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The protective role of self-esteem on burnout and depression symptoms among police officers: A path analysis approach

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Abstract
The aim of this cross-sectional study is to investigate the effect of self-esteem on burnout symptoms and depression, using a path analysis approach. A total of 396 Greek police officers, 145 female and 251 male, with a mean age of 37.7 years, participated in the study. The questionnaire included: (a) social–demographic characteristics, (b) Rosenberg's self-esteem scale, (c) Zung's depression scale, and (d) Maslach's burnout scale. Analysis of variance was applied to find whether the demographic variables of gender, age and urban/rural location had a significant effect on the examined psychometric scales. A path model was then tested, aiming to quantify the direct and indirect effects of age, working location and self-esteem on depression and burnout symptoms. Emotional exhaustion and personal accomplishment scores were found to have a direct effect on depression and completely explained the effect of urban area on depression. Self-esteem was found to be a significant regressor on depression and the three burnout subscales, while older and more experienced officers had significantly lower burnout symptoms. The findings of the study confirm the protective role of self-esteem. The findings also confirmed that police officers working in an urban environment are at a greater risk of developing burnout and depression symptoms, while the depressed feelings of police officers in an urban area are completely explained by increased feelings of burnout. The ability of police officers to counteract the psycho-emotional pressure of their profession as they age in service is demonstrated. The need for initiatives aiming to support young officers and police personnel working in large cities is indicated.

Keywords
Police, self-esteem, depression, burnout

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Introduction

The police are a public service necessary for the proper functioning of society. However, it is a particularly stressful job that often exposes police officers to high-risk incidents during their attempts to enforce the law and prevent crimes, incidences that inevitably impose significant psychological distress on officers.

Unavoidably, these negative emotional feelings, developed in response to chronically adverse working conditions,

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are reflected in depression and anxiety symptoms (Marchand et al., 2015; Queirós et al., 2020; Tuckey et al., 2012; van der Velden et al., 2013). Specifically, it is estimated that globally, 14.6% of police personnel are suffering from mild to severe depression (Syed et al., 2020). Furthermore, police personnel are routinely reported to have increased risk of suicidal ideation (Carleton et al., 2018; Chae and Boyle, 2013; Guerrero-Barona et al., 2021) and post-traumatic stress disorder (Syed et al., 2020).

The physical health of police officers is also affected (Violanti et al., 2017). Among other health concerns, it has been found that police officers have a higher than average risk of a coronary event (Strauss et al., 2021), higher than recommended cholesterol levels (Hartley et al., 2011) and higher than average pulse rates and diastolic blood pressure (Parkash et al., 2019).

Burnout, a syndrome triggered by a harsh work environment and subsequent chronic work stress, is considered to be a serious health threat to police officers. Burnout refers to a state of emotional exhaustion, accompanied by feelings of ineffectiveness and cynicism about the value of one's work (Maslach et al., 2001). High levels of emotional exhaustion and depersonalization are commonly reported among police personnel (Massey and Foley, 2020; Talavera-Velasco et al., 2018). Feelings of burnout have been found to be related to a greater frequency of violent incidents during police duties (Kop et al., 1999) as well as within police officers' families (Johnson et al., 2005; Mikkelsen and Burke, 2004). Furthermore, an increased risk of police officers developing metabolic syndrome has been reported (Hartley et al., 2012).

The current study

A great deal of effort has been made to understand burnout and depression symptoms in police officers (Cherniss, 1980; Freudenberger, 1975; Freudenberger and Richelson, 1980; McCarty et al., 2007). This effort has highlighted an important role for self-esteem as a personality trait. In particular, a high level of professional burnout among police officers has been reported to be accompanied by low self-esteem (Burke and Mikkelsen, 2006). Furthermore, self-esteem was found to be an important factor in predicting who will be more likely to develop burnout (Rosse et al., 1991), while the importance of rebuilding self-esteem as part of the rehabilitation of burned-out police officers (Rosse et al., 1991) or improving post-traumatic growth has been demonstrated (Han and Choi, 2016).

However, there is more to be said. In particular, the beneficial effects of self-esteem have not yet been studied in the context of the hypothesis that burnout is an explanatory factor for depression, a view that could provide new insight into the role of self-esteem in programs aiming to address the psychological needs of police officers.

The aim of this study is to fill this research gap, contributing to the existing research literature by exploiting the method of path analysis to enlighten the important role of self-esteem as a protective shield against corrosive feelings of depression and burnout.

Literature review

Depression is a long-studied disorder. Since 1895 when Emil Kraepelin became the first to distinguish manic depression from schizophrenia (Mondimore, 2005), a significant part of the literature has dealt with this psychological illness. The term "major depressive disorder" became part of the Diagnostic and Statistical Manual of Mental Disorders, third edition (DSM-III) in 1980. Today, in the current DSM fifth edition, depression is diagnosed when during the same 2-week period, a persistent depressed mood is observed along with a markedly diminished interest or pleasure in work and personal life activities, abrupt weight changes, sleep disorders, psychomotor retardation, constant feeling of fatigue, feelings of worthlessness or excessive or inappropriate guilt, diminished ability to think or concentrate and recurrent suicidal ideation (American Psychiatric Association, 2013).

In contrast to depression, burnout is a modern idea. Originating in the 1970s, chronic emotional and interpersonal feelings of stress due to the pressure of work were briefly described as burnout (Freudenberger, 1973), a term that described the consequences of severe stress among people working in the human services (Maslach et al., 2001). Nowadays, the term is used not only for these helping professions, but for all employees with exhaustion feelings, alienation from work-related activities and reduced performance (InformedHealth, 2020).

Burnout symptoms are closely related with common clinical indicators of depression, as is a persistent feelings of severe despondency and dejection, accompanied by feelings of hopelessness and professional inadequacy (APA, 2021). These similarities have led part of the scientific community to believe that burnout is just a depressive process unfolding in reaction to unresolvable stress (Schonfeld and Bianchi, 2016; Schonfeld et al., 2018). However, there are also quantitative reports indicating no conclusive overlap between burnout and depression (Koutsimani et al., 2019), whereas recent qualitative studies indicate that the two conditions are considered as different by patients that have experienced both (Tavella and Parker, 2020).

Summarizing the research efforts to date, five main categories of factors have been identified as being related to burnout symptoms in police personnel. These are: demographic characteristics such as age, gender and

marital status (Norvell et al., 1993; Ogungbamila and Fajemirokun, 2016); operational factors, such as job demands, physical threats and lack of support (Demou et al., 2020; Tyagi and Dhar, 2014); organizational factors, such as insufficient pay, long working hours, heavy workload, inconsistent leadership and excessive paperwork (Biggam et al. et al., 1997; Evans and Coman, 1993; Purba and Demou, 2019); personality traits, such as neuroticism and conscientiousness (Louw, 2014); and psychological characteristics, such as self-esteem, self-perception and self-confidence (Stotland and Canon, 1972; Tewksbury and Copenhaver, 2016).

In the context of the current study, self-esteem is perceived according to Rosenberg's assessment as a person's overall sense of his or her value or worth (Rosenberg, 1965). Self-esteem's role as a protective shield has been recognized in the development of both depression symptoms (Lecompte et al., 2014) and higher feelings of emotional exhaustion in later life (Alessandri et al., 2017). Low self-esteem has been related to less-efficient performance under stress, poorer social skills and lower aspirations (Tharenou, 1979). By contrast, high self-esteem has been related to better attitudes toward life and work (Brockner, 1988; Pierce et al., 1989; Tharenou, 1979), and was found to facilitate persistence after failure (Di Paula and Campbell, 2002). Concerning the police profession, research to date has identified self-esteem as a personality trait with a significant predictive ability for both depression and burnout symptoms (Lester, 1986; Rosse et al., 1991; Stotland and Canon, 1972).

Hellenic police force and its relative position in Europe

In the European Union (EU) there are 1.49 million police officers and one in six of them (17.4%) is female (Eurostat, 2020). There are large differences between EU Member States in terms of the number of police officers and in the percentage of female officers in the police force. Greece, along with Cyprus, Croatia, Malta, Portugal, Latvia, Italy, Bulgaria and Slovakia comprise a group of nine EU Member States having over 400 police officers per 100,000 inhabitants, whereas Finland, Denmark and Sweden have fewer than 200. Women comprise 12.6% of Greek police officers, a position similar to countries such as Luxembourg (11%) or the Czech Republic (15%), but with significantly fewer women police officers compared with Lithuania (39%), Latvia (39%) or Estonia (35%) (Eurostat, 2020).

Police officers in Greece enter the Hellenic police force by taking nationwide examinations after high school, and thus the majority start their careers at the age of 18. Half of the police force works in the Attica prefecture where 40% of the Greek population resides, an area with maximum population density of 7,000 citizens per square kilometer, in the city of Athens. Police officers in Greece gain the right to transfer to a rural area only when another transfer or retirement takes place, which makes it rather difficult for officers to move from city police services to a smaller town. Officers acquire the right to retire at the age of 55, retaining the right to work until the age of 60 if they wish to do so. The average age of police officers in Greece is 35 years, not significantly different from that in other European countries or the United States (DataUSA, 2021; Eurostat, 2020).

There is not much information about the psychological health of Greek police officers as a professional group. In particular, as far as a literature review revealed, there has been no previous research on self-esteem and burnout in relation to depression on Greek police officers. However, the observations to date confirm that this is a significantly burdened professional group. A survey of a sample of 259 Greek police officers serving in a small provincial town, showed that their physical and mental health indicators as reflected on 36-Item Short Form Survey (SF-36) are much lower compared with the general population (Vemi et al., 2007). A more recent study on a sample of 201 police officers serving in the city of Athens, indicated a significant relationship between perceived stress, job satisfaction and quality of life (Alexopoulos et al., 2014). Further, a study on a sample of 75 students of the Greek Police Academy, detected higher than normal scores for Emotional Exhaustion and Personal Accomplishment scales, while burnout was found to be associated with unsatisfactory administrative, educational and psychological support (Nikolaou et al., 2019).

Aim and theoretical foundation of the current study

The aim of the current study is to demonstrate the impact of self-esteem on burnout symptoms, and the combined effect of self-esteem and burnout symptoms on depression, a perspective that, as an extended literature review revealed, has not been considered previously. In the examined model, burnout is considered a regressor of depression, and self-esteem is considered a regressor of both depression and burnout, in agreement with the commonly accepted vulnerability model (Metalsky et al., 1993; Orth et al., 2008).

The tested model manifests the role of self-esteem as a personality trait that reflects the subject's potential to be productive and positive in their professional life (Lyubomirsky et al., 2006), an assumption consistent with the view that self-esteem is formed at an early stage of personality development (Cvencek et al., 2016), with continuous development across childhood (Cimpian et al., 2017). A secondary purpose of the tested path model is to quantify

the effects of age and urban area on self-esteem, burnout and depression.

In the context of the path model, gender was not used as an explanatory variable because the preliminary analysis of variance showed that there was no significant direct effect, nor a significant interaction with size of workplace on self-esteem, depression and burnout. However, age and urban area are frequently reported to be related with the psychopathology of police personnel. In particular, working as a police officer in an urban area is usually accompanied by increasing exposure to violent incidences and traumatic events, low job control, high effort–reward imbalance, low relational justice, low procedural justice, role stress and low social support, factors that have been shown to be associated with higher levels of depression, anxiety and stress (Harvey et al., 2017; Husain, 2020; Ménard and Arter, 2013). Thus, a hypothesis that is tested is that working in a big city has significant negative effects on self-esteem, burnout feelings and depression.

The effect of age on police officers' mental health is not equally demonstrated. In particular, contrary to findings in the general public, where depressive symptoms decrease with age (Inaba et al., 2005), police officers have been reported to be more prone to depressive symptomatology as they age (Renck et al., 2002). Thus, a purpose of this study is to inform the age effect on self-esteem, burnout feelings and depression.

Method

Participants and study design

A cross-sectional study was conducted from November 2019 to January 2020. A convenience sample of 396 police officers, 145 women (36.6%) and 251 (63.4%) men, mean age 37.7 years (range 20–58 years), participated in the study. The sampling procedure included 76 police departments located in the urban areas of Athens and Patra (40 departments, 267 respondents, 67.4%) and the wider rural region of Peloponnesus and Crete (36 departments, 129 respondents, 32.6%), a sample reflecting the overall urban/rural population composition of Greece (79.8%) and most other European states (World Bank, 2021). The mean length of work experience of the participants was 17.6 years (range 1–35, SD = 6.9 years).

Prior to collection of the survey data, a permit to access police departments was requested and granted for this purpose by the Greek Ministry of Citizen Protection. No human subjects review and approval was issued, because under current national and European legislation this was not necessary for this study. In each police department, all available police officers on duty on the day of the visit were asked to complete the questionnaire voluntarily. No specific incentive was offered to the officers to participate in the study. The sampling procedure took place during morning working hours (08:00 to 16:00), in a room provided by each department's chief for this purpose. Informed consent was requested from all participants prior to completing the questionnaire. The questionnaires were given to the participants with the explicit instruction to complete all the questions. Accordingly, no questions were left unanswered during completion of the questionnaires. The questionnaires were returned after 20 minutes and placed in a sealed envelope. A member of the research team was present in the room during the procedure to answer any questions that participants may have had.

Measures. Self-esteem was measured by the Rosenberg's self-esteem scale (RSE, Rosenberg, 1989) validated in Greek language in Galanou et al. (2014). The self-esteem score was calculated as the sum of the scale's 10 items after reversing 5 items as suggested in the respective manual. Cronbach's alpha for the sum of the RSE was .828.

Depression was measured by the Zung's depression scale (Zung, 1965) as validated in the Greek language in Fountoulakis et al. (2001), a study in which the total sum of the scale's 20 items (9 reversed) was demonstrated to be a sensitive measure of clinically diagnosed depression. Cronbach's alpha for Zung's depression scale was .826 in the current sample.

Burnout was assessed by Maslach's burnout inventory (MBI, Maslach et al., 1996) as validated in the Greek language in Anagnostopoulos and Papadatou (1992). Cronbach's alpha for Emotional Exhaustion (nine items, two reversed) was .799, for Personal Accomplishment (five items, four reversed) was .765 and for Depersonalization (eight items, two reversed) was .625, indicating that all three scales are reliable psychometric tools according to current practices in the social sciences (Nunnally and Bernstein, 1994).

In contrast to Zung's depression scale whose validity was certified in Fountoulakis et al. (2001) by objective clinical observations, RSE and MBI scales were questioned about their construct validity. A principal components analysis indicated that RSE consists of two positively correlated principal factors, a finding similar to that reported in Galanou et al. (2014), whereas a structure of four correlated principal factors was suggested for MBI, a finding analogous to the five factors structure suggested in Anagnostopoulos and Papadatou (1992), where the known three-factor structure was finally derived. The proximity of the structure results with studies in which these psychometric scales were assessed in Greek language, as well as their acceptable internal reliability, were considered as adequate evidence for the use of these questionnaires for the purposes of the current study.

Statistical analysis

Analysis of variance was applied to find the effect of age, gender and working area size (urban, rural) on self-esteem (RSE), the three burnout scales (EE, DP, PA) and Zung's depression scale (DEP).

A linear path analysis model was formulated to test the assumption that the burnout scales mediate the self-esteem and depression relationship, that is, whether self-esteem can sufficiently explain the burnout effect on depression. The maximum likelihood estimation method was used to compute the path model coefficients.

All data were analyzed using SPSS statistical package (version 21) and R statistical language (R Core Team, 2021) equipped with the lavaan package (Rosseel, 2012).

Results

The mean scores of the psychometric scales are presented in Table 1.

At least one burnout symptom was present in 157 (39.6%) respondents (Emotional Exhaustion score >30 or Depersonalization score >10 or Personal Accomplishment score <35). The majority of respondents (244, 61.6%) evaluated their self-esteem at an average level (score between 16 and 25), whereas 16 (4%) were classified as low self-esteem subjects having an RSE score <15. Nine participants (2.3%) were classified as mildly depressed (depression score between 50 and 59).

The results of the univariate analysis for self-esteem, depression and burnout symptoms are presented in Table 2. The observed negative linear relation between age and self-esteem was highlighted as significant (residual $r_{\text{AGE, RSE}}(396) = -0.119$, $p = .018$, $F(1, 391) = 5.960$, $p = .015$). Police personnel working in an urban area were characterized by significantly higher scores in the three burnout scales (EE: $M_{\text{Urban}} = 11.8$ versus $M_{\text{Rural}} = 8.8$, $p = .007$; PA: $M_{\text{Urban}} = 40.6$ versus $M_{\text{Rural}} = 37.8$, $p = .001$; DP: $M_{\text{Urban}} = 7.6$ versus $M_{\text{Rural}} = 9.1$, $p = .002$) as well as the depression scale (DEP: $M_{\text{Urban}} = 29.7$ versus $M_{\text{Rural}} = 31.8$), (Table 3). It is worth noting that no significant differences were reported between male and female officers, a finding suggesting that gender may be excluded from the subsequent path analysis. As expected, age and service duration were positively correlated (Pearson's $r(396) = 0.903$, $p < .01$).

Self-esteem as a predictor of burnout and depression

The tested path model is presented in Figure 1, while regression coefficients are presented in Table 4.

Age was a significant regressor for Emotional Exhaustion ($b_{\text{AGE} \rightarrow \text{EE}} = -0.100$, $p = .034$) and Depersonalization

Table 1. Descriptive statistics and correlation among the psychometric scales.

Scale	*N*	Cronbach's α	Range	Mean (SD)	Median	Low/normal (%)	Medium/mild (%)	High/severe (%)	Pearson's correlation coefficients				
										MBI			
									RSE	EE	PA	DP	DEP
RSE[a]	10	.828	9–30	23.4 (4.1)	24	16 (4.0)	244 (61.6)	136 (34.3)					
EE[b]	9	.799	0–54	10.8 (7.6)	9	347 (87.6)	43 (10.9)	6 (1.5)	−.336**				
PA[c]	8	.765	3–48	38.7 (6.7)	41	169 (42.7)	120 (30.3)	107 (27.0)	.405**	−.760**			
DP[d]	5	.625	0–30	8.7 (5.1)	8	112 (28.3)	157 (39.6)	127 (32.1)	−.352**	.729**	−.692**		
DEP[e]	20	.826	20–57	31.1 (7.1)	29.5	387 (97.7)	9 (2.3)	0 (0.0)	−.449**	.535**	−.583**	.486**	
Age (years)			20–58	37.7 (7.8)	37				−.105*	−.090	.005	−.092	.061

[a]Low: ≤ 14, Medium: 15–25, High: ≥ 26 (Mannarini, 2010).
[b]Normal: ≤ 20, Mild: 21–30, Severe: ≥ 31 (Anagnostopoulos and Papadatou, 1992).
[c]Normal: ≥ 42, Mild: 41–36, Severe: ≤ 35 (Anagnostopoulos and Papadatou, 1992).
[d]Normal: ≤ 5, Mild: 6–10, Severe: ≥ 11 (Anagnostopoulos and Papadatou, 1992).
[e]Normal: ≤ 49, Mild: 50–59, Severe: ≥ 60 (Dunstan and Scott, 2019).
**Significant at the 0.01 level (two-tailed).
*Significant at the 0.05 level (two-tailed).

Table 2. Univariate analysis results for self-esteem, depression and burnout symptoms.

		RSE		EE		PA		DP		DEP	
Factor	df[a]	*F*	*p*	*F*	*p*	*F*	*p*	*F*	*p*	*F*	*p*
Corrected model	6	2.081	.083	4.924	.001	4.546	.001	2.804	.026	2.912	.021
Intercept	1	599.6	.000	45.12	.000	549.9	.000	62.51	.000	231.6	.000
GND	1	0.033	.855	0.167	.683	0.072	.788	0.028	.868	0.106	.745
BCT	1	3.493	.062	7.246	.007	11.32	.001	4.070	.044	9.970	.002
AGE	1	5.960	.015	1.967	.162	0.299	.585	2.203	.139	3.032	.082
GND*BCT		0.188	.665	2.895	.090	1.451	.229	1.033	.310	1.147	.285
		$R^2 = .021$ ($R^2_{adj} = .011$)		$R^2 = .048$ ($R^2_{adj} = .038$)		$R^2 = .044$ ($R^2_{adj} = .035$)		$R^2 = .028$ ($R^2_{adj} = .018$)		$R^2 = .029$ ($R^2_{adj} = .019$)	

[a]Error: 391; total: 396; corrected total: 395.

Table 3. Urban area effect on self-esteem, burnout and depression (mean (SD)).

	Workplace size		
	Rural/suburban (population ≤50,000)	Urban (population >50,000)	*p*[a]
Self-esteem (RSE)	23.8 (4.0)	23.2 (4.2)	.062
Emotional Exhaustion (EE)	8.8 (6.0)	11.8 (8.1)	.007
Personal Accomplishment (PA)	40.6 (5.2)	37.8 (7.1)	.001
Depersonalization (DP)	7.6 (4.2)	9.1 (5.4)	.044
Depression (DEP)	29.7 (5.9)	31.8 (7.5)	.002

[a]Univariate analysis results.

($b_{AGE \rightarrow DP} = -0.113, p = .017$). By contrast, depression ($p = .103$) and the Personal Accomplishment scale ($p = .710$) were not found to be affected by age. Nevertheless, the Personal Accomplishment scale was identified as a significant direct regressor of depression ($b_{PA \rightarrow DEP} = -0.301, p < .001$).

Police personnel who were working in an urban area found to have significantly higher Emotional Exhaustion and Depersonalization scores ($b_{BCT \rightarrow EE} = 0.141$, $p = .003$; $b_{BCT \rightarrow DP} = 0.093$, $p = .049$) and a lower Personal Accomplishment score ($b_{BCT \rightarrow PA} = -0.167$, $p < .001$). In the context of the path model, no significant direct effect of urban area was reported on the depression scale ($p = .481$), whereas a significant indirect effect was reported through the Emotional Exhaustion ($b_{BCT \rightarrow EE \rightarrow DEP} = 0.025$, $p = .045$) and Personal Accomplishment scales ($b_{BCT \rightarrow PA \rightarrow DEP} = 0.050, p = .004$). Thus, a full mediation effect for the Emotional Exhaustion and Personal Accomplishment scales between the size of the working area and depression is demonstrated.

Self-esteem was a significant regressor for the three burnout subscales ($b_{RSE \rightarrow EE} = -0.337$, $p < .001$; $b_{RSE \rightarrow DP} = -0.357$, $p < .001$; $b_{RSE \rightarrow PA} = 0.394$, $p < .001$), also having a significant direct effect on depression ($b_{RSE \rightarrow DEP} = -0.437, p < .001$).

The Depersonalization scale had a non-significant effect on depression either directly ($p = .265$) or indirectly through age ($p = .313$), size of city ($p = .332$) and self-esteem ($p = .270$). By contrast, the Emotional Exhaustion and Personal Accomplishment scales had a direct effect on depression ($b_{EE \rightarrow DEP} = 0.179$, $p = .007$; $b_{PA \rightarrow DEP} = -0.301, p < .001$), while a significant indirect effect through self-esteem was also reported ($b_{RSE \rightarrow EE \rightarrow DEP} = -0.060$, $p = .011$; $b_{RSE \rightarrow PA \rightarrow DEP} = -0.119, p < .001$).

Discussion

It is a priority to understand the factors that affect the psycho-emotional state of the employees of the police profession. This investigation acquires greater importance because mental disorders are considered to be the most frequent causes of long-term work incapacity in most developed countries (Basinska and Wiciak, 2012; Harvey et al., 2009; Whiteford et al., 2010). Toward this goal, the current study reveals some aspects that have not been highlighted in the literature to date.

The study confirmed that feelings of emotional exhaustion and lack of personal accomplishment are directly reflected in feelings of depression (Lecompte et al., 2014; Lester, 1986; Metalsky et al., 1993; Orth et al., 2008; Rosse et al., 1991). The absence of a depersonalization effect on depression confirms that cynical behavior and attitude toward partners and citizens is a form of denial, aiming to prevent negative feelings from affecting the general mental state (Blaser, 1976; Caplan, 2003; Sievers, 2007).

The impact of the harsh urban environment on police officer's depressive feelings, emotional exhaustion and personal accomplishment is also confirmed (Husain, 2020; Ménard and Arter, 2013). Burnout symptoms and level of depression were not related to officer gender, a finding supportive of the

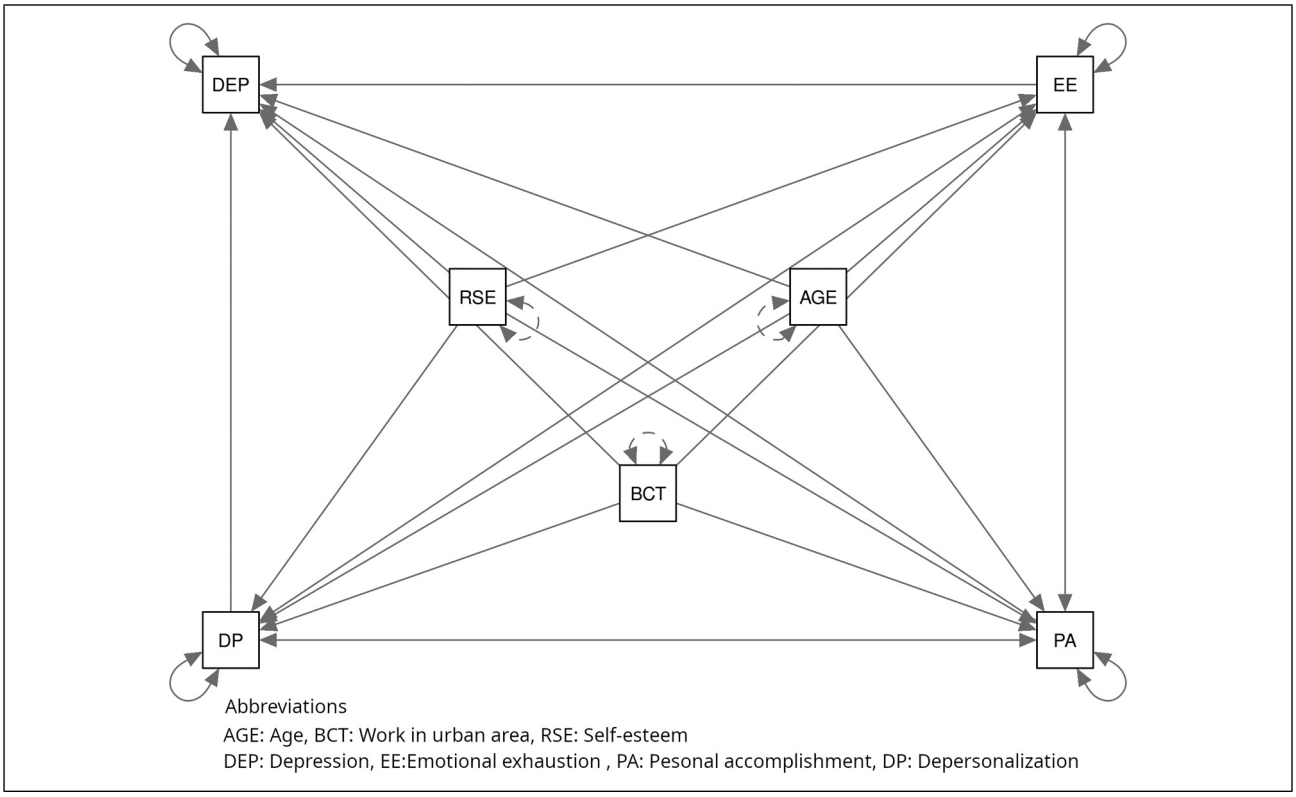

Figure 1. Theoretical path model.

hypothesis that the experienced burden is attributed to other personal characteristics (Lilly et al., 2009; Pole et al., 2001) or environmental factors such as the general socio-economic environment (He et al., 2005). In particular, in the context of the current study, it is suggested that the differentiation that may exist in depression between men and women is less significant than the corresponding deviation introduced by the urban area effect (Pole et al., 2001; Poteyeva and Sun, 2009). Nevertheless, the ability of police officers to counteract the psycho-emotional pressure of their profession as they get older and gain experience in service is demonstrated.

A remarkable finding is that the urban area effect on depression is entirely attributed to burnout symptoms, suggesting that the worst depressive position of police officers in an urban area is primarily due to increased exposure to the violent incidences and traumatic events that are encountered. The need to reduce the workload of police personnel in urban areas is clearly indicated as a direct measure aiming to prevent health problems and sustain officer working capacities.

The above findings further highlight the protective nature of self-esteem, which was clearly demonstrated as a protective shield against corrosive depression and burnout symptoms (Bakker et al., 2014; Stotland, 1976). Further, its character as a primitive personality trait, independent of gender identity and current working conditions was also demonstrated (Kuster and Orth, 2013; Trzesniewski et al., 2003). In particular, it is clearly demonstrated that any initiative aiming to enhance police officers' personal accomplishment expectations and decrease the effect of emotional exhaustion on depression, should take into account the strengthening of police officers' self-esteem.

Practical implications and recommendations

The modern urban environment is harsh for police personnel. An important objective is to provide police officers with all the necessary support required to reduce their psychological burden and prevent work-related health impairment. It is suggested that the introduction of more flexible transfer regulations would have a beneficial effect on the psychological state of police employees because it would allow officers to perceive work stress as temporary and be patient until their urban term is completed. It is also adequately demonstrated that any support program aiming to enhance an officer's self-esteem would increase their ability to challenge negative or inaccurate thinking and adjust their thoughts and beliefs, guiding them to a healthier mental status.

Support for the police by a sufficient number of service psychologists is now a reality in most countries of the

Table 4. Path model's parameters.

						95% confidence interval			
		b	SE	*z*	*p*	Lower	Upper	Std. all[a]	R^2
EE									0.148
	AGE	−0.098	0.046	−2.116	.034	−0.189	−0.007	−0.100	
	BCT	2.289	0.768	2.982	.003	0.784	3.793	0.141	
	RSE	−0.620	0.086	−7.183	.000	−0.790	−0.451	−0.337	
PA									0.193
	AGE	0.015	0.040	0.371	.710	−0.063	0.093	0.017	
	BCT	−2.387	0.658	−3.629	.000	−3.676	−1.098	−0.167	
	RSE	0.640	0.074	8.643	.000	0.495	0.785	0.394	
DP									0.149
	AGE	−0.074	0.031	−2.390	.017	−0.135	−0.013	−0.113	
	BCT	1.011	0.513	1.972	.049	0.006	2.016	0.093	
	RSE	−0.439	0.058	−7.614	.000	−0.552	−0.326	−0.357	
DEP									0.416
AGE	Direct	0.059	0.036	1.632	.103	−0.012	0.130	0.065	
	Ind. EE	−0.016	0.010	−1.669	.095	−0.035	0.003	−0.018	
	Ind. PA	−0.005	0.013	−0.370	.711	−0.030	0.020	−0.005	
	Ind. DP	−0.007	0.007	−1.010	.313	−0.020	0.006	−0.008	
BCT	Direct	0.423	0.599	0.705	.481	−0.752	1.597	0.028	
	Ind. EE	0.380	0.189	2.008	.045	0.009	0.750	0.025	
	Ind. PA	0.758	0.264	2.872	.004	0.241	1.275	0.050	
	Ind. DP	0.093	0.096	0.970	.332	−0.095	0.281	0.006	
RSE	Direct	−0.400	0.073	−5.494	.000	−0.543	−0.257	−0.234	
	Ind. EE	−0.103	0.041	−2.540	.011	−0.182	−0.024	−0.060	
	Ind. PA	−0.203	0.049	−4.127	.000	−0.299	−0.107	−0.119	
	Ind. DP	−0.040	0.037	−1.102	.270	−0.112	0.031	−0.024	
EE		0.166	0.061	2.716	.007	0.046	0.286	0.179	
PA		−0.317	0.068	−4.697	.000	−0.450	−0.185	−0.301	
DP		0.092	0.083	1.114	.265	−0.070	0.254	0.066	

[a]Completely standardized solution.

world, however it seems that this is not enough. Additional targeted self-esteem interventions, including training and counseling seem to be necessary to address the mental health issues faced by police personnel. Further, promoting alternative ways of supporting self-esteem and creating a positive self-image is believed to strengthen the psychological state of police officers. In that context, it is worth noting that increased aerobic exercise or strength training has been shown to reduce depressive symptoms, anxiety symptoms and panic disorder (Paluska and Schwenk, 2000). Thus, providing police personnel with opportunities to be physically active in their leisure time can have a positive effect on their ability to cope with the difficulties of their duties (García-Rivera et al., 2020; Martinsen et al., 1985).

Limitations and future directions

This study has some limitations. First, it should be noted that the longitudinal nature of the sample restricts the findings to a specific time and place. In particular, it is not certain that the same findings would be confirmed in countries with significant differences in the demographic structure of their police forces.

Concerning the reliability of the psychometric scales, it should be noted that the Cronbach's alpha value for the Depersonalization scale was .62, which, although above the rule of thumb cut-off of .60, is low. Further, the path model assumed a relationship between self-esteem and burnout in only one direction, an assumption that simplifies observations to date, according to which this relationship may be bidirectional (Baumeister et al., 2003; Rosse et al., 1991). Finally, the tested path does not encounter environmental factors that are reported to have an effect on quality of life and subsequent professional performance such as personal economic well-being (Stogner, Miller and McLean, 2020). To his end, testing a richer model on a larger sample is suggested as a future research goal.

Conclusion

The findings of this study provide a framework within which initiatives can be developed to support police

officers. Self-esteem is highlighted as the most important personality trait for the conservation of good mental health among police personnel, while the greater risk of developing burnout and depression symptoms among police officers working in an urban environment is demonstrated. It is worth noting that depressive feelings induced by the harsh urban environment are completely explained by increased burnout feelings. The need for initiatives aiming to support young officers and police personnel working in large cities is indicated.

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