

Influence of Perceived Parental Education Styles on Hardy Personality in Sport

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Abstract

Hardy personality plays a key role in sport due to the positive outcomes that has shown in sport performance. Consequently, it is salient to know which parental educational style is more related to positive characteristics of personality such as hardiness. Therefore, the objective of this research was to study the differences in perceived parental education styles in adult athletes with high and low levels of hardy personality. The sample consisted of 502 athletes from Spain (153 were women and 349 were men) between 18 and 64 years old ($M = 27.76$; $SD = 9.11$). A series of self-report questionnaires were fulfilled: an *ad hoc* sociodemographic questionnaire, the “Multifactor Self-Assessment Test of Child Adjustment”, the “Marathon-Hardy Personality Scale” and the Oviedo Scale of Infrequency Response. Firstly, sample was grouped in two groups. Secondly, the results of independent sample t-test showed higher levels of father protectionism and mother restriction in the low challenge scores group. Also, men educated that perceived to be educated by authoritarian parents reported lower commitment. Results also showed higher levels of care education close to mother protectionism, father restriction and mother restriction in the low hardy personality group. It was concluded that there are other variables that influence more on hardy personality in athletes apart from parents. Although challenge, hardy personality and commitment in men reported an influence by parental educational styles.

Key words Parents, education, athletes, performance, relationship.

Introduction

A hardy personality is defined as a personality factor characterized by the ability to cope effectively with stress, this personality factor comprise commitment (the way that an athlete is commit with his/her daily work), control (the feeling that an athlete control his/her life) and challenge (the ability to find challenge in all life tasks) (Golby and Sheard, 2004; Jaenes et al., 2009; Maddi and Hess, 1992). Also, hardy personality has been shown to relate to excellent achievements in sport, because have high levels of hardy personality is an important factor to facilitate the access to high sport performance (reach international and national successes, be involved in sport performance centers and work as a professional athlete) (González-García, 2017; Jaenes et al., 2009). Parental education is related to numerous variables of children psychosocial development, including personality variables (Kunnen et al., 2019; Torio et al., 2008). Concerning that, the more that children are educated towards hardiness, the better that they can perform in sporting context, and as a result, it can be a

powerful tool to facilitate access towards success in sport (González-García and Pelegrín, 2015). As a novelty of this work, parental educational styles are measured in order to know if they are related to hardy personality. Therefore, due to the link and interest between parental education and hardiness, the present work pretends to shed light on this lack of evidence in literature.

Parental education styles, according to Aroca (2010, p.84) can be understood as “the set of patterns and parenting practices, whose objective is children socialization and education, where personality traits, past experiences and genetic characteristics, both parental and filial, that are contextualized within an intra, meso and macrofamiliar system immersed, in turn, within a specific transcultural and historical framework”. In this research, the parents’ educational styles were measured by dividing them into the following styles: democratic, authoritarian, permissive and protective (Vasconcelos-Raposo et al., 2015).

Although there are different classifications of parental education styles, the classic models were used to divide these styles into authoritarian, permissive, democratic (Baumrind, 1967; Baumrind, 1996). Specifically, authoritarian parents value obedience as a virtue, as well as dedication to important tasks, tradition, and preservation of order. They favour punishment, force rules, and/or keep children in a subordinate role to restrict their autonomy (Baumrind, 1996; Kaufmann et al., 2000; King et al., 2016).

On the other hand, permissive parents provide great autonomy to children if their physical survival is not jeopardized. The permissive adult prototype behaves in an affirmative, accepting, and benign way towards child impulses and actions. A permissive parent’s fundamental objective is to free the child from control and to avoid authority recourse. They are not demanding of children in terms of maturity and responsibility in the execution of tasks (Banham et al., 2000; Wischerth et al., 2016).

Lastly, democratic parents do not only try to manage children by imposing mature roles and behaviours, but they also use reasoning and negotiation. These types of parents tend to direct children’s activities rationally. They start from an acceptance of their own rights and duties, as well as the rights and duties of children. It is a style characterized by two-way communication, and a shared emphasis among social responsibility, autonomy development and child independence (García et al., 2002; Mansager and Volk, 2004; Pelegrín et al., 2019; Warash and Markstrom, 2001; Winsler et al., 2005). In turn, each of these parenting styles present several implications in children’s psychosocial development (González-García et al., 2015). Children of democratic parents generally demonstrate high social

competence, self-control, motivation, initiative, autonomous morality, self-esteem, realistic self-concept, responsibility and self-regulated learning (Baumrind, 1996; González-García et al., 2015; Kaufmann et al., 2000; Torio et al., 2008). Children of authoritarian parents display poor emotional adjustment, low motivation for sports, autonomy, self-confidence, and high aggressiveness and anxiety in competition (Baumrind, 1996; González-García et al., 2015; 2019). Finally, children of permissive parents exhibit low levels of maturity, aggressiveness, success, but high sport competition levels, intrinsic motivation and self-regulated learning (Mansager, 2004; Warash and Markstrom, 2001; Winsler and Madigan, 2005).

Hardy personality is related to positive impacts in the sport field because athletes must commit to training daily (commitment). Because situations in sport require athletes to make quick decisions (control), each one of these situations faced by the athlete constitutes a personal growth opportunity (challenge) (Jaenes, 2009; Jaenes et al., 2009). In this sense, hardy personality is a multidimensional psychological variable that allows athletes to transform personal experiences into personal growth opportunities (Eschleman et al., 2010). Hardy personality is divided into three factors: control, commitment and challenge (Jaenes, 2009; Jaenes et al., 2009). In sport, the studies that have examined hardy personality with sport performance showed a positive relationship between both variables (Golby and Sheard, 2004; González-García, 2017; Jaenes et al., 2009; Maddi and Hess, 1992; Rezae et al., 2009). Maddi and Hess (1992) found a positive relationship between hardy personality and basketball performance, indicating that higher-performing players (higher leagues) had higher levels of hardy personality than lower-performing players (lower leagues). Another study by Golby and Sheard (2004) showed that those who participated in higher rugby leagues had higher levels of control, commitment and challenge than the rest from lower leagues. Similar results were found by Jaenes et al. (2009) in a marathoner's sample that showed athletes with better qualifications had better hardy personality levels. In a study by Ramzi and Besharat (2010), hardy personality was found to be associated with sport achievement and psychological well-being. Additionally, Rezae et al. (2009) showed that champion athletes had higher hardy personality levels, in comparison with non-champion athletes. According to Sheard and Golby (2010), international competitors scored significantly higher on commitment and resistance when compared to national athletes and other practitioners. In a doctoral thesis by González-García (2017), collective sport athletes demonstrated higher levels of challenge factor. In addition, athletes who compete internationally and spend more hours in sport training showed higher levels of hardy personality. On the contrary, De la Vega et al. (2010) found no differences between sport performance (better result in a race) and hardy personality levels in ten-kilometre runners and high mountain runners.

In addition, hardy personality subsumes the concept resilience. The main difference between the two concepts is that hardy personality seems to refer to a personality

macrofactor that may include more variables (commitment, control and challenge) beyond resilience (Fernández-Lasac and Crespo, 2011). More specifically, resilience is understood as the ability or competence of subject to deal with unfavourable situations and is conceived as a trait or individual's personality characteristic (Block and Kremen, 1996; Hill et al., 2018). Based on this definition, Grotberg (1995) elaborated on a series of characteristics that parents can create in their children to promote resilience, including social environment (e.g., people who love the child unconditionally, people who look after child security, people with positive behavioural models, etc.), personal resources (e.g., autonomy, self-esteem, impulse control, empathy, optimism, sense of humour) and social skills. According to American Psychology Association (APA, 2016), in order to educate towards resilience, it is recommended that parents teach their children to establish social relations and empathy, help others, maintain a daily routine, set breaks, take care of themselves, and set reasonable goals, nurture positive self-esteem (teach them that they can execute commitments), maintain a positive attitude, look for self-growth opportunities, and accept that change is a part of life.

Once it is explained the theoretical background of the present study, it is important to highlight that there are no previous studies that talk about parental educational styles and its relationship with hardy personality in athletes. To date, most studies of hardy personality and sport are focus on performance and variables related with it (Golby and Sheard, 2004; González-García, 2017; González-García et al., 2018; Jaenes, 2009; Maddi and Hess, 1992; Rezae et al., 2009). Consequently, the present work aims to shed light to the current literature and give the correspondent importance that parents have in hardiness. Therefore, the objective of this research was to study the differences in parental education styles in athletes with high and low levels of hardy personality. It is necessary to know the educational ingredients that parents should teach their children to help them obtain higher levels of hardy personality, and in turn, facilitate access to excellence in sport.

Methods

Participants

The sample collection followed a random model to ensure the higher number of participants. The original study sample consisted of 527 subjects. As a result of correction using the Oviedo Scale, 25 participants answered the questionnaire dishonestly and were deleted, resulting in final sample of 502 subjects. Of the 502 participants, 153 were women (30.5%) and 349 were men (69.5%) between 18 and 64 years ($M = 27.76$; $SD = 9.11$). The unbalance among women and men was due to the lower participation of girls in sport activities and it reflects the real distribution of genders. Regarding sociodemographic characteristics, 282 athletes were not federated (56.2%), 220 were federated (43.8%) and 53 were professional athletes (10.6%). Of the total sample, 246 were individual athletes (67.21%) and

120 were team sport athletes (32.79%). Most athletes practiced: bodybuilding ($n = 77$; 15.3%), cycling ($n = 40$; 8%), running ($n = 39$; 7.8%), table tennis ($n = 34$; 6.8%) and other sports ($n = 277$; 55.17%).

Variables and instruments

Acquiescence and dishonest participants. The Oviedo scale of infrequency response was used (INF-OV; Fonseca-Pedrero et al., 2009). This is a 12-item self-report with a 5-point Likert-type rating scale format (1 totally disagree; 5 totally agree). Its goal is to detect participants who respond randomly, pseudo-randomly or dishonestly on self-reports. The participants with more than 4 incorrect answers were deleted from the sample. In this study, 25 participants were deleted in the sample.

Evaluation of Parental Education Styles. The parents' education styles were measured through "Multifactor Self-Assessment Test of Child Adjustment" (TAMAI; Hernández, 1998). The TAMAI questionnaire consisted of 175 propositions. It is a self-evaluation test on attitudes and behaviours about oneself (personal area), social relation, school and family, as well as about relationships with siblings. Concerning parental education styles, the sub-scale of Parent-Mother Adequate Education Scale was taken from TAMAI scale. Regarding questions about parental education styles, athletes were told to respond to the items of parental education styles by remembering the most frequent education style perceived in their childhood in general without specific any age range, which was what best suit the study goals. Therefore, the questions were asked retrospectively.

The Parent-Mother Adequate Education Scale was used in this study to evaluate parental education practices according to athletes' perception. The instrument is a Dichotomic questionnaire with 2 response options (Yes/No). The scale is divided into the following factors according to father education:

- Assistance-Personalized Education. It is characterized by an education type based on love, on the care, autonomy development, child freedom, and providing adequate regulation. E.g., "My father... treats me very well like an adult"
- Protectionism. It is characterized by worry and excessive attention towards children. E.g., "My father... protect me against those that disturb me"
- Permissive. It is characterized by an excessive concession in children's demands and in reinforcing caprice behaviours: E.g., "My father...let me do everything I want"
- Restriction. It is characterized by an education style opposite to personalized and permissive education. E.g., "My father...few times punish me or argue"

The scale is divided into the following factors according to mother education:

- Care Education Close to Mother Protectionism. It is characterized by a type of education based on love, care and excessive children protection. E.g., "My mother... is too focused on me and worried about what I do"

- Personalized Education. It is characterized by respect and appreciation of parents to the children as people. E.g., "My mother... treats me very well like an adult"

- Permissive. It is characterized by an excessive concession in children's demands and in reinforcing caprice behaviours: "let me do everything I want". "Crying or angry, I always get what I want." E.g., "My mother...let me do everything I want"

- Restriction. It is characterized by an education style that is the opposite of personalized and permissive education. E.g., "My mother... is too demanding and she control me everything I do"

A Cronbach's alpha coefficient of .68 was obtained in the athlete sample, in whole Parent-Mother Adequate Education scale.

Hardy Personality. The Marathon Hardy Personality Scale (EPRM) was used for its measurement (Jaenes et al., 2008). Concerning that scale, it was taken a version adapted to all sport modalities (Jaenes et al., 2008). The Marathon Hardy Personality Scale (EPRM) has a Likert format with 4 alternatives response, from 0 = "strongly disagree" to 3 = "strongly agree". The EPRM is divided into three factors: control, commitment and challenge. The instrument obtained a Cronbach's alpha for this sample of .76 athletes in the whole scale. Moreover, previous studies in Spanish athletes has taken that scale as a valid tool to measure hardiness in sport context (De la Vega et al., 2010; González-García, 2017; Jaenes, 2009; Jaenes et al., 2009).

Process

First, the ethics committee of the Miguel Hernández University of Elche evaluated the study. Subsequently, the Spanish sports federations were contacted online; and coaches and athletes in person. The federations announced on their website regarding the conditions to participate in the study. Then, the athletes who were interested in participating completed the survey in one of the following two methods: (a) contacted the first author by e-mail and received the link to the online survey; (b) contacted coaches in person and gave their email to researchers to receive the survey and instructions through email. In both cases, the survey was done online by the athletes in their free time. Once the participants accessed the survey link, they signed an informed consent form and began to answer the survey items. After completing the survey, the data was uploaded to the application "Google Drive" and saved in Excel electronic format.

Data analysis

The data analysis was performed using SPSS 19 version software. The descriptive analysis of average, minimum, maximum, frequencies, percentage and standard deviation were used to assess the sample characteristics. The t test for independent samples was used to assess the mean differences (among parental educational styles and hardy personality groups) when the variables were quantitative, using a confidence interval of 95% level. Chi-square analysis were performed to ensure whether there was covariation among gender and the hardy personality groups, due

to the unbalance between men and women. The Cohen d (Cohen, 1998) was used to analyse the effect size found in the t tests. Following Cohen's criteria (Cohen, 1998), the effect size results were considered as: $d = 0.20$ (small), $d = 0.50$ (moderate), $d = 0.80$ (big effect).

Results

Firstly, to explore the differences in parents' education styles, according to the groups of high and low hardy personality, independent samples t -tests were performed, in which the sample was divided into High Commitment (HC) and Low Commitment (LC). To separate the two groups using a mean-split procedure, the mean score of the commitment variable ($M = 22.74$) was considered and the standard deviation ($SD = 3.85$), as a consequence this was the cut-off value established to make the groups in order to ensure that scores were significantly different in both cases.

In Table 1, the results did not show significant differences in parental education styles ($p > 0.05$) in the high and low commitment groups.

Second, t -tests for independent samples was performed, in which the sample was divided into High Control (HCN) and Low Control (LCN). To perform the group division using the mean-split procedure, the mean score of the control variable ($M = 22.33$) was considered and the standard deviation ($SD = 3.07$) was added.

In Table 2, the results did not show significant differences in parental education styles ($p > 0.05$) between the high and low control groups.

Third, t -tests for independent samples were performed, in which the sample was divided into High Challenge (HC) and Low Challenge (LC). To divide the groups using the mean-split procedure, the mean score of the challenge variable ($M = 17.60$) was considered and the standard deviation ($SD = 3.95$) was added. Subsequently, Cohen's d was calculated for the variables that obtained significant differences.

In Table 3, the results showed higher levels of care education close to mother protectionism ($p < 0.01$; $d = 0.25$) and mother restriction ($p < 0.01$; $d = 0.35$) in the low challenge group than the high challenge group.

Fourth, t -tests for independent samples were performed after dividing the sample into High Hardy Personality (HHP) and Low Hardy Personality (LHP). To perform the division of the groups, the mean score of Hardy Personality ($M = 62.68$) was considered and the standard deviation ($SD = 8.76$) was added. Subsequently, Cohen's d was calculated from those variables that obtained significant differences.

Table 4, the results showed higher levels of care education close to mother protectionism ($p < 0.01$), father restriction ($p < 0.05$) and mother restriction ($p < 0.01$) in the low hardy personality group than the high hardy personality group.

After independent t -test analyses, a chi-square test was performed in order to know if there were covariation among gender and hardy personality groups high and low (control, commitment and challenge). Results reported that there was covariation in commitment ($X^2 = 7.70$; $gl = 1$; $p < 0.01$). In particular, high commitment group was made up

Table 1. Parental education styles, high and low commitment.

Parental Education Variables	HC ¹ (S=86) M (SD)	LC ² (S=416) M (SD)	t (p)
Care Education Close to Mother Protectionism	6.16 (1.58)	6.39 (1.73)	-1.12 (.25)
Mother Personalized Education	3.12 (.94)	3.15 (1.22)	-.26 (.79)
Mother Permissiveness	.23 (.56)	.18 (.43)	.77 (.43)
Mother Restriction	1.25 (1.86)	1.65 (2.22)	-1.57 (.11)
Father Assistance-Personalized Education	6.01 (1.45)	5.91 (1.89)	.53 (.59)
Father Protectionism	2.52 (1.37)	2.47 (1.64)	.29 (.76)
Father Permissiveness	.13 (.38)	.19 (.44)	-1.18 (.23)
Father Restriction	1.08 (1.68)	1.46 (1.98)	-1.87 (.06)

¹High Commitment, ²Low Commitment

Table 2. Parental education styles, high and low control.

Parental Education Variables	HCN ¹ (S=123) M (SD)	LCN ² (S=379) M (SD)	t (p)
Care Education Close to Mother Protectionism	6.26 (1.66)	6.38 (1.72)	-.68 (.49)
Mother Personalized Education	3.17 (1.08)	3.14 (1.20)	.27 (.78)
Mother Permissiveness	.17 (.44)	.20 (.46)	-.50 (.61)
Mother Restriction	1.39 (1.99)	1.65 (2.22)	-1.17 (.24)
Father Assistance-Personalized Education	5.86 (1.71)	5.94 (1.86)	-.42 (.67)
Father Protectionism	2.56 (1.55)	2.45 (1.61)	.62 (.53)
Father Permissiveness	.16 (.39)	.19 (.45)	-.66 (.50)
Father Restriction	1.15 (1.83)	1.48 (1.97)	-1.69 (.09)

¹High Control, ²Low Control

Table 3. Parental education styles, high and low challenge.

Parental Education Variables	HC ¹ (S=125) M (SD)	LC ² (S=377) M (SD)	t (p)	d Cohen
Care Education Close to Mother Protectionism	5.97 (1.64)	6.47 (1.71)	-2.85 (.004)**	.25
Mother Personalized Education	3.22 (1.01)	3.13 (1.22)	.77 (.44)	
Mother Permissiveness	.17 (.50)	.20 (.44)	-.59 (.55)	
Mother Restriction	1.16 (1.72)	1.73 (2.27)	-2.94 (.003)**	.35
Father Assistance-Personalized Education	5.92 (1.63)	5.93 (1.88)	-.07 (.94)	
Father Protectionism	2.27 (1.43)	2.55 (1.64)	-1.81 (.07)	
Father Permissiveness	.16 (.41)	.19 (.44)	-.50 (.61)	
Father Restriction	1.15 (1.72)	1.48 (2.00)	-1.66 (.09)	

¹High Challenge, ²Low Challenge, ** $p < 0.01$, * $p < 0.05$

Table 4. Parental education styles, high and low hardy personality.

Parental Education Variables	HHP ¹ (S=94) M (SD)	LHP ² (S=408) M (SD)	t (p)	d Cohen
Care Education Close to Mother Protectionism	5.93 (1.73)	6.44 (1.69)	-2.62 (.009)**	.23
Mother Personalized Education	3.26 (1.01)	3.12 (1.21)	1.02 (.30)	
Mother Permissiveness	.19 (.51)	.19 (.45)	-.13 (.89)	
Mother Restriction	1.11 (1.85)	1.69 (2.22)	-2.63 (.009)**	.41
Father Assistance-Personalized Education	5.79 (1.81)	5.96 (1.82)	-.78 (.43)	
Father Protectionism	2.37 (1.48)	2.50 (1.62)	-.73 (.46)	
Father Permissiveness	.12 (.36)	.19 (.45)	-1.61 (.10)	
Father Restriction	1.02 (1.56)	1.49 (2.01)	-2.47 (.014)*	.37

¹High Hardy Personality, ²Low Hardy Personality. ** $p < 0.01$, * $p < 0.05$

Table 5. Parental education styles, high and low commitment in men.

Parental Education Variables	HC ¹ (S=49) M (SD)	LC ² (S=300) M (SD)	t (p)	d cohen
Care Education Close to Mother Protectionism	6.02 (1.50)	6.42 (1.72)	.09 (.09)	
Mother Personalized Education	3.16 (.74)	3.08 (1.23)	.43 (.66)	
Mother Permissiveness	.18 (.48)	.19 (.44)	.92 (.88)	
Mother Restriction	.67 (.98)	1.82 (2.25)	-3.51 (.01)**	.66
Father Assistance-Personalized Education	5.83 (1.19)	5.86 (1.90)	-.08 (.93)	
Father Protectionism	2.34 (1.34)	2.34 (1.64)	-.01 (.98)	
Father Permissiveness	.08 (.27)	.20 (.44)	-1.82 (.06)	
Father Restriction	.79 (.81)	1.58 (2.02)	-2.68 (.01)**	.51

¹High Commitment, ²Low Commitment. ** $p < .01$, * $p < .05$

Table 6. Parental education styles, high and low commitment in women.

Parental Education Variables	HC ¹ (S=37) M (SD)	LC ² (S=116) M (SD)	t (p)
Care Education Close to Mother Protectionism	6.35 (1.68)	6.30 (1.78)	.14 (.88)
Mother Personalized Education	3.08 (1.16)	3.35 (1.15)	-1.24 (.21)
Mother Permissiveness	.29 (.66)	.18 (.42)	1.24 (.21)
Mother Restriction	2.02 (2.42)	1.22 (2.07)	1.97 (.07)
Father Assistance-Personalized Education	6.24 (1.73)	6.05 (1.85)	.55 (.57)
Father Protectionism	2.75 (1.40)	2.81 (1.59)	-.18 (.85)
Father Permissiveness	.21 (.47)	.18 (.46)	.39 (.69)
Father Restriction	1.45 (2.36)	1.17 (1.86)	.76 (.44)

¹High Commitment, ²Low Commitment. ** $p < 0.01$, * $p < 0.05$

of 416 athletes (300 men and 116 women) and low commitment group comprised 86 athletes (49 men and 37 women).

Table 5 and Table 6, due to the differences among Genders an independent t-test analyses were performed dividing them into genders and comparing the commitment variable. Results showed that only were differences in men in the factors: father restriction ($F = -3.51$; $p < .01$; $d = 0.51$)

and mother restriction ($F = -2.68$; $p < 0.01$; $d = 0.66$) (See Table 6).

Discussion

The objective of this research was to study the differences in parental education styles in athletes with high and low levels of hardy personality. First, the results showed no

differences in commitment and control based on parental education styles in both genders. The commitment and control factors imply responsibility to commitments and the feeling that tasks carried out by the athlete can be controlled by him or herself. In this case, the results suggest that commitment and control are more influenced by other variables different than parental educational styles, because there were no relations between the control and commitment factors and the parental education styles. In contrast, previous research showed that children of democratic parents present greater fidelity to commitments, better coping strategies and control (Baumrind, 1996; González-García et al., 2015; 2018; Kaufmann et al., 2000; Torío et al., 2008; Wischerth et al., 2016). Nevertheless, a covariation was found among genders in commitment factor, in particular, men reported significant differences in mother and father restriction (authoritarian). These results mean that men that pertained to the lower commitment group reported higher authoritarian mother and father. Besides, previous studies warn of the negative effects of authoritarian parents such as coping, stress management, resilience, self-concept, autonomy and etc. (Baumrind, 1996; González-García et al., 2018; 2019; Kaufmann et al., 2000; Muris and Merckelbach, 1998). Therefore, there may be more important variables that can influence on hardy personality variables (commitment and control), only men might be influenced by parental educational styles on hardy personality.

Second, the results showed higher levels of mother protectionism and mother restriction in the group of low challenge than in the high challenge. These results are in line with previous studies that speak about the harmful effects that these types of parents have on athletes' psychosocial development (Baumrind, 1971; 1996; González-García et al., 2015; 2018; 2019; Kaufmann et al., 2000). Authoritarian parents generally have the following negative socializing consequences on their children: low autonomy and self-confidence, low creativity, poor social competence, aggressiveness and impulsivity, behaviours that lead to punishment avoidance, less cheerful and spontaneous children (Baumrind, 1996; González-García et al., 2018; 2019; Kaufmann et al., 2000; Muris and Merckelbach, 1998). On the other hand, protective parents may present the following characteristics: poor coping strategies in life, anxiety and insecurity in themselves (González-García et al., 2019; Muris and Merckelbach, 1998; Wischerth et al., 2016). In addition, protective parents and authoritarian mothers contradict Grotberg's (1995) recommendations for educating towards resilience. Therefore, protective fathers and authoritarian mothers were not related to high challenge group.

Third, the results showed higher levels of care education close to mother protectionism, father restriction and mother restriction, in low hardy personality group. As previously mentioned, the harmful effects of parental protection and authoritarianism exist, because authoritarian and protective parents may present the following consequences in their children that can be related to low challenge group: poor coping strategies in life, anxiety, insecurity in them-

selves, low autonomy and self-confidence, lack of creativity, poor social competence, aggressiveness and impulsivity, behaviour guided by punishment avoidance, less joyful and spontaneous children (Baumrind, 1996; González-García et al., 2019; Kaufmann et al., 2000; King et al., 2016; Muris and Merckelbach, 1998). Therefore, the mothers socializing characteristics with care education close to protectionism, restrictive father (authoritarian father) and restrictive mother (authoritarian mother) might be related to lower levels of hardy personality in sport.

As suggestions for future research, it would be interesting to examine which parental education styles are related to presenting greater psychological abilities (e.g., concentration, motivation, emotion control, etc.) related to sport performance. In this way, if we know how to educate a hardy athlete with better competition psychological skills, we can teach parents to avoid those styles that are not related to hardiness. Moreover, in this work, we believe mother protectionism and authoritarian (restriction) are the styles less connected with hardy personality general factor, but in particular, it would be interesting to disaggregate the styles in parent's practices in order to clarify which characteristics are related to high hardy personality.

The main limitation of this research work was the use of TAMAI questionnaire in a retrospective way might have presented memory bias, because participants might not remember well the parental education style they received in their childhood, but they were asked to answer remembering the most characteristics period of their childhood. Furthermore, the online survey data collection methods might have decreased the acquiescence of the answers obtained. For this purpose, the Oviedo scale of Infrequency Response (INF-OV) was used to guarantee the honesty of the answers obtained.

Conclusion

As conclusions from the present study, protective and authoritarian mothers were related to athletes with low levels of challenge, which signifies that these athletes are less willing to cope with issues as a way to surpass themselves. In addition, protective fathers, authoritarian mothers and low authoritarian fathers, were related to the low hardy personality group, which mean that they have a less adaptation to the demands of the sport environment. Thus, these conclusions should be taken in consideration to work with athletes that can be at risk to do not develop a desirable personality in the sporting context.

Acknowledgements

International University of La Rioja (UNIR) and Miguel Hernández University provided funds for this research. The authors have no conflict of interest directly relevant to the content of the study. The authors declare the present study comply with the current laws of the country in which they were performed.

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Key points

- Protective and authoritarian mothers might be related to athletes with low levels of challenge.
- Protective fathers, authoritarian mothers and authoritarian fathers, were related to the low hardy personality group.
- Men educated by authoritarian parents could be related to have worse levels of commitment.

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