Original Article

Reasons for trail running practicing in pre-absolute categories and its influence on their personal development

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Abstract

Due to the growing increase in participants in trail running and the earliness in their practice, the need to know the reasons why these young people decide to engage in this demanding sport has arisen, as well as how it influences their personal development.

40 technified athletes from all over Spain (28 men, 12 women) participated in this mixed study to answer the different questions raised.

It was observed that most of them began to practice it thanks to people close to them (60%). In terms of the aspects that have been influenced by the practice of this sport, they include; their outlook on life (29%), their habits and responsibilities (28%) and friends (26%). Finally, 48% of participants found that trail running can help them with their mindset to face problems and other situations in the future from which it is concluded that trail running could stimulate the development of a resilient personality (hardiness) among its practitioners.

Keywords: Mountain running, endurance, young, personality, hardiness.

Introduction

Mountain races are a sport specialty that consists of running in low, medium and high mountain, either summer or winter, performing the itinerary on foot, in the shortest possible time and with maximum respect for the environment (FEDME, 2014, p.4).

Despite the fact that running by the mountains has been done since the origin of man, the sportive practice of this activity is much more modern. We found, as first written reference, Ben Nevis race, held in 1895 (MacLennan, 1998). In Spain it was not until 2001 when the 1st Spain Cup mountain races (FEDME, 2014b) was organized. We are speaking about a sport which still developing.

The popularity of trail running has grown a lot in recent years (Hoffman and Wegelin, 2009). Despite studies are underway on this sport, we found that most of them are focused on reducing fatigue or on muscle development in ultra-distance (Millet et al, 2011; Knoth et al, 2012; Hoffman and Krishnan, 2013; Zingg et al, 2014; Peter et al, 2014; Vernillo et al, 2014). Some researchers have studied the relationship between age, sex and trail running practice (Eichenberg et al, 2012). Others have tried to find relationships between age and performance improvement (Burtscher, Förster and Burtscher, 2008; Easthope et al, 2010).

Many works are currently appearing in this sport, linking biomechanic factors (Vernillo et al., 2017) or energy cost (Ortiz, Giovaneli and Kram, 2017) with different uneven terrains. But, despite all this growth and interest, there is little literature to analyze the reasons for their practice or studies with young riders.

We can find a large number of researches about the reasons to start running and / or to participate in popular races. Already in the '70s Morgan and Pollock (1977) indicated that the reasons to start running are caused by several factors, including the influence of family or friends, keeping fit or losing weight.

In this line, Summers, Machin and Sargent (1982) indicated that the main reason for running was "improve physically," followed by "lose weight" and "feel healthy and better." They also indicated that the main reason for running a marathon was the "personal challenge" over "improve physically".

Clough, Sepherd and Maughan (1989) analyzed the main reasons why people participate in popular races and the classified into six; Wellness, Social, Challenge, fitness, health and Addiction. Coinciding the first 4 as main ones to a wide range of leisure activities. While it is true that, in order of importance, highlighted "Challenge", followed by "health / fitness" and "wellness".

A subsequent similar study on amateur runners (Llopis and Llopis, 2006), found that the main reason is "the satisfaction that it produces" followed by "achieve a goal set".

Focusing on the sport of our study, Getz and McConnell (2014) made a comparative analysis of trail runners and mountain bikers to find what motives that drove them to practice these sports. They found that the dominant motivation for both samples and for both, men and women, was "personal challenge", concluding that participation is more directed towards a physically demanding sport than to a certain type of sport. In the same

vein Coelho et al (2015), in a study about the motivation to practice trail running, concluded that it was mainly practiced for intrinsic causes against other external causes.

These data reveal several reasons for practising endurance sports, but none of these studies are focused on young trail-runners, for this reason, and based on the data presented, the aim of our research is to discover the reasons that draw young people to practice trail running. It also seeks to know what brings them and what aspects of their lives have been influenced by this fact. Finally, it seeks to be spearhead in this subject and leave the door open to future researches on age limits, training adaptations, compare health implications, etc.

Research Issues

The aim of the study is trying to know the reasons that prompted these young athletes to start practising this sport, as well as how its practice affects to their lives. To know it, three main research questions were raised:

1. To discover the reasons that draw young people to practice of trail running.
2. To identify which aspects of their lives are influenced or has been influenced by the practice of trail running
3. To know in what way they consider that, practising trail running, can help them in their personal and/or professional future

In addition to these issues it was also observed whether there were differences in responses by gender of the participants.

Methodological Design

The present work is a mixed study with a qualitative base, but also using quantitative analysis, thus access parts of the study that are interesting but not accessible only by using the first method (Morse, 1991). It took place during a sport concentration organized by the Spanish Federation of Mountain Sports and Climbing (FEDME), 17 to 19 July 2015.

Participants

This concentration was attended by members of various national regional teams. The sample consists of 40 runners between 16 and 23 years. (28 men, 12 women) belonging to the Cadet, Junior and Under-23 categories. It should be noted that among the interviewees there are high level athletes in their categories, as well as others whose career is beginning, which brings diversity and richness to the study. The sample selection was intentional and subject to availability thereof (Padua, 1979).

Instruments

To carry out the following research, we counted with the following instruments:

- To try to answer the questions raised, an open answer questionnaire consisting of 3 questions was used:
 1. What are the reasons you started practising trail running?
 2. Which aspects of your life have been influenced by the practice of trail running?
 3. How do you think that practising trail running can help you in your future? What can influence or improve your lifestyle?
- They were also asked about:
 - Sex, age, hours of training time practising this sport and if you routinely practiced other sport.
- The data obtained were analysed with AQUAD 6.3 program (Huber and Gürtler 2004).

Statistical Analysis:

For the statistical analysis we proceeded to the relation of the z Test, a specific test for the comparison of proportions. This test is an alternative to the chi-square test (X^2), It is based on the quotient that results from dividing an effect between an error. In this case, the effect will be the difference between the two proportions, and the error will be the standard error of the difference of proportions (SEDP).

$$z = \frac{\text{effect}}{\text{error}} = \frac{\text{proportion differences}}{\text{SEDP}} = \frac{p_1 - p_2}{\sqrt{\frac{p \times q}{n_1} + \frac{p \times q}{n_2}}}$$

Process

For data acquisition, the second day of the training camp we met the participants, explained them the project and how to proceed, the open-answer questionnaire was given, with time enough to respond calmly. After this phase, we proceeded to read the answers, coded them as shown in Annexes I and II and introduced into AQUAD for analysis. After that we did the statistical analysis (Z test)

Results

Descriptive results show that most of the participants have been practising this sport between 1 and 2 years (37.5%) and many of them are in their first year of practice (30%). Only 5% have been practising for over five years.

On the other hand, most participants spend more than 10 hours a week to train for this sport (52.5%) and only 10% will spend less than 6 hours per week (Table 1).

Table 1. Weekly hours devoted to training

weekly training	cases found	Frequency	Total participants
0 to 5 hours	4	10.0%	40
6 to 10 hours	15	37.5%	40
over 10 hours	21	52.5%	40

Category 1: Reasons to start practising trail running

This topic is composed of a variable that explain the reason or reasons that carried these young runners to start in trail running (1.1 REASONS Meta-code), and showed the following results (Table 2):

Table 2. Reasons for start practising the Trail-running.

Code	cases found	Presence code	Frequency	Participants	Total Answers
1.1.1 persocer	24	60.00%	0.40	40	60
1.1.2 cercania	17	42.50%	0.28	40	60
1.1.3 otrdxt	19	47.50%	0.32	40	60

The results obtained show three main reasons why the interviewees began to practice this sport, highlighting “close people” (Ref. 1.1.1 persocer) with a 60% presence. Although the options concerning the “closeness of the environment” (code.1.1.2 cercania) or coming from “Another sports” (Ref. Otrdxt 1.1.3) also have an important presence with 42.50% and 47.50% respectively. It is important to note that, in almost all cases, the answers combined two of these causes at the same time.³

When comparing responses between men and women (Table 3), we observed that in men the three reasons are more equitable and the proximity of the environment is a bit more important (53.57%) with respect to the origin from other sports (50%); while, in women, the proximity of the environment does not seem to be a strong reason (16.67%), being much more significant the practice due to close persons (66.67%).

Table 3. Comparison between men and women for the practice of Trail running.

Code	Cases found M.	Total Men	Cod presence Men	Cases found W.	Total Women	Cod Presence Women
1.1.1 persocer	16	28	57.14%	8	12	66.67%
1.1.2 cercania	15	28	53.57%	2	12	16.67%
1.1.3 otrdxt	14	28	50.00%	5	12	41.67%

After analyzing data using "Z" test (Table 4), the results obtained showed that, those differences we observed are significant comparing code 1.1.1 and 1.1.2 in women answer ($p=0.013$) Significance also appears when we compare answers about the reasons why men and women started to practice this sport. Being results for code “closeness of the environment”(1.1.2 cercania) significantly different for men and women ($p=0.030$)

Table 4. “Z” test analysis of the answers for “Reason for start practising trail running”

Gend	Code Comp.	n1	N1	%	n2	N2	%	P	Z	p
Men	1.1.1 vs 1.1.2	16	28	57.14%	15	28	53.57%	0.554	0.269	0.788
	1.1.1 vs 1.1.3	16	28	57.14%	14	28	50.00%	0.536	0.536	0.592
	1.1.2 vs 1.1.3	15	28	53.57%	14	28	50.00%	0.518	0.267	0.789
Wom	1.1.1 vs 1.1.2	8	12	66.67%	2	12	16.67%	0.417	2.484	0.013
	1.1.1 vs 1.1.3	8	12	66.67%	5	12	41.67%	0.542	1.229	0.219
	1.1.2 vs 1.1.3	2	12	16.67%	5	12	41.67%	0.292	-1.347	0.178
M-W	1.1.1 M vs W	16	28	57.14%	5	12	66.67%	0.600	-0.563	0.573
	1.1.2 M vs W	15	28	53.57%	2	12	16.67%	0.425	2.164	0.030
	1.1.3 M vs W	14	28	50.00%	5	12	41.67%	0.475	0.484	0.629

Going a bit deeper in the analysis, we discovered that, in the code with more presence (code. persocer 1.1.1), several differences exist. While some participants started in this sport because they used to go out to the mountain or countryside 3 with their family;

Before running by the mountain, I used to go therein the mornings with my father and it was normal on Saturdays and Sundays and I was hooked, little by little, to run on the mountain. (Participant004).

Others started running directly with a group;

It was for a bet between friends, they signed up for a race nearby and we bet to see who finished it. We started training often and, after this, I was hooked. (Participant032)

Regarding the origin from other sports (code. Otrdxt 1.1.3), we find cases of participants who come from other sports disciplines related to running or mountain.

I used to practice athletics with friends and one day we started doing some trainings in the mountains to work the strength. I enjoyed it and it filled me much more than athletics, so I started to run mountain races and I leave athletics. (Participant036)

However, some others decided to start in trail running coming from very different sports.

Almost always, I've been a football player. However, an injury in the anterior cruciate ligament left me crippled for one year [...]. On the other hand, I started running by the mountain with a high school classmate [...]. This new and still undiscovered world was progressively fascinating me. (Participant009)

The element "closeness of environment" (Ref. 1.1.2 cercania) is very close to the other two codes, as this favored going out with family or start training for this environment.

My father has always been a mountain lover and I used to go out with him when I could. A race near my village was organized and I signed up with a friend to try. [...] and I started training. (Participant035)

Category 2: Aspects of life influenced by the practice of trail running

The variables that make up this category try to show which aspects of their lives they consider to have been affected by the practice of this sport, either positively or negatively. (2.1 EXPERIENCED CHANGES Meta-code). The answers can be grouped into 4 codes (Table 5):

Table 5. Personal aspects that have been influenced by the practice of Trail running.

Code	cases found	Presencecode	Frequency	Participants	TotalAnswers
2.1.1 selfisme	12	30.00%	0.17	40	72
2.1.2 friendship	19	47.50%	0.26	40	72
2.1.3 habyres	20	50.00%	0.28	40	72
2.1.4 phylos.	21	52.50%	0.29	40	72

It is observed that the answers are very tight. However, when we analyze by gender we find some differences (Table 6):

Table 6. Influence of trail running practice in the lives of respondents by gender.

Code	Cases foundM.	TotalMen	Cod presenceM.	Cases W.	TotalWomen	CodpresenceW.
2.1.1 selfisme	7	28	25.00%	5	12	41.67%
2.1.2 friendship	13	28	46.43%	6	12	50.00%
2.1.3 habyres	13	28	46.43%	7	12	58.33%
2.1.4 phylos	16	28	57.14%	5	12	41.67%

It is observed that, while for men the main changes are developed in line with their way of facing or understanding their lives (Ref. 2.1.4 phylos) with a 57.14% presence, in women the main aspects that influenced sports are in their habits and responsibilities (Ref. 2.1.3 habyres) with a 58.33% presence in their responses. We can also see a higher proportion of women, in terms of percentage, whom answers are related to physical and mental health (code. 2.1.1 selfisme) with a 41.67% versus only 25% of men.

Z analysis (table 7) for these results didn't show important differences within the answers "intra" and "inter" gender, finding only significantly important the difference between code 2.1.1 and code 2.1.4 ($p=0.014$) having the second one a bigger presence in answers.

Table 7. “Z” test analysis of “Aspects of life influenced by the practice of trail running”

Gend	Code Comp.	n1	N1	%	n2	N2	%	P	Z	p
Men	2.1.1 vs 2.1.2	7	28	25,00%	13	28	46,43%	0,357	-1,673	0,094
	2.1.1 vs 2.1.3	7	28	25,00%	13	28	46,43%	0,357	-1,673	0,094
	2.1.1 vs 2.1.4	7	28	25,00%	16	28	57,14%	0,411	-2,445	0,014
	2.1.2 vs 2.1.3	13	28	46,43%	13	28	46,43%	0,464	0,000	1,000
	2.1.2 vs 2.1.4	13	28	46,43%	16	28	57,14%	0,518	-0,802	0,422
	2.1.3 vs 2.1.4	13	28	46,43%	16	28	57,14%	0,518	-0,802	0,422
Wom	2.1.1 vs 2.1.2	5	12	41,67%	6	12	50,00%	0,458	-0,410	0,682
	2.1.1 vs 2.1.3	5	12	41,67%	7	12	58,33%	0,500	-0,816	0,414
	2.1.1 vs 2.1.4	5	12	41,67%	5	12	41,67%	0,417	0,000	1,000
	2.1.2 vs 2.1.3	6	12	50,00%	7	12	58,33%	0,542	-0,410	0,682
	2.1.2 vs 2.1.4	6	12	50,00%	5	12	41,67%	0,458	0,410	0,682
	2.1.3 vs 2.1.4	7	12	58,33%	5	12	41,67%	0,500	0,816	0,414
M-W	2.1.1 M vs W	7	28	25,00%	5	12	41,67%	0,300	-1,054	0,292
	2.1.2 M vs W	13	28	46,43%	6	12	50,00%	0,475	-0,207	0,836
	2.1.3 M vs W	13	28	46,43%	7	12	58,33%	0,500	-0,690	0,490
	2.1.4 M vs W	16	28	57,14%	5	12	41,67%	0,525	0,898	0,369

A total of 21 respondents (52.5%) said they recognize that the practice of trail running had made them change aspects of their way of understanding life, relating the way of understanding the sport, the way of living nature, the importance sacrifice ... in this code responses such as the following are included:

[...] If anything defines a "trail-runner" is that he lives, in my view, a simple life, but "rich" in many aspects (values, ethics, sociology, way of life ...) conformism and desire of improvement that are reflected many times, not only in sports, but personal, work ...and for me that is very good. (Participant 001)

[...] It allows me to disconnect from who I am, that is, my daily student and personal life. During my mountain training, I achieve a total disconnection of my being, I remain with my mind blank. In this way, I get a great relaxation. (Participant 009)

We can see this code includes different answers, but in turn, related to the way of understanding life and sport.

The second aspect in which trail running had influenced interviewees lives, was on their habits and responsibilities (Ref. 2.1.3 habyres) with 50% presence of the code. Participants commented on the need to learn how to organize in order to carry out the training. Wake up early and/or prioritize certain aspects to achieve what they want. Many of them highlighted the studies within this point, some spoke of the need to change schedules while others indicated that they prefer to dedicate time to training even though this may lower their academic performance a little..

It has changed, especially my schedule and my weekends, I have to adapt them to my training period. (Participant 029).

It has made memore responsible in terms of organizing my time, it has also influenced my capacity for effort and sacrifice. (Participant 036).

The third more referencedcode refers to personal relationships with friends and people(Ref. 2.1.2 friendship). 47.5% of subjects alluded to this aspect, although with some differences, most of them talked about new friendships achieved thanks to this sport, but there were several interviewees who mentioned that, sometimes,they had to leave their friends asidebecause of training or competitions.

[...] in many occasions, you see how your friends go out partying and you are, that same weekend, 22h in a van, traveling to the other side of Spain, and without being able to be with them. (Participant 014).

I live far from my for studies and training, but the most important thing is to know places and very special people with the same passion as me (Participant011)

Finally, we find 12 participants (30%) who referred to issues related to health. Noted that the percentage of women who included this aspect was quite higher than men, (41.67% vs 25%).

How to lead a healthy lifestyle in terms of ways to have fun, absenteeism from alcohol, relationships... (Participant001)

Category 3: How can the practice of trail running to help in the future

Asking this question was intended to make respondents reflect on their future and the influence this sport can have for them (metacode 3.1 FUTURE INFLUENCE).In this way it is intended to know more in depth the vision they have of this sport and we can analyze if they find in it any relationship between their practice and other aspects of their lives. The data that was obtained were these (Table 8):

Table 8. Areas in which the "Trail running" can help in the future

Code	cases found	Presencecode	Frequency	Participants	TotalAnswers
3.1.1 Mentali	29	72.50%	0.48	40	61
3.1.2 habsalu	25	62.50%	0.41	40	61
3.1.3 profes	7	17.50%	0.11	40	61

The aspect that appeared in a greater number of answers was the one who alluded to mentality when facing situations in his life, put strategies into practice, when it comes to organizing ... (Ref. 3.1.1 Mentali) with a 72.5% presence. There were also many participants (62.5%) who indicated that it could help them on issues related to health and healthy habits (code. 3.1.2 habsalu). Finally, there were seven participants (17.5%) who saw intrail running a possible way for their future career.

According to the gender of participants (Table 9) we find that there are equivalences in answers between the data of men and women. Both of them answered mostly code 3.1.1 and 3.1.2:

Table 9. Comparison of gender aspects in which the "Trail running" can help.

Code	Cases foundmen	Totalmen	Cod presenceM	Cases foundM	TotalWomen	Codpresence W
3.1.1 Mentali	21	28	75.00%	8	12	66.67%
3.1.2 habsalu	17	28	60.71%	8	12	66.67%
3.1.3 profes	5	28	17.86%	2	12	16.67%

A "Z" analysis of the answers (Table 10) supported it and showed significative differences intra gender between code 3.1.1 vs 3.1.3 ($p=0.000$ in men and $p=0.013$ in women) and between code 3.1.2 vs 3.1.3 ($p=0.001$ in men and $p=0.013$ in women) and no differences inter gender.

Table 10. "Z" test analysis for "How can the practice of trail running to help in the future"

Gend	Code Comp.	n1	N1	%	n2	N2	%	P	Z	p
Men	3.1.1 vs 3.1.2	21	28	75,00%	17	28	60,71%	0,679	1,145	0,252
	3.1.1 vs 3.1.3	21	28	75,00%	5	28	17,86%	0,464	4,287	0,000
	3.1.2 vs 3.1.3	17	28	60,71%	5	28	17,86%	0,393	3,283	0,001
Wom	3.1.1 vs 3.1.2	8	12	66,67%	8	12	66,67%	0,667	0,000	1,000
	3.1.1 vs 3.1.3	8	12	66,67%	2	12	16,67%	0,417	2,484	0,013
	3.1.2 vs 3.1.3	8	12	66,67%	2	12	16,67%	0,417	2,484	0,013
M-W	3.1.1 M vs W	21	28	75,00%	8	12	66,67%	0,725	0,541	0,589
	3.1.2 M vs W	17	28	60,71%	8	12	66,67%	0,625	-0,356	0,722
	3.1.3 M vs W	5	28	17,86%	2	12	16,67%	0,175	0,091	0,928

According to participants, the practice of this sport can help in aspects of mentality, both when facing different situations when it comes to understanding life. Different approaches within the code are observed. While some consider that being more adapted to effort and sacrifice can help them:

To deal with any other activity. In mental aspects, this sport requires many hours, so you have to be strong to endure, suffering at first, because then probably will go better; In addition you learn that luck does not exist, that is for those who work for it and you understand that if you want to reach any objective, it needs a lot of work. (Participant 012)

Others comment that to continue practising this sport in the future, can help them freeing them from tensions and stress:

In the studies can help me to take them in a more bearable and enjoyable way. The constant pressure and stress of studies can be counteracted with the daily practice of this sport. (Participant 010)

Secondly, the interviewees commented that, in the future, trail-running can help them in matters related to health (code. 3.1.2 habsalu), encompassing all kinds of aspects related to it, whether physical improvement, worry about feeding or feel good about yourself:

In physical aspects it can help me positively. I also think it will help me to improve my relationships with people. In addition, it has also helped me and continue helping me in mental aspects, it makes me feel better. (Participant 34)

In my opinion, especially making the roll of psychologist. Many times, going out to "take the air" after a horrible day, makes me feel calmer. It even helps to avoid fights at home, since it gives you time to think things through. (Participant 014)

In these comments we emphasize that the different participants allude to aspects of physical, mental and social health.

Finally, a group of participants (17.86%) indicated they could find in the trail running aid or pathway for future employment (code. 3.1.3 profs).

[...] As I study physiotherapy, it can still be useful to me in this regard if I get to know the sport well.
(Participant 038)

Discussion

In view of the results we can extract the percentage of women who participated in this study (30%) is quite high when compared to the average women who usually participate in endurance competitions, which usually does not reach 10% of participants (Salguero and Martos, 2011). Note that the selected sample represents largely the percentage and number of athletes in this age group often participate in national competitions of this sport.

It is observed that, despite the age of the participants, the number of weekly hours dedicated to training is quite high, which shows that they take it seriously and are committed to this sport. But also the fact that 37.5% of study participants spend between 6 and 10 hours per week and 52.5% will spend more than 10 hours opens the doors to the need to analyze what percentage of hours is appropriate to train this sport, as studies such as Huxley, O'Connor and Healey (2014) indicated that the usual training volumes, in elite athletes, based on age range, were; from 13 to 14, 5.69 ± 2.53 h/w; from 15 to 16, 7.30 ± 3.3 h/w and from 17 to 18, 8.92 ± 3.69 hours/week. These numbers coincide largely with Henriksen, Stambulova and Roessler (2010) research, but, by contrast, they differ greatly from the hours spent by young athletes of other sports such, as gymnasts, with an average of 14.7 hours / week with a range varying between 8.5 and 20 hours depending upon the season.

The results on the reasons for start practising trail running showed that the main motive was due to close people, followed by other sports and the closeness of the environment, but they used to combine two of them in almost all cases. It shows that both, social life and natural environment, have a great influence and are decisive for the initiation in this sport, as happens in another sports (Dishman, Sallis and Orenstein, 1985). Palau et al (2005) indicated that the main influence for young sports initiation are friends (38.1% men and 27.9% women) and the second parent (26.6% men and 25.9% women). We find that, as in our study, close people are the leading cause of sports initiation, although it is true that in our study the percentage is higher in women (53.33%) than men (35.56%) while studying Palau et al. (2005) is reversed.

Concerning the second issue, the results show that, for men, highlight more personal aspects or related to the way of understanding the sport and life, followed by other aspects related to their responsibilities and friendships as study schedules, weekends... However, for women habits and responsibilities stand out, moving to a third place "philosophical" or personal aspects.

Although no studies have been found that talk about these changes, it could be related to the reasons why some people leave sports, because according to Palou et al. (2005) the main causes of abandonment are "lack of time" (37.3% M and 39.7% W) and "other preferences" (24.9% M and 25.2% W). Pretexts that are related to the aforementioned aspects. In addition, these answers could be related to our third question.

Our last question was intended to make interviewees reflect on the possible future influences that this sport could have on them and how it could help them in their lives. The data obtained show that the participants consider that it could help them in their way of facing problems and facing difficult situations, since this sport requires a lot of effort and sacrifice, as well as mental strength to overcome certain states of fatigue.

This could be drawn that the trail running can help them to forge a fighter and harder character as well as teaches them to face defeat and victory, Which would confirm the concept of "resilient personality", resilience or hardiness defined by Kobasa and Maddi (1977) and usually develops in endurance runners (De la Vega, Rivera and Ruiz, 2011). More recently, the researchers ChacónCuberos, Castro-Sanchez, Espejo-Garcés and Zurita-Ortega (2016) conducted a study analyzing resilience in football, handball and skiing, demonstrating that it is in this last sport that shows greater resilience. This sport coincides in different aspects with the trail-running, therefore, although it would be more specific to analyze mountain races, it is observed that endurance sports are related to the development of resilience.

With this, and based on the review by García Secades, Molinero, RuízBarquin, Salguero, De la Vega, and Marquez (2014) on resilience in sports, could conduct a further study to assess the degree of resilience of this type of athletes.

Conclusions

It is concluded that the main cause to start in the practice of trail running is, frequently, having close people who introduced them to the sport. But this reason is usually not enough, but appears by the combination of two reasons. In addition, the approach to this sport because of people close to it, is normally more common in women than in men, as well as the proximity of the environment, that is hardly important for women while it does seem to be an imperative reason for men.

From the results we can extract that this sport can help them to mature, take responsibility, and organize themselves. It is observed that the participants consider that it can help them to meet people with the same

concerns as them, which leads them to a healthier entertainment mode. Surprisingly for all of them the topic related to health appears as the last aspect that has changed due to the practice of sport.

We can also conclude that practising trail running can also develop a “resilient personality” or hardiness, what is important and useful, not only for the sport, but also to face different aspects of their lives. Apart from this, participants also understand, that sport will improve their health in long term.

Finally, it should be noted that, after all the above, it seems that there are significant differences in the answers depending on the gender in terms of the causes for which they started in this sport and the aspects of life which has been influenced by the practice of trail-running. Although the inequalities are less in terms of the perception of how it can influence or help them in their future.

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ANNEXES
Annex I: code table

1. Reasons to start practising trail running	1.1 STATEMENT	1.1.1 persocer Closepeople
		1.1.2 cercania closeness of the environment
		1.1.3 otrdxt Anothersports
2. Aspects of life that have been influenced by the practice of trail running	2.1 CHANGES EXPERIENCED	2.1.1 selfisme Physical and mental health
		2.1.2 friendship Friends and other people relationships
		2.1.3 habyres Habits and responsibilities
		2.1.4 edges Lifephilosophy
3. How you can help or affect the practice of trail running in your future	3.1 FUTURE INFLUENCE	3.1.1 Mentali Mentality and thinking
		3.1.2 habsalu Healthyhabits
		3.1.3 profes professionalaspects

ANNEX II: Definition of codes

1. REASONS TO INITIATE THE PRACTICE OF TRAIL RUNNING	
1.1 Reasons	
1.1.1 Close people [Persocer]	Reasons they started this sport are related to people close as family, friends ...
1.1.2 Proximity of environment [cercania]	Why they started practising this sport it is by proximity: mountains nearby, and easy access to natural environments, races or very close to their environment activities ...
1.1.3 Other sports [otrdxt]	The motivation to start trail running comes from the practice of other sports.
2. Aspects of life that have been influenced by TRAIL RUNNING PRACTICE	
2.1 EXPERIENCED CHANGES	
2.1.1 Physical and mental health [Salfisme]	Health-related issues, either better shape physically, mentally feel stronger, better about yourself ...
2.1.2 Friends and people [friendship]	The changes that have suffered the lives of those interviewees relate to friends and/or personal relationships, either positively or negatively
2.1.3 Habits and responsibilities [Habyres]	Changes have occurred in the field of personal habits and responsibilities of respondents, referring to issues such as schedules, obligations, commitments ...
2.1.4 Life philosophy [phylos]	Changes in mentality, referring to aspects related to the philosophy of life, respect for nature, ways of seeing the sport ...
3. HOW YOU CAN HELP PRACTICE TRAIL RUNNING IN THE FUTURE	
3.1 FUTURE INFLUENCE	
3.1.1 Mindset and thought [Mentali]	The influences of the sport in the future would be related to the mentality when facing situations in your life, implement strategies, when organized ...
3.1.2 Healthy habits [Habsalu]	The trail running can help on issues related to health, encompassing at this point; muscle enhancement, found healthy, worry about improving food, feel good about yourself / a.
3.1.3 professional aspects [profes]	The participant believes that the sport could help professionally in the future, either competing to "professional" level or engaging in any related work.