation weekend as reasons to run another marathon. Significance was found between charity and non charity runners' reasons to run another marathon.

#### Recommendations for Future Research

The following recommendations were derived from the present study for future research:

1. Each individual is unique and may have multiple reasons for running a marathon. Allowing only set answers or choices as to why they chose to run a marathon may not fully cover their reasoning or intent for marathoning. A future recommendation would be to include a mixed method data collection, which would incorporate more qualitative based answers. This may assist in generating a greater variety of reasons to run a marathon, as well as add to the current research literature.

2. Longitudinal tracking of the participants would assist in determining how many of the participants did

indeed run another marathon within the time frame they indicated, as well as tracking to see if motives change over time in relation to the number of marathons run.

3. Further exploration needs to be completed with charity runners and their reasons for running a marathon. A scale more directed towards charity runner motives can be developed to have a greater understanding of their reasons to be affiliated and involved with the sport of marathoning.

4. Further evaluation needs to be completed on gender differences and reasons for marathoning. With most studies incorporating a higher male participation rate, future studies need to continue to track females' reasons for participating in the sport, and the impact it has on the sport as a whole.

5. Future research needs to evaluate motives for participants with a disability, such as those who are visually impaired or use a hand cycle, and marathoning.

6. Further evaluation of health and exercise adherence would be beneficial in comparing physiological differences of marathon adherers versus non adherers. This could track differences through various health screening protocols over time and the impact marathoning has on overall health and well-being.

## REFERENCES

- Adams, J. M. (2006). Swing time. *Health*, 20 (5), 60.
- Allison, D. (2007). *A better year for the marathon*. Retrieved March 5, 2008, [http://www.active.com/running/Articles/A\\_Better\\_Year\\_for\\_the\\_Marathon.htm](http://www.active.com/running/Articles/A_Better_Year_for_the_Marathon.htm).
- American College of Sports Medicine (2007). *Physical activity and public health guidelines*. Retrieved July 21, 2008, [http://www.acsm.org/AM/Template.cfm?Section=Home\\_Page](http://www.acsm.org/AM/Template.cfm?Section=Home_Page).
- Armstrong, K. (2004). The second time around. *Runner's World*, 39 (11), 58.
- Biddle, S. J. H., & Mutrie, N. (2001). *Psychology of physical activity: Determinants, well-being, and interventions*. London: Routledge.
- Buster busted: The 'oldest London marathon runner' isn't 101... he's only 94*. (2008). Retrieved August 8, 2008, <http://www.dailymail.co.uk/news/article-559574/Buster-busted-The-oldest-London-Marathon-runner-isnt-101--hes-ONLY-94.html>.
- Catalano, J. (2005). One adult's development as a first-year kayaker. *American Whitewater*, 46 (4), 14.
- Clough, P. J., Shepherd, J., & Maughan, R. J. (1989). Marathon finishers and pre-race drop-outs. *British Journal of Sports Medicine*, 23, 97-101.
- Cooper, K. H. (1968). *Aerobics*. New York: Bantam Books.
- Cooper, P. (1998). *The American marathon*. Syracuse, NY: University Press.
- Curtis, J., & McTeer, W. (1981, January). The motivation for running. *Canadian Runner*, 18-19.
- Curtis, S. (Producer), & Schwimmer, D. (Director). (2008). *Run, fat boy, run*. [Motion picture]. United States: Picturehouse.
- Finally, a running vacation. (2009). *Runners World*, 44 (7), 104.

- Fiske, B. (2006). Newbie no more. *Bicycling*, 47 (1), 82.
- Galloway, J. (2001). *Marathon you can do it!* Bolinas, CA: Shelter Publications.
- Harris, M. J. (Producer), Twist, G. (Producer), & Dunham, J. (Producer/Director). (2008). *Spirit of the marathon*. [Motion picture]. United States: Land of the Gods.
- Havenar, J., & Lochbaum, M. (2007). Differences in participation motives of first-time marathon finishers and pre-race dropouts. *Journal of Sport Behavior*, 30, 270-279.
- Health Education Authority. (1995). Becoming more active: A guide for health professionals. In S. J. H. Biddle & N. Mutrie (Eds.), *Psychology of physical activity: Determinants, well-being, and interventions* (p. 263). London: Routledge.
- Henderson, J. (Ed.). (1978). *The complete marathoner*. Mountain View, CA: World Publications.
- Hopkins, J. (1966). *The marathon*. London: Stanley Paul.
- ING New York City Marathon. (2007). *Demographics on Finishers*. Retrieved April 21, 2008, <http://www.nycmarathon.org/results/ma7/ma7agetot.htm>.
- ING New York City Marathon. (2008). *Demographics on Finishers*. Retrieved November 3, 2008, <http://www.nycmarathon.org/results/ma8/ma8agetot.htm>.
- Johnsgard, K. (1985). The motivation of the long distance runner: I. *Journal of Sports Medicine*, 25, 135-139.
- Katrina victims' marathon man, Sam Thompson finishes 51 in 50 days to raise money for them.* (2006). Retrieved on September 9, 2008, <http://www.cbsnews.com/stories/2006/08/21/earlyshow/main1916520.shtml>.
- Kolata, G. (2008). *Cheating starts before the race does*. Retrieved on September 8, 2008, <http://www.nytimes.com/2008/04/24/health/nutrition/24Best.html?emc=etal>.

- LaSalle Bank Chicago Marathon. (2006). *2006 LaSalle Bank Chicago marathon media guide*. Retrieved August 10, 2008, [http://www.chicagomarathon.com/CMS400Min/uploadedFiles/Chicago\\_Marathon/Press\\_Center/mediaguide1.pdf](http://www.chicagomarathon.com/CMS400Min/uploadedFiles/Chicago_Marathon/Press_Center/mediaguide1.pdf).
- Lebow, F., & Averbuch, G. (1992). *The New York road runners club complete book of running*. New York: Random House.
- Let's run a marathon. (2004, April). *Electronic Gaming Monthly*, 40.
- Loughren, E. A. (2009). *Perceptions of the marathon and marathon runners*. Manuscript in preparation.
- Marathon Guide. (2008). *USA marathoning: 2007 overview*. Retrieved April 10, 2008, <http://www.marathonguide.com/features/Articles/2007RecapOverview.cfm>.
- Marathon Travel & Tours. (2009). Retrieved June 26, 2009, <http://www.marathontours.com>.
- Marcus, B. H., & Forsyth, L. L. (2003). *Motivating people to be physically active, a physical activity intervention series*. Champaign, IL: Human Kinetics.
- Marcus, B. H., Selby, V. C., Niaura, R. S., & Rossi, J. S. (1992). Self-efficacy and the stages of exercise behavior change. *Research Quarterly for Exercise and Sport*, 63, 60-66.
- Masters, K. S., & Ogles, B. M. (1995). An investigation of the different motivations of marathon runners with varying degrees of experience. *Journal of Sport Behavior*, 18 (1), 69-79.
- Masters, K. S., Ogles, B. M., & Jolton, J. A. (1993). The development of an instrument to measure motivation for marathon running: the motivations of marathoners scales (MOMS). *Research Quarterly in Exercise and Sport*, 64, 134-143.
- Monahan, I. (2008). *Original rock 'n' roll marathon begins new decade in San Diego*. Retrieved May 27, 2008, [http://www.rnrmarathon.com/press/RnR\\_08\\_Announcement.html](http://www.rnrmarathon.com/press/RnR_08_Announcement.html).
- Murphy, K. R., & Myors, B. (2004). *Statistical power analysis* (2<sup>nd</sup> ed.) Mahwah, NJ: Lawrence Erlbaum.

- Newbie. (2008). Retrieved on September 9, 2008, <http://onlinedictionary.datasegment.com/word/newbie>.
- Ogles, B. M., & Masters, K. S. (2000). Older vs. younger adult male marathon runners: Participative motives and training habits. *Journal of Sport Behavior, 23*, 130-143.
- Ogles, B. M., & Masters, K. S. (2003). A typology of marathon runners based on cluster analysis of motivations. *Journal of Sport Behavior, 26*, 69-75.
- Pantall, T. E. (2007). How I learned to fly: Reflections of a newbie, or my perfect vacation in Utah. *Hang Gliding, 37* (3), 34.
- Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology, 51*, 390-395.
- Reischer, E. L. (2001). Running to the moon: The articulation and construction of self in marathon runners. *Anthropology of Consciousness, 12* (2), 19-34.
- Reynolds, G. (2004). See Jane run. *Runner's World, 39* (11), 74-79.
- Ryan, S. A. (1994, April 4). Running like crazy: marathoners race to bizarre events—they plod across mountains, attract buzzards in desert; ready for a tundra trek? *Wall Street Journal* (Eastern Edition), A1.
- Sachs, M. L., & Loughren, E. A. (2008). Spirit of the marathon a review. *Marathon and Beyond, 12*, 15-17.
- Staudhammer, C. (2008). Accidental ultra: A first-timer's view into the ultrarunning world. *Ultrarunning, 28* (3), 78.
- Steffny, M. (1979). *Marathoning: A book*. Mountain View, CA: World Publications.
- Summers, J. J., Machin, V. J., & Sargent, G. I. (1983). Psychosocial factors related to marathon running. *Journal of Sport Psychology, 5*, 314-331.

Summers, J. J., Sargent, G. I., Levey, A. J., & Murray, K. D. (1982). Middle-aged, non-elite marathon runners: A profile. *Perceptual and Motor Skills*, 54, 963-969.

Switzer, K. (2007). *Marathon woman: Running the race to revolutionize women's sports*. New York: Carroll & Graf Publishers.

The 5-day marathon: Lloyd Scott ran the world's slowest marathon in a full diving suit. (2002). *Runner's World*, 37 (8), 17.

The Newbies. (2008). *Splash*, 16 (4), 28.

Willis, S. (2007). Novice and newbie on rough ground. *The Great Outdoors*, January, 96-99.

Zohlman, L. (2007). Testing the limits. *Triathlete*, 284, 132.

APPENDIX A  
CONSENT FORM

### Adherence of First Time Marathoners to the Sport of Marathoning

Researchers: Elizabeth Loughren and Michael Sachs, Department of Kinesiology, Temple University

The primary purpose of this research study is to examine motivations and the intent of first time marathoners for running another marathon (26.2 miles/42K, 195 meters). For this study, you will be asked to complete an online questionnaire regarding motivators for influencing your decision to run a marathon, and your potential intent to run another marathon. The questionnaire will take approximately 10-15 minutes to complete. All information you provide will remain confidential in terms of personally identifying information.

One benefit of participating in this study is that you will be able to assist in addressing research issues that are currently lacking in the area of motivators for marathon runners. A second benefit is determining the intent of a first time runner to run another marathon, and what factors shape this decision. The foreseeable risks or ill effects from participating in this study are minimal. Although the survey is posted on a secure website, as with any online site, one needs to be aware of a risk of a website breach or the possibility of a hacker accessing your responses.

For participation in this study you need to be 18 years of age or older.

Your participation in this study is completely voluntary and you are free to withdraw from the study at any time for any reason without penalty or prejudice from the researcher. Please feel free to ask any questions of the researchers before agreeing to participate in the study ('signing' the Consent Form) and beginning the study, and at any time during the study.

You understand that if you wish further information regarding your rights as a research subject, you may contact Richard Thom, Program Manager & Coordinator at the Office of the Vice President for Research at Temple University by phoning 215.707.8757.

Principal Researcher:  
Dr. Michael Sachs, Professor  
Department of Kinesiology  
Temple University  
Philadelphia, PA 19122 USA  
Telephone: 215.204.8718  
Email: [msachs@temple.edu](mailto:msachs@temple.edu)

Researcher:  
Elizabeth Loughren, Doctoral Student  
Department of Kinesiology  
Temple University  
Philadelphia, PA 19122 USA  
Telephone: 215.204.8718  
Email: [eloughren@temple.edu](mailto:eloughren@temple.edu)

**1. I agree to participate in this research project entitled “Adherence of First Time Marathoners to the Sport of Marathoning.” I understand that I can print out a copy of this Consent Form to keep for future reference.**

Yes

No

APPENDIX B  
DEMOGRAPHIC QUESTIONS

**1. What is your gender?**

Female

Male

**2. What is your age?****3. What is your ethnicity? (check all that apply)**

American Indian/Alaska Native

Asian

Black or African American

Hispanic or Latino

Native Hawaiian or Other Pacific Islander

White

Other

**4. What is your highest educational degree obtained?**

High School

Some College

College Degree (e.g., B.A., B.S., etc.)

Some Graduate school

Masters Degree (e.g., M.A., M.Ed., M.S, etc.)

Doctoral Degree (e.g., Ph.D., Ed.D., Psy.D., etc.)

Other (e.g., J.D., M.D., etc.)

**5. Have you run a marathon (26.2 miles/42K 195 meters) for charity?**

Yes

No

**6. How many marathons have you run?**

**7. What date did you run your first marathon?**

**8. What was the finish time of your first marathon? (Please use the format of hours, minutes, seconds. For example: 04:15:03)**

**9. When do you plan to run another marathon?**

Within the next six months

Within the next year

Within the next five years

I am hoping to run another marathon some day, but I am not sure

I do not plan on running another marathon

I have already run another marathon (please indicate date)

**10. Given your answer to question number 9 (except for those who have already run another full marathon), how certain are you about your answer?**

Level of Certainty

Not at all certain

Absolutely certain

•

**11. In deciding to run another marathon, what would be reasons to run again? (check all that apply)**

To lower my finishing time

To stay in shape

To have fun

To raise money for charity

To attempt a different course

To run with family or friends

To include the race as part of a vacation weekend

To improve upon my training

Other (please specify)

APPENDIX C

MOTIVATION OF MARATHONERS SCALES (MOMS)





APPENDIX D  
ADDITIONAL INFORMATION

**1. Congratulations on completing your marathon! We are interested in hearing how your next marathon goes. If you would like to be contacted for potential follow-ups, please provide your email address below.**

Thank you for taking the time to participate in our survey!

APPENDIX E  
FREQUENCIES AND PERCENTAGES OF RUNNERS AGE

## Appendix E. Frequencies and Percentages of Runner Age

Age	Overall	Female	Male
18	3 (3.0%)	2 (3.0%)	1 (2.0%)
19	7 (7.0%)	1 (2.0%)	6 (1.3%)
20	11 (1.0%)	6 (1.0%)	5 (1.0%)
21	19 (1.8%)	9 (1.5%)	10 (2.1%)
22	27 (2.5%)	13 (2.2%)	14 (2.9%)
23	32 (3.0%)	25 (4.2%)	7 (1.5%)
24	39 (3.6%)	27 (4.5%)	12 (2.5%)
25	52 (4.9%)	37 (6.2%)	15 (3.1%)
26	34 (3.2%)	21 (3.5%)	13 (2.7%)
27	50 (4.7%)	31 (5.2%)	19 (4.0%)
28	43 (4.0%)	27 (4.5%)	16 (3.3%)
29	42 (3.9%)	27 (4.5%)	15 (3.1%)
30	48 (4.5%)	29 (4.9%)	19 (4.0%)
31	36 (3.3%)	23 (3.9%)	13 (2.7%)
32	38 (3.5%)	22 (3.7%)	16 (3.3%)
33	24 (2.2%)	12 (2.0%)	12 (2.5%)
34	29 (2.7%)	13 (2.2%)	16 (3.3%)
35	38 (3.5%)	25 (4.2%)	13 (2.7%)
36	29 (2.7%)	11 (1.9%)	18 (3.8%)
37	45 (4.2%)	23 (3.9%)	22 (4.6%)
38	29 (2.7%)	17 (2.9%)	12 (2.5%)

39	30 (2.8%)	12 (2.0%)	18 (3.8%)
40	41 (3.8%)	21 (3.5%)	20 (4.2%)
41	26 (2.4%)	9 (1.5%)	17 (3.6%)
42	33 (3.1%)	23 (3.9%)	10 (2.1%)
43	36 (3.4%)	17 (2.9%)	19 (4.0%)
44	33 (3.1%)	17 (2.9%)	16 (3.3%)
45	20 (1.9%)	10 (1.7%)	10 (2.1%)
46	20 (1.9%)	9 (1.5%)	11 (2.3%)
47	27 (2.5%)	16 (2.7%)	11 (2.3%)
48	17 (1.6%)	10 (1.7%)	7 (1.5%)
49	29 (2.7%)	18 (3.0%)	11 (2.3%)
50	10 (0.9%)	4 (0.7%)	6 (1.3%)
51	15 (1.4%)	5 (0.8%)	10 (2.1%)
52	5 (0.5%)	2 (0.3%)	3 (0.6%)
53	8 (0.7%)	3 (0.5%)	5 (1.0%)
54	10 (0.9%)	3 (0.5%)	7 (1.5%)
55	3 (0.3%)	2 (0.3%)	1 (0.2%)
56	5 (0.5%)	3 (0.5%)	2 (0.4%)
57	5 (0.5%)	3 (0.5%)	2 (0.4%)
58	3 (0.3%)	0 (0.0%)	3 (0.6%)
59	1 (0.1%)	0 (0.0%)	1 (0.2%)
60	4 (0.4%)	2 (0.3%)	2 (0.4%)
61	3 (0.3%)	1 (0.2%)	2 (0.4%)
62	5 (0.2%)	0 (0.0%)	5 (1.0%)

64	1 (0.1%)	0 (0.0%)	1 (0.2%)
65	2 (0.2%)	1 (0.2%)	1 (0.2%)
66	2 (0.2%)	0 (0.0%)	2 (0.4%)
67	1 (0.1%)	0 (0.0%)	1 (0.2%)
68	1 (0.1%)	1 (0.2%)	0 (0.0%)
72	1 (0.1%)	1 (0.2%)	0 (0.0%)

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Note.  $n = 1072$ .

APPENDIX F  
OVERALL ETHNICITY DEMOGRAPHICS

## Appendix F. Overall Ethnicity Demographics

Ethnicity	Responses	Percentage
American Indian/Alaska Native	7	0.7
Asian	32	3.0
Black or African American	12	1.1
Hispanic or Latino	20	1.9
Native Hawaiian or Other Pacific Islander	1	0.1
White	975	91.0
Other	25	2.3

Note.  $N = 1072$ , one not reported.

APPENDIX G  
OVERALL EDUCATION DEMOGRAPHICS

## Appendix G. Overall Education Demographics

Education Level	Responses	Percentage
High School	36	3.4
Some College	143	13.3
College Degree	420	39.1
Some Graduate school	121	11.3
Masters Degree	258	24.0
Doctoral Degree	42	3.9
Other (J.D., M.D.)	53	4.9

Note.  $N = 1073$ .

APPENDIX H

FREQUENCIES AND PERCENTAGES OF RUNNER FINISH TIMES

## Appendix H. Frequencies and Percentages of Runner Finish Times

Finish Time	Frequency	Percentage
2:56	1	1.4
3:37	2	2.7
3:38	1	1.4
3:44	1	1.4
3:46	1	1.4
3:57	1	1.4
3:58	1	1.4
4:02	1	1.4
4:03	2	2.7
4:06	1	1.4
4:08	1	1.4
4:11	1	1.4
4:20	1	1.4
4:23	1	1.4
4:24	2	2.7
4:26	1	1.4
4:30	2	2.7
4:32	1	1.4
4:35	3	4.1
4:36	1	1.4
4:37	1	1.4

4:40	1	1.4
4:41	1	1.4
4:47	1	1.4
4:48	1	1.4
4:50	1	1.4
4:53	1	1.4
4:57	2	2.7
4:58	1	1.4
5:00	3	4.1
5:03	1	1.4
5:04	1	1.4
5:13	1	1.4
5:16	2	2.7
5:20	3	4.1
5:22	1	1.4
5:23	1	1.4
5:24	1	1.4
5:30	1	1.4
5:35	1	1.4
5:39	1	1.4
5:53	1	1.4
5:54	1	1.4
5:55	2	2.7

6:00	1	1.4
6:05	2	2.7
6:08	1	1.4
6:15	1	1.4
6:21	1	1.4
6:30	1	1.4
6:33	1	1.4
6:48	1	1.4
6:50	1	1.4
6:56	1	1.4
6:57	1	1.4
7:00	1	1.4
7:02	1	1.4
7:30	1	1.4
8:03	1	1.4

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Note.  $n = 73$ . All finish times are listed in hours and minutes.

APPENDIX I

ROTATED COMPONENT MATRIX FOR MOMS SUBSCALE QUESTIONS

Appendix I. Rotated Component Matrix for MOMS Subscale Questions

Question	Component									
	1	2	3	4	5	6	7	8	9	10
49	.84									
50	.84									
36	.82									
38	.81									
39	.77									
47	.68									
55	.67									
41	.58									
27		.78								
25		.74								
13		.73								
20		.73								
29		.68								
28		.51								
23		.45								
6			.81							
3			.80							
54			.77							
45			.75							
48			.73							
19			.70							
40				.80						
46				.78						
22				.73						

5	.70		
43	.70		
2	.65		
52	.60		
35		.74	
34		.72	
32		.67	
31		.57	
51		.51	
9		.50	
56		.42	
53		.41	
1			.88
4			.85
21			.79
42			.57
37			.46
17			.42
26			.79
44			.77
14			.75
8			.59
17			.44
7			.81
16			.78
30			.66
12			.59
10			.62
15			.58

18	.53
11	.52
24	.80
33	.61

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Note. See Appendix C for the MOMS full scale.