INFLUENCE OF PHYSICAL ACTIVITY ON MILITARY POLICE OFFICERS’ BURNOUT

RESUMO
A literatura aponta que os policiais estão entre os profissionais vulneráveis à síndrome de burnout, porém há poucos estudos que investigam esta síndrome e a associam a uma estratégia de enfrentamento. A hipótese deste artigo é de que o exercício físico pode ter associação significativa em relação ao burnout funcionando como elemento de proteção. Partindo deste ponto, o presente estudo avaliou os níveis de atividade física e a percepção das dimensões da síndrome de burnout em uma amostra de policiais militares na cidade de Belo Horizonte. Foram utilizados três instrumentos para coleta de dados, cada qual com um objetivo específico: o Inventário de burnout de Maslach (MBI-HSS), o Questionário Internacional de Atividade Física (IPAQ) e um questionário sociodemográfico. Os resultados mostraram uma prevalência da síndrome de burnout de 64%, principalmente entre os classificados com baixo nível de atividade física e os que executam a atividade de trabalho operacional. Conclui-se que variáveis que se referem a aspectos sócio-afetivos influenciam a percepção desta síndrome assim como o sedentarismo, tendo sido, através das variáveis que apresentaram significância estatística, traçado um perfil do policial sedentário e vulneral ao burnout e constatado que os níveis de atividade física apresentam associação com os indicadores de burnout.


ABSTRACT
The literature points out that cops are among professionals vulnerable to the burnout syndrome, but there are only few studies that investigate this syndrome and associate it with a coping strategy. The hypothesis of this article is that physical exercise may correlate significantly with burnout, working as a protective element. From this perspective, the present study assessed physical activity levels and the perception of burnout syndrome dimensions in a sample of military police officers in the city of Belo Horizonte. Three instruments were employed for data collection, each one with a specific objective: the Maslach Burnout Inventory (MBI-HSS), the International Physical Activity Questionnaire (IPAQ), and a sociodemographic questionnaire. Results showed a prevalence of 64% for the burnout syndrome, especially among those individuals classified with low physical education level and those who perform operational roles. It is concluded that variables referring to socio-affective aspects influence the perception of this syndrome, just as sedentarism; by means of the variables that presented statistical significance, it was possible to determine the profile of a sedentary cop vulnerable to burnout, with the finding that physical activity levels associate with burnout indicators.

Keywords: Physical activity. Burnout syndrome. Military Police Officers.

Introduction
Among several diseases that affect workers, mental ones are ever-increasingly prevalent. According to data from the World Health Organization\textsuperscript{1,2}, minor mental disorders, such as anxious, depressive and somatoform symptoms affect around 30% of occupied workers, and it is estimated that, by 2020, occupational stress will be the second most common cause of work leave\textsuperscript{2}. In this context, military police officers stand out because, due to the characteristics of their jobs, they are more vulnerable to mental disorders that may be aggravated or caused by work, with highlight to occupational stress and the burnout syndrome\textsuperscript{3-6}.

As a result of excessive exposure to risk, cops may develop acute and chronic symptoms of psychological suffering, occupational stress and, consequently, burnout. However, Maslach and Leiter\textsuperscript{7} observed that “burnout is not only a personal problem, it is a
workplace problem”. Moraes, Ferreira and Rocha came to a similar conclusion when conducting a case study with a sample of 1,152 military police officers in Minas Gerais. These authors argue that a major source of dissatisfaction in Minas Gerais Military Police lies on aspects related to organizational structure. The way that factors translate in the job of a cop, be they linked to organizational structure or the precarization of labor, may bring harmful implications to this worker’s physical and psychological health, which may explain the high rates of absenteeism reported in this category.

Guimarães et al. conducted a study with 240 military police officers and 234 civil police officers in the city of Campo Grande, state of Mato Grosso do Sul, Brazil, in order to verify the occurrence of the burnout syndrome and analyze these professionals’ Quality of Life. The sample as a whole presented 56% of burnout levels classified as “serious”, and excessive workload as to Quality of Life assessment. Results found indicated the vulnerability of this professional category to the burnout syndrome.

Additionally to structural characteristics that make cops a risk population for burnout, Souza and Patrocínio showed that they are seen by society as the second professional category that most deserves the worst adjectives. A survey conducted in Brazil, in 2010, by market research institute GFK, showed that the trust put in the military police is way below the global average. In said survey, the military police officer job came 15th in the Brazilian rank of profession trustworthiness, with 51% of population trust, while the global average was 75%. For cops, lack of intrinsic rewards (such as being recognized by society and/or the feeling of being doing something important and doing it well) is associated with feelings of inefficacy and reduced Professional efficiency. There are authors that approach burnout and occupational stress as one same construct, while others understand burnout as a chronification of occupational stress. However, burnout is herein understood as the result of a long process of attempts to deal with stress. The relational perspective present in burnout is what differs it from occupational stress. Such a perspective is expressed by individuals through defensive attitudes when they reach the Depersonalization stage, which is a fundamental characteristic of burnout.

The term burnout was first used in 1953 by psychiatrists Schwartz and Will, and then again in the 1970s by physician and psychoanalyst Herbert Freudenberg, who, while treating his patients, observed that many presented a gradual process of exhaustion in mood, and/or demotivation. Such a process lasted approximately a year and was followed by physical and psychological symptoms that denoted a particular state of being “exhausted”. The expression “burnout” is also referred to as “depletion” and began to be used as a metaphor to explain the suffering of men in the workplace.

In their studies, Maslach and Jackson concluded that this syndrome is more evident in professionals who deal with people or in assistance-oriented professions, such as those of doctors, nurses, teachers and cops. To these authors, burnout results from prolonged exposure to occupational risks and lack of social support. In their studies, three aspects or dimensions that compose this syndrome were identified: Emotional exhaustion (EE), Depersonalization (DE) and Professional efficiency (PE).

Emotional exhaustion (EE) is characterized by lack or absence of energy and enthusiasm, as well as a feeling of depleted resources, that is, it manifests physically and emotionally with symptoms of effective fatigue about work and difficulties to deal with emotions. Depersonalization (DE) or Cynicism refers to the context in which the professional shows, through their attitudes, an emotional insensitivity towards others. Professional efficiency (PE) was originally called Personal accomplishment reduced. However, changes have been suggested to name this dimension in order to make this construct easier to understand in languages other than English, since this dimension assesses positive aspects that, in a clinical burnout case, are reduced. PE is defined as a worker’s
Influence of physical activity on Cops’ burnout

Researchers have been discussing the importance of physical exercise as a coping strategy that prevents several physical and/or psychological diseases and improves quality of life, whether independently or combined with other lifestyle characteristics. Nevertheless, there are few studies approaching the burnout syndrome from this perspective. There are not many researches, especially in Brazil, that investigate the relationship between physical exercise, as a coping strategy, and the burnout syndrome. It is known that exercising regularly contributes to lowering anxiety, reducing depression symptoms, improving cognitive functions, allowing a quicker cardiovascular recovery and improving sleep quality.

Thus, bearing in mind the physiological and psychological benefits derived from exercising to stress, the question raised herein refers to whether these benefits could be applied to military police officers concerning the burnout syndrome, in its three dimensions.

Thus, the objective of this study was to assess the perception of physical activity levels and indicators of the burnout syndrome in military police officers in the city of Belo Horizonte. The relevance of this research lies on deepening the comprehension around the relationship between Physical activity and the burnout syndrome, seeking to analyze this relationship in an occupational context.

Methods

Participants

This study had the participation of 195 military police officers, both males and females, ranked as soldiers, corporals and sergeants, composing a non-probabilistic sample by convenience, out of a population of 230 cops. The study did not include officership ranks because, in the collection period, sampling access was allowed only to teams composed of enlisted officers, who, on the occasion, were taking a basic police training course held in Belo Horizonte, Minas Gerais.

The research intended to include as many participants as possible, so the inclusion criterion was to be an active military police officer and join the research freely by signing a free and informed consent form.

Instruments

The present study employed the following self-applied instruments:

Sociodemographic and situational data questionnaire: This instrument aimed to assess some institutional and quality of life aspects regarding the military police officers, as well as collect additional pieces of information, such as: sex, age, education, service time, activity field, and affectivity.

Maslach Burnout Inventory (MBI), version for Human Services: This questionnaire was validated in Brazil by means of several studies. The inventory contains 22 questions, with nine being linked to Emotional exhaustion (EE), five to Depersonalization (DE) and eight to Professional efficiency (PE). Each item indicates the frequency of answers on a Likert scale ranging from zero to six points; the scale for the DE and PE constructs is positive, while for PE it is negative or inversion scoring.

International Physical Activity Questionnaire (IPAQ): It is a free and public questionnaire proposed by the World Health Organization and validated in Brazil to determine people’s physical activity levels in their many aspects. The study participants had
their data tabulated and classified according to orientations by the IPAQ itself, which divides and names categories as sedentary, insufficiently active, active and very active. “Active” and “very active” individuals were counted as a single group, classified as “Active”, and so were categories “Insufficiently active A” and “Insufficiently active B”, which were classified simply as “Insufficiently active”.

Procedures

After formal authorization from the institution, the responsible parties were contacted to be informed about the research objectives, relevance and methodological procedures. The sample was split into groups, with 20 to 30 participants each. The instruments were applied in the same order for each group and always in the morning. This study complied with all norms set forth by the Brazilian National Health Council (Resolution 466-2012) with respect to research involving humans. It was submitted for the approval of the Research Ethics Committee of the Federal University of Minas Gerais, which approved the conduction of the research under protocol No 619.728.

All study volunteers and participants were informed about the research objectives, relevance and methodological procedures, and signed a free and informed consent form.

Data Analysis

Statistical analyses, to describe categorical variables, used absolute and relative frequencies, while measures of central tendency, dispersion and position were used for describing quantitative variables.

To select significant variables to explain burnout indicators (EE – Emotional exhaustion; DP – Depersonalization; PE – Professional efficiency), the Stepwise method was employed. The Stepwise is one of the most popular methods for selection of variables in Regression Analysis context, being a mix of the Backward and the Forward methods. For the Forward method (criterion for inputting variables in the multivariate regression analysis), univariate analyses were used, adopting a significance level of 25%. For correlation analysis, Spearman’s test was applied. The selected variables entered the Multiple Poisson Regression, with the Backward method being applied at this stage, which is the procedure of removing, one by one, variables with the highest p-value; this procedure was repeated until only significant variables were left in the model. For the Backward method, a 5% significance level was adopted. Because over- or under-dispersion are very common in Poisson model, the Quasi-likelihood method was used for estimating the model, thus allowing the estimation of robust variances for these phenomena. To verify the quality of Poisson regression models, adjusted $R^2$ was calculated.

To verify sociodemographic variables related to physical activity level, the Cochran-Armitage test for trend was employed. The software used for the analysis was R, version 3.0.3.

Results

A total of 92% of the individuals were males, 29% were single, 66% were married and 61% had kids. About education, 3% had completed elementary school, 50% had completed high school, 25% had a college degree, and 23% had not completed higher education. As for functional role, 74% of the individuals performed operational ones, while 26% held administrative positions. Concerning shifts, 66% worked during the day, 27% at night, and 7% alternated between both shifts, with 81% of the individuals working on a fixed schedule, and 19% on a rotating schedule.
With respect to situational characteristics, 38% were concerned or sad about something, 89% had an affective relationship and 24% had some problem in said relationship, 22% faced some type of problem with relatives, 18% were going through financial instability, 31% of the individuals had someone in their families suffering from depression, 13% had a disease, 17% took medication regularly, 28% reported having experienced a traumatic situation (occurrences with gun shots and/or physically injuring themselves or others). About the emotional perception of those who had experienced a traumatic situation, 24% claimed they were getting over it, 31% suffered a little, 28% suffered moderately, and 17% still suffered a lot.

Besides, 77% of the participants claimed to exercise regularly, 93% were used to engage in leisure activities, and 93% had a belief or religion, 53% out of whom were practicing believers.

As for military rank, the sample was composed of enlisted officers: 27% of soldiers, 29% of corporals, and 44% of sergeants.

Figure 1 shows that the physical inactivity prevalence (sedentary + insufficiently active) among the cops participating in this study was 58%, and the percentage of police officers considered as “Active” was 42%.

![Figure 1](image1.png)

**Figure 1.** Physical activity levels of military police officers participating in the study, classified according to the IPAQ

**Source:** The authors

Figure 2 shows that Administrative functional roles (internal service) have a higher prevalence of physical inactivity (sedentary + insufficiently active) than Operational ones (external service) do.

![Figure 2](image2.png)

**Figure 2.** Physical activity levels according to the military police officers’ functional roles

**Source:** The authors

However, Figure 3 shows that operational functional roles have a higher number of sedentary individuals.
Figure 3. Detailing of physical activity levels according to the military police officers’ roles
Source: The authors

Table 1 displays a comparison between physical activity levels and independent variables that presented statistical significance (p-value < 0.05). Thus, it can be pointed out that this is the profile of those who tend to exercise more: individuals without children (p-value = 0.028); those who do not take medication (p-value = 0.049); and individuals who engage in leisure activities (p-value = 0.034). Another piece of data is that 77% of the cops claimed to exercise regularly (p-value = 0.01), 12% out of whom were classified as “sedentary”, 25% as “insufficiently active” and 42% as “active”.

Table 1. Physical activity levels and independent variables that presented statistical significance (p < 0.05)

<table>
<thead>
<tr>
<th>Questions</th>
<th>Sedentary</th>
<th>Insuf. Active</th>
<th>Active</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children No</td>
<td>19</td>
<td>17</td>
<td>41</td>
<td>0.028</td>
</tr>
<tr>
<td>Medication use No</td>
<td>43</td>
<td>45</td>
<td>74</td>
<td>0.049</td>
</tr>
<tr>
<td>Engagement in physical activities</td>
<td>25</td>
<td>48</td>
<td>77</td>
<td>0.001</td>
</tr>
<tr>
<td>Engagement in leisure activities</td>
<td>46</td>
<td>53</td>
<td>80</td>
<td>0.034</td>
</tr>
</tbody>
</table>

Table 2 displays results for burnout levels, including general burnout. In this classification, burnout characterizes any individual who had at least one indicator classified as “Serious”. A total of 64% of the cops participating in the study presented at least one indicator classified as “Serious”, and 26% presented a general burnout index classified as “Moderate”, that is, they did not present any “Serious” classification, but presented at least one “Moderate” classification”. Moreover, 10% of the sample was classified as “Light”, that is, they reached this classification for the three assessed indicators; in the individualized analysis of indicators, depersonalization reached the highest index – 49%.

Table 2. Burnout indexes found in the sample

<table>
<thead>
<tr>
<th></th>
<th>Light</th>
<th>Moderate</th>
<th>Serious</th>
</tr>
</thead>
<tbody>
<tr>
<td>General burnout</td>
<td>10%</td>
<td>26%</td>
<td>64%</td>
</tr>
<tr>
<td>Emotional exhaustion</td>
<td>46%</td>
<td>25%</td>
<td>29%</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>21%</td>
<td>30%</td>
<td>49%</td>
</tr>
<tr>
<td>Professional efficiency</td>
<td>41%</td>
<td>31%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Table 2. Burnout indexes found in the sample

Source: The authors

Figure 4 displays a comparison between burnout indicators and functional roles. For this analysis, the individuals were split into two groups, according to their roles (Operational

and Administrative) so that the analysis of each group could be run separately. It is worth highlighting that the Operational functional role had a higher percentage of individuals with indexes within the “Serious” classification for burnout indicators on the Depersonalization (DE) and Professional efficiency (PE) subscales, with DE at 53% and PE at 32%, while for the Administrative functional role, the DE subscale stood at 35%, and the PE subscale, at 16%.

**Figure 4.** Burnout indicators (EE, DE, PE) by functional role  
*Source:* The authors

Analyzing the correlation between age and burnout levels, the age variable presented statistical significance (p < 0.05) in relation to EE (r = -0.167; p=0.019) and DE (r = -0.144; p=0.045), through a negative correlation; and positive as to the correlation with the PE subscale (r = -0.154; p=0.031), indicating that the levels of these indicators improve with age.

**Figure 5.** Burnout indicators (EE, DE, PE) by physical activity level  
*Source:* The authors

Figure 5 shows the prevalence of burnout indicators by physical activity level. Thus, it is possible to observe that the physical activity level classified as “Active” has a smaller percentage of individuals with burnout indicators classified as “Light” – 21% for EE, 8.2% for DE, and 19.5% for PE.

Table 3 displays a comparison between the independent variables that presented statistical significance (p < 0.05) and burnout indicators (EE, DE and PE) in the Multivariate Regression Analysis, while Table 4 shows the variables that were then subjected to the Multiple Poisson Regression.
Recent trauma experienced
Regular physical exercise
Depression
Emotional perception of the trauma
Problem with relatives
Relationship problems
Engage
Financial instability

engaged less in physical and leisure activities. The prevalence of physical inactivity found in Florianópolis, state of Santa Catarina, Brazil, is insufficiently active women represent 10% of Minas Gerais Military Police’s personnel.

Table 3. Independent variables with statistical significance (p < 0.05) and burnout indicators (EE, DE and PE) in the Multivariate Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Answer</th>
<th>DE x</th>
<th>DE sd</th>
<th>DE p-value</th>
<th>EE x</th>
<th>EE sd</th>
<th>EE p-value</th>
<th>PE x</th>
<th>PE sd</th>
<th>PE p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical activity level</td>
<td>Insuff active</td>
<td>9.1</td>
<td>0.7</td>
<td>0.041</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional role</td>
<td>Oper</td>
<td>10.9</td>
<td>0.5</td>
<td>0.015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>Higher</td>
<td></td>
<td></td>
<td></td>
<td>21.7</td>
<td>1.2</td>
<td>0.038</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression in the family</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>22</td>
<td>1.4</td>
<td>0.029</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement in leisure activities</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>25.8</td>
<td>1.6</td>
<td>0.019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Something saddening</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>23.8</td>
<td>1.4</td>
<td>0.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent trauma experienced</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>23.6</td>
<td>1.6</td>
<td>0.002</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem with relatives</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>22.7</td>
<td>1.8</td>
<td>0.040</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial instability</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>25.5</td>
<td>1.8</td>
<td>0.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work shift</td>
<td>Day and Night</td>
<td></td>
<td></td>
<td></td>
<td>37.2</td>
<td>2.2</td>
<td>0.008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular physical exercise</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td>37.2</td>
<td>0.6</td>
<td>0.013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional perception of the trauma</td>
<td>I suffer a lot</td>
<td>11</td>
<td>28.5</td>
<td>0.020</td>
<td>37.3</td>
<td>2.1</td>
<td>0.046</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Poisson model with robust variance for burnout indicators

<table>
<thead>
<tr>
<th>Variables / answers</th>
<th>EE (95% CI)</th>
<th>Exp(β)</th>
<th>p-value</th>
<th>EE (95% CI)</th>
<th>Exp(β)</th>
<th>p-value</th>
<th>EE (95% CI)</th>
<th>Exp(β)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Something saddening</td>
<td>(1.05; 1.50)</td>
<td>1.26</td>
<td>0.012</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent trauma / Yes</td>
<td>(1.02; 1.57)</td>
<td>1.22</td>
<td>0.031</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sitting time wknd (Hour)</td>
<td>(1.00; 1.05)</td>
<td>1.03</td>
<td>0.004</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Physical activity level = Sedentary</td>
<td>[0.70; 1.03]</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.92</td>
<td>0.036</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical activity level = Insuf. Active</td>
<td>[0.67; 0.98]</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.81</td>
<td>0.034</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship problems / Yes</td>
<td>[1.06; 1.52]</td>
<td>-</td>
<td>-</td>
<td>1.27</td>
<td>0.001</td>
<td>0.89</td>
<td>0.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>[1.00; 1.09]</td>
<td>-</td>
<td>-</td>
<td>1.05</td>
<td>0.050</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>11.80%</td>
<td>4.70%</td>
<td>8.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: EE=Emotional Exhaustion; DE=Depersonalization; PE=Professional efficiency; SD: Standard deviation
Source: The authors

Discussion

Analyzing sociodemographic variables, it was possible to verify that the number of male military participants was higher than that of female ones. It is important to highlight that women represent 10% of Minas Gerais Military Police’s personnel.

About physical activity, this study showed a predominance of sedentary and insufficiently active cops, and that the police officers who have children tend to be more sedentary, corroborating with a study conducted with military police officers in the city of Florianópolis, state of Santa Catarina, Brazil. Said study found that professionals with kids engaged less in physical and leisure activities. The prevalence of physical inactivity found...
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was 58%; this calculation includes percentages for sedentary and insufficiently active individuals. This index was higher than the national percentage, which stood at 54%, for the same age group as that of the studied sample, although these indexes are lower than those found in similar studies conducted in Brazil with military police officers, such as those developed in the states of Pernambuco, 73%, and Alagoas, 70%. It is also possible to infer that the association between Depersonalization (DE) and lower physical activity levels is influenced by functional role, since said indicator showed statistical association with the operational functional role and the “Insufficiently active” physical activity level.

By investigating physical activity levels, it was also possible to define a profile for sedentary cops. Thus, those who do not frequently engage in leisure activities, have kids, take medication, and/or have operational functional roles are vulnerable to the burnout syndrome as a consequence of sedentarism. Considering the vulnerability profile for sedentarism and the burnout syndrome, educative actions aimed at encouraging a healthier lifestyle may contribute to improving these professionals’ physical and psychological health. Proposals for promotion of a healthier lifestyle and better physical fitness must act simultaneously at intra-personal, inter-personal and organizational levels, taking into account theories for behavioral changes in order to achieve long-lasting results, which may be possible through institutional programs that support engagement in sports and physical activity.

The Operational functional role presented a higher percentage of individuals with indexes within the “Serious” classification – DE with 53% and PE with 32%. Cops who perform operational roles tend to seek defensive strategies to deal with occurrences, which leads to a more distant treatment in relation to other people, decreasing their motivation to continue the job they are assigned. A research with military police officers in the south of Minas Gerais found that operational activities are linked to higher stress indexes compared to administrative positions, because operational jobs make professionals more exposed to the risks inherent of their activity, thus directly impacting their stress and burnout levels.

Similar EE (29%) and PE (28%) indexes can be explained by the fact that EE takes place in parallel with PE perception and is a direct consequence of labor stressors, especially lack of social support and opportunities for professional development.

The analysis of the Emotional exhaustion indicator provided values lower than those reported in the literature. To Guimarães et al., EE is primarily a response to the demands of stressors that workers deal with, such as overwork, interpersonal contacts, role conflicts and high expectation levels about oneself and the organization. In line with these authors, data found in the present study may be related to prolonged permanence of these stressors in the work environment, probably resulting from the structural-organizational sphere and that expose workers to a constant state of chronic stress and burnout, in addition to the association of other situational elements, such as studying, which ends up taking one’s time for rest.

Another point that draws attention is that, in the analysis of burnout indicators in association with physical activity levels, individuals classified as physically “Active” presented higher percentages in the EE indicator classified as “Serious”. This led us to investigate these individuals isolatedly in order to understand which characteristics could be making them more vulnerable to Emotional exhaustion, since they were deemed “Active” as to physical activity level and, therefore, should be reaping the benefits of physical exercise against stressor elements.

Analyzing the profile of these professionals, a higher percentage of students was found (attending postgraduate or undergraduate courses). In this study, the “Higher education” variable showed significantly statistical correlation (p=0.038) with the Emotional exhaustion dimension. Benvides-Pereira argues that the higher the educational level, the higher the stress and burnout levels. A research conducted in Bulgaria found that cops with higher educational levels were more likely to develop the burnout syndrome.
Most variables that associated statistically with the EE indicator refer to aspects involving the individual’s socio-affective life or family context, for instance: “Something saddening”, “Recent trauma”, and “Relationship problems”. This shows the importance of these variables in influencing the perception of this indicator. In a study conducted by Haines et al.\textsuperscript{46} to assess the influence of family context on the development of the burnout syndrome in American cops, it has been found that work can be a cause of conflicts in the family environment, and that cops are among the professionals with the highest divorce rates.

Age is the factor that has been most related to burnout\textsuperscript{10}. Older people tend to have coping strategies (set of behaviors that an individual presents faced with a situation they want to change) improved with professional experience, which allows them to manage better the demands of their jobs compared to resources used by younger professionals. A study carried out with a sample of 250 federal traffic police officers reported that professionals with longer service time showed lower stress levels\textsuperscript{47}. The data obtained in the present study also reveal that service time and age influence the perception of the EE and PE indicators.

“Shift work” (p-value = 0.008) was also a variable with statistical significance related to the burnout syndrome. This type of work requires a series of physiological and psychological adaptations. There are consequences to health because shift work affects the individual’s internal clock and circadian rhythms\textsuperscript{48}. When someone works by shift, there is a progressive change that demands constant adaptation to changes in schedule (the “shift”) and in the individual’s biological clock\textsuperscript{27}.

Furthermore, the PE indicator is affected by elements concerning the professional’s personal sphere and that are linked to socio-affective matters, such as relationship problems or recent traumatic experiences; this result corroborates with the findings of another study conducted in Chile\textsuperscript{49}, which verified a negative and statistically significant relationship between Professional efficiency and the “Relationship problems” variable.

The methodology used in this study is cross-sectional, which limits results, bearing in mind that the biggest disadvantage of this type of design is the impossibility of establishing causal relations, for not proving the existence of a temporal sequence between exposure to a factor and subsequent development of a certain effect. However, despite existing limitations, it is possible to deem this study as a pioneer one, since it revealed relevant data about the occupational profile of these professionals, which may provide a basis to actions inside the institution, as well as further researches.

**Conclusion**

It is concluded that there is burnout and sedentarism prevalence in the studied institution. Most cops presented general burnout indicators classified in the “Serious” category and, with respect to physical activity level, were also classified as sedentary. Affective aspects were proven to influence their relationship with work, and conflicts within the family context are associated with risk of developing this syndrome.

Cops with operational roles are more likely to have the syndrome compared to professionals with administrative position because, in operational activities, the risk of exposure to the aggravations of the profession is higher.

It is worth considering the importance of creating strategies for the promotion of a healthier lifestyle and educational actions aimed at raising the awareness of professionals about the benefits of regular physical exercise. As a suggestion, a Program for Occupational Stress and Burnout Management, as well as operative groups, could be created, as proposed by Pichón\textsuperscript{50}, and leisure activities could be promoted so as to allow the emotional discharge of tension build up by labor activity.
The present study is expected to contribute to the adoption of health promotion strategies in the organizational context of military professionals, providing guidance to areas that need interventional actions, thus helping improve working conditions, satisfaction and quality of life, consequently decreasing the risks of triggering psychological disorders that may evolve to burnout.

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Authors’ ORCID:
Deiveskan Serra Soares: 0000-0002-0299-8586
Cristina Carvalho de Melo: 0000-0001-6757-3741
Josiane Lopes da Silva Serra Soares: 0000-0003-3977-0355
Franco Noce: 0000-0001-6751-0871

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Author address: Deiveskan Serra Soares. Av. Pres. Antonio Carlos, 6627 Campus - Pampulha - Belo Horizonte - MG - CEP [Postal code] 31270-901 E-mail: deiveskan@ufmg.br