

Stress generating factors among military police officers: a systematic review

Fatores geradores de estresse em policiais militares: revisão sistemática

Factores generadores de estrés en policías militares: revisión sistemática

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This study aimed at identifying the most common stress generating factors among military police officers, according to scientific literature. It is a systematic review conducted through the PRISMA method, in the databanks: Pubmed, Scielo and BVS, using the descriptors "Military Police" AND "Policia militar" OR "Occupational Hazard" AND "Risco ocupacional" OR "Occupational stress" AND "Estresse ocupacional", conducted in April 2015. 4,490 researchers were found, from which 4,424 were excluded after the title was read, as they did not meet the inclusion criteria. From these 66 studies, 17 were discarded due to duplicated results, and 49 were left. During the reading of the abstracts, 16 other workers were excluded because they were not completely available online. Therefore, 17 studies were left, and 07 were excluded due to the eligibility criteria. Women are the most affected by the stress at the Military Police work. In issues regarding age or time on the service, the younger or those with less time in the profession suffer less from stress-related problems at work. The high level of violence to which they are exposed is another possible influence in the high levels of stress in the studies surveyed.

Descriptors: Police; Mental health; Mental disorders; Occupational health.

Este estudo teve como objetivo identificar os fatores geradores de estresse mais recorrentes em policiais militares, descritos nas produções científicas. Trata-se de uma revisão sistemática pelo método PRISMA, realizada através das bases de dados: Pubmed, Scielo e BVS, utilizando os descritores "Military Police" AND "Policia militar" OR "Occupational hazard" AND "Risco ocupacional" OR "Occupational stress" AND "Estresse ocupacional", realizado em abril de 2015. Identificaram-se 4.490 trabalhos, dos quais 4.424 foram excluídos depois da leitura do título, por não serem elegíveis. Dos 66 estudos, 17 foram descartados por serem duplicados, restando 49 artigos. Na leitura dos resumos, foram excluídos 16, que não estavam disponíveis online de forma completa. Assim, restaram 17 estudos, com exclusão de 07 por critérios de elegibilidade. As mulheres são as mais afetadas pelo estresse no trabalho na Polícia Militar. Nas questões referentes à idade ou ao tempo de serviço, os mais novos ou com menos tempo de profissão são os que menos sofrem com os problemas relacionados ao estresse no trabalho. A elevada carga de violência à qual são expostos é outro possível indutor dos altos índices nos estudos levantados.

Descritores: Polícia; Saúde mental; Transtornos mentais; Saúde do trabalhador.

Este estudio tuvo como objetivo identificar los factores generadores de estrés más recurrentes en policías militares descritos en las producciones científicas. Se trata de una revisión sistemática por el método PRISMA, realizada a través de las bases de datos Pubmed, Scielo y BVS, utilizando los descriptores "Military Police" y "Policia Militar" u "Occupational hazard" y "Risco ocupacional" u "Occupational stress" y "Estresse ocupacional", realizado en abril de 2015. Se identificaron 4.490 trabajos, de los cuales 4.424 fueron excluidos después de la lectura del título, por no ser elegibles. De los 66 estudios, 17 fueron descartados por ser duplicados, restando 49 artículos. En la lectura de los resúmenes, fueron excluidos 16, que no estaban disponibles *online* de forma completa. Así, restaron 17 estudios, con exclusión de 7 por criterios de elegibilidad. Las mujeres son más afectadas por el estrés en el trabajo en la Policía Militar. En las cuestiones referentes a la edad o al tiempo de trabajo, los más jóvenes o con menos tiempo de profesión son los que menos sufren con los problemas relacionados al estrés del trabajo. La elevada carga de violencia a la cual son expuestos es otro posible inductor de los altos índices en los estudios levantados.

Descriptores: Policía; Salud mental; Trastornos mentales; Salud laboral.

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INTRODUCTION

Studies about stress have been receiving a lot of academic and social attention, due to the incidence and prevalence of the problem. Occupational stress has been gaining proportions due to the negative impact it causes on the physical and mental health, to social activities, to the work capacity and to the quality of life of individuals¹.

Stress reactions take place when the individual loses the ability to adapt to the work they perform due to events and emotional overloads in the affective, family, professional, and/or social aspects of life². However, the response to the problem and the symptoms it leads to depend on each individual's personality. National and international researches have pointed out that police officers are among the professionals who suffer from stress, since they are constantly exposed to danger and aggression, and frequently need to intervene in situations with human problems that involve many conflicts and tensions³.

According to the World Health Organization (WHO), working in certain military activities, as in the case of the police officer, can be linked to stress-generating factors, such as monotonous work that demands constant concentration, in turns, isolated and under the constant threat of violence and in conflict zones⁴. The same document states that there are also epidemiological evidences about the theme, such as the high rate of cardiovascular diseases, especially coronary ones and hypertension, when these professionals are compared to the general population, indicating, to a great extent, the effects of stress^{4,5}.

The officers are exposed to many different types of health problems, due to the nature of the activities they develop, the work overload and the internal and external relations to the corporation, whose organization is based on hierarchy and discipline⁴⁻⁶. These workers show higher levels of sick leave (due to emotional problems) when they notice that their work activity is dangerous.

The perception of a dangerous work and the occurrence of work accidents are not associated to absenteeism, due to both general health problems and those related to work or made more serious because of it⁷. Bibliographic surveys presented a high variation in the estimated stress levels in the work of police officers. Therefore, this study aimed at identifying the most common stress generating factors among military police officers, according to scientific literature^{8,9}.

METHOD

This is a systematic review, one of the best methods to gather information about a certain subject. To execute the research, the criteria of the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) were adopted. The PRISMA guides the formulation and writing of systematic reviews and summarizes information related to the objective of the researcher^{10,11}.

Despite the fact that PRISMA recommendations were, initially, created for the textual presentation of systematic revision of interventions in health contexts, with precision and reliability, they have been frequently used in prognostic¹² and clinical diagnostic¹³ works, as well as in trans-cultural adaptations¹⁴, measure properties¹⁵, and others¹⁶.

The question that gave support for the research and its title was based on the *Participants, interventions, comparators, outcomes and study design* (PICOS) method¹⁷, which was used to subsidise precise information on the domain of the triggering question used to conduct the research.

The research strategy used was a sequential investigation of the articles in the electronic databases: *Scielo Electronic Library Online (SciELO)*, *Biblioteca Virtual de Saúde (BVS)* and *PubMed*. The terms used in the research were based on the Science and Health descriptors (DECs), considering the following words: "Military Police" AND "Polícia militar" OR "Occupational hazard" AND "Risco ocupacional" OR "Occupational stress" AND "Estresse ocupacional".

The inclusion criteria adopted in this research were as follows: the article should be

indexed in the selected databases and integrally available in English, Spanish, or Portuguese; data filters should not be used; and there should be no restrictions in the sex and age of the research participant. Selected studies were in accordance to the following inclusion criteria: (1) quantitative, qualitative and/or revision studies and (2) studies that investigated the most common stressing factors among military police officers.

The articles were classified in order according to the following elements: title; duplication; abstract; complete and free availability of the text; reading of the text and respect to inclusion and exclusion criteria, and, later, the following data: authorship; year of publication; study sample; stress generating factors and discussion/conclusion.

Data collection took place from April 22nd, 2015, to June 5th of the same year. Data was analyzed and proofread by another researcher from October 1st to October 30th of the same year, independently and free from intervention. A consensus was found through a discussion among the proofreaders and the research team.

The first analysis was based on information found in the title and in the abstract; after that, the studies were read and integrally evaluated.

RESULTS

4,490 potentially eligible studies were found (Image 1), 207 from SciELO, 2,557 at BVS, and 1,726 at PubMed. After the title of the studies was read, 4,424 were discarded, and from the 66 remaining, 17 were excluded, as they were duplicates. Therefore, 49 studies were left.

In the next stage - the reading of the abstracts -, 16 researches were excluded because their text was not integrally available. Therefore, only 17 studies were left. They were read in their entirety, and seven were excluded as they did not comply to the first item of the eligibility level: being quantitative, qualitative and/or revision articles. The seven excluded works were one case study and six experience reports.

Therefore, only ten researches were included in the qualitative synthesis in order to attend to the inclusion criteria. They are described in table 1, which presents the evaluations of the collected data for a systematic review, including their respective variations: author, year of publication, study sample, stress-generating factors, and discussion/conclusion^{3-5, 7-9,18-21}.

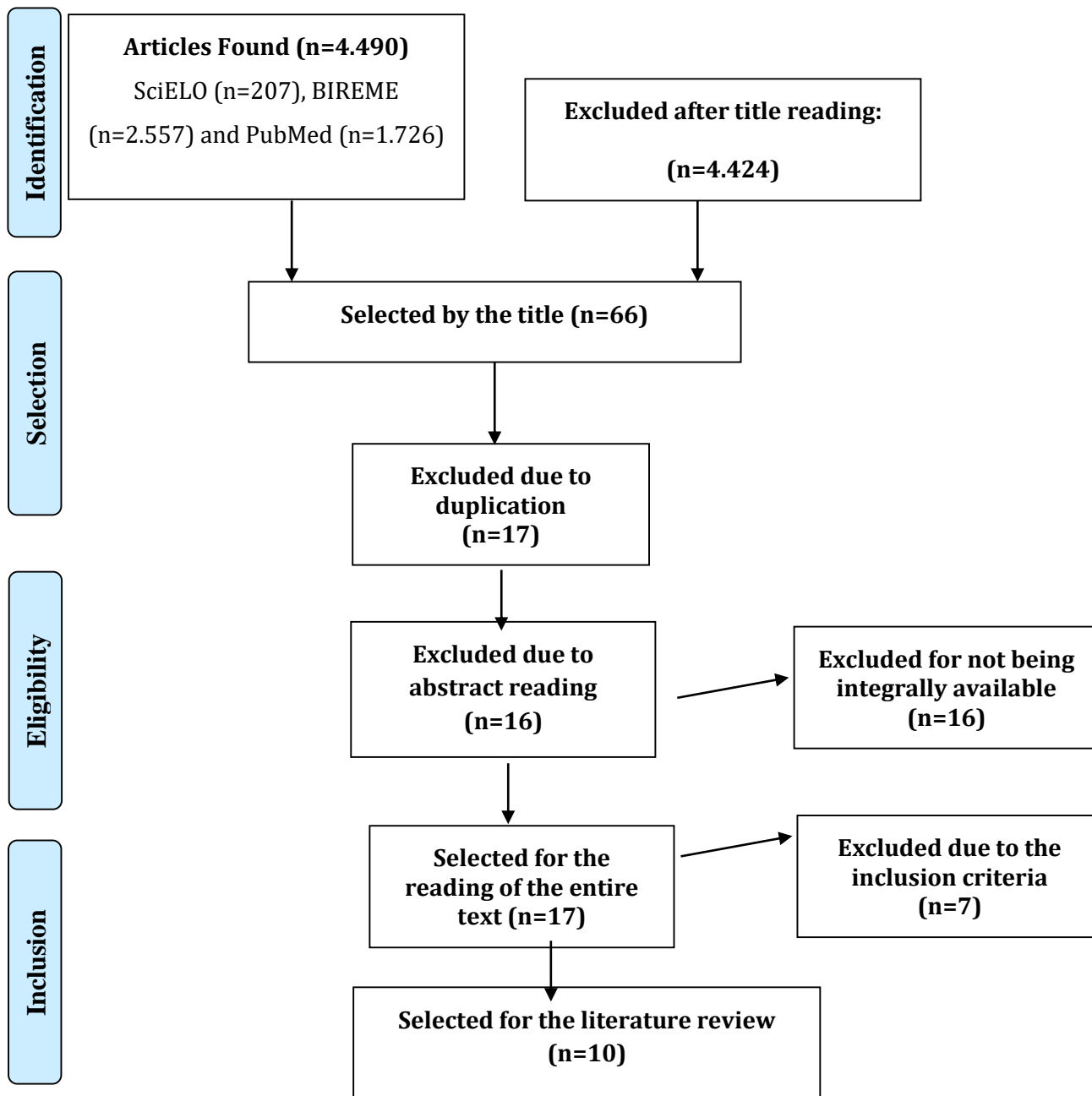


Image 1: Flowchart of articles selected. April 2015.

Table 1. Collected data from articles selected for the systematic interview, April 2015 (continues below).

Author (Year)	Sample/Approach/Location	Stressing factors	Discussion/Conclusion
Amador et al. (2002) ⁸	Theoretical article	The violent aspects of police work, the routine contact with death and violence and the constant pressure of the responsibilities are seen as daily life elements that lead to damage to the health of officers from both genders.	We understood that efforts are needed to guarantee the viability of actions that promote and prevent mental health of workers in the Military Brigade.
Costa et al. (2007) ³	Sample (n=264), from a population of 3,193 workers from the Capital Police command. Approach: descriptive and cross-sectional study - Inventory of Stress Symptoms for Adults. Natal/Rio Grande do Norte/Brazil	Dependent variables among hierarchy posts; the gender issue and stress; Length of service; female officers.	According to an analysis of the results, it can be found that the stress affects the investigated officers in all hierarchy levels, especially in the case of those high and intermediary patent officers, corporals, and soldiers. We have also found the presence of stress and its stage (alert, resistant, near-exhaustion, exhaustion), and the prevalence of physical and mental symptoms and the connection between stress and the police unit, the police rank, sex, the habit of drinking, smoking, educational level, marital status, age, time of service, and income levels. In addition, longitudinal studies should be conducted, in which population specific research instruments should be used, to provide more knowledge about the stress in the organizational environment and, especially, to identify the stressing elements.
Silva e Vieira (2008) ⁷	Samples (n=19) Military police officers Qualitative sample: exploratory and descriptive Techniques based on activity ergonomics and work psychodynamics, through the observation of the work process, document research, and individual and collective interviews. João Pessoa/Paraíba/Brazil.	In the context of military officers from the states, it is necessary to consider both organizational aspects and the risk situations to which these professionals are exposed during work, especially considering the increase in violence and precarious work conditions.	In this study, we delineated some aspects involved in the causal relation between the police activity and mental health. The delimitation of the professional category itself can contribute to the execution of other researches on the theme, as to give support to other interventions for the good of the health in the work of the police officer, whose considerations to this regard are still very limiting.

Table 1. Collected data from articles selected for the systematic interview, April 2015 (continuation).

Author (Year)	Sample/Approach/Location	Stressing factors	Discussion/Conclusion
Balakrishnamurthy e Shankar (2009)¹⁹	Sample (n=163) of police officers who participated in a training course Quantitative approach: statistical and inferential parameters, such as relative means, standard deviation, mean difference, standard error, Student's t test, critical reason, variance analysis of one isolated factor and Pearson's correlation coefficient, were used. We used the <i>Police Stress Inventory</i> protocol. Coimbatore/Tamil Nadu/India.	This study indicates a strong relation between stress and demographic variables such as age and experience level.	We can conclude that demographic variables, such as age and level of experience significantly impact in the stress level experienced by the professionals.
Oliveira e Santos (2010)²¹	Sample (n=24) military officers - male and female Quantitative approach: exploratory data survey, with descriptive research characteristics. Scale developed by the authors - 30 questions addressing issues regarding physical and emotional wearing and the perception of stress. The questions were in a 3-point likert scale. The age average as 33 years and five months, the minimum age was 18, and the maximum, 50. São Paulo/São Paulo/Brazil	Stress can be understood as a lack of balance between work demands the capacity of the workers to respnd to them. Stressing factors, such as a dangerous work environment, low control of the work process(complying with orders), frequent contact with the public (attending the general Community), long work hours (Due to the work shifts, insufficient resources, dissatisfaction with the activities and earnings, difficulty to ascend professionally, in addition to the exposure to the suffering of others and to family problems may be related to the suffering or to psychological disorders.	The results showed that participants (91,7%) almost or sometimes felt stressed. A part of them (41.7%) reported having already acted on impulse in some work situation; 88.3% stated that they Always or sometimes felt emotionally tired after a work day; 62,5% said that sometimes they noticed that they were being aggressive at work; 20.8% stated that they have thought about suicide, and 8.3% said that they never feel fulfilled in the profession. New studies are recommended.
Minayo et al. (2011)⁹	Sample (n=1.458) police officers (PO) and (n=1.108) military police officers (MP), male and female. Qualitative approach: focal groups with 143 MP/PO and 18 interviews with managers from both corporations. Rio de Janeiro/Rio de Janeiro/Brazil.	Stood out the "reactive formation", especially in cases in which the officers commit violence or watch scenes of violence that result in death. One of them is the banalization of inter-currencies; another is the ironic treatment of the situations of confrontation.	The relation between physical illness, work overload, and psychic suffering was clearly identified among the workers in both corporations. However, the psychic suffering (psychosomatic, depressive, and anxiety symptoms) was more intense among military police officers (33.6%) than among regular police officers (20.3%) (p<001).

Table 1. Collected data from articles selected for the systematic interview, April 2015 (continuation).

Author (Year)	Sample/Approach/Location	Stressing factors	Discussion/Conclusion
Souza et al. (2012) ⁵	Sample (n=1,700) military officers, male and female Quantitative approach: Self-reported Questionnaire (SRQ-20) Social Support Scale. Rio de Janeiro/Brazil.	The nature of the activities that they carry out while exercising the military police officer profession.	The elaborated logistical model showed that factors such as the capacity to react to difficult situations, the degree of satisfaction with life, the commitment of physical and mental health, the excessive work load and the constant exposure to stress and victimization, have a strong influence on the psychic suffering of this group of professionals.
Bezerra et al. (2013) ⁴	Samples (n=42) female military police officers Qualitative approach (interviews, focal groups, and observation) Rio de Janeiro/Rio de Janeiro/Brazil.	Gender discrimination and harassment are seen as important stressing factors.	Psychic suffering is stronger among officers in leadership positions, and the operational activities are seen as more stressful due to the risk they present. Physical exercises are seen as the most effective way to prevent the consequences of stress. Therefore, although women have already been present in the military police force for many years, the organization and its management are practically entirely conducted from a masculine perspective, and investments for the prevention of stress are necessary, considering gender issues.
Melo et al. (2014) ²⁰	Sample (n=1,069) subjects, 583 police officers who participated in the training course and 486 active officers. Quantitative approach: correlational descriptive study <i>Short Form Health Survey (SF-36) and Occupational Stress Indicators (OSI).</i> Santa Catarina/Brazil	This can be understood as a lack of balance between the demands of work and the control of their activities.	The beginners in the police force present better physical health and mental conditions than officers who are active; the conditions of workers who perform operational tasks, when compared to those who are in better health conditions and work in administrative activities, have a much stronger effect in their occupational stress, physical appearance, pain, general health, vitality, social and emotional functions, and mental health.
Ma et al. (2015) ¹⁸	Sample (n=365) military police (MP) officers, male and female Quantitative approach: statistical and descriptive <i>Spielberger Police Stress</i> and sociodemographic information From 27 to 66 years of age New York/ New York/United States of America	In certain turns, work generates stress: morning (62.1% at 7:00 a.m. and 37.9% at 8:00 a.m.); afternoon (between 12:00 p.m. and 7: 59 p.m. - all workers in the afternoon shift start working at 4:00 p.m.); and night shift (20:00-3h59 - all workers in the night shift started working at 8:00 p.m.). The typical work schedule included four days of work, four days of rest, four days of work and three days of rest.	During the previous month and year, the officers who worked in the afternoon and night shifts reported more stressing events than day officers - administrative/professional pressure and physical/psychological danger (p<0.05). These differences did not depend on the age, sex, race, or on the police rank. The frequency of these stressing events was not significantly different among officers who worked in the day and in the night shifts. Concluding, workers with non-remunerated shifts may be exposed to more stressful events in this cohort. Interventions to diminish or manage police stress that has been adapted according to changes may be considered.

DISCUSSION

It was found that the scientific production about stress among police officers is scarce, despite the growing interest on the subject. The main reasons for exclusion were the fact that the same article was repeated in many bases, and texts that were not entirely available. This makes it clear how some periodicals indexed in these databases limit the advance of science and its free circulation.

Among the studies found on stress, the most common possible factors leading to it were: violence within and outside the military corporation^{3-5,8,9,21}; working in shifts^{3,4,6,18}; association between stress and sociodemographic variables^{3,19,20}; work demands - organization of work^{3-8,20,21}, and gender discrimination^{3,4,6,8}.

A study conducted with officer from the Tactical Force and the street teams regarding mental health, when it comes to the perception of stress in the practice of the profession, found results that indicated that most police officers (91.7%) feel stressed²¹.

"Work demands - organization of work"^{3-8,20,21} was the item most commonly referred by the workers who participated in the research. The studies indicated that there are pressures and challenges with regards to the prescribed organization of police work, which imposes rigorous limits to the expression of subjectivity of officers at work. These officers have little opportunity to creatively and healthily deal with their suffering, due to the lack of support from the state, which leads them to being worn off⁹.

To compensate for the small salaries, military police officers work in other activities, the so-called "odd jobs", to complement their monthly income^{7,21}. Mostly, they work as private security, in private events or in commercial establishments. That leads police officers, especially males, to spend their free time in other types of paid work⁷. Regarding female worker, most of them use their free time for study, household chores, and leisure.

The issues regarding hierarchy were also mentioned in many studies and pointed out as one of the sources of stress, according to reports of officers being diminished by

their superiors. This issue is also connected to the desire to improve one's rank, which requires a lot of dedication and effort^{3-5,7-9}. These ranks are very desired and the professionals compete for them. Since only a few can actually get the positions, they feel anxious and frustrated about them⁴.

In this setting, the high workload, associated to social and family factors, from contexts external to the organization, is a concerning issue. The unique workload, managed by the military organization, jeopardizes the mental and physical health of the workers. During service, police officers need exclusive dedication and to be permanently alert for any dangerous situations, leading to a diminution in their hours of sleep and rest.

Police violence was the second most commonly mentioned item as a part of these mechanisms, as it expresses the psychic suffering of the professionals, which is originated from the territory of violence in the organization of work, and by organizational and social pressures^{3-5,8,9,21}.

In a questionnaire answered by police officers that play different roles within the organization, they were asked to answer if they felt stressed "always", "sometimes", or "never". The highest percentage of officer who feel stressed "sometimes" or "always" (92.3%) was in the group of street officers²¹. The work of these officers is directly associated to more dangerous activities, when compared to those who work within the corporation. That leads to a higher level of alertness and, consequently, of anxiety.

A study about police officers showed that officers who work in the afternoon and night shifts mentioned a higher number of stressing factors at work than those who work in the day shift²¹. Causes that lead to fatigue at work are numerous and, in general, stem from the associations between bad work conditions, working in shifts, and the mismatch between biological rhythm and work hours⁶.

Other factors that may be associated to stress, according to the officers, are the violence in the police work, the routine dealings with death and violence, and the

constant pressure of responsibilities, since these are elements in the daily work that harm the health of these professionals⁸. However, the greater issue about stress involves how it is seen by the police officers. Many consider it to be a characteristic of the work they are doing and that it will be reversed. On the other hand, some individuals that face stress as a great problem have serious difficulties to deal with it.

Gender discrimination was mentioned and described in four researches^{3,4,6,8}. One of them specifically points at gender prejudice and discrimination as a stressing factor. The female officers stated that they feel evaluated not only due to their ranks, but also due to their sex, and that there is a big difference between genders during the distribution of activities, indicating that the men do not trust their capacity. Moral and sexual harassments are also mentioned by the female officers, who have difficulties in coming up with defense strategies⁴.

They also mentioned the high work load, and the lack of adequate infrastructure, of personnel, and of work material, as sources of stress. In the case of workers who work in the streets, there is an issue of physical demands. For the women, the defensive equipment, such as the rifles, are heavy, leading them to have difficulties in holding and handling them for long periods of time. Many studies mentioned working under the sun as an adverse condition, as well as places with no access to water or adequate bathrooms, which becomes even more complicated during menstruation⁴.

The association between stress and sociodemographic variables^{3,19,20} was another finding. Officers who deal with dangerous tasks state that a certain level of stress is positive and necessary for the service to be carried out⁵. This reality is very present in the daily lives of younger officers, and of those who have not worked in the corporation for long. They state to like the stress, and that it is a source of encouragement to do their work. On the other hand, older officers and those who are in the corporation for longer, consider this as a bad thing, and relate the stress at work to health problems and to the

difficulty of relating within and outside work^{3,8,18-20}.

The stress generates difficulties regarding professional and personal issues²². In some cases, it leads to isolation, insomnia⁶, and depression^{4,7,8,19}. National and international researches present data related to the police officers who isolate themselves from social interaction to protect their family members, trying to not be affected by the risks of their professional activities^{4,7,8}.

Many officers who participate in studies change their answers to the questionnaires, afraid to be punished or even fired from their roles, even after signing the free and informed consent form, which guarantees anonymity. This happens because they are punished when they question their superiors about any attitude related to their work performance^{5,21,23}.

Some researchers state that the answers of the participants do not exactly correspond to reality²¹. When the instrument is more subjective, requiring the participant to be "sincere", it has to consider the possibility that some answers were biased in some way. However, this data should also be seen as representative in itself, showing how these officers feel and perceive their professional activities.

CONCLUSION

The use of the PRISMA method in this research required employing knowledge from many different fields, such as Psychology, Collective Health, and Sociology, together with the directives of specialized literature, used as a theoretical framework for the elaboration of a proposal aimed at researching more deeply into the daily life of military police officers, aiming to give support to the studies developed by the Laboratory of Health, Work, and Ergonomics (LASTE).

The results of the research showed a lack of studies targeted at further investigating and understanding the sources of stress among police officers. This study showed that the professional activity of the military police officer is extremely stressful. Consequently, it is necessary to further study

the theme, since the researches developed so far are not enough to describe this reality.

Females are more affected by stress in MP work. In issues regarding age or time on the service, the younger or those with less time in the profession suffer less from stress-related problems. One possible cause for that is the compatibility of some stressing factors to the nature of the profession, since they are necessary for the officers to execute their activities properly. The high level of violence to which they are exposed is another possible influence in the high levels of stress.

The military police officer profession should be seen as a very important one to society. Based on the results shown, it can be noted that the professionals in the area are exposed to many stress-triggering factors, and that affects their life conditions and the performance of their professional activities.

Therefore, considering all aspects addressed in this study, it is clear that new studies on the factors that generate and increase stress among military police officers are necessary, in addition to the further investigation of organizational issues and interpersonal relations.

The limitations of this study are related to the instruments used by the studies included in the revision, since the research was limited to an analysis of issues related to stress factors. New revision studies are suggested, in which a meta-analysis can be included to present evidences and characteristics of the research instruments used.

In turn, this study aims to offer support to studies that want to have military police officers as their population, aiding researchers and health professionals in their investigation practices.

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CONTRIBUTIONS

Mayelle Tayana Marinho took part in the conception of the text, data collection, source organization and analysis. **Marina Batista Chaves Azevedo de Souza** took part in the conception of the text, data collection, source organization, analysis, and final review. **Mairana Maria Angelica Santos** took part in the conception of the text and in data collection. **Maísa Alves de Albuquerque da Cruz** contributed to the conception of the text and in data collection. **Barbara Iansã de Lima Barroso** took part in the text conception, data collection, source organization, analysis, and final review.

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