Relationship between personality, aggressiveness, emotion, and academic performance in the Spanish National Police Academy: implications in the selection processes

Alberto Barea Vera [1], Fernando Gordillo León[2], Miguel Ángel Pérez Nieto[3]

---

[1] Facultad de Ciencias Sociales y Jurídicas, Universidad Católica de Ávila
[2] Departamento de Psicología Básica, Psicobiología y Metodología de las Ciencias del Comportamiento, Universidad de Salamanca
[3] Departamento de Psicología, Universidad Camilo José Cela, Villafranca del Castillo, Madrid.

España

Corresponding author: Alberto Barea Vera. Universidad Católica de Ávila. alberto.barea@ucavila.es.

Abstract

Introduction. In the educational context, emotional and personality factors have been related to students' academic performance and quality of life; however, few studies have studied this relationship in depth in educational contexts where students have a high level of demand and competitiveness, as is the case of the students of the National Police Academy.

Method. In order to study this issue in depth, a research project was carried out with the participation of 242 students who completed three questionnaires measuring aggressiveness (AQ), affect (PANAS) and personality (EPQ-R). Likewise, the grades achieved by the subjects in the sample at the end of police training were obtained in order to measure academic performance.

Results. The results showed an inverse relationship between the dimensions of personality, psychoticism and conformity, and academic performance, even when the average levels of the group in these variables were low. Moreover, this relationship was maintained in theoretical subjects, but not in those involving practical components with physical content. Lastly, women showed higher levels of anger than men, and men showed higher levels of physical aggressiveness than women.

Discussion and Conclusion. This data enables the establishment of a psychological profile of police school students that could help to optimize selection processes in a profession where situations with a high emotional impact must be managed.

Key words: gender, police training, psychoticism, security force.

Resumen

Introducción. En el contexto educativo, factores emocionales y de personalidad se han relacionado con el rendimiento académico y la calidad de vida de los estudiantes; sin embargo, pocos estudios han profundizado en esta relación en contextos educativos donde los alumnos tienen un nivel alto de exigencia y competitividad como es el caso del alumnado de la Escuela Nacional de Policía.

Método. Con el fin de profundizar en esta cuestión, se llevó a cabo una investigación en la que participaron 242 estudiantes que cumplimentaron tres cuestionarios que medían agresividad (AQ), afecto (PANAS) y personalidad (EPQ-R). Igualmente, se obtuvieron las calificaciones logradas por los sujetos de la muestra al finalizar la formación policial con el objetivo de medir el rendimiento académico.

Resultados. Los resultados mostraron una relación inversa entre las dimensiones de personalidad, psicoticismo y conformidad, con el rendimiento académico, incluso cuando los niveles promedio del grupo en estas variables fueron bajos. Además, esta relación se mantuvo en las materias teóricas, pero no en las que implicaban prácticas de contenido físico. Por último, las mujeres mostraron mayores niveles de ira que los hombres, y los hombres mayores niveles en agresividad física que las mujeres.

Discusión y conclusión. Estos datos permiten establecer un perfil psicológico de los estudiantes de la escuela de policía que podría ayudar a optimizar los procesos de selección, en una profesión donde se deben gestionar situaciones con alto impacto emocional.

Palabras clave: género, formación policial, psicoticismo, cuerpo de seguridad.

Introduction

The aim of the police school is to train professionals capable of solving problems arising due to the complexity of society and the laws which determine how it functions. Police agents must train in a range of competencies, regulated by psychological variables which act as selection filters in the police forces. In this way profiles are laid out which are more or less appropriate for access to police training. However, to date, there have been barely any studies which have analysed the relationship between the psychological variables relating to the competencies of the security forces and bodies, and academic performance. Among the few studies to be found, a relationship has been observed between personality traits and variables such as experience, rank and specialization (e.g., Skoglund et al., 2020). Studies of this sort reflect relationships between internal variables and professional motivations, which could be useful in order to improve the selection and training processes for the professionals of the state security forces. Likewise, emotion is a regulating variable for conduct and for academic performance (Hayat et al., 2020; Sánchez-García et al., 2018). Certain emotions such as anger have been associated with valuations of assurance and personal control (Lerner, & Keltner, 2001; Michelini, & Godoy, 2019; Morriss et al., 2022; Smith, & Ellsworth, 1985; Song et al., 2021), which turn out to be important in contexts where the agents have to face situations with a high degree of uncertainty, calling for appropriate personal control. Therefore, analysis of the relationship between personality, emotion and performance in the police training centers would help to optimize the training processes for these professionals, who take on tasks where, to a certain extent, their psychological characteristics determine their effectiveness.

In general terms, the educational centers propose objectives which are results or achievement-oriented, and this is reflected in academic performance. This performance is influenced by motivational variables which should be present throughout the learning period (Baños et al., 2017, Hayat el al., 2020, Wu et al., 2020; Yarin et al., 2022; Yu et al., 2022). Academic performance is a multidimensional concept, where different variables and different ways of measuring converge. Taking into account the typological distinctions surrounding academic performance, one of the study variables most frequently used is probably academic scores. In fact, Muela et al. (2010) refer to the fact that the final product obtained after applying effort (productivity) is conditioned by all the activities and perceptions of the tasks carried out which appear to be more or less correct. The complexity required to measure academic performance, due to the high multiplicity of variables involved, is objectified by means of the

results achieved by the students for the different subjects studied, in other words, examination subjects for which a numerical score is obtained (Alhassan et al., 2020; Cain et al., 2022; Ruiz et al., 2016). Therefore, as an indicated multidimensional concept, academic performance can be influenced by different variables which have been analyzed from different angles (Kamal, & Ahuja, 2019; Martínez, & González, 2017; Wu et al., 2020). The studies consulted focus on the contextual and personal factors, with the latter being the factor on which this current study is based, since it is aggressiveness, affect and personality (Diaconu-Gherasim et al., 2022; Flores et al., 2022; González, & Portolés, 2014), which will be taken into account as the factors predicting academic performance.

In the educational context, different variables have direct or indirect influence on students' performance, and one of them, as we have mentioned above, is emotion. To be more specific, anger, within a multidimensional construct such as aggressiveness, which is displayed in different contexts and manners (Alonso, & Navazo, 2002; Camacho-Morles et al., 2021). Persons lacking self-control may display aggressive conduct, reacting with violent conduct when faced with certain situations, without thinking of the consequences. In fact, there are personality variables which are related to deficits in self-regulation, so it is very probable that high levels of aggressiveness may be generated (Bettencourt et al, 2006). As a result, the analysis of aggressiveness among students undergoing police training arouses interest from the moment of their instruction in each of the subjects, since this may condition the preference for certain areas of instruction, and condition their academic and professional performance.

Aggressiveness presents itself here as a component which is covered by the police authority itself in the exercise of the monopoly of the use of force, which will be modulated in each operation with the purpose of resolving situations of conflict. In turn, this will be conditioned by factors such as the nature and context of the work, personal characteristics and experiences with citizens in the event of supposed cases of aggressiveness (Van Reemst et al., 2022). Therefore, this variable takes on particular importance in our study, since it has direct repercussions on the conducting of police work with an intensity which varies according to the states in which it may arise. Thus, we are led to delve deeper into the relationship between aggressiveness and performance in contexts of high academic demand, which could help to prevent inappropriate behaviour in police service.

Besides this, affect covers reactions of a physiological nature which condition behaviour (Frijda et al., 2000), with important implications in police work. Experiences of an emotional kind provide information on the moment and the evolution of the experiences which have taken place (Vázquez, 2009), which will form part of the personal history of each police agent, with implications for their future behaviour. Affect is made up of two dominant dimensions: positive affect (PA), which covers positive emotionality, the mastery of the person, energy and belonging; and negative affect (NA), which considers the temperamental sensitivity of the person in the face of negative stimuli. A low rate of PA is related to lack of interest and apathy. In contrast, a high PA normally produces feelings of enthusiasm, energy and confidence, and is related to extroversion and resilience. In addition, high levels of NA are related to experiences involving fear, sadness, dissatisfaction, contempt towards the person concerned and other people, as well as higher levels of distress, nervousness and guilt (López-Gómez et al., 2015; Stroe et al., 2020).

The institution of the police, not just the Spanish police force but that of any country, is a risky profession due to the high level of stress generated in operations and also the intrinsic conditions of the work (Da Silva, 2016; Albanesi, 2003; San Sebastián et al., 2002). This is why professionals, in their training stage, must know how to recognise what they see and feel, by checking the possibilities and limits which they must establish with citizens and by handling their emotions properly. Under these conditions, negative affect would be a general factor in vulnerability (Esteras et al., 2014). It is worth pointing out, therefore, that this profession involves high workplace stress which of itself leads to lower positive affect and, therefore, generates lower satisfaction with life (Ryu et al., 2020). Not only must security professionals be guarantors of the established rules and regulations and take measures for compliance with them, but they must also have mastery of their mental functions and of emotional aspects. In fact, emphasis is placed on the capacity to resist and adapt to life's difficulties, by which it should be understood that, under the term of resilience, in a certain way this quality accompanies a police officer's personality, encouraging training and exposure to difficult situations in order to increase certain factors of positive personality. This is exactly why these features, which police practice makes evident, must be criteria for admission in police training centers (Sánchez-Teruel, & Robles-Bello, 2014).

Nonetheless, affectivity can be related to problems of a psychological type, so it would be important to detect them in prior stages through the levels of positive and negative affect

displayed by the students. In addition, consideration should be given to the relationship between affect and personality and, therefore, to the fact that certain personality profiles may display a greater tendency to experience negative affect in certain situations. This could prevent compromising not only the physical health but also the psychological health of the future agents.

In the same way, psychological profiling in selection processes in police training centers could contribute to the prediction of academic performance. Various studies speak of how emotional disposition, levels of wellness, and psychological adjustment are linked to academic performance. High levels of this emotional disposition suggest greater academic effectiveness, which is not the case if low levels are displayed (Extremera et al., 2007; Extremera, & Fernández-Berrocal, 2004). This will be corroborated with the students from the police training center, on the basis of studies showing this relationship with PA and NA, with the person's psychological adjustment and academic performance (Beckett et al, 2015; Vera et al., 2009), while also taking other variables into account which may have an effect on academic performance and even be significantly different between men and women (Hamaideh, & Hamdan-Mansour, 2014).

Furthermore, in the educational context, personality has been related to academic performance, with a high predictive value (Brandt et al., 2020; Cascón, 2002). In highly demanding educational contexts, it is therefore thought to be very important to study the personality traits which may be associated with academic performance (Digman, 1989, cited in Nácher, 2002, p.2), because they allow the establishment of suitable profiles for admission to the police academy and for professional performance. One of the personality traits associated with performance is extroversion, which is connected to the internalization of information, social interaction, capacity to persuade and high dedication to the achievement of objectives (Hogan et al., 1997). In the educational or training context, it can also be ascertained that extroversion is associated with adaptation and academic conduct (Graciano, & Ward, 1992). Thus, extroversion is bound to emotional stability, boosting performance in aspects like verbal reasoning. However, neuroticism established an inverse relationship with academic performance (Little et al., 1992). In turn, psychoticism includes traits of aggressiveness, which in principle could be inappropriate for professional development and good academic performance. High scores for this trait would be associated with low control of impulses and bad adaptation to highly demanding settings (Center et al., 2005; López, & López, 2003). The

conformity factor from the Eysenck personality survey, when it provides a high score on lying or dissimulation, will undoubtedly show a great absence of adaptation to the norm (Gempp, & Cuesta, 2007).

Finally, another relevant variable is gender, which leads to an interpretation of behaviour and of conducts which is different in women and in men. These differences are supported by biological, social and also cultural factors (Stewart, & McDermott, 2004). Gender can condition professional and social interactions from the interpretation and analysis which is made of the affective and emotional component, a fact that is vital in the development of motivation and which in turn can influence academic performance. This demarcation by gender implies the design of instruments which will permit a more specific measurement and which explain the conducts and the interpretation to be made of those measurements. Following the claim of studies which may show evidence of gender differences in academic progress, Vera (2022) obtains statistical results with significant differences in favour of women for the self-regulation which they carry out during learning at higher education level. These results are along the same lines as others which show how women are better organized with regard to self-regulation, meaning that their profile is much more strategic than that of men, with work being planned and time used with greater efficiency for the task undertaken (Cerda, & Vera, 2019; García-Ripa et al., 2016; Fernández et al., 2013; Romero et al., 2018).

Objectives and hypotheses

Therefore, the purpose of this research will be to analyze the relationship between aggressiveness, affect and personality traits, and the academic results achieved by the students of the National Police School. The following hypotheses are proposed: 1) Physical and verbal aggressiveness, anger and hostility are inversely related to academic performance; 2) positive and negative affect are related directly and inversely, respectively, to academic performance; 3) neuroticism and psychoticism are inversely related to academic performance; 4) extroversion and sincerity are directly related to academic performance; 5) men display higher levels of physical and verbal aggressiveness, anger and hostility than women.

Method

Participants

242 subjects (72.3% men), aged between 20 and 41 (*M* = 29.07, *SD* = 4.039), students on the "Basic Scale" training program at the National Police School. This police training center is located in the city of Ávila (Spain), where it has been in operation since 1986. Aspirants join the "Basic Scale" (police officers) and the "Executive Scale" (inspectors) having already passed the National Police competitive examination phase, and in this center they continue the period of training in police subjects; these are the subject areas in which they will work in police operations. All participants agreed to take part in the study both voluntarily and disinterestedly, with the final aim being to collaborate, and they signed an informed consent form.

Materials and Instruments

Buss & Perry Aggression Questionnaire (AQ; Buss, & Perry, 1992). This is the instrument which evaluates the different components of aggressiveness in the sample. The original version of the questionnaire comprises 29 items which refer to aggressive conduct types and feelings. These are coded on a Likert style scale of five points (1= extremely uncharacteristic; 2 = somewhat uncharacteristic; 3 = neither uncharacteristic nor characteristic; 4 = somewhat characteristic; 5 = extremely characteristic), structured into four sub-scales: physical aggression, verbal aggression, anger and hostility. Physical and verbal aggression comprise the instrumental component of aggressiveness. Anger is embedded in what is considered to be the emotional and affective component, and the cognitive component would be found in hostility (López et al., 2008). This research has used the Spanish adaptation carried out by Andreu et al. (2002), estimating that the sub-scale of physical aggression was the one which displayed greatest precision, with an alpha coefficient of .86. The other sub-scales offer lesser internal consistency, leading to an alpha coefficient of .68 for verbal aggression, of .77 for the anger sub-scale and .72 for hostility. The confirmatory factor analysis, carried out using a tetra-dimensional structural equation model, confirms that the construct validity, in general terms, is sufficient and contrasted. It presents sufficient empirical evidence to support its measurement accuracy and theoretical validity in the assessment of different types of aggression (Buss, & Perry, 1992).

Positive and Negative Affect Schedule (PANAS; Watson et al., 1988). This is a tool designed to evaluate emotions, with a bifactorial structure (Thompson, 2007). The two sub-

scales have a total of 20 items, positive affect and negative affect. The Spanish adaptation was carried out (López-Gómez et al., 2015), with adequate internal consistency (Cronbach's Alpha), both for positive affect (α = .92) and for negative affect (α = .88). The composite reliability values and average variance extracted from the confirmatory factor analysis show a good performance. Validation has been carried out on a large sample size drawn from the general population, under highly controlled methodological conditions. Exploratory and confirmatory factor analyses reveal a bifactorial structure of the PANAS. Factor invariance analyses confirm invariance by gender and age. Therefore, it has good psychometric properties.

Eysenck Personality Questionnaire - Revised (EPQ-R), from the version in Spanish (Cuestionario Revisado de Personalidad de Eynseck) (Ortet et al., 1999). This tool comprises 83 items, 19 to evaluate extroversion (E), 23 for neuroticism (N), 23 for psychoticism (P) and 18 which make up a lie/conformity scale (L) (Eysenck, & Eysenck, 1997; Ortet et al., 1999). Reliabilities for internal consistency on the E scale were .82 for men and .80 for women, on the N scale they were .86 for men and women, on the P scale .73 for men and .71 for women, and on the L scale .76 for men and .77 for women. Additional validation tasks are also added to the questionnaire indicated from this Spanish version of the EPQ-R with results which were congruent with the Eysenck theory (Eysenck, & Eysenck, 1997; Moro et al., 1997; Moro et al., 1998). Validity studies have mainly focused on construct validity and validity related to the external component, obtaining results that confirm the theoretical schemes developed by the authors. It is a reliable and valid instrument for measuring basic personality dimensions.

Academic performance: This includes scores for the subjects taught in the training process for this type of student. The study plan comprises 16 examination subjects (Investigation Methods and Techniques, Scientific Police; Penal and Procedural Practice, Police Documentation, Administrative Regulations and Alien Law; Assistance, Emergency and Civil Defence Techniques, Prevention and Intervention Techniques, Operative Road Safety Techniques; Organization and Social Abilities, Police, Society and Victimology, Deontology and History of the National Police Force, Communication in English or French; Police Firearm Techniques and Tactics, IT Applications; Physical Education, Police Personal Defence) with their corresponding numerical scores, which make up a total of six departments (Police Science and Technique; Legal Sciences; Prevention and Intervention; Human Sciences and Human Resources; Shooting and Technology; Physical Education). The academic grade for the final

evaluation is on a scale of 0-10. This was registered by means of the score reported by each participant in the final evaluation (Navas et al., 2016).

Procedure

Both the experimental phase and the application of the questionnaires in the sample were carried out in person, in the classrooms where the students receive their habitual teaching in the police center. The sample number came to a total of 242 students from six classes. As a first step, and after signing the informed consent form, the participants had to fill in a questionnaire on sociodemographic variables in order to obtain the proper information from each one of the participants relating to age, gender, level of studies, working situation prior to entering the National Police School, marital status, religious beliefs, political ideology, net family income and habits before and after passing the selection process to join the National Police training stage. After this they were given the AQ questionnaire, the PANAS scale and the EPQ-R questionnaire.

Then, after the application of the questionnaires undertaken during the academic year over the course of which they were training as future public security agents, at the end of the training as established by regulations, the results of the objective tests were obtained.

Data analysis

Studies were undertaken to check the distribution of the data (Kolgomorov-Smirnov), and it was decided that non-parametric analyses would be performed for the comparison of the hypotheses: 1) Descriptive analyses of the variables through the average, the standard deviation, the minimum and maximum values, kurtosis and asymmetry; 2) Analysis of correlation (Spearman's Rho) between the variables for aggressiveness, affect, personality and performance; 3) Analysis of gender differences in aggressiveness, affect and personality, applying the Mann Whitney U Test; 4) Analysis of the correlation between performance by departments, and the Psychoticism and Sincerity variables, since these two variables are the ones which show statistically significant relationships with the total performance (average of all the departments).

Results

Descriptive analyses

The student sample scores low average values in the majority of the variables, except in positive affect, where moderate scores are shown. In addition, the average values for neuroticism and psychoticism are shown as low (see Table 1 and Figure 1).

Table 1. *Distribution of results according to the scores achieved*

VARIABLES	M	SD	Min-Max	K-S (sig)	Asymmetry	Kurtosis
Hostility	13.27	3.92	8-31	< .001	1.31	2.58
Anger	11.94	3.32	7-24	< .001	.71	.19
Physical aggressiveness	14.19	3.52	9-25	< .001	.62	-.07
Verbal aggressiveness	11.23	3.01	5-20	< .001	.33	.03
Positive affect	38.12	4.45	24-48	< .001	-.38	-.32
Negative affect	17.07	4.98	10-38	< .001	1.15	1.78
Extroversion	14.08	3.11	2-19	< .001	-1.1	1.21
Neuroticism	2.26	2.95	0-20	< .001	2.38	7.72
Psychoticism	2.25	2.18	0-15	< .001	2.24	8.72
Conformity	7.14	3.58	0-17	< .001	.33	-.14

Note. *Buss and Perry Questionnaires (AQ); Affectivity Scale (PANAS); Eysenck Personality Questionnaire (EPQ-R)*
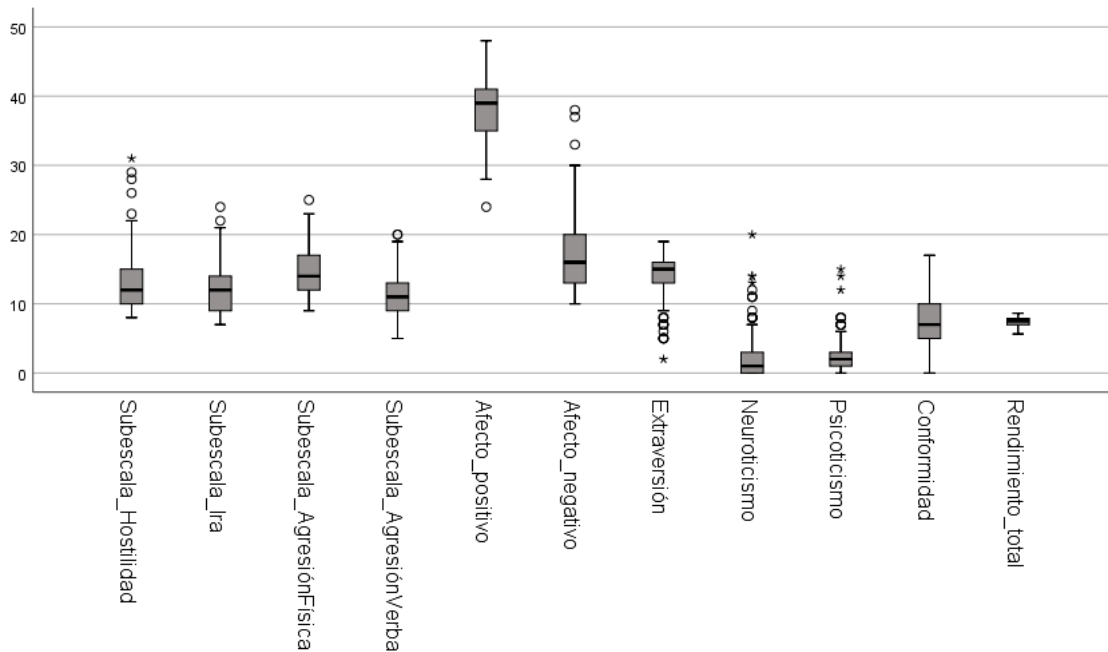

Figure 1. *Box and whisker graphs for the variables of aggressiveness, affect, personality and academic performance.*

Relationship between personality, aggressiveness, affect and academic performance

The results show a significant and inverse relationship between academic performance and levels of psychoticism and conformity. In addition, negative affect correlates directly with neuroticism and psychoticism, while positive affect correlates directly with extroversion and conformity (see Table 2).

Table 2. *Analysis of correlation of variables of aggressiveness, affect, personality, performance and age.*

	AP	H	A	PhA	VA	PA	NA	E	N	P	C
H	.14										
A	-.03	.51**									
PhA	.00	.35**	.33**								
VA	.10	.39**	.46**	.34**							
PA	.03	-.09	-.13*	-.17**	-.13*						
NA	.09	.27**	.19**	-.01	.21**	.25**					
E	.02	-.16**	.07	-.09	-.06	.25**	-.01				
N	-.02	.35**	.41**	.11	.33**	-.00	.32**	.00			
P	-.21**	.22**	.21**	.23**	.21**	-.03	.16**	-.18**	.19**		
C	-.13*	-.12*	-.15**	-.18**	.02	.18**	-.02	-.02	.06	-.05	
Age	-.05	-.03	-.18**	-.06	-.13*	.04	-.14*	.01	-.07	-.07	.05

Note. *Academic Performance (AP); Hostility (H); Anger (A); Physical Aggressiveness (PhA); Verbal Aggressiveness (VA); Positive Affect (PA); Negative Affect (NA); Extroversion (E); Neuroticism (N); Psychoticism (P); Conformity (C).* $*p < .05, **p < .01; ***p < .001.$

Gender differences in personality, aggressiveness and affect

The results show statistically significant gender differences in the variables for academic performance, anger, and physical aggressiveness (see Table 3).

Table 3. *Analysis of the gender differences in the variables of aggressiveness, affect, personality, performance.*

	Gender		*z*	*p*	*R*
	Male (n = 175)	**Female** (n =67)			
AP	7.49 (.61)	7.22 (.61)	-3.13	.002	.20
H	13.20 (3.95)	13.44 (3.85)	-.59	.559	.03
A	11.53 (3.26)	13.01 (3.28)	-3.27	.001	.20
PhA	14.77 (3.52)	12.68 (3.07)	-4.37	<.001	.28
VA	11.22 (2.96)	11.28 (3.14)	-.10	.919	.00
PA	38.00 (4.64)	38.44 (3.95)	-.64	.523	.04
NA	17.09 (5.13)	17.04 (4.62)	-.28	.780	.01
E	13.84 (3.28)	14.71 (2.55)	-1.74	.081	.11
N	2.12 (2.89)	2.62 (3.09)	-1.25	.213	.08
P	2.29 (2.25)	2.14 (1.97)	-.52	.603	.03
C	6.99 (3.49)	7.55 (3.79)	-1.18	.239	.07

Relationship between personality (psychoticism, conformity) and academic performance by areas of study (Spearman's Rho)

Inverse and significant correlations are shown between psychoticism and the examination subjects comprising the different departments of the police training center, except that of Physical Education and Shooting and Technology. In addition, Conformity only correlates inversely with the subject "Shooting and Technology" (see Table 4).

Table 4. *Analysis of the correlation between psychoticism, conformity and academic performance corresponding to the different departments providing the study plan subjects (N = 242).*

Performance	Psychoticism	Conformity
Police Science and Technique	-.141*	-.084
Legal Sciences	-.244**	-.110
Prevention and Intervention	-.172**	-.098
Human Sciences	-.294**	-.084
Shooting and Technology	-.077	-.129*
Physical Education	.012	.017

Note. $*p < .05$, $**p < .01$; $***p < .001$.

Discussion and conclusions

The purpose of this research has been to analyze the relationship between aggressiveness (Anger, Hostility, Physical and Verbal Aggressiveness), affect, personality (Extroversion, Neuroticism, Psychoticism and Sincerity), and academic performance in a sample of students from the Spanish National Police School. The police students at this police school, after the analysis undertaken, display a profile where low levels of psychoticism and neuroticism are of particular note. This is important from the working point of view, given that police activity requires these levels for suitable control in its interventions. There are barely any studies in existence in relation to these personality factors in police training centers, and only a few to mention which focus on other dimensions of personality and theoretical knowledge

applied to the work (Berges, 2011), psychological variables as a selection process (Salgado, 2003), or, even, on anthropometric characteristics which have influence on police academy students (Kabadayi et al., 2022). Psychoticism in the sample, even at low levels, leads to lower academic performance. Positive affect in the sample has moderate scores. In the same way, physical and verbal aggressiveness stay at medium values, which implies a certain degree of personality - necessary for its part - in these future professionals when it comes to intervening in police actions which call for intensity which is measured and in line with the exercise of the profession. Anger and hostility also maintained medium values, presupposing a certain level of control when it comes to intervention.

The results do not display a relationship as established in hypothesis 1. Aggressiveness has formed part of many studies relating to a range of variables, such as academic performance, and it has been observed that there are inverse relationships with subjects who achieve low levels in their scores for educational subjects (Domínguez et al., 2017; Estévez, & Jiménez, 2015; Rodríguez-Mayoral et al., 2008; Torregrosa et al., 2012), as has been proposed in the initial hypothesis. Despite these studies, there are others to be found which give relational analyses of the variables which do not display an indirect and significant relationship between aggressiveness and academic performance (Dámaso-Flores, & Serpa-Barrientos, 2022).

Furthermore, hypothesis 2 is not accepted since statistically significant relationships have not been obtained between academic performance and affect, both positive and negative (see Table 2). The research carried out shows results displaying the favourable impact of positive affect on the performance results (Extremera, et al., 2007; Extremera, & Fernández-Berrocal, 2004; Carmona-Halty et al., 2019; Hayat et al., 2020). The explanation for the absence of any significant correlation in this context may be that the profile of the police candidate is different from that found in other studies to which measurements have been applied, and, in turn, conditioned by the context of students living on site, and the demanding situation, which are what foster this peculiarity. We must bear in mind that in the police school the students are governed by a residential regime which generates a specific pace of life which is not comparable with other centers where emotionality may be measured against the scores achieved. The daily demands, not just with regard to academic matters, but also regarding behaviour, generate situations of emotional ambivalence which can provide different results such as the ones obtained. There are some studies of emotional stability along these lines (Berges, 2011).

Hypothesis 3 can be accepted partially, insofar as psychoticism has an inverse relationship with academic performance, despite the low levels in this sample (see Table 2). Neuroticism shows no significance in its relationship to academic performance, although the low levels displayed are worth mentioning. There are studies with significant relationships for neuroticism, characterizing the subjects who score in this dimension as anxious, depressed, with feelings of blame and low self-esteem, associated with lower performance (Chamorro-Premuzic, & Furnham, 2002; González-Primo et al., 2022; Heaven, Mak, Barry, & Ciarrochi, 2002; Nácher, 2003). Subjects with a high score in neuroticism lack the confidence which will allow them to carry out tasks effectively (Thoms et al., 1996) and appear linked to evasory temperament (Evans, & Rothbart, 2007), which is in complete contradiction with the provision of police service. In the case of psychoticism, this correlates significantly with academic performance, which underscores the studies already found along these lines (Heaven, et al., 2002), regarding the aggressiveness that the subjects may display and lack of proper adaptation to the environment and to facing the different situations involved in police work.

The correlation of psychoticism with academic performance (see Table 4) continues to be significant in those examination subjects which have a component which is much more theoretical than practical or physical; in the case of practical or physical components, this is not the case. These subjects where this significance is not produced in inverse correlation are the subjects corresponding to the Department of Shooting and Technology and to that of Physical Education. These results may display in this way because when there is a physical component, psychoticism finds the way to express itself, and does not affect academic performance so much for the subjects with more practical content. But when there is no physical channel for these expressions, it is likely that there will be a greater effect. It can therefore be concluded that psychoticism would be affecting academic performance inversely, above all in subjects which are more theoretical, and not so much in the physical subjects.

Further to this, hypothesis 4 is partially met, since there are no significant results relating extroversion to academic performance. However, conformity is significantly and inversely related to academic performance, meaning that this part of the proposed hypothesis is met. With regard to extroversion, the studies show that there is a direct and positive relationship with academic performance (Eysenck, & Cookson, 1969; Savage, 1966; Entwistle, & Cunningham, 1968; Kumari, 2023). The sample score is high, meaning that, even though there is no significant relationship with academic performance, in the sphere being measured, it should be

sought for police work in its broad spectrum of functions, since what is needed are persons who know how to adapt and how to have direct, cordial and calming contact with citizens, especially in situations with high levels of stress. The characteristics defining extroversion and its bases are sociability, optimism, predisposition to positive emotions, traits related to energetic activity, the tendency to be sociable and talkative. In the case of sincerity, since this is inversely related to academic performance, a high score would lead to lower performance, although the relationship has been shown to be weak.

It is worth pointing to the fact that a high score in this personality factor leads to conformity or low levels of sincerity. Average scores for conformity are not high in the total of the sample (Table 1), meaning that a coherence is thus established in commitment to truthfulness and sincerity for aspiring police officers who, as they meet these personal conditions, achieve a satisfactory result in their training. This may be due to the responsibility and maturity with which they answered the questionnaire. It is worth mentioning that this could also be due to the explanation give about the importance of the truthful nature of the information they were going to provide and usefulness in the sphere of police training without any repercussion for the respondents themselves. Likewise, it could also be due to the fact that, in the application of the questionnaire, detailed explanations were given about the instructions, about how to reply, as well as the insistence on honesty in each one of the answers provided.

Finally, with regard to gender differences established in hypothesis 5, some differences have also been noted which would lead us to partially accept this hypothesis, except in the case of anger, within the sub-scales of aggressiveness studied. There are greater levels of physical aggressiveness in men than in women, with women being those who had highest scores for anger (see Table 3). This result can be explained from the point of view of legitimization of aggression in men, arising from the conduct standards acquired through vicarious and direct learning about socialization. Both aggressive attitudes and aggressive behaviour come to be perceived as proof of masculinity, entrenched by social context and peer conduct (Krahé, 2013). With regard to differences in favour of women for anger, in previous studies about students of higher education, when faced with examinations, there are greater levels of anxiety in women than in men, with the presence of aggressiveness remaining unclear (Masson et al., 2004). Other studies lead to the demonstration that women, unlike men with aggressive manifestations of an external type, display both emotional and behavioural agitation of a more internal type (González, & Lozano, 2000). These approaches may justify the differences in favour of women

for anger. And, continuing with the gender differences, lower academic performance can also be seen for women.

It is worth pointing to the fact that the limitations in this piece of research are related to the particular characteristics of the sample and the setting where it was undertaken, since the period of police training is within the competitive examination phase, when the aspiring police officers, although they have passed one round of the examination, have not yet been designated as police officers and, therefore, they still have to pass part of the selection process. This is always a conditioning factor to be taken into account since it may alter the results obtained. All the same, future research should inquire into the results of the personality questionnaires obtained in the competitive examination phase in contrast to the phase of training, and subsequent development of police activity. This would help to identify the biases which may arise in each stage of the process and to achieve a better study of the profile of the police officer candidate.

Returning to the initial thesis and, on the basis of the results obtained in the research, it can be concluded that psychoticism and conformity are characteristics to be taken into account in the choice of the police candidate and which will interact with academic performance within the police training process. From the perspective which the psychological processes analyzed offer us, significant feedback can be obtained in the interest of formulating and developing selection and training strategies for police candidates through an adapted teaching-learning process and the development of concrete aptitudes during the period over which the candidates are in the police training center. Also, on the basis of these characteristics, we can come to observe how there is greater influence on each one of the persons in order to carry out their corresponding tasks; they can also help to control the choice of candidates more accurately. Therefore, this research makes it clear that we need to provide selection processes with psychological tests in line with the factors which are shown in this study, thereby validating a procedure of guarantees with corroborating results through scientific experiment. Without a doubt, the selection process needs to be more effective in the measurement of these factors in order to achieve a future police officer profile which is more suitable and appropriate for the work they have to carry out and thus avoid more generalized tests in the psychological sphere.

In short, the limitations which may be found in this study are basically the conditioning that has perhaps been generated in the subjects of the sample on application of the

questionnaires, since the student body is under constant evaluation for conduct, attitude and results obtained. Therefore, applying tests which are not the expected ones on the examination subjects which they have to pass for their police training, can always generate certain questioning and mistrust and may influence the results obtained. Likewise, carrying out this study in a setting such as that of a police school will always be more restricted and allow the researcher less freedom when it comes to the capacity to implement other variables or questionnaires which may be considered necessary to complement and expand the study. By way of future lines of research, it would be advisable to delve deeper into the implications of the levels of psychoticism, conformity, and the gender differences in academic and professional performance, in order to optimize training and adapt it to police practice.

References

Albanesi, S. (2003). Factores de estrés en ingresantes a una escuela de cadetes de policía. *Revista Intercontinental de Psicología y Educación, 5*(1).

Alhassan, A., Zafar, B., & Mueen, A. (2020). Predict students' academic performance based on their assessment grades and online activity data. *International Journal of Advanced Computer Science and Applications, 11*(4), 185-194.

Alonso, J., & Navazo, M.A. (2002). La agresividad y su relación con el rendimiento escolar. *Revista electrónica interuniversitaria de formación del profesorado, 5*(1), 3.

Andreu., J.M., Peña, M.E., & Graña, J.L. (2002). *Adaptación psicométrica de la versión española del Cuestionario de Agresión. Psicothema, 14*, 476-482.

Baños, R., Ortiz, M. M., Baena, A., & Tristán, J. L. (2017). Satisfacción, motivación y rendimiento académico en estudiantes de Secundaria y Bachillerato: antecedentes, diseño, metodología y propuesta de análisis para un trabajo de investigación. *Espiral: Cuadernos del profesorado, 10*(20), 40-50.

Beckett, E., Zubiri, F., & Schultzendorff, A. von (2015). Diseño e implementación de una intervención educativa para elevar el bienestar docente basado en las evidencias de la psicología positiva y las neurociencias. *Pensamiento Educativo: Revista de Investigación Educacional Latinoamericana, 52*(2), 151-171.

Berges, A. (2011). Variables predictivas del aprovechamiento formativo en la policía local. *Revista de Psicología del Trabajo y de las Organizaciones, 27*(3), 163-176.

Bettencourt, B. A., Talley, A., Benjamin, A. J., & Valentine, J. (2006). Personality and aggressive behavior under provoking and neutral conditions: A meta-analytic review. *Psychological Bulletin, 132*(5), 751-777.

Brandt, N. D., Lechner, C. M., Tetzner, J., & Rammstedt, B. (2020). Personality, cognitive ability, and academic performance: Differential associations across school subjects and school tracks. *Journal of personality, 88*(2), 249-265.

Buss, A.H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology, 63*, 452-459.

Cain, J., Medina, M., Romanelli, F., & Persky, A. (2022). Deficiencies of traditional grading systems and recommendations for the future. *American Journal of Pharmaceutical Education, 86*(7), 8850.

Camacho-Morles, J., Slemp, G. R., Pekrun, R., Loderer, K., Hou, H., & Oades, L. G. (2021). Activity achievement emotions and academic performance: A meta-analysis. *Educational Psychology Review, 33*(3), 1051-1095.

Carmona–Halty, M., Salanova, M., Llorens, S., & Schaufeli, W. B. (2019). How psychological capital mediates between study–related positive emotions and academic performance. *Journal of Happiness Studies, 20*, 605-617.

Cascón, I. (2002). *Predictores del rendimiento académico en alumnos de primero y segundo de BUP*. https://campus.usal.es/~inico/investigacion/jornadas/jornada2/comun/c19.html

Center, D., Jackson, N., & Kemp, D. (2005). A test of Eysenck's antisocial behavior hypothesis employing 11-15-year-old students dichotomous for PEN and L. Personality and Individual Differences, *38*, 395-402.

Cerda, G., & Vera, A. (2019). Rendimiento en matemáticas: Rol de distintas variables cognitivas y emocionales, su efecto diferencial en función del sexo de los estudiantes en contextos vulnerables. *Revista Complutense de Educación, 30*(2), 331-346.

Chamorro-Premuzic, T., & Furnham, A. (2002). Neuroticism and special treatment in university examinations. *Social Behavior & Personality: an international journal, 30*(8), 807-811.

Da Silva, A. R., & Afonso, J. M. (2016). Estrés Ocupacional y Afrontamiento en Oficiales de la Policía Militar Portuguesa. *Avances en psicología latinoamericana, 34*(1), 2.

Dámaso-Flores, J., & Serpa-Barrientos, A. (2022). Modelo Explicativo del Rendimiento Académico Asociado a Estilos de Crianza, Agresión y Resentimiento en Adolescentes

Peruanos. *Revista Iberoamericana de Diagnóstico y Evaluación-e Avaliação Psicológica, 1*(62), 5-15.

Diaconu-Gherasim, L. R., Brumariu, L. E., & Hurley, J. G. (2022). Adolescents' perceptions of contextual factors: Links with intrinsic motivation and academic achievement. *Curr Psychol 41*, 5578–5593.

Domínguez, J., Álvarez, E., & Vázquez, E. (2017) Dimensiones predictivas del constructo violencia escolar en la educación secundaria obligatoria. *Revista de Investigación Educativas. 35*(2), 337-351.

Entwistle, N. J., & Cunningham, S. (1968). Neuroticism and school attainment - a linear relationship? *British Journal of Educational Psychology, 38*(2), 123-132.

Esteras, J., Chorot, P., & Sandín, B. (2014). Predicción del burnout en los docentes: papel de los factores organizacionales, personales y sociodemográficos. *Revista de Psicopatología Y Psicología Clínica, 19*(2), 79-99.

Estévez, E., & Jiménez, T. I. (2015). Conducta agresiva y ajuste personal y escolar en una muestra de estudiantes adolescentes españoles. *Universitas Psychological, 14*(1), 111-124.

Evans, D. E., & Rothbart, M. K. (2007). Developing a model for adult temperament. *Journal of research in personality, 41*(4), 868-888.

Extremera, N., & Fernández-Berrocal, P. (2004). El papel de la inteligencia emocional en el alumnado: evidencias empíricas. *Revista Electrónica de Investigación Educativa*, *6*(2).

Extremera, N., Durán, A., & Rey, L. (2007). Inteligencia emocional y su relación con los niveles de burnout, engagement y estrés en estudiantes universitarios. *Revista de Educación, 342*, 239-256.

Eysenck, H. J., & Cookson, D. (1969). Personality in primary school children, ability and achievement. *British Journal of Educational Psychology, 39*, 109-130.

Eysenck, H. J., & Eysenck, S. B. G. (1997). *Cuestionario revisado de personalidad de Eysenck (EPQ-R)*. Madrid: TEA Ediciones.

Fernández, E., Bernardo, A., Suárez, N., Cerezo, R., Núñez, J., & Rosario, P. (2013). Predicción del uso de estrategias de autorregulación en educación superior. *Anales de psicología, 29*(3), 865-875.

Flores, M. A., Barros, A., Simão, A. M. V., Pereira, D., Flores, P., Fernandes, E., Costa, L., & Ferreira, P. C. (2022). Portuguese higher education students' adaptation to online teaching and learning in times of the COVID-19 pandemic: personal and contextual factors. *Higher Education, 83*(6), 1389-1408.

Frijda, N., Manstead, A. S., & Bem, S. (2000). *Emotions and beliefs. How feelings influence thoughts*. Cambridge University Press.

García-Ripa, M., Sánchez-García, M. & Risquez, A. (2016). Estrategias de aprendizaje y autorregulación motivacional. Identificación de Perfiles para la orientación de estudiantes universitarios de nuevo ingreso. *Revista Iberoamericana de Diagnóstico y Evaluación, 1*(41), 39-57.

Gempp, R., & Cuesta, S. (2007). Errores estándar de medida condicionales para las normas metropolitanas de la adaptación chilena del EPQ-R: aplicación de un modelo binomial a un test de personalidad. *Terapia psicológica, 25*(1), 51-62.

González, J., & Portolés, A. (2014). Actividad física extraescolar: relaciones con la motivación educativa, rendimiento académico y conductas asociadas a la salud. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte, 9*(1), 51-65.

González, L. L., & Cueto, E. G. (2000). El rendimiento escolar y los trastornos emocionales y comportamentales. *Psicothema*, *12*(2), 340-343.

González-Primo, F., Montes-Álvarez, P., Postigo, Á., Menéndez-Aller, Á., & García-Cueto, E. (2022). Hacia un modelo explicativo del rendimiento académico: variables orécticas y cognitivas. *REMA Revista electrónica de metodología aplicada, 24*(2), 45-59.

Graziano, W. G., & Ward, D. (1992). Probing the Big Five in adolescence: Personality and adjustment during a developmental transition. *Journal of Personality, 60*(2), 426-439.

Hamaideh, S.H., & Hamdan-Mansour, A.M. (2014). Psychological, cognitive, and personal variables that predict college academic achievement among health sciences students. *Nurse Education Today, 34*, 703-708.

Hayat, A. A., Shateri, K., Amini, M., & Shokrpour, N. (2020). Relationships between academic self-efficacy, learning-related emotions, and metacognitive learning strategies with academic performance in medical students: a structural equation model. *BMC medical education, 20*(1), 1-11.

Heaven, P.C.L., Mak, A., Barry, J., & Ciarrochi, J. (2002). Personality and family influences on adolescent attitudes tos chool and self-rated academic performance. *Personality and Individual Differences 32*, 453–462.

Hogan, R., Johnson, J., & Briggs, J. (1997). *Handbook of personality psychology*. Academic Press.

Kabadayi, M., Mayda, M. H., Yilmaz, A. K., Karaduman, E., Bostanci, S. E., Karakas, F., ... & Yilmaz, C. (2022). Examination of Anthropometric Characteristics of Police Academy Students. *International Journal of Morphology, 40*(2), 460-465.

Kamal, P., & Ahuja, S. (2019). Academic performance prediction using data mining techniques: Identification of influential factors effecting the academic performance in undergrad professional course. In N. Yadav, A. Yadav, J. Bansal, K. Deep, J. Kim (eds), Harmony Search and Nature Inspired Optimization Algorithms: Advances in Intelligent Systems and Computing (pp. 835-843). Springer.

Krahé, B. (2013). *The social psychology of aggression*. Psychology Press.

Kumari, N. (2023). An investigation of the combined influence of neuroticism and extraversion on academic performance among fresh entrants to professional college. *Student's Journal of Health Research Africa, 4*(12), 1-6.

Lerner, J. S., & Keltner, D. (2001). Fear, anger and risk. *Journal of Personality and Social Psychology, 81*, 146–159.

Little, B. R., Leccl, L., & Watkinson, B. (1992). Personality and personal projects: Linking Big Five and PAC units of analysis. *Journal of personality, 60*(2), 501-525.

López, C., & López, J. R. (2003). Rasgos de personalidad y conducta antisocial y delictiva. *Psicopatología Clínica Legal y Forense, 3*, 5-19.

López, M.C., Sánchez, A., Pérez, M.A., & Fernández, M.P. (2008). Impulsividad, autoestima y control cognitivo en la agresividad del adolescente. *Edupsyhké, Revista de psicología y educación, 7*(1).

López-Gómez, I., Hervás, G., & Vázquez, C. (2015). Adaptación de la "Escala de afecto positivo y negativo (PANAS)" en una muestra general española. *Behavioral Psychology/Psicología Conductual, 23*(3), 529-548.

Martínez., F. D., & González, J. (2017). Autoconcepto, práctica de actividad física y respuesta social en adolescentes: relaciones con el rendimiento académico. *Revista Iberoamericana de Educación, 73*(1), 87-108.

Martínez-Otero, V., & Torres, L. (2001). Análisis de los hábitos de estudio en una muestra de estudiantes universitarios. *Revista Iberoamericana de educación, 32*(2), 1-19.

Masson, A. M., Hoyois, P., Cadot, M., Nahama, V., Petit, F., & Ansseau, M. (2004). Girls are more successful than boys at the university. Gender group differences in models integrating motivational and aggressive components correlated with Test-Anxiety. *L'encephale, 30*(1), 1-15.

Michelini, Y., & Godoy, J. C. (2019). Efecto de emociones en toma de riesgo, deshonestidad y cognición social en adultos emergentes universitarios. *Quaderns de psicologia, 21*(3), e1508.

Moro, M., Botella, C., & Ballester, R. (1997). *Personalidad y cambio en pacientes con fobia social.* Comunicación presentada en el I Congreso de la Asociación Española de Psicología Clínica y Psicopatología, Madrid, España.

Moro, M., Ibáñez, M.I., & Ortet, G. (1998). *Aportaciones a la validez de la escala de psicoticismo del cuestionario revisado de personalidad de Eysenck (EPQ-R).* Comunicación presentada al V Congreso de Evaluación Psicológica de la EAPA, Málaga.

Morriss, J., Tupitsa, E., Dodd, H. F., & Hirsch, C. R. (2022). Uncertainty makes me emotional: Uncertainty as an elicitor and modulator of emotional states. *Frontiers in Psychology, 13*, 777025.

Muela, J. A., García, A., Augusto, J. M., & López, E. (2010). The teaching of Psychology through learning activities from a multidisciplinary approach: increasing motivation and performance. *European Journal of Education and Psychology, 3*(1), 33-44.

Nácher, V. (2002). *Personalidad y rendimiento académico*. Jomades de Foment de la Investigación, Universitat Jaume I, España. https://repositori.uji.es/xmlui/bitstream/handle/10234/80531/forum_1996_19.pdf?sequence=1

Nácher, V. (2006). *Personalidad y rendimiento*. Jornadas de fomento de la investigación. Universidad Jaime I, España.

Navas, L., Soriano, J.A., Holgado, F.P., & Jover, I. (2016). Las metas múltiples: Análisis predictivo del rendimiento académico en estudiantes chilenos. *Educación XXI, 19*(1), 267-285

Ortet, G., Ibanez, M. I., Moro, M., Silva, F., & Boyle, G. J. (1999). Psychometric appraisal of Eysenck's revised Psychoticism scale: a cross-cultural study. *Personality and Individual Differences, 27*(6), 1209-1219.

Rodríguez-Mayoral, J. M., Martínez-Arias, R., Díaz-Aguado, M. J., & Morentín, R. (2008). Comportamiento violento en adolescentes: su relación con las estrategias cognitivas y el rendimiento académico. *Psicología Educativa, 14*, 63-81.

Romero, M., San Martín, Á., & Peirats, J. (2018). Diferencias de sexo en estrategias de aprendizaje de estudiantes online. *Innoeduca. International journal of technology and educational innovation, 4* (2), 114-126.

Ruiz, A., Ruiz, J. R., de la Torre, M., Latorre, P., & Martínez, E. J. (2016). Influencia del nivel de atracción hacia la actividad física en el rendimiento académico de los adolescentes. *Revista Latinoamericana de Psicología, 48*(1), 42-50.

Ryu, G. W., Yang, Y. S., & Choi, M. (2020). Mediating role of coping style on the relationship between job stress and subjective well-being among Korean police officers. *BMC public health, 20*(1), 1-8.

Salgado, J. F. (2003). *La Selección de Policías y Personal de Ocupaciones de Seguridad: Recientes Avances de la Investigación. Informe Técnico GRHR03-02*. Universidad de Santiago de Compostela.

San Sebastián, X., Torres, E., Ibarretxe, R., & Zumalabe, J. M. (2002). Autopercepción de estrés laboral y distrés: un estudio empírico en la policía municipal. *Psicothema, 14*(2), 215-220.

Sánchez-García, M. Á., Lucas-Molina, B., Fonseca-Pedrero, E., Pérez-Albéniz, A., & Paino, M. (2018). Emotional and behavioral difficulties in adolescence: Relationship with emotional well-being, affect, and academic performance. *Anales de Psicología, 34*(3), 482-489.

Sánchez-Teruel, D., & Robles-Bello, M. A. (2014). Personalidad y resiliencia en un cuerpo especial de la Policía Nacional de España. *Revista de Psicología del Trabajo y de las Organizaciones, 30*(2), 75-81.

Savage, R.D. (1966). Personality factors and academic attainment in junior school children. *British Journal of Educational Psychology, 35*, 91-92.

Skoglund, T. H., Brekke, T. H., Steder, F. B., & Boe, O. (2020) Big Five Personality Profiles in the Norwegian Special Operations Forces. *Frontiers in Psychology, 11*, 747.

Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology, 48*, 813-838.

Song, X., Cheng, Y., Xie, Z., Gong, N., & Liu, L. (2021). The influence of anger on delay discounting: The mediating role of certainty and control. *Acta Psychologica Sinica, 53*(5), 456-468.

Stewart, A. J., & McDermott, C. (2004). Gender in psychology. *Annual Review of Psychology, 55*, 519-544.

Stroe, S., Sirén, C., Shepherd, D., & Wincent, J. (2020). The dualistic regulatory effect of passion on the relationship between fear of failure and negative affect: Insights from facial expression analysis. *Journal of Business Venturing, 35*(4), 105948.

Thompson, E. R. (2007). Development and validation of an internationally reliable short-form of the Positive and Negative Affect Schedule (PANAS). *Journal of Cross-Cultural Psychology, 38*, 227-242.

Thoms, P., Moore, K. S., & Scott, K. S. (1996). The relationship between self-efficacy for participating in self-managed work groups and the big five personality dimensions. *Journal of Organizational Behavior, 17*(4), 349-362.

Torregrosa, M. S., Inglés, C. J., García-Fernández, J. M., Gázquez, J. J., Díaz-Herrero, Á., & Bermejo, R. M. (2012). Conducta agresiva entre iguales y rendimiento académico en adolescentes españoles. *Behavioral Psychology/Psicología Conductual, 20*(2).

Van Reemst, L., Fischer, T., & Weerman, F. (2022). Aggression against police officers and behavior towards citizens: reciprocal influence or common causes? *Frontiers in psychology, 13*.

Vázquez, C. (2009). *La ciencia del bienestar*. Alianza Editorial.

Vera, J. Á., Rodríguez, C. K., & Grubits, S. (2009). La psicología social y el concepto de cultura. *Psicologia & Sociedade*, *21*(1), 100-107.

Watson, D., Clark, L., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070.

Wu, H., Li, S., Zheng, J., & Guo, J. (2020). Medical students' motivation and academic performance: the mediating roles of self-efficacy and learning engagement. *Medical education online, 25*(1), 1742964.

Yarin, A. J., Encalada, I. A., Elias, J. W., Surichaqui, A. A., Sulca, R. E., & Pozo, F. (2022). Relationship between Motivation and Academic Performance in Peruvian Undergraduate Students in the Subject Mathematics. *Education Research International, 2022*.

Yu, J., Huang, C., He, T., Wang, X., & Zhang, L. (2022). Investigating students' emotional self-efficacy profiles and their relations to self-regulation, motivation, and academic performance in online learning contexts: A person-centered approach. *Education and Information Technologies, 27*(8), 11715-11740.