Prevalence and risk factors of burnout syndrome among Spanish police officers

Emilia I. De la Fuente Solana, Raimundo Aguayo Extremera, Cristina Vargas Pecino
and Gustavo R. Cañadas de la Fuente
Universidad de Granada

Abstract

Background: Police work is currently one of the most stressful occupations. High levels of stress can culminate in suffering the burnout syndrome. This syndrome is characterised by emotional exhaustion, depersonalisation and low personal accomplishment. Police officers, despite being a risk group, have been investigated less than other professional groups. The objectives of the current work are to estimate the prevalence of burnout syndrome in police officers, to present a classification of the syndrome and to identify some risk factors (socio-demographic, personality, and work-related). **Method:** A cross-sectional study was carried out with 747 national police officers from Andalucía (Spain). **Results:** The prevalence of burnout is high. Furthermore, individual differences, and in particular, personality factors, are important to explain the development of burnout. **Conclusions:** Police officers are a risk group and, therefore, actions aimed at reducing the levels of burnout among these professionals should be developed.

Keywords: Burnout syndrome, police, prevalence, risk factors, MBI.

Resumen

Prevalencia y factores de riesgo del síndrome de burnout en policías españoles. **Antecedentes:** el trabajo policial es uno de los más estresantes actualmente. Sufrir altos niveles de estrés puede provocar el desarrollo del síndrome de burnout. Este síndrome se caracteriza por cansancio emocional, despersonalización y baja realización personal. La policía, a pesar de ser un grupo de riesgo, ha sido menos investigada que otros colectivos profesionales. Los objetivos del presente trabajo son estimar la prevalencia del burnout en policías, presentar una clasificación del síndrome e identificar algunos factores de riesgo (sociodemográficos, de personalidad y laborales). **Método:** se realizó un estudio transversal con 747 policías nacionales de Andalucía. **Resultados:** la prevalencia del burnout es alta. Además, las diferencias individuales, especialmente, los factores de personalidad son importantes en la explicación del burnout. **Conclusiones:** los policías son un colectivo de riesgo y por esta razón se deberían desarrollar acciones para reducir los niveles de burnout en estos profesionales.

Palabras clave: síndrome de Burnout, policía, prevalencia, factores de riesgo, MBI.

One of the most stressful activities that can be undertaken at present is police work (Vuorensyrjä & Mälkiä, 2011). In their day-to-day tasks, police officers are constantly subjected to various stressors such as pressure from their superiors, the judgements of citizens and violent scenes that may involve physical risk.

Enduring high levels of stress continuously can culminate in burnout (Medina, 2007). Those who suffer from the syndrome usually show health problems of a psychosomatic, emotional, attitudinal or behavioural nature. In addition, burnout has negative effects on organisations (e.g., higher levels of sick leave, reduced work effectiveness) and for the users of the service, as its quality deteriorates (Storm & Rothman, 2003).

The most widely accepted definition of the burnout syndrome is one that describes it as a response to chronic work stress made up of three components: emotional exhaustion, depersonalisation and low personal accomplishment (Maslach & Jackson, 1981). Emotional exhaustion alludes to a situation of depletion of energy or of one's emotional resources. Depersonalisation is defined as the development of negative attitudes and feelings towards colleagues and recipients of the work. Low personal accomplishment refers to the tendency of professionals to evaluate themselves negatively.

This syndrome can affect all types of worker, although it is particularly apparent in professionals providing services to people, for example, doctors, police, and nurses (Figuereido-Ferraz, Grau-Alberola, Gil-Monte, & García-Juesas, 2012; Gil-Monte, 2005). By the nature of their work, professionals in the security forces form a risk group for developing the burnout syndrome (Durán, Montalbán, & Stangeland, 2006). High levels of burnout have been observed in police officers (Blasco, Llor, García, Sáez, & Sánchez, 2002), even higher than in other professional groups. Despite this, few studies currently exist that investigate the extent of the problem, its development and the variables related to the syndrome in Spanish police officers.

Some studies have analysed the relationship between different variables and burnout in this group, especially with those variables that appear to act as facilitators or inhibitors of the effect produced

by chronic stress on the evolution of the disorder (García & Herrero, 2010). Concerning the socio-demographic variables, the results are not conclusive. There are mixed findings regarding which age group (cf. Aranda & Pando, 2010; Blasco et al., 2002) and which sex (cf. Briones, 2007) is more likely to develop burnout. The variables of marital status and having children have been studied less and the results in multi-occupational samples have been inconsistent, making it difficult to infer the existence of any tendency (Gil-Monte, 2005).

With regard to personality variables, Cieslak et al. (2008) highlighted the importance of this set of variables after finding that certain personality traits could be beneficial in coping with burnout. In some studies carried out with police officers, it was found that on the one hand, emotional exhaustion and depersonalisation were negatively related to extraversion, agreeableness, and conscientiousness and positively to neuroticism; and on the other, that personal accomplishment correlated positively with extraversion, agreeableness and conscientiousness and negatively with neuroticism (e.g., Medina, 2007).

As for work-related variables, the results with police samples are not conclusive for any of the three dimensions of burnout regarding the links between suffering from burnout and length of service in the current job (cf. Adebayo et al., 2008; Burke & Mikkelsen, 2006; Taris, Kompier, Geurts, Houtman, & Van den Heuvel, 2010). Changing environments such as rotation of the work shift may be perceived as stressful and culminate in burnout, although there have been few studies that examine this relationship (e.g., Burke & Mikkelsen, 2006).

The burnout syndrome is currently regarded as a process rather than a state (Martínez, 2010). Along these lines, the studies carried out by Golembiewski and collaborators are of particular interest (Golembiewski & Kim, 1990). They present empirical data that supports an eight-phase model representing the gravity of the syndrome. The first phase includes people with low levels in emotional exhaustion, depersonalisation, and reduced personal accomplishment. The eighth phase includes people with high levels in the three dimensions. Medium-gravity phases combine low and high levels in these dimensions. These phases can be classified into groups: low level of burnout (phases 1, 2 and 3 are included), medium level (phases 4 and 5 are included) and high level (phases 6, 7 and 8 are included). Using this model, high percentages of burnout were found among police officers (Golembiewski & Kim, 1990). A search of the principal scientific databases produced no studies conducted in Spain offering indices of prevalence from Golembiewski's model, although the description provided by this classification may be rather too detailed. This fact, together with the previous one, demonstrates the scant attention given to the police profession, despite the fact that they constitute a risk group for suffering burnout.

The present work has the following aims: (1) to estimate the prevalence of burnout syndrome from a sample of national police officers; (2) to present a classification according to the stages of burnout found in the sample included in the study; and (3) to examine the existence of relationships between the dimensions of burnout and some of the variables that may facilitate the syndrome.

Method

Participants

The sample consisted of 747 members of the national police in Andalucía (Spain). With respect to the demographic description of the sample, the average age of participants was 35.7 (SD = 8.33), of which 88.2% were male. Fifty-four per cent of participants had a partner and 54.8% had at least one child.

Instruments

To obtain the socio-demographic and work-related information, a questionnaire that included the following variables was administered: age, sex, marital status, number of children, level of studies, length of service in the current job, work post, the grade held, and work shift.

The burnout syndrome was measured using the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981) in the version adapted for the Spanish population (Seisdedos, 1997). This consists of 22 items with a Likert-type response format of seven points. The MBI has three dimensions: Emotional Exhaustion (9 items), Depersonalisation (5 items), Personal Accomplishment in the Job (8 items). In the present sample, Cronbach's alpha values were .90 for the dimension of Emotional Exhaustion, .68 for Depersonalisation, and .86 for Personal Accomplishment.

The NEO Five Factor Inventory (NEO-FFI; Costa & McRae, 1992) was administered in the version adapted for the Spanish population (Costa & McRae, 2002). The NEO-FFI provides an assessment of personality through the five principal personality factors: Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness. It consists of 60 items with a Likert-type response format of five points, in which each of the sub-scales is composed of 12 items. In the present sample, Cronbach's alpha values were .83 for the dimension of Neuroticism, .81 for Extraversion, .65 for Openness to Experience, .73 for Agreeableness, and .83 for Conscientiousness.

Procedure

The current work is a cross-sectional study. The National Committee for Workplace Risks of the Joint Trade Union of the Police (Sindicato Unificado de Policía; SUP) was contacted. This committee, in collaboration with the authors, coordinated the collection of information to enable professionals from the various policing regions of Andalucía to participate. The information was gathered during training courses (small groups) and all the participants collaborated voluntarily, individually and anonymously.

Data analysis

The *t*-Student statistic and analysis of variance were used to perform the comparisons. In cases where the data did not meet the homogeneity of variance assumption, the Welch approximation was used. In cases that did not meet the normality assumption and where the sample of subjects in a particular comparison group was small (< 30), Kruskal-Wallis´s non-parametric test was used. The explanatory models of the three dimensions of burnout were performed with multiple lineal regression using the backwards steps procedure. When the assumptions were checked, heteroscedasticity was observed, for which reason a heteroscedasticity consistent covariance matrix was estimated using Mackinnon and White's procedure. All the analyses were performed with the statistical package SPSS 20.0, with the exception of the multiple lineal regression analysis, for which we used the software R 2.15.2.

Results

Descriptive analysis of variables and prevalence of Burnout in three dimensions

The descriptive analysis of variables is shown in Table 1.

In accordance with the classification proposed by Seisdedos (1997), the average score obtained in the dimension Emotional Exhaustion (EE) was 13.06 (SD = 11), where 46.5% of participants showed a low level, 27.2% a medium level and 26.2% a high level. In the dimension Depersonalisation (D), the average score was 7.82 (SD = 6), where 46.5% of participants demonstrated a low level, 33.3% a medium level and 26.7% a high level. For Personal Accomplishment (PA), the average score was 35.24 (SD = 10.19), where 32.2% of participants showed a low level, 30.9% a medium level and 37% a high level. According to the classification proposed by Golembiewski and Kim (1990), 32.2% of the police subjects demonstrated a high level of burnout, 12.5% a medium level and 55.4% a low level (Table 2).

Explicative models and associated factors of the three dimensions of Burnout

In the EE dimension, it was observed that the police officers who had partners obtained significantly higher scores than those who did not, $t(651) = 1.95$, $p = .05$, $d = 0.15$. In the other socio-demographic variables and in the work-related variables, no significant differences were found. With respect to the personality variables, significant correlations were obtained with four of the five factors of NEO-FFI: Neuroticism ($r = .50$, $p<.001$), Agreeableness ($r = -.45$, $p<.001$), Conscientiousness ($r = -.34$, $p<.001$), Extraversion ($r = -.36$, $p<.001$). The factor Openness obtained a low correlation, which did not reach statistical significance ($r = -.04$, $p = .27$). In this dimension, the model explains 36% of the variance, $F(7, 263) = 22.7$, $p<.001$. Shown in Table 3 are the significance predictive factors.

In the D dimension, it was found that the police officers who had partners showed a significantly higher score than those without partners $t(682) = 2.21$, $p = .01$, $d = 0.19$. In the remaining socio-demographic and work-related variables, no significant differences were found. With regard to the personality variables, significant correlations were obtained with four of the five factors of NEO-FFI: Neuroticism ($r = .39$, $p<.001$), Agreeableness ($r = -.45$, $p<.001$), Conscientiousness ($r = -.31$, $p<.001$), Extraversion ($r = -.29$, $p<.001$). The factor Openness obtained a low correlation that did not reach statistical significance ($r = -.02$, $p = .61$). The model for D informed 29% of the variance, $F(7, 263) = 16.74$, $p<.001$. The predictive factors that were found to be significant are shown in Table 4.

In the PA dimension, significant differences were found as a function of age of the participants, $\chi^2(7) = 16.45$, $p = .02$, $\eta^2 = .04$. For this analysis, eight categories were formed with an interval of five years for each. Specifically, the police officers

Table 1
Descriptive statistics of variables

Sex (n = 731)	% (n)	Grade (n = 696)	% (n)
Men	88.2 (645)	Basic	89.4 (622)
Women	11.8 (86)	Sub-inspector	7.2 (50)
		Executive	3.4 (24)
Marital status (n = 706)	% (n)	Length of service (n = 639)	M (SD)
With partner	54.0 (381)		8.49
Without partner	46.0 (325)		(9.56)
Children (n = 640)	% (n)	Neuroticism (n = 714)	M (SD)
Without children	45.2 (289)		23.37
With children	54.8 (351)		(8.26)
Study level (n = 712)	% (n)	Agreeableness (n = 674)	M (SD)
Primary	7.0 (50)		43.36
Secondary	59.3 (422)		(7.12)
Higher	33.7 (240)		
Work shift (n = 672)		Conscientiousness (n = 733)	M (SD)
Morning only	13.4 (90)		47.85
Evening only	9.1 (61)		(7.22)
Morning and evening	25.9 (174)		
Rotating	51.6 (347)	Extraversion (n = 724)	M (SD)
			44.78
			(7.76)
		Openness (n = 705)	M (SD)
			36.71
			(6.77)

Table 2
Classification of participants according to Golembiewski's model of phases

Phases	1	2	3	4	5	6	7	8
D	L	H	L	H	L	H	L	H
PA (rev)	L	L	H	H	H	L	H	H
EE	L	L	L	L	H	H	H	H
%	34.2%	9.4%	11.9%	6.5%	6.0%	9.5%	4.3%	18.3%
(n)	(222)	(61)	(77)	(42)	(39)	(62)	(28)	(119)

Level	Low	Medium	High
% (n)	55.4% (360)	12.5% (81)	32.2% (209)

Note: D = Depersonalisation; PA = Personal Accomplishment; EE = Emotional Exhaustion; L = Low; H = High; rev = Reversed.

Table 3
Summary of the multiple linear regression model in emotional exhaustion

Predictor	B	Standard error	Beta	t	p
Intercept	30.39	8.77		3.47	.00
Without partner vs. with partner	1.76	1.18	.08	1.49	.14
Rotating vs. morning and evening	-2.71	1.49	-.10	-1.81	.07
Rotating vs. morning	-3.14	1.64	-.09	-1.92	.06
Rotating vs. evening	-4.98	1.73	-.12	-2.87	.00
Neuroticism	0.50	0.12	.38	4.22	.00
Agreeableness	-0.48	0.10	-.31	-4.92	.00
Conscientiousness	-0.15	0.15	-.10	-0.96	.34

Note: $R^2_{Adj.}$ = .36; $p<.001$

aged between 45 and 50 obtained significantly lower scores in PA than those aged between 25 and 30 ($p = .002$, $d = 0.83$) or between 40 and 45 ($p = .01$, $d = 0.77$). The police officers without partners obtained significantly higher scores than those who had partners, $t(672) = 2.32$, $p = .02$, $d = 0.18$. The police officers without children showed a higher PA than those with children, $t(608.13) = 2.28$, $p = .02$, $d = 0.18$. With regard to the work-related variables, significant differences were obtained as a function of participants' length of service in the current job, $\chi^2(3) = 7.66$, $p = .05$, $\eta^2 = .13$. For this analysis, four categories were formed with an interval of ten years for each. Thus, police officers with less than ten years in the current work obtained significantly higher scores in PA than those with between 20 and 30 years ($p = .04$, $d = 0.45$). In the other socio-demographic and work-related variables, no significant differences were found. Regarding the personality variables, significant correlations were found with the five factors of NEO-FFI: Neuroticism ($r = -.45$, $p<.001$), Agreeableness ($r = .33$, $p<.001$), Conscientiousness ($r = .51$, $p<.001$), Extraversion ($r = .43$, $p<.001$) and Openness ($r = .14$, $p<.001$). In PA, the model explained 34% of the variance, $F(4, 266) = 35.92$, $p<.001$. The significant predictive factors are shown in Table 5.

Table 4
Summary of the multiple linear regression model in depersonalisation

Predictor	B	Standard error	Beta	t	p
Intercept	20.34	4.42		4.60	.00
Men vs. women	-1.73	0.96	-.09	-1.80	.12
Basic vs. Sub-inspector	-1.89	0.99	-.08	-1.92	.06
Rotating vs. morning and evening	-1.54	0.76	-.11	-2.01	.04
Rotating vs. evening	-2.64	1.28	-.12	-2.07	.04
Neuroticism	0.18	0.06	.25	3.35	.00
Agreeableness	-0.27	0.06	-.31	-4.17	.00
Conscientiousness	-0.08	0.07	-.10	-1.11	.27

Note: $R^2_{Adj.} = .29$; $p<.001$

Table 5
Summary of the multiple linear regression model in personal accomplishment

Predictor	B	Standard error	Beta	t	p
Intercept	-5.96	5.49		-1.09	.28
Length in service	-0.01	0.01	-.11	-1.55	.15
Agreeableness	0.22	0.08	.15	2.66	.01
Conscientiousness	0.40	0.11	.29	3.78	.00
Extraversion	0.30	0.09	.23	3.36	.00

Note: $R^2_{Adj.} = .34$; $p<.001$

Discussion

The present study aimed to estimate the prevalence of burnout syndrome from a sample of national police, to offer a classification of the severity of the syndrome in this sample and to analyse some of the risk factors that can trigger burnout.

With respect to the first objective, the results obtained show a relatively high estimated prevalence of burnout syndrome in national police officers from Andalucía. Our results coincide with those of Durán et al. (2006) in EE and PA, although these authors obtained a lower percentage of participants with high levels of D, and are also similar to those reported by Blasco et al. (2002) in D, although these authors found lower percentages of police officers with high levels of EE and PA. It is possible that some of the aforementioned differences concerning these authors' work are due to the fact that the samples refer to police professionals belonging to different security forces posted in different places.

The analysis of the average scores of the MBI indicated medium levels of burnout in its three dimensions. These results partially coincide with the results of other investigations carried out in Spain (Blasco et al., 2002; Durán et al., 2006; Gil-Monte & Peiró, 1999), in which police officers obtained moderate levels in D and PA, but high levels in EE. This difference could be explained by the fact that the participants belonged to different police entities (national as opposed to municipal).

With the second objective, a classification of burnout is presented in which the seriousness of the clinical manifestations is established in eight stages. High levels of burnout are seen in 32% of the national police, a figure in agreement with other investigations (e.g., Golembiewski & Kim, 1990).

The third objective was to identify possible risk factors associated with burnout. Regarding the socio-demographic variables, marital status was the only variable in both EE and D where significant differences were found between the different groups considered. The police officers with partners had more EE and D than those without. Additional empirical studies would be necessary to further discuss the relationships of marital status with EE and D, since these findings have not been previously reported in prior research. In addition, this result should be treated with caution since the majority of participants with partners had children. Thus, although having a partner could be considered a protective factor with regard to burnout, having children may contribute to increasing stress, especially if there is any kind of conflict when it comes to reconciling family routine and the work shift. The fact that no significant differences were found in the other socio-demographic variables has frequently been observed in other investigations (e.g., Briones, 2007; Burke et al., 2006; Kop & Euwema, 2001; McCarty et al., 2007). In relation to PA, lower levels were found in police officers with partners than in those without. The same can be said for participants with children, who scored lower in this dimension than those who did not have children. Differences were found in this dimension between groups of intermediate age. The police officers aged between 45 and 50 scored lower than those aged between 25 and 30 or 40 and 45. This pattern of results could be an indicator that supports a possible curvilinear relationship between these variables, as has already been suggested in other works developed in this sphere (Gil-Monte, 2005).

With respect to the work-related factors, no significant differences were found in the variables work post and work shift. This latter variable was found to be significant in other studies, although there is no consistency as to which type of shift is most harmful (cf. Burke & Mikkelsen, 2006; Demir, 2008). In the present study, differences were found only as a function of length of service in the current job. Those participants with less than ten years in the current job obtained higher scores in PA than those with between 20 and 30 years' service. Although some research has

found a tendency towards a positive relationship between length of service in the current job and EE (e.g., Adebayo et al., 2008), this has not always been confirmed (e.g., Taris et al., 2010).

With regard to the personality variables, our results support their importance in explaining the development and evolution of burnout syndrome and coincide with the majority of results reported in the investigations on police officers that were reviewed (Kohan, 2002; Medina, 2007). All the dimensions of personality correlated significantly with the three dimensions of burnout syndrome except Openness to experience, which showed a significant correlation only with PA. The medium and high effect sizes between the personality factors and the dimensions of MBI highlight the importance of these variables within the context of the factors covariate with burnout.

The multiple regression models point in the same direction, since the personality factors obtained higher standardised regression coefficients, all of these significantly far from zero. Specifically, high scores in Neuroticism and low scores in Agreeableness predicted higher levels of EE and D. Likewise, high values in Agreeableness, Conscientiousness and Extraversion explained elevated scores in PA. In the models of EE and D, the effect of work shift also turned out to be significant. In agreement with Demir (2008), participants on rotating shifts seemed to obtain higher scores in these dimensions. The percentage of variance explained by the models indicates that all the variables included in them could be important in facilitating the development of burnout syndrome.

The results concerning the variables Depersonalisation and Openness should be treated with caution due to the reliability values obtained in the sample. Nevertheless, these values are consistent with those obtained in other investigations (Aguayo, Vargas, de la Fuente, & Lozano, 2011; Aluja & Blanch, 2011).

The type of design utilised limits the possibility of establishing relationships of causality in our conclusions. The size and sample design utilised lead us to believe that the information gathered is, like previous findings, a solid base on which to ground the design of future studies.

In conclusion, looking at the information gathered, one could consider as a first approximation to the establishment of a risk profile for burnout syndrome in police officers one that includes, as explanatory factors of the syndrome, the work shift and some personality characteristics: neuroticism, agreeableness, extraversion and conscientiousness. To expand this proposition, special attention should be paid to professionals aged between 45 and 50 who have a partner and children, and to the fact that length of service in the current job of between 20 and 30 years seems to lead to lower PA. Finally, the estimated prevalence of the burnout syndrome in national police officers from Andalucía is high, which means one can consider that this group is at risk of suffering the syndrome. We believe further studies that examine this topic in more depth are needed, both to identify and perfect the risk profile associated with the disorder and to identify the development and evolution of the syndrome. Prevention in the first case and intervention in the second would be of great interest in order to improve the quality of life of these professionals and and the quality of service they offer.

References

Adebayo, D.O., Sunmola, A.M., & Udegbe, I.B. (2008). Workplace fairness and emotional exhaustion in Nigeria police: The moderating role of gender. *Anxiety, Stress & Coping*, *21*(4), 405-416.

Aguayo, R., Vargas, C., de la Fuente, E.I., & Lozano, L.M. (2011). A meta-analytic reliability generalization study of the Maslach Burnout Inventory. *International Journal of Clinical and Health Psychology, 11*(2), 343-361.

Aluja, A., & Blanch, A. (2011). The Five and Seven Factors Personality Models: Differences and Similitude between the TCI-R, NEO-FFI-R and ZKPQ-50-CC. *The Spanish Journal of Psychology*, *14*(2), 659-666.

Aranda, C., & Pando, M. (2010). Edad, síndrome de agotamiento profesional (burnout), apoyo social y autoestima en agentes de tránsito, México [Age, professional depletion syndrome (burnout), social support and autoesteem in agents of transit, Mexico]. *Revista Colombiana de Psiquiatría*, *39*(3), 510-522.

Blasco, J.R., Llor, B., García, M., Sáez, M.C., & Sánchez, M. (2002). Relación entre la calidad del sueño, el burnout y el bienestar psicológico en profesionales de la seguridad ciudadana [Relation between the quality of the sleep, burnout and the psychological well-being in professionals of the civil safety]. *Mapfre Medicina*, *13*(4), 258-267.

Briones, D. (2007). Presencia de síndrome de burnout en poblaciones policiales vulnerables de Carabineros de Chile [Presence of burnout syndrome in police vulnerable populations of Carabineers of Chile]. *Ciencia y Trabajo*, *9*(24), 43-50.

Burke, R.J., & Mikkelsen, A. (2006). Burnout among Norwegian police officers: Potential antecedents and consequences. *International Journal of Stress Management*, *13*(1), 64-83.

Burke, R.J., Richardsen, A.M., & Martinussen, M. (2006). Gender differences in policing: Reasons for optimism? *Policing: An International Journal of Police Strategies and Management*, *29*(3), 513-523.

Cieslak, R., Korczynska, J., Strelau, J., & Kaczmarek, M. (2008). Burnout predictors among prison officers: The moderating effect of temperamental endurance. *Personality and Individual Differences*, *45*(7), 666-672.

Costa, P.T., Jr., & McCrae, R.R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI): Professional manual*. Odessa, FL: Psychological Assessment Resources.

Costa, P.T., Jr., & McCrae, R.R. (2002). *Inventario de Personalidad NEO Revisado (NEO PI-R). Inventario NEO reducido de Cinco Factores (NEO-FFI). Manual* [Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI): Professional manual]. Madrid, Spain: TEA Ediciones, S.A.

Demir, I. (2008). *An analysis of shift work in the Turkish National Police in light of Herzberg's motivation hygiene theory* (Doctoral dissertation).

Durán, M.A., Montalbán, F.M., & Stangeland, P. (2006). El síndrome de estar quemado en la policía: perfil de incidencia e influencia de factores sociodemográficos [Burnout in the police: incidence profile and influence of socio-demographic factors]. *Revista de Psicología Social*, *21*(1), 95-107.

Figueiredo-Ferraz, H., Grau-Alberola, E., Gil-Monte, P.R., & García-Juesas, J.A. (2012). Síndrome de quemarse por el trabajo y satisfacción laboral en profesionales de enfermería [Burnout and job satisfaction among nursing professionals]. *Psicothema 24*(2), 271-276.

García, J.M., & Herrero, S. (2010). Revisión teórica del síndrome de burnout y su investigación en el contexto penitenciario [Theoretical review of burnout syndrome and research in the penitentiary context]. *Apuntes de Psicología*, *28*(1), 83-107.

Gil-Monte, P.R. (2005). *El síndrome de quemarse por el trabajo (burnout). Una enfermedad laboral en la sociedad del bienestar* [Burnout syndrome. A labor illness in the welfare society]. Madrid, Spain: Pirámide.

Gil-Monte, P.R., & Peiró, J.M. (1999). Validez factorial del Maslach Burnout Inventory en una muestra multiocupacional [Testing for the Factorial Validity of the MBI: results for a multiocupational sample]. *Psicothema*, *11*(3), 679-689.

Golembiewski, R.T., & Kim, B-S. (1990). Burnout in police work: Stressors, strain, and the phase model. *Police Studies: The International Review of Police Development, 13*, 74-80.

Kop, N., & Euwema, M.C. (2001). Occupational stress and the use of force by Dutch police officers. *Criminal Justice and Behavior*, *28*(5), 631-652.

Martínez, A. (2010). El síndrome de burnout. Evolución conceptual y estado actual de la cuestión [Burnout syndrome. Conceptual evolution. Current state of the art]. *Vivat Academia*, *112*, 1-39.

Maslach, C., & Jackson, S.E. (1981). *The measurement of experienced burnout*. *Journal of Organizational Behavior*, *2*, 99-113.

McCarty, W.P., Zhao, J.S., & Garland, B.E. (2007). Occupational stress and burnout between male and female police officers. Are there any gender differences? *Policing: An International Journal of Police Strategies and Management*, *30*(4), 672-691.

Medina, A.M. (2007). *The role of personality and coping in police patrol officer stress and burnout* (Doctoral dissertation).

Schaible, L.M., & Gecas, V. (2010). The impact of emotional labor and value dissonance on burnout among police officers. *Police Quarterly*, *13*(3), 316-341.

Seisdedos, N. (1997). *MBI. Inventario "Burnout" de Maslach: manual* [Maslach Burnout Inventory: manual]. Madrid, Spain: TEA Ediciones, S. A.

Storm, K., & Rothmann, S. (2003). A psychometric analysis of the Maslach Burnout Inventory-General Survey in the South African police service. *South African Journal of Psychology*, *33*(4), 219-226.

Taris, T.W., Kompier, M.A.J., Geurts, S.A.E., Houtman, I.L.D., & Van den Heuvel, F.R.M. (2010). Professional efficacy, exhaustion, and work characteristics among police officers: A longitudinal test of the learning-related predictions of the demand-control model. *Journal of Occupational and Organizational Psychology*, *83*, 455-474.

Vuorensyrjä, M., & Mälkiä, M. (2011). Nonlinearity of the effects of police stressors on police officer burnout. *Policing: An International Journal of Police Strategies and Management*, *34*, 382-402.