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Original Article

Burnout and Coping Strategies in Male Staff from National Police in Valparaíso, Chile

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Abstract

Background: This cross-sectional study aimed to examine the relationship between several dimensions of the burnout syndrome with certain stress-coping strategies, seniority level and marital status in male staff from National Police in Vaparaíso, Chile.

Methods: The sample collected in 2010 was composed of 338 male officers coming from various special units of a National Police in Valparaíso. Burnout and Coping Strategies were assessed and classified according Maslach Burnout Inventory (MBI) and COPE Inventory, respectively. Data was analyzed using Pearson product-moment correlation, ttest for independent measures and Multiple Linear Regression to generate a predictive model.

Results: The prevalence of the burnout syndrome disaggregated by grouping criteria, the dimensions concentrated in middle levels for emotional exhaustion with a 52.1%, a 51.8% for depersonalization and finally, personal achievement with a 48.8%. Only 28% of participants showed more exacerbated dimensions of the burnout syndrome. There was a weak and direct yet statistically significant relationship between personal achievement and active coping. Mental disconnection had a weak direct relationship between both coping strategies and emotional exhaustion also existed. Certain correlations between burnout dimensions and coping strategies focused on emotion as predictor variables over the criterion variable corresponding to emotional exhaustion were mental disconnection in first place, secondly, focusing on emotions, and emotional social support.

Conclusions: Burnout dimensions scored medium values focusing mainly on emotional exhaustion and reduced personal accomplishment. Coping strategies are used in parallel and in general are not mutually exclusive. Finally, there were not any relationship between variables seniority level and marital status.

Keywords: Burnout syndrome, Coping strategies, Emotional exhaustion, Personal accomplishment

Introduction

The complexity of the current work environment may be associated with increased clinical cases presented reactively to stress, especially in risk professions that require constant interaction with people who are suffering (1). This somehow affects the quality and effectiveness of professional performance and, therefore, performance and productivity both at the individual and at the organizational level (2).

Several studies report a significant association between the presence of burnout and those working in the public service, healthcare or those who simply must relate to others in order to execute their job. Some conceptual proposals define this syndrome as a chronic stress response to the job where negative attitudes and feelings towards colleagues are present as well as to the worker's own professional role, in addition to expressing the experience of being emotionally exhausted (3). The probability of occurrence of this syndrome increases in the presence of sustained demands

and lack of resources in the workplace generating tension, anxiety and stress (1).

This phenomenon, initially described by parole police officers in the United States (5) is an intensification of the core symptoms of stress as a result of constant and repetitive emotional overload, associated with an intense involvement in the direct product and permanent relationship with people who are in extreme situations, along with a situation of need or dependence. It often occurs in people whose professions –as is the case of officials in the organization of this researchmaintain a constant and direct relationship with people who have problems or have a cause for suffering. It is characterized by the presence of emotional exhaustion, depersonalization and a sense of personal achievement reduction, creating physical symptoms, behavioral and interpersonal relationship problems, affecting also negative performance and professional quality of service (6). Additionally, other findings are associated with increased sleep latency and constantly waking up at night, hence, poor sleep quality (7).

Functionally related to this syndrome are psychosocial coping strategies, defined as those cognitive and behavioral efforts that people develop to meet the specific demands external and/or internal to the individual and which are assessed as a resource surplus or overflow that a person possesses (8). These are responses to stress processes and generally, are perceived as demands together with a triggering situation or its consequences. This syndrome generally affects police officers who fulfill all tasks related to order, public safety and crime control (9-13).

It should be emphasized that, although investigations regarding burnout have been developed in South African police (14), Holland (15), Finland (16) and in the United States (17), the vast majority of authors cover the topic in part emphasizing variables such as stress, coping, occupational health and risk factors (18-24).

Moreover, there are few recent studies that deal with police groups in order to establish the link of this syndrome with coping strategies and certain socio-demographic and work factors associated with this syndrome and its influence on the etiology and exacerbation.

In light of the above, this study aimed to examine the relationship between the burnout syndrome and the stress coping strategies employed (focusing on the problem and emotions), in the light of certain demographic analysis such as marital status and seniority in the institution, thus proposing a predictive model of the behavior for certain coping strategies and the presence of the syndrome dimensions.

Materials and Methods

A correlational and predictive correlation study was conducted in 2010. The relationship between several dimensions of the burnout syndrome with certain stress-coping strategies was established generating a predictive model based on the presence of these strategies (focusing on emotions, mental disengagement or disconnection, seeking emotional social support) for the two-dimensional appearance of this syndrome (reduced personal accomplishment and emotional exhaustion). Additionally, the presence of burnout was compared between groups with lower and higher seniority level, and their marital status in a male staff from a specialized security and public order unit. This study presents a non-experimental and cross-sectional design, in which data was collected at a single time without the intervention of the variables involved, thus not considering causal analyses.

Variables

The following variables were analyzed for the present study: 1) Burnout syndrome, defined as a three- dimensional syndrome that considers emotional exhaustion, depersonalization and reduced personal accomplishment (personal achievement), occurring in staff working through direct contact with customers, patients or public in general (25). 2) Stress-coping strategies, defined by Lazarus and Folkman (26) as "those constantly-changing cognitive and behavioral efforts developed to manage specific external and/or internal changing demands, evaluated in the individual as a surplus

or overflowing of resources." Problem-focused strategies and emotion-focused strategies were analyzed. 3) Socio-demographic and work background: ranges in seniority levels in the institution and marital status (with or without a partner).

Participants

The sample consisted of a total of 338 male officers coming from various special units of a Valparaíso's Chilean National Police. Specifically, the participants belonged specialized units (eg. police, crime labs, sexual offenses unit, among others) and were selected by non-probability purposive sampling. Ages ranged from 20 to 49, distributed in the following ranges: 20 to 34 year, 197 staff (58.3%), 35 to 49 year, 141 staff (41.7%). As for seniority in the institution, this varied between 1 and 29 with a range distribution as follows: 1 to 14 year, 206 staff (60.9%) and 15 to 29 year, a total of 132 (39.1%). Marital status was recorded as having or not having a partner, resulting in the following distribution: 219 (64.8%) with a partner, and 119 single officials (35.2%).

Data Collection Instruments

The following instruments used in the present study are described below: Maslach Burnout Inventory (MBI) developed by Maslach and Jackson (27) and adapted into Spanish by Tea Ediciones (28). This is the most used instrument globally because of its construct validity (29-33). It is a questionnaire consisting of 22 questions formulated in an affirmative manner regarding personal feelings and professional attitudes towards staff working with people. It counts with a frequency scale that is measured in the three dimensions of the burnout syndrome: emotional exhaustion, depersonalization and reduced personal accomplishment. In the case of emotional exhaustion, it measures feelings of fatigue and the experience of being emotionally exhausted by the demands of work; the depersonalization considers impersonal-type responses and negative attitudes such as indifference and detachment towards people; the reduction of personal achievement evaluates feelings of self-efficacy, job satisfaction and routine work success.

Three subscales remained in the Spanish version regarding its psychometric properties, which have reached values of reliability for internal consistency with Cronbach's alpha method of 0.90 for emotional exhaustion, 0.79 for depersonalization and 0.71 for personal accomplishment (34-35). Each item is rated on a Likert scale of 7 points, and for each item a value from 0 to 6 is given. In Chile, there are no standard norms for the population where this instrument was applied. According to the authors of the MBI, the syndrome has independent dimensions, and thus does not necessarily combine to form a higher entity.

The COPE Inventory developed by Carver, Scheier and Weintraub (8), is adapted to Spanish by Crespo, Cruzado and Vásquez (36). This instrument, although based on the same theoretical model and process that follows the Ways of Coping Inventory (WOC) of Lazarus and Folkman (26), is developed as an alternative that allows a more detailed precision in the formulation of items and cover larger areas than the latter. It consists of a 4-point Likert scale, referring to the frequency by which the subject performs certain behaviors in situations that are presented throughout 60 items. Consequently, this instrument measures 15 stress-coping strategies grouped into two main groups with five and ten scales per group, respectively, and four items per scale; where problem-centered strategies are: active coping, planning, search for instrumental social support, suppression of distracting activities and restraining from coping. Emotion-focused strategies: seeking emotional social support, religion, positive reinterpretation and personal growth, acceptance, humor, focus on emotions, denial, mental disengagement, behavioral disengagement and alcohol or drug consumption.

The psychometric advantages of this scale are that it has internal consistency having a Cronbach's alpha between 0.45 and 0.92 for different ways of coping, and also having construct validity (36).

A Socio-demographic and Work Identification Card was developed exclusively for this study in order to gather background information for the participants in this sample. Certain variables taken into account were: marital status and seniority in the specialized unit staffs, who execute services directly on the street and also work in management areas.

Finally, informed consent was requested for all participants and strict discretion and confidentiality was ensured regarding records that could identify participants of this study.

Procedure

The police units' authorities reviewed the ethical aspects and authorized each application. The officers were asked to participate. Demographic and work data were collected using an anonymous, self-administered questionnaire including age, seniority and marital status. They also completed the MBI and COPE Inventory anonymously.

Statistical analysis

Data were entered into the Statistical Package for Social Science (SPSS), version 20. The analyses carried out were focused on the use of various parametric tests, considering the respective assumptions of normality and homoscedasticity. Additionally, there was a general description of the variables involved, characterizing them as age range, marital status and seniority, along with a description of the mean behavior of the dimensions in the burnout syndrome and its frequency (ranging low, medium and high), as well as the means for coping strategies.

Continuous variables in play were considered to establish correlational analyses scores, using the Pearson product-moment correlation for the association between personal burnout dimensions and personal achievement and coping strategies (problem-focused and emotion-focused).

T-tests for independent measures were used to assess the mean difference in the dimensions of emotional exhaustion and personal accomplishment, as high or low seniority in the organization, as well as for the comparison of groups according marital status (having / not having a partner).

It must be noted that the dimensions analyzed were chosen in terms of the two highest mean scores submitted. This provides more interpretive space to those values with a greater presence.

The generation of predictive models was performed using multiple linear regressions, considering as predictors the emotion-focused strategies: focused on emotions, mental disconnection and seeking instrumental social support for the criterion variables of emotional exhaustion and personal accomplishment. Analyses were performed with significance levels of *P*<.05.

Finally, all the possible and available information about the procedure, participants, ethics and data collecting were carefully gathered and mentioned.

Results

The dimensions of the burnout syndrome do not necessarily combine in order to form a superior entity; however one dimension in a high category would suffice to identify this clinical syndrome.

A brief description regarding the prevalence of the dimensions that make up this syndrome, according to frequencies, percentages, means and SD, is illustrated as follows (Table 1).

Table 1: Burnout dimensions according to frequency and percentage

Burnout dimensions	Low	Medium	High	Mean	SD
	n (%)	n (%)	n (%)		
Emotional Exhaustion	72 (21.3)	176 (52.1)	90 (26.6)	8.15	6.214
Despersonalization	70 (20.7)	175 (51.8)	93 (27.5)	22.12	11.480
Decrease of Per-	84 (24.9)	165 (48.8)	89 (26.3)	40.02	6.876
sonal Achievement					

It should be noted that only 28% of participants showed high scores or one or more exacerbated dimensions of the burnout syndrome.

As for coping strategies, Table 2 illustrates the evident diversity in their use by participants: same strategies are used in parallel and in general are

not mutually exclusive, for example having high and/or low scores in the use of different strategies. Certain correlations between burnout dimensions and coping strategies may be observed on Table 3. By considering an r=.33, *P*<.05, it may be stated that, there was a weak and direct yet statisti-

cally significant relationship between personal achievement and active coping. On the other hand, if an r=.35 *P*<.05 was considered for mental disconnection and an r=.31 *P*<.05, a weak direct relationship between both coping strategies and emotional exhaustion would also exist.

Table 2: Strategies for coping according to means

Coping Strategies	Mean	SD
Positive Reinterpretation and Personal	12.29	2.239
Growth (PG)		
Planning (CP)	12.02	2.609
Active Coping (CP)	11.57	2.344
Acceptance (CE)	11.52	2.642
Religion (CE)	10.80	3.120
Search for Instrumental Social Support (CP)	10.36	2.714
Restrain Coping (CP)	9.98	2.222
Suppress Distracting Activities (CP)	9.78	2.312
Search for Social Emotional Support (CE)	9.51	3.048
Mental Disconnection (CE)	7.72	2.162
Focusing on Emotions (CE)	7.31	2.127
Denial (CE)	6.35	2.115
Humor (CE)	6.14	2.267
Behavioral Disconnection (CE)	5.75	1.825
Alcohol and Drug consumption (CE)	4.76	1.712
N	33	8

CP: strategy centered on the problem, CE: centered on the emotion

Table 3: Burnout Correlation and Coping Strategies

	ľ	Sig. (bilateral)	ľ	Sig. (bilateral)		
	Personal	Personal Achievement		Active Coping (CP)		
Personal Achievement			.330	.000		
	Mental Disc	Mental Disconnection (CE)		Acceptance (CE)		
Emotional Exhaustion	.350	.000	.312	.000		

Pearson Correlation Coefficient/ \pm CP: strategy centered on the problem, CE: centered on the emotion. / * P < 0.05

From seniority differences by burnout data, we can establish that there are no statistically significant differences between groups of higher or lower seniority levels for the variable emotional exhaustion (assuming equal variances by Levene's test F=.478, P<.05; $t_{[336]}=1.268$, P<.05). On the other hand, the group consisting of junior officers showed an average of 39.54 (SD=7.23) for personal achievement, whereas senior officers a mean

score of 40.77 (SD=6.23). There are also no statistically significant differences between groups for the personal accomplishment dimension (equal variances are not assumed by Levene's test, F=5.474, P<.05; $t_{|308.16|}=-1.65$, P<.05).

As for mean differences between groups considering emotional exhaustion, it may be indicated that no statistically significant difference was found between having or not having a partner (assuming equal variances according to Levene's test, F=2.541, P<.05; $t_{[336]}=-8.75$, P<.05). Similarly, the dimension for personal achievement, showed no significant differences (also assuming equal variances according to Levene's test, F=2.000, P<.05; $t_{[336]}=1.769$, P<.05).

Table 4 shows the data for generating a predictive model based on coping strategies focused on emotion as predictor variables: seeking social emotional support, mental disconnection and focusing on emotions over the criterion variable corresponding to one of the dimensions of burnout, in this case emotional exhaustion. The regression equation for this first model is $\hat{Y}_1 = 6.68_{1.2.3.4} + 1.44y_2 + 1.56y_3 -0.74y_4$, which is discussed as follows. The coefficient of determination (r^2) is .198, meaning that 19.8% of the va-

riance in emotional exhaustion would be explained by the variance of strategies for seeking emotional social support, mental disconnection and focusing on emotions. Therefore, it is an explanation of a weak character, having an alienation coefficient (k2) of 80.2%. The percentage error in this estimate would be 46.68%, which is constituted as high and, finally, the effectiveness of the model with a 10.45%, would thus have a low prediction. Nevertheless, if an explanatory position according to the percentages for each predictor variable for emotional exhaustion were pinned down, results would be the following: Mental disconnection in first place with a 37.23%, secondly, focusing on emotions with a value of 33.8%, and finally, with a 25.03% would be seeking emotional social support.

Table 4: Predictive model for emotional exhaustion over coping strategies

COEFFICIENTS A					
Model	Unstandardized		Standardized Coef-	· T	Sig.
	Coefficients		ficients		
	В	Standard	Beta		
		error			
(Constant)	6.679	2.876	-	2.323	.021
Focusing on emotions	1.435	.285	.266	5.038	.000
Mental disconnection	1.554	.268	.293	5.791	.000
Search for s.e. support	742	.193	197	-3.843	.000
MODEL SUMMARY					
Model R	R squa	red R	squared adjusted	Standard error of the estimate	
$.445^{a}$.198		.191	10.327	
DESCRIPTIVE STATISTICS					
	Mean		SD	N	
Emotional Exhaustion	22.12		11.480	338	

4 a. Dependent Variable: Emotional exhaustion. † Predictive Variables: (Constant), search for socio-emotional support, mental disconnection, focusing on emotions.

According to the table above, further background to the generation of a predictive model is provided, this time considering the same predictor variables on personal achievement. For this model, the regression equation is: $\hat{Y}_1 = 41.81_{1.2.3.4} - 0.378y_2 -0.413y_3 +0.438y_4$. The coefficient of determination (r^2) is .06, which means 6% of the variance in personal achievement is explained by the variance of strategies for seeking emotional

social support, mental disconnection, and focusing on emotions. Therefore, the explanation is of very weak character, having an alienation coefficient (k^2) of 94%. The percentage error in this estimate would be 16.72%, which is constituted as low and, finally, the effectiveness of the model with 3.05% rendering a very poor prediction.

If the explanatory percentage weight for each of these strategies were to be considered, the position occupied according to the following percentages for each predictor for emotional exhaustion would be the following: seeking emotional social

support first with 44%, mental disconnection would follow with a 29.48%, and thirdly, focusing on emotions with a value of 26.53%.

Table 5: Predictive model for personal achievement over coping strategies

COEFFICIENTS A					
Model	Unstandardized		Standardized Coef-	T	Sig.
	Coefficients		ficients		
	В	Standard	Beta		
		error			
(Constant)	41.807	1.864	-	22.425	.000
Focusing on emotions	378	.185	117	-2.047	.041
Mental disconnection	413	.174	130	-2.371	.018
Search for s.e. support	.438	.125	.194	3.499	.001
MODEL SUMMARY					
Model R	R squared R		R squared adjusted	Standard error of the	
				estimate	
.246a	.060		.052	6.695	
DESCRIPTIVE STATISTICS					
	Mean		SD	N	
Personal Achievement	40.02		6.876	338	

⁴ a. Dependent Variable: Emotional exhaustion. † Predictive Variables: (Constant), search for socio-emotional support, mental disconnection, focusing on emotions

Discussion

Burnout

There is no evidence to show indicators of the burnout syndrome in any of its dimensions in each particular unit. However, rather intermediate values were found, which might suggest that these workers are indeed subject to certain stressful situations, yet this is not enough to generate the syndrome described (with the exception of less than 28% that would mark the highest level).

Coping Strategies

With regards to coping strategies, those focusing on emotion were those preferably used for positive reinterpretation and personal growth, acceptance and religion. These strategies could be building a less stressful transaction with the situation itself, serving as a support for the use of strategies focusing on the problem. Perhaps, employing strategies such as religion could be related to socio-cultural aspects prior to admission to the organization given by the age, social, cultural and

economic segment where the personnel of the team originates. On the other hand, the acceptance strategy, which involves developing tolerance to frustration (anytime where it is not expected to make changes but to assume conditions as they are), might be linked with interactional styles or personality aspects of those who choose this type of profession, also evidencing a vocational orientation.

The most employed strategies centered on the problem were, planning, active coping, seeking social and instrumental support. The use of such strategies may be due to cultural and educational aspects of the organization, given that a rational and planned approach in solving problems is socially desirable.

It is noteworthy that the strategies less used by the sample are those defined as dysfunctional. This is important since the police staff mainly used functional strategies for coping with stress that could be explained by a social desirability aspect specific to this sample group, or could constitute the product of a process of re-socialization in a cultural

value frame of its own. Such dysfunctional strategies of low prevalence were: denial, behavioral disengagement, and alcohol and drug consumption. In order to clearly dimension the latter, it should be recalled that the minimum score was 4 and the maximum was 16 for each coping strategy. Finally, note that the coping strategies mentioned did not score in the high category.

Burnout and marital status

As to the tentative differences between burnout levels (emotional exhaustion and personal accomplishment) with the marital status of the sample, it must be clarified that in this case such a condition goes beyond the marital status itself, and takes into consideration the fact of whether or not officials had a partner, a relationship that would influence the presence or absence of the burnout syndrome, according to certain authors (1-6). Regarding this, the analyses indicate that marital status cannot show differences in the dimensions of emotional exhaustion and reduced personal accomplishment. In this aspect, it could be noted that the gender-differentiated roles (which in this case were male), and the fact of not having a partner, could be understood by officials as opening up to other ways of dealing with certain situations (if not having partner is assessed as such, while facing stressful situations); thus could achieve a cushioning effect for such stress incidents. It is important to consider that the coping strategy mostly used by all participants was positive reinterpretation and personal growth.

Burnout and seniority level

In relation to the differences between groups segmented by higher or lower seniority in specialized units for the dimensions of emotional exhaustion and personal accomplishment (although there is evidence to suggest a higher prevalence of the syndrome is found in people with more years of service), the analysis did not show the existence of such differences. This draws attention against the findings reported by García et al (11). Such findings gave a characteristic for individuals affected by the syndrome, an average of 20 years of service for staff in a metropolitan health service. Having

such a high turnover rate of the staff in the units tested for the current study could be affecting the results rendering groups that do not differ significantly, as the main distribution is concentrated in segments with less time spent on specialized units.

Relationship between Burnout and coping strategies

The correlations between burnout dimensions and coping strategies showed a weak and direct relationship between personal achievement and active coping and also mental disconnection between both coping strategies and emotional exhaustion would also exist. These correlations usually also expected in other samples of professions such as teachers, nurses and social workers. However, according the same author, in such cases usually occurs more strongly.

Lastly, from the multiple linear regression analysis, we found that coping strategies related to emotional exhaustion dimension were focusing on emotions, mental disengagement and seeking emotional social support. Also, the same strategies were associated with reduced personal accomplishment. Nevertheless, the model is weak and leads to an unreliable predictive error. Perhaps, the latter is due to the fact that the prevalence of the syndrome is not high, but consists of mostly intermediate values. This can be evidenced by the weak relationships between the dimensions of the syndrome and certain coping strategies. Otherwise, one would expect that when measuring coping strategies, a subject could present certain results in the dimensions identified, constituting a person under potential risk of burnout syndrome. As stated before, this is not considering a specific measurement of the burnout syndrome.

Conclusion

Burnout dimensions scored medium values focusing mainly on emotional exhaustion and reduced personal accomplishment. Coping strategies are used in parallel and in general are not mutually exclusive. There were not relationship with variables seniority level and marital status. Finally,

we found that coping strategies related to emotional exhaustion dimension were focusing on emotions, mental disengagement and seeking emotional social support, and same strategies were associated with reduced personal accomplishment, however, both weakly.

Ethical considerations

Ethical issues (Including plagiarism, Informed Consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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