



## Effects of Physical Activity on the Mental Health of Prison Officers in Brazil: Narrative Review

**Raquel da Franca\***

*Multiprofessional Residency in Family Health, Family Health State Foundation, Brazil*

**\*Corresponding Author:** Raquel da Franca, Multiprofessional Residency in Family Health, Family Health State Foundation, Brazil.

**Received:** August 26, 2021

**Published:** October 19, 2021

© All rights are reserved by **Raquel da Franca.**

### Abstract

Prison officers in Brazil play a fundamental role in the functioning of prison institutions, as they deal directly with the country's prison population. However, there is a scarcity of studies addressing the mental health aspects of these professionals in their work environments. The objective of this study was to investigate the effects of physical activity on the mental aspects of prison officers in Brazil. This is an integrative review in which searches were performed for articles between the years 2000 to 2020 indexed in the SciELO and PUBMED databases and academic google, with the descriptors in English from the Medical Subject Headings (MESH) and Portuguese found in the Science Descriptors of Health (DECS). Of the 75 articles found, only 4 (n = 561) met the eligibility criteria. It was observed from the studies found that the main causes of psychological distress of these professionals are related to insomnia, fatigue, constant psychological pressure, violence, frequent alcohol consumption, low mood and constant worry. However, most prison officers in Brazil also do not practice physical activities, which may be directly related to the prevalence of psychological distress in this public. In the literature, studies have shown that the improvement in mental health aspects is related to the level of physical activity, as it provides greater encouragement, improves self-esteem, reduces tension in work relationships, muscle fatigue and helps to control anxiety, as well as of depression. Physical activity is an efficient strategy to reduce psychological damage caused by the work environment of prison officers in Brazil.

**Keywords:** Physical Activity; Prison Officers; Mental Health; Quality of Life; Prison; Violence

### Introduction

Brazil has the fourth largest prison population in the world, with approximately 678,000 prisoners nationwide. According to data from the National Penitentiary Department (DEPEN), there was an exponential increase of 511% in the number of inmates between 1990 and 2012 alone [1]. In contrast to this, the number of places offered is disproportionate to the number of inmates, which leads to overcrowding in prisons [2].

Prison agents are the mediators between the prison system and society [3] and are also important actors for public safety. These

professionals have their lives exposed to various situations such as intimidation, verbal and physical aggression and constant death threats, which can generate psychological dysfunction and physical problems in these individuals [4].

It is already evident that the work of prison guard is considered a risky and stressful profession. Currently, studies have researched the mental and physical health of prison officers in Brazil, showing that the situations of suffering they constantly suffer can lead to illness and exclusion [5].

In recent years, some studies have demonstrated the importance of the practice of physical activities related to the mental health of prison officers, because as their level of physical activity increases, psychological distress factors are consequently reduced or stabilized. Thus, a healthy lifestyle, mainly containing the practice of physical exercise in daily life, can help the prison officer to work on issues related to their physical and mental health in the context of their work [6].

This is in accordance with research which showed that scheduled physical activity can raise mood and reduce tension caused by stressful situations, socialization, cognitive functions, in addition to promoting improved self-esteem, self-confidence and controlling the level of anxiety and depression [7].

Knowing that studies dealing with prison officers are scarce in Brazil, and the need for greater interventions related to this, due to the level of mental illness of these professionals, which is increasingly prevalent and recurrent, further studies should investigate which factors cause psychological distress to these individuals and how much the practice of physical activity can help them in relation to their mental health.

Therefore, the objective of this study was to investigate the effects of physical activity on the mental aspects of prison officers in Brazil.

## Materials and Methods

This study is an integrative literature review, with a quantitative approach, which consists of six steps, namely: theme identification and hypothesis selection; establishment of criteria for inclusion and exclusion of studies/sampling or searching the scientific literature; definition of the information to be extracted from the selected studies; evaluation of included studies; interpretation of results; synthesis of knowledge. To construct the research question, the PICO tool was used. Searches for articles were performed in the following databases: PubMed (National Library of Medicine) and SciELO (Scientific Electronic Library Online). The descriptors in Portuguese were applied, "Atividade física", "Agentes penitenciários", "Saúde Mental", "Qualidade de vida", "Prisão", "Violência", as well as "Physical activity", "Prison officers", "Mental health", "Quality of life", "Prison" and "Violence" in English and "Actividad física", "Funcionarios de prisiones", "Salud mental", "Calidad de

vida", "Prisión", "Violencia" in Spanish, should be appear in the MESH (Medical Subject Headings) and in the DECS (Descriptors in Health Sciences) from BIREME. In addition, Google Scholar articles were searched. The search period for articles took place between 2000 and 2020, where only cross-sectional studies were including. The analysis period ended in February 2021. The Boolean operator 'AND' was also used.

## Inclusion criteria

- Studies which intervened with prison officers;
- Agents of both sexes;
- Age 18 years or older;
- Studies that had as outcomes: to identify which are the major clinical psychic manifestations present in prison officers and what are the effects of physical activity under these conditions of health and quality of life;
- Studies that had as intervention at least one type of physical exercise, regardless of modality, duration or intensity;
- Transverse studies.

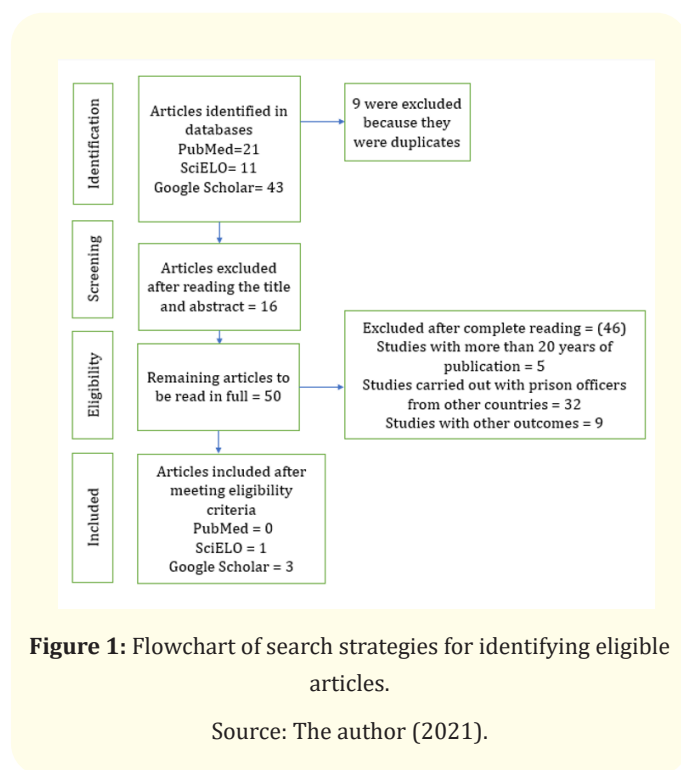
## Exclusion criteria

- Studies with more than 20 years of publication;
- Studies that had other outcomes as a central focus and studies published in another country and that have studied PA from other countries.

## Results

Initially, 75 articles were identified in the databases. After applying the filters, evaluating duplicates and reading the title and abstract, 25 articles were excluded. After a complete reading of the eligible studies, only 4 articles (n = 561) were included, as they met the eligibility criteria for this study. The others excluded contained: 5 articles with more than 20 years of publication, 32 studies that evaluated the mental health of prison officers from other countries and in other countries, and 9 articles had other outcomes. These data are shown in figure 1.

Regarding the characteristics of the included studies, the results showed that 75% of the articles are indexed in the Google Scholar repository and only 25% in the SciELO database. Table 1 describes the titles of the articles, author's name and year of publication, as



well as the journal where the articles were published, indexing base and type of study.

Table 2, on the other hand, presents data related to the characteristics of the prison officers who made up the samples of the included studies. The data collected were total sample value, age, sex and the main results obtained from each study and what was analyzed.

In both studies, the prevalence of male prison officers was higher when compared to females. In addition, most agents of both sexes reported at least one complaint regarding their physical and mental health and also the lack of physical activity. Another very common aspect among PA was frequent alcohol consumption.

## Discussion

The present study investigated aspects related to the mental health of prison officers in Brazil and the effects of physical activity on these individuals. The results showed that there is a scarcity of studies in the country regarding this theme. In addition, the data showed that the activities that prison officers develop in prisons

Number	Article title	Author and year	Journal or Repository	Indexing	Kind of study
1	Work and prison: a study with prison officers in the Metropolitan Region of Salvador, Brazil	Fernandes, <i>et al.</i> (2002)	Public Health Notebooks	SciELO	Descriptive-analytical cross-sectional study
2	Physical activity and other aspects related to the health of prison officers in Londrina - PR	Reichert, <i>et al.</i> (2012)	Brazilian Journal of Physical Activity and Health	Latindex; Lilks; Academic Google; DOAJ; REDIB	Cross-sectional and descriptive study
3	Promotion of mental health in prison security officers: partial results	Amorin, <i>et al.</i> (2014)	Academic Google	Academic Google	Cross-sectional and descriptive study
4	Physical activity and mental health status of prison officers	Silva and Coutinho (2016)	Academic Google	Academic Google	Cross-sectional, observational, descriptive and analytical study

**Table 1:** Characteristics of the studies found.

Source: The author (2021).

Number	Sample	Age	Sex	Main results
1	311	40.2 ± 7.7	M = 81.3% F = 18.7%	68.5% consumed alcohol, the prevalence of MPD was equivalent to 30.7%. At least 29.9% reported some level of stress. About 91.6% had complaints related to mental and physical health.
2	75	32.9 ± 6.2	M = 92% F = 8%	Data on quality of life were considered low, as only about 3.9% of respondents considered their quality of life to be good. Already referring to EPR that Avali to the level of psychological health of criteria 1-80, the data that stood out were: 14.3 for independence; 15.2 for empathy; 16.1 for positive acceptance for change; 17.1 for sociability and 18.2 for good mood. These were values considered as "very low" for the level of resilience in the work environment.
3	120	37.2 ± 8.5	M = 80% F = 20%	Only 37.3% of prison officers performed physical activity. Of the total number of respondents, a part was identified with the presence of MPD (about 21.3%) and 71.2% made regular use of alcoholic beverages. There was a significant association between physical inactivity, the constant presence of alcohol consumption and psychological disorders such as insomnia, fatigue, irritability, forgetfulness and worry ( $p = 0.03$ ).
4	55	35.7 ± 6.1	M = 94.5% F = 5.5%	Of the agents, more than half had sleep disorders (54.5%) and 50.9% were classified as sedentary.

**Table 2:** Sample characteristics.

Caption: RPE = Pillars of Resilience Scale; ± = Standard deviation; M = male; F = female; MPD = minor psychic disturbances. Source: the author (2021).

are exhausting, psychologically, physically and socially stressful [8,10,18]. Therefore, larger studies are needed to investigate aspects related to the physical and mental health of these public safety professionals, as most of them do not feel safe in the work environment [15]. This result is directly linked to physical and verbal aggressions which they suffer constantly [1,2].

Corroborating these results, life expectancy among the general population is up to 73 years, while that of the AP is up to 45 years [7]. However, other alarming data are the frequent presence of alcohol consumption, associated with physical inactivity and a higher prevalence of physical and psychological symptoms resulting from work in prisons. The scientific literature has shown that the behavioral aspects investigated in this study are strongly associated with health [5,12].

In the study by Fernandes, *et al.* (2002), physical inactivity was strongly associated with persistent stress in prison officers, espe-

cially females. As in this study, the relationship of women who are PA compared to the male audience is quite divergent, as men represent the majority of PA [8].

However, even PA women being the minority, they tend to be more stressed in these environments due to cultural issues that also impact their daily work [9] such as the domestic services they perform after work, as well as caring for their children, which consequently reduce her leisure time and to practice physical activities, which could help her with regard to stress [6].

Also, according to these authors, the prevalence of PA with at least one complaint related to mental health, mainly of MPD, was equivalent to 91.6%, a very high rate for indicators of mental exhaustion [6]. On the other hand, Reichert, *et al.* (2012) sought to investigate the quality of life of PAs in their study, in addition to aspects related to resilience through a Pillars of Resilience Scale containing numbers from 1 to 80 [4].

It is noteworthy because only 3.9% of respondents considered their quality of life to be good and, in relation to EPR, the values were 17.1 for sociability and 18.2 for good humor, being considered "very low" for the level of resilience in the work environment and may be directly linked to the stress level of PAs at work [3,4].

Amorin., *et al.* (2014) showed that only 37.3% of prison officers performed physical activity. Of the total number of respondents, a part was identified with the presence of MPD (approximately 21.3%) and 71.2% made regular use of alcoholic beverages. There was a significant association between physical inactivity, the constant presence of alcohol consumption and psychological disorders such as insomnia, fatigue, irritability, forgetfulness and worry equivalent to  $p = 0.03$  [2].

In this sense, understanding the relationship between programmed physical activity and psychological and biological aspects is essential [1,3]. According to Mello and Esteves (2005), the execution of a physical activity program should be indicated for individuals who abuse alcohol, as this practice helps in the general improvement of the body's functioning [2,12], and also in the functions bodily harmed by the chronic use of this substance, such as cognitive functions and liver metabolism [14].

There is evidence that aerobic activity has a positive impact on aspects related to mood and anxiety [12,17]. There are also studies that state that the systematic practice of physical activity, in general, is associated with few symptoms of disorders such as depression and anxiety [13].

Knowing that physical inactivity is a factor that can hinder the performance of the PA in the performance of their tasks, in addition to generating consequences for their physical and mental health [2,4], the involvement of PAs with the practice of physical activities, as this practice provides benefits not only in relation to physical fitness, but also aimed at psychological and sociocultural aspects [2,3].

However, although the results demonstrate the beneficial effects that physical activity provides on cognitive, psychic and biological functions in prison officers [3,4,12], there is still a need for further research in this area, especially in Brazil [16]. However, other factors that need to be better evaluated in addition to these benefits of physical activity are the influence of intensity, duration, frequency,

type of exercise and the combination of aerobic and strength exercise on the psychobiological aspects of agent's jailers [12,13].

## Conclusion

Current studies show negative results on aspects of mental health in prison officers in Brazil, and many of these aspects are related to stressors in the work environment, together with physical inactivity. It is believed that the data from this work can stimulate the development of new studies on the subject and public policies for health promotion among prison officers in the country.

Thus, physical activity is related to improvement in the mental health aspects of prison officers, as it provides greater stimulation, improves self-esteem, reduces tension in work relationships, muscle fatigue and also helps to control anxiety and depression. The constant practice of this activity is an efficient strategy to reduce the psychological damage caused by the work environment of prison officers in Brazil.

## Conflict of Interest

The author declares no conflicts of interest.

## Bibliography

1. Silva JF and Coutinho GF. "Physical activity and mental health status of prison officers". *Realize 1.2* (2016): 82-86.
2. Amorin CG., *et al.* "Promotion of mental health in prison security officers: partial results". *Departamento de Psicologia 1.5* (2014): 1-5.
3. Bezerra CM., *et al.* "Psychic suffering and stress in the work of prison officers: a review of the literature". *Ciência and Saúde Coletiva 21-7* (2016): 2135-2146.
4. Reichert FF., *et al.* "Physical activity and other aspects related to the health of prison officers in Londrina – PR". *Revista Brasileira de Atividade Física e Saúde 12.3* (2012): 4-11.
5. Tschiedel RM and Monteiro JK. "Pleasure and suffering in the work of security agents penitentiary". *Estudos de Psicologia 18.3* (2013): 527-535.
6. Fernandes RC., *et al.* "Work and prison: a study with prison officers from the Metropolitan Region of Salvador, Brazil". *Cadernos de Saúde Pública 18.3* (2002): 807-816.

7. Silva TA and Sune FR. "Level of Stress and Physical Activity in Administrative Penitentiary Agents of SUSEPE - 10th DPR". *SUSEPE* 1.1 (2010) 1-18.
8. Taets A R F. "Em trânsito: o cotidiano de algumas agentes de segurança penitenciária no estado de São Paulo". *Mediações* 18.2 (2013): 246-259.
9. Miyamoto Y and Krohling A. "Sistema prisional brasileiro sob a perspectiva de gênero: invisibilidade e desigualdade da mulher encarcerada". *Direito, Estado e Sociedade* 40 (2012): 223-241.
10. Barcinski M., *et al.* "Entre vigiar e punir: Ambiguidades e contradições do agente penitenciário". *Ciência e Saúde Coletiva* 19.7 (2013): 2245-2254.
11. Carlson JR., *et al.* "Correctional officer burnout and stress: Does gender matter?" *The Prison Journal* 83.277 (2003): 277-286.
12. Meloo MT., *et al.* "O exercício físico e os aspectos psicobiológicos". *Revista Brasileira de Medicina do Esporte* 11.3 (2005): 203-207.
13. Figueiró RA., *et al.* "Controle a Céu Aberto: Medo e Processos de Subjetivação no Cotidiano de Agentes Penitenciários". *Psicologia: Ciência e Profissão* 38.2 (2018): 131-143.
14. Matins OA. "Efeitos do consumo de bebidas alcóolicas no organismo – uma revisão". *Revista Eletrônica de Educação e Ciência* 3.2 (2013): 2237-3462.
15. Martins MB., *et al.* "Relação da atividade física e sofrimento psíquico em agentes penitenciários no município de porto Velho-Rondônia". *Revista CPAQV – Centro de Pesquisas Avançadas em Qualidade de Vida* 13.1 (2021): 2-11.
16. Marques GS., *et al.* "Saúde mental de agentes penitenciários no Brasil: uma revisão sistemática da literatura". *Diálogo* 38 (2018): 89-98.
17. Pereira SBA., *et al.* "Valiação do Nível de Atividade Física de Agentes Penitenciários da Penitenciária Estadual de Francisco Beltrão-Paraná". *Brazilian Journal of Development*, Curitiba 5.10 (2019): 19029-19043.
18. Rumin CR., *et al.* "O Sofrimento Psíquico no Trabalho de Vigilância em Prisões". *Psicologia, Ciência e Profissão* 30.1 (2010): 200-211.

**Volume 4 Issue 11 November 2021**

**© All rights are reserved by Raquel da Franca.**