

## MOTIVATION OF PARTICIPANTS IN ADVENTURE ULTRAMARATHONS COMPARED TO OTHER FOOT RACES

**M.Doppelmayr, A.Molkenthin**

*Dept. of Physiological Psychology, University of Salzburg, Salzburg, Austria*

**Abstract.** Several studies have shown differences between marathon and ultramarathon runners with respect to the motives for participation. In this study we compared the motives for participation of a sample of adventure ultramarathon, ultramarathon and marathon runners. The adventure ultramarathon group consisted of participants of the Marathon des Sables (MdS), a desert marathon comprising 6 stages with a total length of 230 km. Subjects had to verbally state the reasons for participation in the respective races. These motives were categorized into the scales of the MOMS (Motivation of Marathoners Scales) or one of four additional reasons. The results revealed significant differences between the three groups of runners indicating less importance of the reason COMPETITION but higher importance of the motives NATURE and LIFE MEANING for MdS participants compared to marathon runners. *(Biol.Sport 21:319-323, 2004)*

*Key words:* Marathon – Ultramarathon - Marathon des Sables – Motivation - MOMS

### Introduction

There is increasing interest in all different types of running. Several aspects as benefits and risk of running [2], the personality of runners [4], gender differences [6], cognitive strategies [5] and many others have been investigated. The main goal of our study is to compare the motivation of participants of different types of foot races: marathon, ultramarathon and as third category “adventure races”, namely the Marathon des Sables (MdS). The MdS takes place every year in the Sahara and covers about 230 km in six stages. Despite the extreme conditions and the high costs more than 600 athletes participate in this extreme race every year. Although several papers have already specifically addressed the motivation of endurance

---

Reprint request to: Dr. Michael Doppelmayr, Dept. of Physiological Psychology, University of Salzburg, Hellbrunnerstr. 34, 5020 Salzburg, Austria  
<http://www.sbg.ac.at/psy/people/doppelmayr.html>; Tel.: 0043/662/8044/5135



athletes [1,7] this is the first report about the motivation in adventure races. Stoll *et al.* [8] used the Motivation of Marathoners Scales (MOMS) [3] to specifically contrast the motivation of marathoners and ultramarathoners, and found significant differences for 6 out of the 9 subscales.

In our survey it is to expect that people, joining a desert-race and spending a high amount of money are well interested in this kind of landscape and adventure. Additionally we assume that the MdS participants are somewhat less competitive.

## Material and Methods

**Table 1**

| Reasons according to Masters <i>et al.</i> (3): | Example                               |
|---|---------------------------------------|
| LIFE MEANING                                    | to make my life more purposeful       |
| SELF-ESTEEM                                     | to improve my self-esteem             |
| PSYCHOLOGICAL COPING                            | to distract myself from daily worries |
| PERSONAL GOAL ACHIEVEMENT                       | to push myself                        |
| COMPETITION                                     | to compete with others                |
| RECOGNITION/APPROVAL                            | to earn respect                       |
| AFFILIATION                                     | to socialize with other runners       |
| HEALTH ORIENTATION                              | to improve my health                  |
| WEIGHT CONCERN                                  | to reduce my weight                   |
| Additional motives                              | typical statements:                   |
| ADVENTURE                                       | participating in an adventure race    |
| NATURE  | I love the desert                     |
| FUN   | just for the fun of it                |
| SENSATION                                       | to feel the hormones                  |

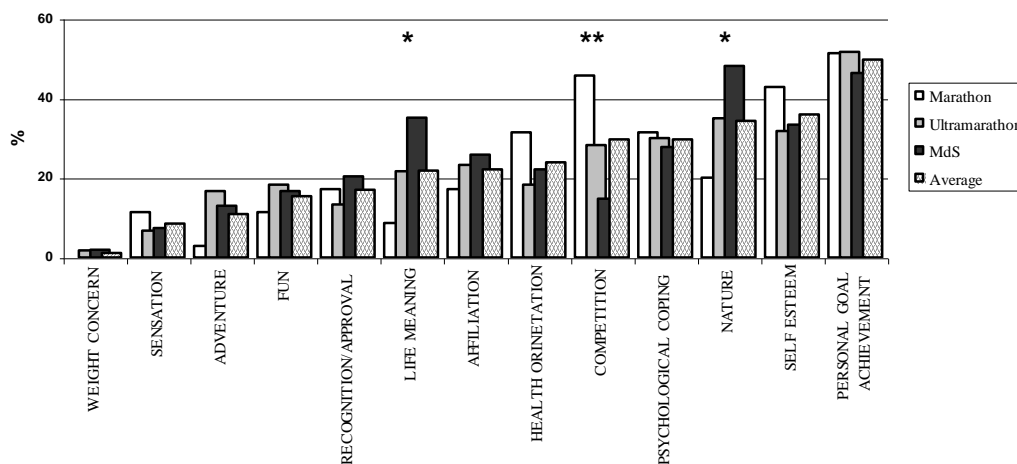
Due to the small number of female subjects the following data are based on male subjects only. 35 marathon runners, 60 ultra runners and 54 MdS participants, all contacted by mail, have been included. The participants had to fill out a survey-form indicating age, sex and additional socioeconomic and sport related data and to write down their specific reasons for participation in the respective event (marathons, ultramarathons or MdS). Because the MOMS has not been available for us from the beginning of the survey, each mentioned "reason for participation" had to be assigned to one of the 9 possible MOMS-motives or to one of four additionally added reasons, later. The meaning of the MOMS and the additional



reasons are explained with examples in Table 1. The categorization has been performed by agreement of three raters, blind for the group of the respective subject.

**Results**

To analyze the data, the percentual amount, indicating how many subjects have named a specific reason (of the respective group) has been calculated. To compare whether there is a difference between these three groups of runners with respect to the 13 possible reasons we used chi square tests. Results show significant effects for the following 3 variables only: LIFE MEANING ( $\text{Chi}^2=8.55$ ,  $\text{df}=2$ ,  $P<0.05$ ) COMPETITION ( $\text{Chi}^2=10.2$ ,  $\text{df}=2$ ,  $P<0.01$ ) and NATURE ( $\text{Chi}^2=7.35$ ,  $\text{df}=2$ ,  $P<0.05$ ).



**Fig. 1**

The percentual frequencies of naming a specific category as a reason to participate are depicted for the three groups as well as for the average across these groups (marathon runners are depicted in white, ultramarathon runners in gray, MdS participants in black and the average dashed). Significant differences for LIFE MEANING, COMPETITION and NATURE have been marked by an asterisk. While PERSONAL GOAL ACHIEVEMENT has been on the average named by 49.8% of all subjects, WEIGHT CONCERN was named only by 1.2%.



As shown in Fig. 1 out of these three variables for LIFE MEANING the highest frequency has been observed with 35.2% by the MdS participants whereas the marathon runners named this reason only with 8.6%. A similar result was found for NATURE with 48.1% and 20% respectively. On the other hand the results for COMPETITION show a decrease of importance from marathon (45.7%), to MdS (14.8%). Significant results have been marked with an asterisk. Chi square tests, performed to test whether the ultramarathon group specifically is significantly different from one of the others, revealed no significant effects.

### Discussion

The main findings are the significant differences between marathon runners and participants of the MdS. Inspection of Fig. 1 suggests that there might be a gradual in- or decrease for LIFE MEANING, COMPETITION and NATURE from marathon to ultramarathon and MdS. If sport or running is highly important for a person, makes the life more purposeful or has a philosophical foundation, this of course has an effect on the factor LIFE MEANING. On the other hand the importance of COMPETITION is decreased. The finding of the higher importance of NATURE for the MdS participants, might be easily explained by the fact that people participating in expensive desert runs are more attracted by those landscapes and therefore mention NATURE more frequently. Surprisingly we could neither find a significant difference between the groups with respect to ADVENTURE, nor a generally very high importance. Most of the reasons investigated were named more frequently and so we have to assume that the aspect of adventure is secondary for those races.

Generally the results revealed significant differences between marathoners and MdS participants but no such (significant) effects between marathoners and ultramarathoners or ultramarathoners and MdS participants. Especially the suggestion that for ultramarathon runners COMPETITION gets less important and running as life-philosophy increases in importance, seems to be supported and can be extended to MdS participants as the opposite of marathon runners, leaving the ultramarathon runners in between.

Taken together we can conclude that people who participate in such adventure races differ from marathon runners and to some extent from ultramarathoners stating that aspects that are related to LIVE MEANING and NATURE have higher importance and that COMPETITION is less important for their participation in such events.



**References:**

1. Hamer M., C.L.Karageorghis, S.P.Vlachopoulos (2002) Motives for exercise participation as predictors of exercise dependence among endurance athletes. *J.Sports Med. Phys.Fitm.* 42:233-238
2. Koplan J.P., K.E.Powell, R.K.Sikes, R.W.Shirley, C.C.Campbell (1982) An epidemiologic study of the benefits and risks of running. *JAMA* 248:3118-3121
3. Masters K.S., B.M.Ogles, J.A.Jolton (1993) The development of an instrument to measure motivation for marathon running: The Motivation of Marathoners Scales (MOMS). *Res.Q.Exerc.Sport* 64:134-143
4. Nieman D.C., D.M.George (1987) Personality traits that correlate with success in distance running. *J.Sports Med.* 27:345-356
5. Ogles B.M., S.J.Lynn, K.S.Masters, T.D.Hoefel, K.A.Marsden (1993) Runners' cognitive strategies and motivations: absorption, fantasy style, and dissociative experiences. *Imagination, Cognition and Personality* 13:163-174
6. Ogles B.M., K.S.Masters, S.A.Richardson (1995) Obligatory running and gender: an analysis of participative motives and training habits. *Int.J.Sport Psychol.* 26:233-248
7. Slay H.A., J.Hayaki, M.A.Napolitano, K.D.Brownell (1998) Motivations for running and eating attitudes in obligatory versus nonobligatory runners. *Int.J.Eat Disorder* 23:267-275
8. Stoll O., S.Würth, B.Ogles (2000) Zur Teilnahmemotivation von Marathon- und Ultramarathonläufern. *Sportwissenschaft* 30:54-67

Accepted for publication 20.08.2004

