

Perception of Health, Resilience, and Engagement in Spanish Police Officers During the COVID-19 Pandemic

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Abstract

Background: During the COVID-19 pandemic, the police force was one of the institutions that was most exposed to possible infections, in addition to suffering stressful situations that affect health. This study aims to independently assess the relationship between demographic, work, and COVID-19 variables, and resilience, engagement, and the perception of health, as well as to evaluate which variables are more important when predicting health perceptions. **Method:** 640 Spanish police officers were evaluated through a cross-sectional design and online survey. **Results:** The perception of the lack of personal protective equipment, believing that it is easy to become infected with COVID-19, or working as a police officer were associated with low levels of engagement and resilience and a worse perception of health. More years of experience in the police force was associated with worse health and lower levels of engagement and resilience. Engagement and resilience would be protective variables of health. **Conclusions:** It is necessary to promote practices related to engagement and resilience in the police force. The discussion emphasizes that more experienced police officers demonstrate less engagement and resilience.

Keywords: Resilience; engagement; health; police; COVID-19 pandemic.

Resumen

Salud Percibida, Resiliencia y Compromiso en Policías Españoles Durante la Pandemia por COVID-19. Antecedentes: durante la pandemia por COVID-19, el colectivo policial ha sido uno de los más expuestos a posibles contagios, además de sufrir situaciones estresantes que afectan a la salud. Esta investigación tiene como objetivo evaluar independientemente la relación entre las variables demográficas, del trabajo y COVID-19, y la resiliencia, el engagement y la percepción sobre la salud, así como evaluar qué variables tienen más peso a la hora de predecir la percepción sobre la salud. **Método:** se evaluó a 640 policías españoles mediante un diseño transversal y encuesta online. **Resultados:** la falta de equipos de protección individual, creer que es fácil infectarse por COVID-19 o trabajar como agente se asocian a niveles bajos de engagement y resiliencia y peor percepción de la salud. El aumento en los años de experiencia en el cuerpo policial se asocia a peor salud y a bajos niveles de engagement y resiliencia. El engagement y la resiliencia serían variables protectoras de la salud. **Conclusiones:** es necesario fomentar prácticas relacionadas con el engagement y la resiliencia en el colectivo policial. Se destaca que los policías con más experiencia muestran menos engagement y resiliencia.

Palabras clave: resiliencia; engagement; salud; policías; pandemia por COVID-19.

At the end of 2019, the illness that became known as Coronavirus (COVID-19) was discovered in China and led to the current pandemic. In Spain, the official data as of March 30, 2021 indicate that the number of dead is over 75,000 and more than three million people have been infected (Ministerio de Sanidad, Consumo y Bienestar Social, 2021). From the imposition of home confinement until now, the professionals who have been most exposed to infection by the virus have included those offering services to the public, such as healthcare personnel and law enforcement agencies (Petzold et al., 2020; Stogner et al., 2020).

The police have had to adapt to new protocols and frequent changes in the regulations imposed on the public. They are also at a high risk of infection, given that they interact with people with undetermined COVID status and their activity involves

direct contact (e.g. arrests). They have even suffered attacks by lawbreakers (Jakovljevic et al., 2020; Jennings & Pérez, 2020; Stogner et al., 2020). Moreover, several studies suggest that police reports in numerous countries refer to a lack of personal protective equipment during the pandemic (Aljayyousi, 2020; Kirby, 2020), making the work of these professionals more difficult.

Research has shown that highly stressful events such as a pandemic have harmful effects on psychological health (Bromet et al., 2016), although before the start of the pandemic, the job of the police was already associated with high levels of work stress and psychological stress problems (Cieślak et al., 2020; Nelson & Smith, 2016). Police suffer mental health problems to a greater extent than the rest of the population, as well as problems of insomnia, perceived stress and depression (Hartley et al., 2011). They also experience burnout, and above all high levels of emotional exhaustion and depersonalization (Padyab et al., 2016). A study carried out on the police in several European countries (Austria, Germany, Spain, Switzerland, the Netherlands) during the pandemic has demonstrated that among the variables associated with stress were having fewer years of work experience

and training to tackle the situation. The risk of being infected and insufficient information on the illness were also among the main stressors (Frenkel et al., 2021).

Although it is true that in recent months the police have been subject to situations of tension, perceived stress is modulated by factors that can reduce the risk of its impact, such as resilience and engagement (Cabanyes, 2010; Violanti et al., 2018).

Resilience refers to the capacity to recover from extreme or traumatic situations. It has been shown that high levels of personal resilience mitigate the negative effects of stress events (Fyhn et al., 2016). This is considered a variable that is inversely related to stress and exhaustion (Allison et al., 2019; Griffin & Sun, 2018). The levels of resilience have been shown to vary according to sociodemographic aspects such as age and educational level. In other words, the higher the age and educational level, the greater the levels of resilience (Portzky et al., 2010; Sánchez-Teruel & Robles-Bello, 2014). Moreover, in other professional groups such as healthcare workers, resilience has acted as a protective variable against burnout during the COVID-19 pandemic (Luceño-Moreno et al., 2020).

For its part, engagement is a variable that modulates work stress among police officers. The profession of police officer is associated with a high commitment and risk of exhaustion (Basinska & Daderman, 2019). The term “engagement” refers to the worker’s emotional, intellectual and cognitive commitment to the organization where he or she works. It is defined as high levels of vigor, dedication and absorption. Vigor is energy as reflected in the actual effort spent on tasks. Dedication alludes to the high levels of a worker’s participation, demonstrating pride, defiance, inspiration and enthusiasm to work. Finally, absorption is characterized by a state of profound concentration, with the feeling that time is passing quickly while the work is being carried out (Schaufeli & Bakker, 2003). Engagement is the direct opposite of burnout (Bakker et al., 2014). In general, police professionals have high levels of this variable (Basinska & Daderman, 2019). During the COVID-19 pandemic, engagement was analyzed in other professional groups such as nurses, demonstrating the presence of high levels of engagement and its negative relation with the perceived workload (Zhang et al., 2020). Similarly, among the general population in Italy, it has been demonstrated that people with low levels of engagement felt themselves to be more vulnerable to the possibility of contracting the virus, and in turn perceived the illness more seriously (Graffigna et al., 2020).

Although there have been a number of studies on the effects of the pandemic on the psychological health of various professional groups and the general population in Spain (Luceño-Moreno et al., 2020; Rodríguez-Rey et al., 2020; Ruiz-Frutos et al., 2021; Valiente et al., 2021), there are few published that cover Spanish police officers.

This research aims to determine the specific relationship between each of the variables studied (demographic, work-related, COVID-19 variables) and resilience, engagement or perceived health. It also assesses what variables (demographic, work-related, COVID-19 variables, resilience and engagement) have the greatest weight when it comes to predicting perceived health.

The hypotheses established were as follows:

H1: Police officers who perceive a high risk of contagion will have low levels of engagement, less resilience and will perceive themselves as in a worse state of health.

H2: A completed higher education and/or being older will relate to higher levels of engagement and resilience.

H3: Fewer years of experience and perceiving a lack of personal protection equipment will relate to worse health.

H4: High levels of engagement and resilience will be associated with better perceived health.

Method

Participants

A total of 640 local police officers took part in this cross-sectional study, 112 (17.5%) of them women and 528 (82.5%) men. Police officers who did not work in the Autonomous Community of Madrid worked in: Community of Valencia (54%), Andalusia (12%), Extremadura (6%), Aragon (5%), Catalonia (3%), Region of Murcia (3%), Asturias (3%), Castile-Leon (3%), Castile-La Mancha, Basque Country, Balearic Islands, La Rioja, Canary Islands (2.2% per Autonomous Community). The response rate to the online questionnaire was 71%. The average age was 46.72 ($SD = 7.45$, age range of 27-64). Tables 1, 2 and 3 show the values and percentages with respect to detailed information on the rest of variables.

Instruments

Sociodemographic variables relating to the job and those specific to COVID-19. Among the variables assessed were educational level, members of the household, category of work, time in the job, concern that one member of the household could become infected, and availability of protection equipment.

Resilience. Spanish adaptation of the Brief Resilience Scale (BRS) was used (Smith et al., 2008; Rodríguez-Rey et al., 2016). It evaluates the construction of resilience, understood as the subject’s ability to deal with environmental obstacles and recover from stressful circumstances. It is made up of 6 items that are answered on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The higher the score, the greater the degree of resilience the person shows to deal with adversities. The Spanish adaptation corroborates the single-factor solution and an internal consistency of .83 (Rodríguez-Rey et al., 2016).

Engagement. Work Engagement was assessed by using the Spanish version of the Utrecht Work Engagement Scale-9 (UWES-9) (Schaufeli et al., 2006), adapted by the same authors. It measures work engagement in three dimensions: vigor, dedication and absorption, each containing three items, which were scored on a 7-point Likert-type scale (1 = never, 7 = always). Cronbach’s alpha reliability indexes of the UWES-9 are as follows: vigor ($\alpha = .82$), dedication ($\alpha = .86$) and absorption ($\alpha = .8$) (Schaufeli et al., 2006).

Perception of health. Spanish version of General Health Questionnaire-12- GHQ-12 - was used (Goldberg & Williams, 1988; Sánchez-López & Dresch, 2008). This scale is a 12-item self-report questionnaire used to measure general mental health. The items are scored using a four-point scale from “better than usual” to “much less than usual”. The Likert scoring method was used (0, 1, 2, 3). Higher scores indicate greater levels of psychological distress. Cronbach’s alpha coefficient of this scale was .76 in the Spanish version (Sánchez-López & Dresch, 2008).

Procedure

The researchers obtained the approval of the Ethic Committee of Complutense University of Madrid (Ref. 2019/20-037). The data were collected in the second half of November 2020, during the second wave of the COVID-19 pandemic. After signing the collaboration agreement, the police management contacted all the workers using the Project's informational video posted on its institutional platform. The department also contacted each worker individually by e-mail, informing them of the details of the study. The assessment was carried out using an online administrative questionnaire, which included an informed consent and the items. The link was sent through Google Forms by the researchers responsible, together with the invitational e-mail. There was no registry of the IP addresses. All data was treated with confidentiality and no personal information was required. The estimated time for completion was 10 minutes and the questionnaire could not be finalized if any item was not answered. Two independent researchers treated the data and reviewed the items.

Data analysis

The analysis was carried out using the statistical package SPSS 26. Descriptive analyses (frequencies, mean, standard deviation) were carried out of the demographic variable and the factors: engagement, resilience and perceived health. Linear regression equations were developed to independently determine the relationship between each of the variables (demographic, work, COVID-19) with the factors of engagement, resilience and perceived health, using the value R^2 and the standardized β coefficient. The aim was to calculate the impact of demographic, work-related, COVID-19 variables when it comes to predicting resilience, engagement or perceived health. Dummy variables were used for this purpose. A dummy variable is a dichotomous variable constructed from an original categorical variable. For its creation, each level of the categorical variable gives rise to a new variable coded with values 0 (does not belong to the category) and 1 (belongs to the category) (Martínez-Arias et al., 2014). Dummy variables are the following: gender, marital status, educational level, whether you have dependents (or not), number of dependent children in your care, if you have a chronic illness, area in which you work, shift, if you have been on leave in the last year, if you have had a work accident, rank and position. Finally, linear regression models were constructed to determine which variables (demographic, work-related, COVID-19, engagement and resilience) were jointly related with the perception that the workers have about their health. The model was estimated by least squares, using the successive step extraction method.

Results

Sociodemographic variables and their association with engagement, perceived health and resilience

With respect to educational level, having postgraduate studies is associated positively and significantly with engagement and negatively and significantly with perceived health. Not having a chronic illness is associated significantly and positively with engagement and resilience, and negatively and significantly with

perceived health. Working in the Region of Madrid is associated negatively and significantly with engagement. Not having dependent children is associated negatively and significantly with engagement. Being single is associated negatively and significantly with engagement. The size of the household is associated positively and significantly with engagement, and negatively and significantly with perceived health (see Table 1).

Variables relating to the job position and their association with engagement, perceived health and resilience

Working split shifts is associated positively and significantly with engagement and resilience. Working in the lower ranks is associated positively and significantly with perceived health. The job of police officer is associated significantly and negatively with engagement and resilience, and the positions of commissioner, captain, inspector or deputy inspector are associated negatively and significantly with perceived health. The total years worked in the job is associated negatively and significantly with engagement and resilience (see Table 2).

Variables relating to COVID-19 and their association with engagement, perceived health and resilience

Not having to move home due to fear of infecting family members is associated negatively and significantly with perceived health. Not working in contact with people who could have COVID-19 is associated positively and significantly with engagement and negatively and significantly with perceived health. Not having personal protection equipment available to avoid contagion is associated positively and significantly with engagement and negatively and significantly with perceived health. Not living with people who belong to at-risk groups is associated negatively and significantly with perceived health, and positively and significantly with resilience. Obtaining help from the organization to have the necessary protection equipment and not being concerned about whether a person you live with could become infected is related positively and significantly to engagement and resilience, and negatively and significantly to perceived health. Not being very concerned about a family member becoming infected is associated significantly and positively with engagement and resilience, and negatively and significantly with perceived health. Thinking that it is very likely you will be infected by COVID-19 is associated significantly and negatively with engagement and resilience, and positively and significantly with perceived health. However, thinking that it is not at all or only slightly probable you will be infected with COVID-19 is associated negatively and significantly with perceived health and positively with engagement and resilience (see Table 3).

Regression models for perceived health

The variables associated positively with perceived health are: having had to move home because of fear of infecting family members, and total years in the force. The variables associated negatively with perceived health are: resilience, engagement, having a university education, not being concerned because a family member you do not live with could become infected, age, not having a chronic illness and being an inspector or deputy inspector (see Table 4 and 5).

Table 1
Association between sociodemographic variables and engagement, perceived health and resilience

Variable	Descriptor N (%)	Engagement			GHQ			Resilience		
		R ²	B (β)	(95% CI)	R ²	B(β)	(95% CI)	R ²	B(β)	(95% CI)
Gender										
Male	528 (82.5%)	.00			.00					
Female	112 (17.5%)		-.06 (-.02)	(-.35; .22)		.72 (.07)	(-.05; 1.50)	.00	-.03 (-.02)	(-.15; .09)
Marital status										
Married	440 (68.8%)	.01			.00			.00		
Separated, Divorced	69 (10.8%)		-.11 (-.03)	(-.47; .24)		.69 (.06)	(-.27; 1.65)		-.06 (-.03)	(-.21; .09)
Single	131 (20.5%)		-.29 (-.08)*	(-.56; .02)		.30 (.38)	(-.44; 1.04)		.03 (.06)	(-.09; .14)
Educational level										
Primary	70 (10.9%)		.27 (.05)	(-.15; .58)		-.24 (-.02)	(-1.26; .77)		-.14 (-.07)	(-.30; .02)
High school	168 (26.3%)	.03**	-.03 (-.01)	(-.31; .24)	.01	-.71 (-.08)	(-1.47; .04)	.01	-.09 (-.07)	(-.21; .03)
Vocational training	122 (19.1%)		-.27 (-.07)	(-.57; .04)		-.33 (-.03)	(-1.17; .50)		-.06 (-.04)	(-.19; .07)
University	227 (35.5%)									
Postgraduate (master's or doctorate)	53 (8.3%)		.69 (.19)**	(-.28; 1.11)		-1.24 (-.090)*	(-2.37; -.11)		.05 (.03)	(-.12; .23)
Family dependents										
Yes	469 (73.3%)	.00			.00			.00		
No	171 (26.7%)		-.19 (-.06)	(-.44; .05)		.07 (.01)	(-.60; .73)		.06 (.05)	(-.04; .17)
Number of dependent children										
0	150 (23.4%)		-.29 (-.09)*	(-.57; .00)		.55 (.06)	(-.21; 1.32)		.02 (.02)	(-.10; .14)
1	196 (30.6%)	.01*	.07 (.02)	(-.19; .33)	.00	.31 (.04)	(-.40; 1.32)	.00	.05 (.04)	(-.06; .16)
2	250 (39.1%)									
>2	44 (6.9%)		.27 (.24)	(-.20; .74)		-.10 (-.01)	(-1.37; 1.18)		.17 (.10)	(-.03; .37)
Has some form of chronic illness										
Yes	145 (22.7%)	.03***			.04***			.04***		
No	495 (77.3%)		.55 (.17)***	(.30; .81)		-1.91 (-.21)***	(-2.60; -1.22)		.29 (.21)***	(.18; .40)
Region where they work										
Madrid	573 (89.5%)	.02***	-.72 (-.16)***	(-1.1; -.37)	.01	-.10 (-.01)	(-1.06; .86)	.06	-.13 (-.06)	(-.27; .02)
Other	67 (10.5%)									
Age M(SD)										
	46.727 (7.45)	.00	-.00 (-.01)	(-.02; -.01)	.00	-.02 (-.04)	(-.06; .02)	.00	-.00 (-.07)	(-.01; .00)
Number of people at home M(SD)										
	3.05 (1.22)	.02***	.14 (.13)***	(.05; .23)	.01**	-.36 (-.11)**	(-.59; .12)	.00	.03 (.07)	(-.00; .07)

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; M = Mean; SD = Standard Deviation

Discussion

This research aims to determine the relationship between each of the variables studied independently (demographics, work-related, COVID-19 variables) and resilience, engagement and perceived health. It also assesses which variables (demographic, labor, COVID-19 variables, resilience and engagement) have the greatest weight when it comes to predicting perceived health.

Workers with the highest levels of engagement are: those that have completed postgraduate studies, work in split shifts, do not have a chronic illness, do not live alone, are not working in contact with people who could have COVID-19, or are not concerned that people they live with could become infected. The variables related to low levels of engagement are: working in the Region of Madrid, being in the lower ranks, not having dependent children, being single, being in the police force for many years, not having personal protection equipment at work, or believing it is very easy to be infected by COVID-19.

The most resilient members of the force are those who work in

split shifts, do not have a chronic illness, do not live with people who are in an at-risk group, acknowledge that the organization provides them with protection equipment or are not concerned because the people they live with could become infected. The variables related with low resilience are: having the rank of officer, having many years of experience in the police force, or believing that it is very easy to catch COVID-19.

The variables related to better perceived health are: having completed postgraduate studies, having the job of commissioner, captain, inspector or deputy inspector, not having a chronic illness, living with other people, not having had to move home for fear of infecting family members, not working in contact with people who could have COVID-19, not living with people who are in the at-risk group, acknowledging that the organization provides them with protection equipment, and not being concerned because people you live with could become infected. The variables related to worse perceived health are: having a job in the lowest ranks, not having personal protection equipment at work, and believing that it is very easy to catch COVID-19.

Having a high level of education, a higher-ranking position, not living alone, having personal protection equipment or positive beliefs on COVID-19 are variables that protect against stress and are related to engagement and resilience. It is noteworthy that workers who have worked for longer in the police force have lower levels of engagement and are less resilient. Probably, perceiving working conditions adversely is associated with greater emotional tiredness and depersonalization, and these burnout factors are opposed to engagement (Bakker et al., 2014; Talavera-Velasco et al., 2018). It has also been demonstrated that having protection equipment, knowing the health and safety measures, and talking regularly to members of the family has helped other police officers reduce stress during the pandemic (Dey et al., 2021).

Police officers who work in the Region of Madrid are those with the lowest levels of engagement. A possible explanation for this is that the high labor demands and increased situations of tension are associated with a lower commitment to work and more depersonalization. Violanti et al. (2018) suggest that an excess dedication and commitment could negatively affect workers' effectiveness. In addition, the lack of personnel as a result of police officers being off sick or quarantined also affects these workers, as they are burdened with additional responsibilities.

The protective variables with respect to perceived health are: resilience, engagement, having completed higher education, not

being concerned because a family member could become infected, not having a chronic illness, being older and having the position of inspector or deputy-inspector. The risk variables are: having to move home and increased years of experience in the police force. Police officers who have better perceived health are those who are more resilient, have higher levels of engagement, are not concerned because a family member they do not live with could become infected, have not had to move due to COVID-19, do not have a chronic illness, are older, more experienced in the police force and are in a position of inspector or deputy-inspector. It is important to note the concern about catching the illness among the police who have been surveyed; this coincides with the results of another study in which police in India have suffered stress and symptoms of depression as they have had to reduce their interaction with their families and are extremely concerned about becoming infected (Grover, 2020). It also highlights the fact that engagement and resilience are variables that protect health (Carleton et al., 2018; Houdmont et al., 2020). It should also be emphasized that in the present study older police officers perceived better health than the younger ones. Similarly, another research carried out in Spain in the general population indicated that the youngest had been more affected by the psychological consequences of the pandemic (Justo-Alonso et al., 2020).

The first and fourth hypotheses proposed at the start have been confirmed, and the second and third partially. This work offers

Table 2
Association between variables relating to the job and engagement, perceived health and resilience

Variable	Descriptor	Engagement			GHQ			Resilience		
	N (%)	R ²	B(β)	(95% CI)	R ²	B(β)	(95% CI)	R ²	B(β)	(95% CI)
Number of hours work per week M(SD)	40.38 (7.094)	.00	.01 (.07)	(-.00; .03)	.00	-.02 (-.04)	(-.06; -.02)	.00	.00 (.05)	(-.00; .01)
Shift										
Fixed, morning	266 (41.6%)									
Fixed, afternoon	145 (22.7%)		-.06 (-.02)	(-.34; .22)		.46 (.05)	(-.30; 1.23)		.00 (.00)	(-.12; .12)
Fixed, night	99 (15.5%)	.02**	-.23 (-.06)	(-.55; .09)	.00	.14 (.01)	(-.74; 1.01)	.01	.03 (.02)	(-.10; .17)
Rotating	84 (13.1%)		.08 (.02)	(-.25; .42)		.10 (.01)	(-.83; 1.03)		.08 (.07)	(-.07; .22)
Split	46 (7.2%)		.72 (.13)**	(.29; 1.15)		-.59 (-.04)	(-1.78; .59)		.22 (.09)*	(.04; .41)
Sick leave in last year										
Yes	265 (41.4%)									
No	375 (58.6%)	.00	.12 (.04)	(-.10; .34)	.00	-.57 (-.07)	(-1.16; .03)	.00	.08 (.07)	(-.01; -.17)
Industrial accident										
Yes	76 (11.9%)									
No	564 (88.1%)	.00	.12 (.03)	(-.21; .46)	.00	-.42 (.46)	(-1.33; .49)	.00	-.06 (-.07)	(-.20; .08)
Rank										
Technical staff	48 (7.5%)		.28 (.05)	(-.19; .74)		-.24 (-.02)	(-1.50; 1.01)		.01 (.01)	(-.18; .21)
Executive staff	126 (19.7%)	.01			.01*			.01		
Basic scale	48 (7.5%)		-.13 (-.04)	(-.41; .14)		.83 (.10)*	(.08; 1.57)		-.10 (-.07)	(-.22; .02)
Position										
Commissioner/Captain	28 (4.4%)		.48 (.07)	(-.09; 1.06)		-2.16 (-.12)**	(-3.74; -.58)		.18 (.06)	(-.06; .43)
Inspector/Deputy inspector	46 (7.2%)	.05***	.06 (.01)	(-.42; .54)	.03**	-1.81(-.12)**	(-3.13; -.49)	.02**	.03 (.01)	(-.17; .24)
Officer	94 (14.7%)									
Agent	472 (73.8%)		-.57 (-.18)***	(-.88; .27)		-.01 (-.00)	(-.84; .82)		-.15 (-.11)*	(-.28; .02)
Total of years in the position M(SD)	12.1490(8.27)	.02***	-.02 (-.14)***	(-.04; .01)	.00	.03 (.07)	(-.00; .07)	.01**	-.01 (-.11)**	(-.01; .00)
Total years in the police M(SD)	21.207(8.25)	.00	.00 (.01)	(-.01; .01)	.00	-.00 (-.01)	(-.04; .03)	.07	-.00 (-.07)	(-.01; .00)

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; M = Mean; SD = Standard Deviation

Table 3
Association between COVID-19 variables and engagement, perceived health and resilience

Variable	Descriptor N (%)	Engagement			GHQ			Resilience		
		R ²	B(β)	(95% CI)	R ²	B(β)	(95% CI)	R ²	B(β)	(95% CI)
Moving home due to fear of infecting family members										
Yes	63 (9.8%)	.00	.28 (.06)	(-.08; .64)	.04***	-2.5 (-.20)***	(-3.49; -1.55)	.00	.11 (.06)	(-.04; -.27)
No	577 (90.2%)									
At work I am in contact with people who could have COVID-19										
Yes	604 (94.4%)	.01*	.56 (.09)*	(.09; 1.03)	.01*	-1.48 (-.09)*	(-2.75; -.21)	.00	.15 (.06)	(-.05; .35)
No	36 (5.6%)									
Isolation due to possible infection										
Yes	184 (28.8%)	.00	.17 (.06)	(-.07; .41)	.00	-.29 (-.03)	(-.94; .36)	.00	.09 (.07)	(-.01; .19)
No	456 (71.3%)									
Has protection equipment to avoid contagion										
Yes	532 (83.1%)	.02**	-.50 (-.13)**	(-.78; -.21)	.01*	.98 (.10)*	(.20; 1.76)	.00	-.04 (-.02)	(-.16; .08)
No	108 (16.9%)									
Lives with people at risk										
Yes	193 (30.2%)	.00	.20 (.07)	(-.03; .44)	.01**	-.92 (-.11)**	(-1.55; .28)	.01*	.11 (.09)*	(.01; .21)
No	447 (69.8%)									
Has been provided with protection equipment at work										
Yes, as required for the job	255 (39.8%)	.06***	.69 (.24)***	(.47; .90)	.04***	-1.46 (-.19)***	(-2.05; -.87)	.02***	.17 (.14)***	(.08; .27)
Yes, but not much	385 (60.2%)									
What is your level of concern that a person you live with could become infected?										
Very concerned	295 (46.1%)	.02**	.36 (.13)	(.13; .59)	.06***	-1.77 (-.23)	(-2.39; -1.16)	.03***	.17 (.14)	(.07; .27)
Somewhat concerned	264 (41.3%)									
Not very concerned	81 (12.7%)									
How concerned are you about a family member you do not live with?										
Very concerned	384 (60%)	.02**	.44 (.15)	(.21; .67)	.06***	-1.95 (-.25)	(-2.56; -1.34)	.04***	.21 (.17)	(.11; .31)
Somewhat concerned	221 (34.5%)									
Not very concerned	35 (5.5%)									
Probability of becoming infected by COVID-19										
Highly probable	246 (38.4%)	.03***	-.45 (-.16)***	(-.68; .22)	.04***	1.20 (.15)***	(.57; 1.83)	.01*	-.12 (-.10)*	(-.21; .02)
Somewhat probable	304 (47.5%)									
Not very or not at all probable	90 (14.1%)									
Have tested positive for COVID-19										
Tested positive	87 (13.6%)	.01	.14 (.04)	(-.18; .47)	.00	-.49 (-.04)	(-1.36; .39)	.00	.00 (.07)	(-.13; .14)
Tested negative	425 (66.4%)									
Haven't taken a test	128 (20%)									

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

information about the multitude of variables related to those variables that protect health among the Spanish police during the pandemic; however, there are some limitations. The data were obtained by an online survey, so it is possible that some police officers were not familiar with it and finally decided not

to take part. Also, in future studies it would be a good idea to analyze differences between the different variables by gender, given that in this research the percentage of men is much higher than that of women. Moreover, the variables assessed would have to be studied through a longitudinal design. It is necessary to

Table 4
Means, Standard Deviates, Intercorrelations and alpha coefficients (n = 640)

Factors	M	SD	α	1	2	3	4	5	6
1. Vigor	4.2	1.43	.85	–					
2. Dedication	4.41	1.46	.91	.85***	–				
3. Absorption	3.74	1.62	.82	.73***	.78***	–			
4. Engagement	4.12	1.39	.93	.92***	.94***	.91***	–		
5. Resilience	3.12	.59	.84	.45***	.41***	.26***	.40***	–	
6. GHQ-12	16.53	3.78	.69	-.51***	-.50***	-.34***	-.48***	-.54***	–

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

Table 5
Regression models for perceived health (GHQ-12)

Variables	B (β)	(95% CI)
Resilience	-2.45 (-.38)***	(-2.86; -2.03)
Engagement	-.77 (-.28)***	(-.94; .59)
Moving house (Yes)	1.62 (.13)***	(.87; 2.37)
Concern that a family member who he/she lives with could become infected (slightly or not at all concerned)	-.94 (-.12)***	(-1.41; -.46)
Educational level (university degree)	-.85 (-.11)***	(.39; 1.32)
Chronic illness (No)	-1.08 (-.12)***	(-1.65; -.51)
Age	-.14 (-.27)**	(-.22; .06)
Total years in the police	.10 (.22)**	(.03; .17)
Position (Inspector/Deputy inspector)	-1.05 (-.07)*	(-1.94; -.16)

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

observe the participants at different time intervals, mainly due to the temporal ambiguity that COVID-19 has had according

to the moment of the pandemic, and its possible influence on resilience.

Finally, the importance of continuing to assess the stress and health of this group during the pandemic should be stressed, given the exposure of the police to situations that require increasingly more interventions by them to enforce the restrictions (Jennings & Pérez, 2020). It is also necessary to encourage health interventions using strategies that include an increase in the levels of engagement and resilience among the police. Specifically, some practices have been identified during COVID-19 pandemic for improving the police work: increasing the communication with peers and coworkers, training in pre-disaster planning (Laufs & Waseen, 2020) or practising the authentic leadership that promotes the ethical component of conduct in emergency situations (García-Guiu et al., 2015).

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