

## Article

# Motivational Differences between 5K Runners, Marathoners and Ultramarathoners in Poland

Mateusz Rozmiarek <sup>1</sup>, Ewa Malchrowicz-Moško <sup>1</sup>, Patxi León-Guereño <sup>2</sup>, Miguel Ángel Tapia-Serrano <sup>3</sup>  
and Grzegorz Kwiatkowski <sup>4,5,\*</sup>

- <sup>1</sup> Department of Sports Tourism, Faculty of Physical Culture Sciences, Poznan University of Physical Education, 61-871 Poznan, Poland; rozmiarek@awf.poznan.pl (M.R.); malchrowicz@awf.poznan.pl (E.M.-M.)
- <sup>2</sup> Health, Physical Activity and Sports Science Laboratory (HealthPASS), Department of Physical Activity and Sports, Faculty of Psychology and Education, University of Deusto, 48007 Bilbao, Spain; patxi.leon@deusto.es
- <sup>3</sup> Department of Didactics of Musical, Plastic and Body Expression, Faculty of Teacher Training, University of Extremadura, 06006 Badajoz, Spain; matapiase@unex.es
- <sup>4</sup> Department of Economics, Koszalin University of Technology, 75-343 Koszalin, Poland
- <sup>5</sup> Department of Business Administration, Western Norway University of Applied Sciences, 6856 Sogndal, Norway
- \* Correspondence: gregory.kwiatkowski@hvl.no



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**Abstract:** The aim of the study was to determine the reasons for practicing different running distances (5K run, marathon, and ultramarathon), and to analyze the differences in each type according to gender, age, and marital status. An empirical study was conducted during the 2020 Karkonosze Winter Ultramarathon, 20th PKO Poznan Marathon, and 5K run—Parkrun Poznan and City Trail, over the course of which we interviewed 925 runners. A total of 267 ultramarathoners, 493 marathon runners, and 165 Parkrun and City Trail participants took part in the cross-sectional study, which used the diagnostic survey method. The questionnaire employed the division of motives used by the Motivation of Marathoners Scale (MOMS) by Masters et al., adapted to the Polish language by Dybała. No significant differences were found in any of the disciplines based on gender or marital status, although the results showed that weight concern increased with increasing age range in all the running distances analyzed. In addition, in 5K run and marathon runners, weight concern decreased in the 36 to 50 age range, but subsequently increased in those over 51 years of age. Therefore, it will be important for coaches and other professionals to consider athletes' age when trying to understand their motives to participate in different disciplines.

**Keywords:** running; 5K runners; marathoners; ultramarathoners; motivation; age; gender difference; marital status; sport; physical activity

## 1. Introduction

In recent years, there has been a dynamic development of mass sports events around the world. These can be an interesting option not only for adults, but also for children, adolescents, and senior citizens, and act as a kind of escape from reality and a very good way to encourage people to exercise regularly. Mass running events have gained particular importance due to their increasing popularity and the steadily growing number of people willing to actively participate in them [1]. It is estimated that in Europe, the number of runners exceeds 50 million [2]. Poles account for significantly lower figures compared to these general statistics, because according to the study of physical and sports activity carried out in accordance with the MultiSport Index 2018, every third physically active Pole is a runner, and 16% of them treat running as their main form of exercise and consider themselves a fan of this sport [3]. One of the main reasons for running for many people is to maintain or upgrade their health—running has a positive effect on the cardiovascular

system, helps prevent age-related bone loss, assists with concentration and memory, and helps us to better cope with stressful situations and emotional tension. Overall, research suggests that running of varying length and intensity and running interventions can improve mood and mental health, and the type of running may lead to a variety of effects [4]. Moreover, running participation has been connected to environmental aspects [5], green spaces being considered as an indicator of urban health [6]. It can therefore be said that running is important for sustainable human development [7]. The popularity of running is influenced by, among other things, the lack of need for major preparation before beginning, no need to invest in specialist equipment, and the general availability of space for activity. On the other hand, the possibility of associating in various groups or running collectives, as well as undertaking joint and collective physical activity, has resulted in almost every fifth Polish runner taking part in running competitions organized in many Polish cities and towns [3]. In order to attract the widest possible audience, organizers of running events organize events of various distances, so that each potential runner may find the right event for themselves. For this reason, apart from the classic distance in the classification of long marathons, there are also more demanding and exhausting runs such as ultramarathons, as well as runs over shorter distances, such as five kilometers.

Motivation research was carried out to try and determine the motives for athletes to participate in different races, e.g., to run the 5K distance [8,9], a distance that has been associated with charity running events [10,11] or related to age and weight run handicap model [12]. Likewise, motivations related to running a marathon have been addressed in the literature [13–15]. Moreover, in an effort to understand which motives are behind a very demanding effort like an ultramarathon, several studies have been carried out in the last decade [16–26].

Research on motivation in the sport context was initially conducted on the basis of Self-Determination Theory (SDT), explaining athletes' motives to participate according to intrinsic and extrinsic motivation [27]. However, the issue of studying the motivation behind runs (ultramarathons, marathons, half marathons, but also 10 or 5K runs) has become extremely popular thanks to the development of measuring instruments. One of the most popular scales—MOMS—was proposed by Masters, Ogles, and Jolton [28], who developed 56 items distributed across nine scales: health orientation, weight concern, self-esteem, life meaning, psychological coping, affiliation, recognition, competition, and personal goal achievement. This tool has been translated into many languages, such as the Polish translation, adapted and verified for reliability by Dybała [29], the Spanish version, developed by Ruiz and Zarauz [30], and the Chilean translation by Duclos-Bastias, Vallejo-Reyes, Giakoni-Ramírez, and Parra-Camacho [31].

The vast majority of current studies on runners have tended to focus on America or Western European countries [32–34]. Studying the social context in Poland—among the countries of Central and Eastern Europe—may produce not only up-to-date but also unknown information on the motivation behind why runners engage in this sport. Moreover, thanks to economic and sociocultural aspects (more free time and better education and earnings, resulting in an increase in quality of life) [35,36] in recent years, mass sports events have developed in the country with the simultaneous expansion of the healthism ideology. One of the reasons for this may be that it is inspired by the Western lifestyle.

So far, however, marital status and different age categories have been extremely rarely analyzed in relation to the motives for participation in ultramarathon, marathon, and 5K runs [22,37,38]. Emerging single studies, however, have never been verified for differences at different distances within the same sociocultural environment [39,40]. This is interesting because people's lives very often change depending on their marital status (from single status to marriage or from marriage to divorce), and participation in long-distance running can be even more important, as it requires many hours of preparation and training, and sacrifices. This was confirmed by Goodsell et al. [41], who showed that family context has a significant impact on people's motivation behind running and should be taken into

account in terms of possible considerations for long-term involvement in this type of physical activity.

Much has been written about the motivation of able-bodied amateur runners in the context of the diversity of running experience [42–44], athletes' performances [34,45], and even traditional or nontraditional types of events [46]. Less frequently, the sociocultural context has been discussed [47], in particular, the issue indicating the variety of reasons for athletes' participation depending on distance. This topic was dealt with exclusively by Hanson et al. [39], who did not indicate the geographic area subject to study and recruited respondents via e-mails to running clubs, online forums, and social media, and Whitehead and colleagues [40], who compared event participants from Great Britain and India. However, since it has not been properly addressed yet in the literature, we understand that analyzing a runner's motivation according to marital status has a novelty [37]. In line with this research, the aim of the study was to determine the reasons for practicing different running distances (5K run, marathon, and ultramarathon) and to analyze the differences in each type studied according to gender, age, and marital status. The main hypothesis was that runners competing in different distances have different psychological, achievement-related, social, and physical health motives to run, depending on gender, age, and marital status.

## 2. Materials and Methods

### 2.1. Design and Participants

This is a descriptive, quantitative, cross-sectional study. Research data were collected during three different events taking place in Poland—the 2020 Karkonosze Winter Ultramarathon (held in March 2020 in Karpacz) [20], the 20th PKO Poznan Marathon (held in October 2019 in Poznan) [37], and 5K runs—the Parkrun Poznan and City Trail (held in March 2020 in Poznan) [38]. The studies involved 267 ultramarathoners, 493 marathon runners, and 165 Parkrun and City Trail participants. In each case, we tried to put together the sample selection in such a way as to ensure the best possible representativeness of the results obtained.

### 2.2. Measures

A diagnostic survey method was used, including a standardized interviewing technique (the research instrument developed was an online interview questionnaire). In all studies, the multidimensional MOMS scale, developed initially by Masters et al. [28], was used. Athletes' motivation was measured via 56 items or reasons for participating in a marathon, organized using a 7-point Likert scale, with the highest score being 7 "very important reason", and the least valued motive rated 1 "not a reason". This scale provides 9 dimensions that the authors divided into four main broader groups of motive: (1) psychological motives, involving self-esteem, e.g., "To feel proud of myself", psychological coping, e.g., "To become less depressed", and life meaning, e.g., "To make my life more complete"; (2) achievement-related motives, including personal goal achievement, e.g., "To try to run faster" and competition, e.g., "To get a faster time than my friends"; (3) social motives, showing recognition, e.g., "To get compliments from others" and affiliation motives, e.g., "To meet people"; (4) physical health motives, including general health orientation, e.g., "To prolong my life", and weight concern, e.g., "To look leaner" [28]. We used the Polish translation of the MOMS questionnaire, adapted and verified for reliability by Dybała [29].

### 2.3. Procedure

The research was carried out in accordance with the Declaration of Helsinki, and the study was treated in accordance with the guidelines set out in the Publication Manual of the American Psychological Association regarding consent and anonymity. In Poland, anonymous diagnostic surveys do not require approval by a bioethics committee. The survey was anonymous, voluntary, and confidential. As online surveys or questionnaires do not require the completion of a separate participant information sheet or consent form,

participation in the survey was deemed to constitute informed consent. Permission was obtained to conduct the study from the event organizers, and respondents were informed about the nature of the survey and kindly requested to provide information. The survey was created using Google Docs technology.

#### 2.4. Data Analysis

Descriptive statistics are presented as mean and standard deviations or percentages (%). The normality of the distribution variables was verified using the Shapiro–Wilk test, while the hypothesis of homogeneity of variance was ascertained using Levene’s test. Differences in the study variables between ultramarathon, 5K run, and marathon athletes were tested using the one-way ANOVA for continuous and categorical variables, respectively, and multivariate analysis of variance was performed to determine the significance of the MOMS variables in terms of gender, age range, and marital status for each of the sports disciplines analyzed. For its part, Bonferroni correction was used for post hoc test corrections.

All statistical analyses were carried out using the SPSS program version 23.0 for Windows (IBM, Armonk, New York), and the significance level was set at  $p < 0.05$ .

### 3. Results

Regarding the sociodemographic variables, the type most commonly practiced was the marathon, followed by the ultramarathon and the 5K run, especially among men. In addition, the marathon was the most commonly practiced type of sport compared to 5K run and ultramarathon in all age ranges, with a greater number of practitioners between the ranges of 26 and 35 years ( $n = 166$ ; 56.5%) and 36 and 50 years ( $n = 252$ , 50.4%) being recorded. Similarly, the marathon was the discipline most practiced by singles ( $n = 108$ , 62.8%), married ( $n = 355$ , 50.6%), and divorced ( $n = 30$ , 69.8%).

Table 1 shows the mean and standard deviations of each of the MOMS dimensions and the sociodemographic characteristics based on the sports discipline practiced. Health orientation, personal goal achievement, self-esteem, weight concern, life meaning, and external recognition showed significant differences from among the disciplines analyzed. Marathon runners showed higher scores for health orientation, personal goal achievement, self-esteem, weight concern, and external recognition compared with the other two disciplines (all,  $p < 0.05$ ), although life satisfaction scored more highly in ultramarathon runners compared with 5K and marathon runners ( $p < 0.001$ ).

Table 2 shows the relationship between MOMS dimensions based on the discipline practiced (i.e., ultramarathon, 5K run, or marathon) and differentiated according to gender. No significant differences were found in any of the disciplines based on the gender of ultramarathon, 5K run, and marathon athletes ( $p > 0.05$ ).

Table 3 reveals the relationship between MOMS dimensions based on type of sport or running distance (i.e., ultramarathon, 5K run, or marathon) and differentiated according to age range. The results showed that weight concern increased with increasing age range in all the sports disciplines analyzed. In addition, in 5K run and marathon runners, weight concern decreased in the 36 and 50 age range, and subsequently increased in those over 51 years of age ( $p < 0.05$ ). The rest of the dimensions did not show significant associations ( $p > 0.05$ ).

**Table 1.** Descriptive analyses according to discipline.

Study Variables	Discipline			F	p
	Ultramarathon	5K Run	Marathon		
	M ± SD	M ± SD	M ± SD		
n (%)	267 (19.68)	165 (12.16)	493 (68.17)		
Health orientation	4.71 ± 1.51	5.15 ± 1.37	5.46 ± 1.27	26.91	<0.001
Weight concern	3.07 ± 1.65	4.08 ± 1.87	4.14 ± 1.70	35.83	<0.001
Personal goal achievement	4.21 ± 1.29	4.97 ± 1.55	5.04 ± 1.37	32.94	<0.001
Competition	2.94 ± 1.61	3.18 ± 1.76	3.01 ± 1.50	1.25	0.288
Recognition	2.54 ± 1.37	2.40 ± 1.35	3.10 ± 1.31	25.65	<0.001
Affiliation	3.42 ± 1.59	3.79 ± 1.92	3.51 ± 1.61	2.65	0.071
Psychological coping	4.41 ± 1.49	4.20 ± 1.63	4.46 ± 1.43	1.97	0.140
Life meaning	4.19 ± 1.31	3.65 ± 1.48	3.73 ± 1.37	12.25	<0.001
Self-esteem	4.49 ± 1.45	4.39 ± 1.55	4.72 ± 1.39	4.20	<0.01
Sex					
Male	204 (32.1)	82 (12.9)	349 (55.0)	30.05	<0.001
Female	63 (21.7)	83 (28.6)	144 (44.7)		
Age range					
≤18 years	0 (0.0)	6 (4.5)	5 (4.5)	36.80	<0.001
19–25 years	5 (7.5)	16 (23.9)	46 (68.7)		
26–35 years	78 (26.5)	50 (17.0)	166 (56.5)		
36–50 years	169 (33.8)	79 (15.8)	252 (50.4)		
≥51 years	15 (28.3)	14 (26.4)	24 (45.3)		
Marital status					
Single	33 (19.2)	31 (18.0)	108 (62.8)	20.90	<0.001
Married	221 (31.5)	126 (17.9)	355 (50.6)		
Divorced	13 (30.2)	0 (0.0)	30 (69.8)		

**Table 2.** Differences in the nine MOMS dimensions regarding gender.

Study Variables	Ultramarathon		5K Run		Marathon		F	p
	Male	Female	Male	Female	Male	Female		
Health orientation	4.87 ± 0.22	4.67 ± 0.35	5.00 ± 0.22	5.15 ± 0.26	5.18 ± 0.21	5.29 ± 0.23	0.20	0.817
Weight concern	2.75 ± 0.28	3.07 ± 0.44	3.90 ± 0.28	4.17 ± 0.29	3.58 ± 0.26	3.92 ± 0.30	0.24	0.790
Personal goal achievement	4.47 ± 0.22	4.39 ± 0.35	4.73 ± 0.22	4.99 ± 0.23	0.49 ± 0.21	4.80 ± 0.24	0.41	0.664
Competition	3.35 ± 0.26	2.99 ± 0.40	3.34 ± 0.25	2.78 ± 0.26	2.78 ± 0.24	2.58 ± 0.27	0.56	0.573
Recognition	2.82 ± 0.22	2.35 ± 0.34	2.32 ± 0.21	2.40 ± 0.22	2.93 ± 0.21	2.90 ± 0.23	0.23	0.794
Affiliation	3.20 ± 0.27	3.49 ± 0.42	3.55 ± 0.27	3.67 ± 0.28	3.26 ± 0.25	3.51 ± 0.28	0.17	0.846
Psychological coping	4.29 ± 0.24	4.80 ± 0.38	3.64 ± 0.24	4.86 ± 0.25	4.33 ± 0.23	4.62 ± 0.25	1.95	0.143
Life meaning	4.12 ± 0.22	4.60 ± 0.35	3.33 ± 0.22	4.00 ± 0.23	3.60 ± 0.21	3.73 ± 0.24	0.87	0.409
Self-esteem	4.35 ± 0.23	4.93 ± 0.37	3.99 ± 0.23	5.02 ± 0.24	4.62 ± 0.22	4.86 ± 0.25	1.58	0.206

Table 4 shows the association between each of the MOMS dimensions for ultramarathon, 5K run, and marathon, differentiated according to marital status. The results showed no significant differences for any of the MOMS dimensions (all,  $p > 0.05$ ).

Table 5 shows a comparison of marital status and age range according to MOMS dimensions: comparison between three disciplines. The results showed no differences in any of the dimensions studied ( $p < 0.05$ ).

**Table 3.** Differences in the nine MOMS dimensions regarding age range.

Study Variables	Ultramarathon					5K Run					Marathon					F	p
	≤18	19–25	26–35	36–50	≥51	≤18	19–25	26–35	36–50	≥51	≤18	19–25	26–35	36–50	≥51		
Health orientation	-	3.8 ± 0.6	4.4 ± 0.1	4.7 ± 0.1	6.0 ± 0.5	4.2 ± 0.5	5.4 ± 0.3	4.5 ± 0.1	5.1 ± 0.1	5.5 ± 0.3	4.4 ± 0.6	5.0 ± 0.2	5.1 ± 0.1	5.6 ± 0.1	5.8 ± 0.4	1.25	0.272
Weight concern	-	1.4 ± 0.7	3.0 ± 0.2	3.1 ± 0.1	4.0 ± 0.6	3.3 ± 0.7	4.1 ± 0.4	4.3 ± 0.2	3.9 ± 0.1	4.5 ± 0.4	3.1 ± 0.7	4.1 ± 0.2	3.9 ± 0.1	4.3 ± 0.1	3.1 ± 0.5	2.41	<0.01
Personal goal achievement	-	4.6 ± 0.6	4.5 ± 0.1	4.0 ± 0.1	4.5 ± 0.5	4.0 ± 0.5	5.9 ± 0.3	5.1 ± 0.1	4.8 ± 0.1	4.3 ± 0.3	4.4 ± 0.6	5.3 ± 0.2	5.1 ± 0.1	4.7 ± 0.1	4.5 ± 0.4	0.55	0.794
Competition	-	3.9 ± 0.7	3.2 ± 0.1	2.7 ± 0.1	2.8 ± 0.5	2.0 ± 0.6	4.4 ± 0.3	3.4 ± 0.2	3.0 ± 0.1	2.3 ± 0.4	2.3 ± 0.7	3.0 ± 0.2	3.0 ± 0.1	2.7 ± 0.1	0.2 ± 0.4	1.10	0.363
Recognition	-	2.8 ± 0.6	2.6 ± 0.1	2.5 ± 0.1	2.2 ± 0.5	1.7 ± 0.5	3.0 ± 0.3	2.8 ± 0.1	2.0 ± 0.1	2.1 ± 0.4	2.6 ± 0.6	3.2 ± 0.2	3.1 ± 0.01	2.9 ± 0.0	2.5 ± 0.4	0.95	0.469
Affiliation	-	3.1 ± 0.7	3.4 ± 0.2	3.6 ± 0.1	3.1 ± 0.6	2.8 ± 0.6	4.5 ± 0.4	3.5 ± 0.2	3.9 ± 0.8	3.1 ± 0.4	3.0 ± 0.7	3.4 ± 0.2	3.2 ± 0.1	3.6 ± 0.1	3.5 ± 0.5	0.75	0.634
Psychological coping	-	4.4 ± 0.6	4.5 ± 0.1	4.5 ± 0.1	4.6 ± 0.5	3.6 ± 0.6	4.4 ± 0.3	4.3 ± 0.2	4.0 ± 0.1	4.7 ± 0.4	4.2 ± 0.6	4.8 ± 0.2	6.6 ± 0.1	4.4 ± 0.1	4.1 ± 0.4	0.58	0.776
Life meaning	-	4.4 ± 0.6	4.4 ± 0.1	4.2 ± 0.1	4.2 ± 0.5	3.1 ± 0.5	4.3 ± 0.3	3.7 ± 0.2	3.4 ± 0.1	3.6 ± 0.3	3.4 ± 0.6	3.8 ± 0.2	3.7 ± 0.1	3.7 ± 0.1	3.6 ± 0.4	0.42	0.891
Self-esteem	-	4.8 ± 0.6	4.7 ± 0.1	4.5 ± 0.1	4.4 ± 0.5	4.1 ± 0.5	5.0 ± 0.3	4.7 ± 0.2	4.0 ± 0.1	4.5 ± 0.4	4.4 ± 0.6	5.2 ± 0.2	4.7 ± 0.1	4.6 ± 0.1	4.7 ± 0.4	0.77	0.615

**Table 4.** Differences in the nine MOMS dimensions regarding marital status.

Study Variables	Ultramarathon			5K Run			Marathon			F	p
	Single	Married	Divorced	Single	Married	Divorced	Single	Married	Divorced		
Health orientation	4.70 ± 0.43	4.63 ± 0.22	4.28 ± 0.64	5.20 ± 0.37	5.39 ± 0.17	-	5.47 ± 0.24	5.50 ± 0.17	3.55 ± 0.82	0.18	0.910
Weight concern	2.68 ± 0.28	2.71 ± 0.28	3.55 ± 0.82	4.20 ± 0.47	4.21 ± 0.21	-	3.78 ± 0.15	4.48 ± 0.30	4.14 ± 0.37	0.89	0.447
Personal goal achievement	3.67 ± 0.44	4.44 ± 0.22	3.88 ± 0.65	4.75 ± 0.37	5.09 ± 0.17	-	5.05 ± 0.24	5.09 ± 0.12	4.99 ± 0.29	0.37	0.778
Competition	3.14 ± 0.50	3.40 ± 0.26	2.30 ± 0.75	3.25 ± 0.43	3.27 ± 0.20	-	2.90 ± 0.28	3.00 ± 0.14	2.88 ± 0.34	0.42	0.738
Recognition	2.89 ± 0.42	2.63 ± 0.22	2.12 ± 0.64	2.63 ± 0.36	2.46 ± 0.16	-	3.30 ± 0.24	3.23 ± 0.27	3.20 ± 0.80	0.12	0.951
Affiliation	3.69 ± 0.53	3.23 ± 0.27	3.20 ± 0.79	2.63 ± 0.36	2.46 ± 0.16	-	3.30 ± 0.24	3.18 ± 0.12	3.15 ± 0.29	0.21	0.891
Psychological coping	4.78 ± 0.48	4.13 ± 0.25	5.22 ± 0.72	4.91 ± 0.41	4.25 ± 0.19	-	4.58 ± 0.27	4.58 ± 0.13	4.58 ± 0.32	1.34	0.260
Life meaning	4.34 ± 0.44	4.25 ± 0.22	4.30 ± 0.66	4.08 ± 0.37	3.72 ± 0.17	-	3.94 ± 0.24	3.84 ± 0.12	4.01 ± 0.29	0.22	0.885
Self-esteem	4.68 ± 0.46	4.38 ± 0.24	4.50 ± 0.69	4.75 ± 0.39	4.48 ± 0.18	-	4.98 ± 0.26	4.88 ± 0.12	5.11 ± 0.31	0.04	0.988

**Table 5.** Multivariate analysis comparing marital status and age range according to MOMS dimensions: comparison between three distances.

Study Variables		Ultramarathon					5K Run					Marathon					F	p
		≤18	19–25	26–35	36–50	≥51	≤18	19–25	26–35	36–50	≥51	≤18	19–25	26–35	36–50	≥51		
Health orientation	Single	-	4.8 ± 0.9	4.1 ± 0.3	3.6 ± 0.4	6.1 ± 1.3	4.2 ± 0.5	5.0 ± 0.5	4.7 ± 0.3	5.0 ± 0.9	7.0 ± 1.3	4.5 ± 0.6	4.9 ± 0.6	5.2 ± 0.2	5.5 ± 0.2	6.8 ± 0.9	1.49	0.156
	Married	-	3.4 ± 0.7	4.6 ± 0.1	4.8 ± 0.1	5.6 ± 0.3	-	5.8 ± 0.4	5.1 ± 0.2	5.2 ± 0.1	5.4 ± 0.4	-	5.0 ± 0.2	5.2 ± 0.1	5.6 ± 0.0	6.0 ± 0.3		
	Divorced	-	-	1.0 ± 1.3	5.0 ± 0.4	6.8 ± 1.3	-	-	-	-	-	-	-	5.1 ± 0.6	5.7 ± 0.3	6.1 ± 0.6		
Weight concern	Single	-	1.7 ± 1.2	2.9 ± 0.3	2.5 ± 0.5	3.5 ± 1.7	3.3 ± 0.7	4.8 ± 0.6	3.7 ± 0.4	3.2 ± 1.2	5.7 ± 1.7	3.4 ± 0.7	4.6 ± 0.3	4.2 ± 0.2	4.3 ± 0.3	5.7 ± 1.2	0.73	0.662
	Married	-	1.2 ± 0.9	3.0 ± 0.2	3.1 ± 0.1	3.3 ± 0.4	-	3.5 ± 0.5	4.5 ± 0.2	3.8 ± 0.2	4.8 ± 0.5	-	3.4 ± 0.3	3.8 ± 0.1	4.3 ± 0.1	3.5 ± 0.4		
	Divorced	-	-	1.0 ± 1.7	2.3 ± 0.5	7.0 ± 1.7	-	-	-	-	-	-	-	3.7 ± 0.7	4.4 ± 0.3	4.3 ± 0.7		
Personal goal achievement	Single	-	4.6 ± 0.9	4.1 ± 0.3	3.7 ± 0.4	3.5 ± 1.3	4.0 ± 0.5	5.4 ± 0.5	5.2 ± 0.3	3.7 ± 0.9	5.3 ± 1.3	4.6 ± 0.6	5.1 ± 0.2	5.1 ± 0.1	5.0 ± 0.2	5.3 ± 0.9	0.40	0.919
	Married	-	4.8 ± 0.7	4.7 ± 0.1	4.1 ± 0.1	4.0 ± 0.3	-	6.2 ± 0.4	5.1 ± 0.2	4.8 ± 0.1	4.0 ± 0.4	-	5.6 ± 0.3	5.3 ± 0.1	4.9 ± 0.1	4.5 ± 0.3		
	Divorced	-	-	2.7 ± 1.3	3.5 ± 0.4	5.5 ± 1.3	-	-	-	-	-	-	-	4.2 ± 0.5	4.5 ± 0.3	6.2 ± 0.6		
Competition	Single	-	3.0 ± 1.1	2.7 ± 0.3	2.6 ± 0.4	4.2 ± 1.5	2.0 ± 0.6	4.2 ± 0.5	3.6 ± 0.4	2.1 ± 1.1	4.2 ± 1.5	2.5 ± 0.7	2.8 ± 0.3	3.2 ± 0.2	3.1 ± 0.3	2.7 ± 1.1	0.57	0.805
	Married	-	4.5 ± 0.9	3.4 ± 0.2	2.8 ± 0.1	2.6 ± 0.4	-	4.5 ± 0.5	3.3 ± 0.2	3.0 ± 0.1	2.1 ± 0.4	-	3.2 ± 0.3	3.1 ± 0.1	2.9 ± 0.1	2.7 ± 0.3		
	Divorced	-	-	1.0 ± 1.1	2.1 ± 0.4	3.7 ± 1.5	-	-	-	-	-	-	-	2.7 ± 0.6	2.4 ± 0.3	3.4 ± 0.7		
Recognition	Single	-	3.2 ± 0.9	2.2 ± 0.3	2.2 ± 0.4	4.0 ± 1.3	1.7 ± 0.5	2.8 ± 0.5	3.0 ± 0.3	1.0 ± 0.9	4.6 ± 1.3	2.8 ± 0.5	3.1 ± 0.2	3.2 ± 0.1	3.37 ± 0.2	3.8 ± 0.9	0.97	0.457
	Married	-	2.9 ± 0.7	2.7 ± 0.1	2.6 ± 0.1	2.2 ± 0.3	-	3.3 ± 0.4	2.7 ± 0.2	2.1 ± 0.1	1.7 ± 0.4	-	3.3 ± 0.2	3.1 ± 0.1	2.9 ± 0.0	3.2 ± 0.3		
	Divorced	-	-	1.2 ± 1.3	1.9 ± 0.4	3.2 ± 1.3	-	-	-	-	-	-	-	3.6 ± 0.5	2.4 ± 0.3	3.3 ± 0.5		
Affiliation	Single	-	3.6 ± 1.1	2.9 ± 0.3	3.4 ± 0.5	4.6 ± 1.6	2.8 ± 0.6	5.1 ± 0.6	4.8 ± 0.4	4.0 ± 1.1	4.1 ± 1.6	3.3 ± 0.6	3.5 ± 0.3	3.4 ± 0.2	3.6 ± 0.3	6.0 ± 1.1	1.17	0.313
	Married	-	2.5 ± 0.9	3.5 ± 0.2	3.4 ± 0.1	3.5 ± 0.4	-	4.1 ± 0.5	3.0 ± 0.2	3.9 ± 0.1	2.9 ± 0.5	-	3.3 ± 0.3	3.1 ± 0.1	3.6 ± 0.1	4.2 ± 0.4		
	Divorced	-	-	1.0 ± 1.6	4.6 ± 0.5	4.0 ± 1.6	-	-	-	-	-	-	-	3.5 ± 0.6	3.3 ± 0.3	4.2 ± 0.7		
Psychological coping	Single	-	5.6 ± 1.0	4.3 ± 0.3	4.0 ± 0.3	5.1 ± 1.5	3.6 ± 0.6	4.4 ± 0.5	4.5 ± 0.3	4.8 ± 1.0	7.0 ± 1.5	4.3 ± 0.6	4.7 ± 0.3	4.6 ± 0.2	4.3 ± 0.2	4.8 ± 1.0	1.13	0.342
	Married	-	3.6 ± 0.8	4.5 ± 0.2	4.4 ± 0.1	4.0 ± 0.4	-	4.6 ± 0.5	5.1 ± 0.4	3.9 ± 0.1	4.1 ± 0.4	-	4.8 ± 0.3	4.4 ± 0.1	4.3 ± 0.1	4.6 ± 0.3		
	Divorced	-	-	3.5 ± 1.5	5.2 ± 0.4	7.0 ± 1.5	-	-	-	-	-	-	-	5.0 ± 0.5	4.2 ± 0.3	4.5 ± 0.6		
Life meaning	Single	-	4.3 ± 0.9	4.1 ± 0.3	4.4 ± 0.4	5.5 ± 1.3	3.1 ± 0.5	3.7 ± 0.5	4.1 ± 0.3	3.0 ± 0.9	6.2 ± 1.3	3.5 ± 0.6	3.6 ± 0.2	3.9 ± 0.1	4.0 ± 0.2	4.5 ± 0.9	1.40	0.196
	Married	-	4.5 ± 0.8	4.5 ± 0.1	4.1 ± 0.1	3.9 ± 0.3	-	4.7 ± 0.4	3.5 ± 0.2	3.4 ± 0.1	3.0 ± 0.4	-	4.0 ± 0.3	.64 ± 0.1	3.6 ± 0.1	4.0 ± 0.3		
	Divorced	-	-	2.1 ± 1.3	5.0 ± 0.4	5.7 ± 1.3	-	-	-	-	-	-	-	4.0 ± 0.5	3.5 ± 0.3	4.4 ± 0.6		
Self-esteem	Single	-	5.6 ± 1.0	4.7 ± 0.3	4.0 ± 0.4	4.8 ± 1.4	4.1 ± 0.5	4.9 ± 0.5	4.8 ± 0.3	3.4 ± 1.0	6.3 ± 1.4	4.5 ± 0.6	5.1 ± 0.2	4.7 ± 0.2	4.8 ± 0.2	5.7 ± 1.1	1.31	0.233
	Married	-	4.1 ± 0.8	4.7 ± 0.2	4.4 ± 0.1	4.2 ± 0.4	-	5.7 ± 0.8	4.7 ± 0.2	4.1 ± 0.1	3.9 ± 0.4	-	5.3 ± 0.3	4.7 ± 0.1	5.6 ± 0.1	4.9 ± 0.3		
	Divorced	-	-	2.1 ± 1.4	5.1 ± 0.4	6.2 ± 1.4	-	-	-	-	-	-	-	5.1 ± 0.5	4.2 ± 0.3	5.9 ± 0.6		

#### 4. Discussion

According to the results of our study, no significant differences were found in any of the disciplines based on gender between ultramarathon, 5K run, and marathon athletes. These results are not in line with previous studies that analyzed runners' motivation, as differing types of training motivation between men and women have previously been identified [35,36]. This was also noted by Hanson et al. [39], who showed that women seem to have meaningfully different reasons for running compared to men. In his study, the women were more motivated by weight concern, self-esteem, psychological coping, and affiliation, but less by competition and goal achievement, and regardless of distance group, women scored higher in weight concern than men did. In our study, there were no differences between runners at different distances. Thus, distance does not determine the differences between men and women, insofar as both choose to run at different distances for similar reasons.

In regard to 5K distance running, Bell [8] conducted a motivation study in relation to the Theory of Reasoned Action. The author, working with Stephenson [9], also researched the differences in attitude motivation during the 5K race according to skill levels. Results from Pennsylvania runners showed that health, social affiliation, and altruism influenced the attitudes of low- and medium-ability runners. Partially in line with these results, our study shows how motivation scores related to health orientation and affiliation are higher in 5K and marathon runners than in ultramarathoners. Running 5K distance can even provide a greater incentive for older and heavier runners to compete [12].

According to marathoners, although the relationship between reasons for participating in the marathon run and many years' experience remains unclear [13], in 1994, a comparative study of Japanese and Anglo-American marathon runners pointed out that there are cultural differences in terms of achievement motivation among participants in competitive sports from different regions of the world [14]; therefore, from these results, we can see how environments and social context matter, and likewise, family context has an influence on athletes' motives to run [41]. Other than that, when it comes to ultramarathoners, it seems that the very decision to take part in an ultramarathon run refers to the fact of adopting a new social identity and entering the subculture of runners [37]. These results could be related to the highest scores obtained in our research according to life meaning motives of ultramarathoners.

Studies into those with the longest indicated distance were carried out by Hoffman, Ong, and Wang [17], who diagnosed trends in participation in competitions held from 1977 to 2008 in North America. On the other hand, Hoffman and Krishnan (2013) also showed that running injuries were the most common reason for quitting regular running, while among people who regularly ran and intended to participate again in ultramarathons, they ultimately did not, with the main reasons for withdrawal from the race being professional and family duties [18]. Our results showed that health orientation motives to participate of ultramarathoners were the lowest, followed by marathon runners and 5K runners. For their part, Malchrowicz-Moško and Waśkiewicz [22] analyzed the impact of family and partner relationships on the motivation behind participating in ultramarathons and found that running ultramarathons can be a threat to the relationship. It is therefore good practice to start running together or organize running events together involving family members.

Although no differences were found between running ultramarathon, marathon, or 5K depending on marital status, it should be noted that we are dealing with individual sports disciplines. These results are in line with a previous study carried out in a marathon, where marital status did not show any significant result [37]. Training in terms of its scope can be adapted to one's (or one's family) schedule of the day, as it is not dependent on organized training, as, for example, in the case of team sports. This requires us to exert discipline in a team and train according to schedule, as well as adapting to the competition schedule. For this reason, it is easier to get involved in running and freely choose hours for training or events in which we will take part than to participate in regular meetings, e.g., after work, during time we could spend with our family.



Our results showed, in turn, that concern about weight increased with age in all sports analyzed. In addition, in the case of 5K run and marathon runners, concerns about body weight decreased between the ages of 36 and 50, and then increased in those over 51. The results can also be interpreted in that as we approach early adolescence and early adulthood, we become concerned about weight gain, insofar as fears related to the feeling of being unattractive give rise to intentions to prevent weight gain. This is confirmed by Smith and colleagues [48], who described how overweight or obese young adults in early adolescence recalled early adolescent weight-related awareness and concerns. These young adult men saw that the problem of weight gain was also linked to problems with lower self-esteem, fewer friends, and more victimization in early adolescence. Another study found that weight anxiety and the desire to lose weight tended to increase on completing school [49]. This is probably a consequence of the need to ensure a good physical image for oneself, because that is when there is most often a desire to make changes, as well as pursue exploration in terms of finding one's own identity and life roles [50]. The results obtained by Whitehead et al. [40] also confirmed this, revealing that younger participants were motivated by the need for self-esteem, fitness, and performance-related motives. However, at the age of 36–50, aesthetics begins to lose their importance and other concerns arise, such as work stability or family reconciliation. This was already noted by Erikson [51] when he characterized the stages of psychosocial development in a person relating to a specific series of phases in the life cycle. The transition from the age of 35 from early adulthood to middle adulthood makes people take more responsibility in fulfilling their roles and focus primarily on their work and family. Butkovic et al. [52] noted that this is due to the will to ensure stability in terms of already well-established social relationships that had been hitherto established in earlier stages of life.

The prevalence of obesity among the elderly is steadily increasing [53], and the health implications involved in preventing weight gain are important motivating factors for them [54]. In particular, after the age of 50, concern about weight increases again, albeit not for aesthetic reasons (as in the case of young people), but for health reasons—as a priority for people in more advanced age groups. This was confirmed, *inter alia*, by Medley [55] and George and colleagues [56]. It was also noticed by Ogles and Masters [57], who noted that younger athletes were more motivated by personal achievement, while older athletes were motivated by the meaning of life and a sense of belonging with other runners, but above all, by general health orientation and concern about weight. Concern about health, and hence, about limiting weight gain, is growing. These findings have some practical applications, since understanding the differences in motivation between the groups of runners can be useful for coaches, sports psychologists, and health professionals, when promoting participation or to just to be able to better understand what motivates people to run.

The study has some limitations, since family situation could have been completed with a more detailed information, e.g., whether the participants have children, or if within singles runners, the individual is unmarried or divorced, beyond marital status (single, married, divorced). Likewise, another limitation of the study was that not many participants under 18 years old took part in these sporting events, so these athletes could have been included in the next category (>19) and extend it to starting from 18 years old. The large number of items could have had some influence on responders, and the cross-sectional study design was another limitation, as it does not allow establishing causal relationships among the study variables. Despite these limitations, very few studies have analyzed the influence of marital status on runners' motivation to run [14], and this is the first investigation to attempt to see whether there is an association between athletes' motives to run and family status in different running distances. For future research, it would be useful to detail deeper the family situation variable, and to analyze motivational aspects and the family situation according to different performance levels.

## 5. Conclusions

This study provides useful information on the differences in motivation behind running among 5K, marathon, and ultramarathon runners in terms of gender, age, and marital status. No significant differences were found in any of the disciplines based on gender or marital status, although the results showed that weight concern increased with increasing age range in the case of all the running distances analyzed. In addition, in 5K and marathon runners, weight concern decreased in the 36 to 50 age range, and subsequently increased in those over 51 years of age. Understanding the differences in motivation noted between the groups of runners we have identified can be useful for coaches, sports psychologists, and health professionals, as they will all be able to better understand what motivates people to run, as well as how to help them achieve their goals and challenge them to meet their specific needs. This is especially important, as running has gained a lot of popularity over the years, and so many runners will most likely want to use specialists to help them overcome their first run and then prepare them to run longer distances. Further research should therefore look at the motivation of gradual runners, ranging from training and short-distance runs to long-distance racing, so as to determine whether specific motives are more related to the amount or intensity of training, distance, or entirely different variables.

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**Informed Consent Statement:** The questionnaire did not require the completion of a separate participant information sheet or consent form but clearly indicated that all questionnaire takers give informed consent to the study. Respondents were informed about the course and character of the survey. The survey was voluntary and confidential.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author. The data are not publicly available due to no access to publicly repository.

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