

Resilient personality and coping strategies in college athletes in times of pandemics

Personalidad resistente y estrategias de afrontamiento en deportistas universitarios en tiempos de pandemia

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DOI: 10.35429/JEHW.2022.10.6.23.28

Received January 20, 2022; Accepted June 30, 2022

Abstract

The objective of this investigation is identify the relationship between the variables of resistant personality and coping strategies in university athletes. Methods: The study design is non-experimental, cross-sectional and correlational, the sample is 34 athletes from the Autonomous University of Nuevo León, the age of the participants is in the range of 18 to 32 years, M = 23 SD = 3.37, 19 men (55.9%) and 15 women (44.1%). The instruments are 2, to measure Resistant Personality in Central American and Caribbean Athletes (PRDCC) by Ponce et al (2015) of 18 items. The second is the Spanish version of the Approach to Coping in Sport Questionnaire (ACSQ-1) (Kim et al., 2003). The questionnaire is made up of 28 items. The procedure was completely online, the link with the instruments was sent to the coaches of various sports since confinement was ordered in the pandemic and everyone had to train at home. The statistical analyzes carried out were descriptive, frequencies, in addition, the reliability of the applied instruments, the analysis of Spearman's correlations. Results: The instruments have adequate internal consistency for the sample, between a Cronbach's alpha of .70 to .86 in both instruments and also, relationships were found between the variables of resistant personality and approach to coping in sport, specifically, there are significant and positive correlations $r = .593^{**}$ between the total resistant personality and the emotional calm variable. Another positive and significant correlation was found $r = .702^{**}$ between total resistant personality and cognitive restructuring. A third relationship was found at $r = .511^*$ between control and risk behaviors.

Control, Sport, Coping

Resumen

El objetivo de esta investigación es identificar la relación existente entre las variables de la personalidad resistente y las estrategias de afrontamiento en deportistas universitarios. Métodos: El diseño del estudio es no experimental, transversal y correlacional, la muestra son 34 atletas de la universidad autónoma de Nuevo León, la edad de los participantes está en el rango de 18 a 32 años, M = 23 DT = 3.37, 19 hombres (55.9%) y 15 mujeres (44.1%). Los instrumentos son 2, para medir Personalidad Resistente en Deportistas de Centroamericanos y del Caribe (PRDCC) de Ponce et al (2015) de 18 ítems. El segundo es el Cuestionario de Aproximación al Afrontamiento en el Deporte (Approach to Coping in Sport Questionnaire, ACSQ-1) en versión en castellano (Kim et al., 2003). El cuestionario está integrado por 28 ítems. El procedimiento fue totalmente en línea, se mandó el link con los instrumentos a los entrenadores de diversos deportes ya que en la pandemia se ordenó el confinamiento y todos tuvieron que entrenar en casa. Los análisis estadísticos realizados fueron los descriptivos, frecuencias, además, la fiabilidad de los instrumentos aplicados, el análisis de las correlaciones de Spearman. Resultados: Los instrumentos cuentan con una consistencia interna adecuada para la muestra, entre un alfa de Cronbach de .70 a .86 en ambos instrumentos y también, se encontraron relaciones entre las variables de la personalidad resistente y de aproximación al afrontamiento en el deporte, específicamente hay correlaciones significativas y positivas $r = .593^{**}$ entre la personalidad resistente total y la variable de calma emocional. Otra correlación se encontró positiva y significativa $r = .702^{**}$ entre Personalidad resistente total y reestructuración cognitiva. Una tercera relación se encontró en $r = .511^*$ entre control y conductas de riesgo.

Control, Deporte, Afrontamiento

Citation: PONCE-CARBAJAL, Nancy, LUNA-VILLALOBOS, Brenda, JAENES-SÁNCHEZ, José Carlos and RAMÍREZ-NAVA, Rubén. Resilient personality and coping strategies in college athletes in times of pandemics. Journal-Health Education and Welfare. 2022. 6-10:23-28.

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Introduction

Physical activity and sport are tools that offer the possibility of learning skills that contribute to the improvement of the quality of life of those who practice them, and promote this practice as a benefit to the health of the general population (Romero, García-Mas and Brustad, 2009). Other authors documented that those who have practiced sport even when they are retired, sport helped them to develop the ability to solve problems with strategies that give them greater possibilities of choosing a better option to solve their current problems, since in sport they face diverse situations to solve on a daily basis due to their competitive nature and that gives them the experience to experience a greater diversity of experiences and with a range of possible solutions, decide in the best way what they can do with the problems that may arise in the near future (Ponce-Carbajal, López-Walle, and Méndez, 2021a).

Sport then takes on an invaluable importance for the welfare of the people who practice it and those who can be integrated into this activity will then have greater chances of solving problems through various strategies to be learned in the training process, now how do we get this message of the advantages of problem solving through sport? There is a study developed by Bauman, Bellew, and Craig, (2014), where he mentions that the high performance sport, seen in various forms by society, whether major international events, world championships or any nature but of expert athletes, the great masses are interested in joining these activities, then start with systematic practices that in turn, begin to show changes in their own lives healthier, so that the great athletes inspire others and becomes a virtuous circle and projection of a better quality of life for the general population.

Athletes in daily practice experience emotional changes that can potentiate or hinder their performance in competitions or training according to the way in which athletes apply their various skills, the Resistant Personality (Jaenes, Godoy, and Román, 2008; 2009) and coping strategies (Carrasco et al, 2010) are skills that athletes can develop, as they provide various tools for control, coping and stress management specific to the various competitions in which they participate (Márquez, 2004).

A concept referred to resistance to stress is the Resilient Personality, when this capacity is high, people usually transform problems into opportunities for great learning, development and personal growth, and on the contrary, people who have this low resistance tend to get sick and not withstand stressful situations, feel threatened and do not perceive learning from the difficulties (Maddi, 2002; Jaenes, Godoy, and Román, 2008; 2009).

At the beginning, Salvatore Maddi and Suzanne Kobasa (Maddi, 2002), were the ones who promoted this concept because they were concerned that some people got sick in stress processes but others did not, and that those who did not, came out with some learning potential and this caught their attention thanks to a student of Maddi, Kobasa, Maddi and Puccetti (1982) in a study on exercise showed that it serves as a protector against stress and disease.

In 1984, they created the Hardiness Institute in California (Khoshaba, and Maddi, 1999) as a space dedicated to the study of Resilient Personality.

On the other hand, Coping Strategies are useful problem-solving skills in conditions of difficulties or problems since they provide the person with different ways of solving the problem and the subject can make the best decision, and in this research the instrument of Approaching Coping in Sport was used, which is a concept promoted by several researchers since some decades ago (Kim, 1999; Kim, Duda and Ntoumanis, 2003; Márquez, 2006) and used by some others such as Ponce-Carbajal, López-Walle, and Méndez (2021b).

For Márquez (2006) this concept promotes various responses to problems that arise in stressful situations, these strategies are used in order to control and / or neutralize a situation. Therefore, these responses or strategies would be the various psychological resources that people present to cope with the problems that each one considers stressful. However, the use of these strategies does not guarantee the absolute solution, rather they serve to reduce conflicts in people or athletes as they offer several possibilities to solve a problem (Macías, Madariaga, Valle & Zambrano, 2013).

It is worth mentioning that both concepts in the sports field have been little studied, hence the importance of exploring the responses of this sample in order to generate new knowledge. The objective of this research is to identify the relationship between resilient personality variables and coping strategies in university athletes.

Description of the method

The design of this research is empirical associative, simple correlation and cross-sectional (Ato, Lopez-Garcia, & Benavente, 2013), in this study during pandemic 35 athletes from the Autonomous University of Nuevo Leon participated, the age of the participants is in the range of 18 to 32 years, $M = 23$ $SD = 3.37$, 19 men (55.9%) and 15 women (44.1%).

Two instruments were used for this study, the first is the Resilience to stress with the Resilient Personality in Central American and Caribbean Athletes questionnaire (PRDCC; Ponce, 2017; Ponce-Carbajal et al. 2015); this questionnaire is composed of 18 items, and is integrated by three variables: commitment (7 to 12), control (1 to 6) and challenge (13 to 18) of 6 items each. This questionnaire has been used in other investigations as a unifactorial or global concept (Kobasa, 1979; Kobasa, Maddi and Kahn, 1982), and also in a trifactorial way with its three components of the scale (Jaenes, Godoy-Izquierdo and Román, 2008), usually in both cases the properties are adequate ($\alpha > 0.7$) so it is used in both ways. The response scale is Likert-type from 0 to 3 where 0 is "totally disagree" and 3 is "totally agree".

The second instrument is the Approach to Coping in Sport Questionnaire (ACSQ-1), developed by Kim and Duda (1997) and translated into Spanish by Kim, Duda, Tomás and Balaguer (2003). This instrument is composed of 5 variables, Emotional Calmness (7), Active Planning/Cognitive Restructuring (6), Mental Withdrawal (6), Risk behaviors (4), and Search for social support (5), using 28 items, with a 5-point Likert format, where 1 takes the value of "never" and 5 the value of "always". This scale has evidence of validity based on the internal structure of the test and the relationship with other variables, as well as adequate levels of reliability ($\alpha > 0.7$) (Kim, Duda and Ntoumanis, 2003).

The procedure consisted in the design of a digital test battery in google forms, since in the midst of the pandemic the context was of total confinement and suspension of non-essential activities by COVID-19, so the decision was taken to make it completely digital and this was sent through various social networking platforms, in order to collect responses with the support of coaches from various sports of the Faculty of Sports Organization and the Autonomous University of Nuevo Leon. The coaches were informed about the importance of sending the form to the university athletes who continued their training during this period, so they supported us by sending the tool to various athletes who met these requirements and the athletes were explained the importance of the study, with prior informed consent, and that the responses were completely anonymous and voluntary participation and that they could withdraw from the study at any time.

The statistical analyses performed were descriptive, mean frequencies, standard deviation and normality of data by means of kolmogórov-smirnov, Cronbach's alpha reliability (α) and bivariate correlations with Spearman's correlation coefficients, with the Statistical Package for the Social Sciences (SPSS) version 25.

Results

Table 1 presents the frequencies of the participants' sports and Table 2 the reliability of the measurement variables.

		Frequency	% Valid
1	Basketball	1	2.9
2	Box	1	2.9
3	Artistic Gymnastics	1	2.9
4	Handball	1	2.9
5	Karate	1	2.9
6	Olympic wrestling	1	2.9
7	Swimming	1	2.9
8	Taekwondo	2	5.7
9	Volleyball	2	5.7
10	Animation	3	8.6
11	Athletics	4	11.4
12	Field Hockey	5	14.3
13	Soccer	5	14.3
14	Diving	8	22.9
	Total	35	100.0

Table 1 Frequencies of the sports of the participating athletes

In the evidence shown after the analyses regarding the verification of the internal consistency of the unifactorial and trifactorial resistant personality and in the values of the instrument of approximation it is verified with values above the α of .70 and up to .94 which allows us to say that the evaluation instruments in both forms are adequate for this sample. Only in 2 of the variables in Approach to Coping presented a low reliability, which is attributable to the small number of items of the variable itself of .30 and .61 see Table 2.

The results found in the Spearman correlations showed that there were positive and significant relationships between the variables of the resistant personality.

Correlations were found between the variables of the resistant personality and the approach to coping in sport, specifically there are significant and positive correlations $r = .593^{**}$ between the total resistant personality and the variable of emotional calmness. Another correlation was found to be positive and significant $r = .702^{**}$ between Total Resilient Personality and Cognitive Restructuring. A third relationship was found at $r = .511^{*}$ between control and risk behaviors.

Variable	Alpha
Control	0.83
Commitment	0.84
Challenge	0.86
PR total	0.94
Emotional calm	0.70
Cognitive restructuring	0.86
Seeking social support	0.84
Mental withdrawal	0.30
Risk conditions	0.61
Note: PR _{total} refers to the Resilient Personality instrument in its unifactorial form.	

Table 2 Reliability of the variables of the Resilient Personality and Sport Coping Approach questionnaires

Thanks

To the Faculty of Sports Organization, the Universidad Autónoma de Nuevo León, CONACYT, and REDDECA, who continue to support this type of research to the best of their ability. Also, our thanks to the athletes and coaches.

Conclusions

University athletes have a high resistance to stress thanks to the diverse experiences that sport offers by its very nature and this allows them to transform stressful situations into opportunities for development and constant learning, leading to appropriate solutions to their problems focused on the options they have and the consequences of each one, It was also evidenced that this sample resolves stressful situations by controlling their emotions, allowing them to better visualize the panorama and giving them the opportunity to avoid behaviours that could suggest any risk.

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