



Absenteism in the professional context of Safety Penitentiary Agents in relation to aging

Absenteísmo no contexto profissional dos Agentes de Segurança Penitenciária em relação ao envelhecimento

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ABSTRACT

To determine the main causes of absenteeism due to health problems among Correctional Officers (COs) and relate them to aging. A quantitative, observational, cross-sectional study, by means of document analysis, carried out in male and female penitentiaries in the interior of the state of São Paulo. The data was analyzed using SPSS software with a 5% significance level. The sample consisted of 79 COs with a mean age of 41.3 years, a mean time worked of 11.5 years, and a prevalence of absenteeism of 18.3%. The main causes of absenteeism were related to emotional conditions, orthopedic problems, and gastrointestinal disorders. No correlation was found between chronological age and the number of absences. The data obtained is very similar to other national and international studies; however, there is a lack of scientific evidence addressing this class of workers, who need improvements in their daily professional practice, so that they can perform their duties with greater dignity.

Keywords: Absenteeism. Aging. Occupational health.

RESUMO

Determinar as principais causas de absenteísmo por problemas de saúde em Agentes de Segurança Penitenciária (ASPs) e relacioná-las com o envelhecimento. Estudo quantitativo, observacional e transversal, por meio de análise documental, realizado em penitenciárias masculina e feminina no interior paulista. Os dados foram analisados no software SPSS com significância de 5%. A amostra foi constituída de 79 ASPs com média de idade de 41,3 anos, tempo médio trabalhado de 11,5 anos e prevalência de absenteísmo de 18,3%. As principais causas de absenteísmo foram relacionadas a quadros emocionais, problemas ortopédicos e distúrbios gastrintestinais. Não se encontrou correlação entre idade cronológica e quantidade de afastamentos. Os dados obtidos muito se assemelham a outros estudos nacionais e internacionais, entretanto há escassez de evidências científicas abordando essa classe de trabalhadores, que carece de melhorias no cotidiano de seu exercício profissional, a fim de que desempenhe suas funções com maior dignidade.

Palavras-chave: Absenteísmo. Envelhecimento. Saúde do trabalhador.

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INTRODUCTION

Humans spend one third of their life at work¹. For this reason, dissatisfaction in the professional environment can lead to physical and emotional problems, which negatively impact family life and social relationships². Thus, one can say that work is inherent to the human being (except for incapacitating conditions) and, for greater satisfaction and productivity, requires good conditions, such as a pleasant and organized environment, so that man can positively perform his social function¹⁻³.

When work is no longer a source of pleasure, it causes physical and emotional exhaustion and becomes a source of disease³. Among the ten professions that cause the most stress, four are related to public security, with Correctional Officers CO(s) occupying the second position in this ranking⁴. The CO(s), as the name suggests, is the professional who serves in the security sector in prisons and works in an environment prone to conflict and tension. The infrastructure of prisons would be enough to create a hostile environment: bars, cells, high walls, heavy gates, insalubrity, lack of equipment and materials; but it still houses convicts who have committed different types of crimes and routinely seek to break the institutional rules through fights, riots, rebellions, and many of these people may have mental disorders^{3,5-8}. Certainly such factors contribute to a higher risk of suicide among

these professionals, when compared to the general population⁹.

There is a lack of preparation in the training of these professionals and a numerical disproportion between CO(s) and convicts. The shortage of employees varies between 10% and 50% and is related not only to the lack of hiring, but also to physical (gastrointestinal or osteo-articular, for example) and emotional stress of the workers, i.e., such problems cause professional absenteeism. These factors impair the quality of the service provided and increase the activities of the working CO(s), causing them to be more overloaded^{5,8,9}.

The physical and/or emotional suffering resulting from dissatisfaction with work, such as overload of tasks and professional devaluation, added to the individual's own health conditions and family conflicts can culminate in diseases that lead to incapacity for work and, in turn, leave from work, also called "absenteeism"¹⁰⁻¹². Absenteeism consists of the absence of the worker from work; besides the reasons of illness (proven or not), it can be related to delays, early leaves or absence due to financial factors, transportation difficulties, institutional norms and personal reasons. Absenteeism-sickness, in turn, is the result of illness and accidental injury due to an individual's incapacity and accounts for the duration of the sick leave, affecting productivity and the quality of the work¹³⁻¹⁸.

A survey conducted with municipal civil servants in 2009 identified significantly higher rates of absenteeism among women and showed that the prevalence of absenteeism decreased with increasing age. Diagnosed musculoskeletal morbidities (repetitive strain injury - RSI, work-related musculoskeletal disorders - WMSD, and low back pain), psychopathologies (depression and anxiety), perceived mental fatigue, and common mental disorder were conditions significantly associated with absenteeism-sickness. In addition, dissatisfaction with work capacity and inadequate working conditions also showed a statistically significant relationship¹⁹. Oenning *et al.*¹⁶, on the other hand, investigated risk factors for absenteeism among oil company workers and pointed out a significant association with sick leave and with the variables: gender, smoking, sleep, and job satisfaction. According to this research, workers with higher rates of absences due to sick leave were more likely to be female (2.6 times); to be smokers (2.0 times); to be former smokers (1.8 times); to report abnormal sleep (2.2 times); and to be dissatisfied with their work (10.5 times). Whether by the presence of one of these factors, or by their association, it is known that there is a higher prevalence of absenteeism due to illness among workers who perform inspection and surveillance activities, therefore among the CO(s)¹¹.

A brief association between absenteeism-sickness and population aging may suggest that, as the years go by, there

will be an increase in the number of leaves from work due to pathologies, since, in the general population, this already occurs especially due to the so-called "non-transmissible chronic diseases", such as arterial hypertension, arteriosclerosis, and type 2 diabetes mellitus. This fact brings up the concern with functional aging, which brings about the loss of capacity to perform the work^{12,20}. It is important to note that in addition to the natural conditions of aging, CO(s) are still faced with the challenges of their own profession²¹: described a significant correlation between frequency and intensity of stress and functional capacity, that is, greater exposure to stressful events decreases the functionality, autonomy and independence of individuals, so that functional aging precedes chronological aging²¹.

Healthy aging requires maintenance of the biological, psychological, spiritual, and social dimensions. Regarding the work environment, its contribution can be given by establishing balanced routines and work schedules, the possibility of negotiating shifts and schedules, good coexistence with peers and superiors, for example¹³.

Thus, it was assumed that the professional activity of CO(s), due to its characteristics, may predispose to early functional aging. Moreover, it is believed that the main causes of absence from work of CO(s) are related to health problems, which would need to be highlighted in order to promote health actions appropriate to this professional category.

Therefore, this research set out to answer the following question, "What are the main causes of absenteeism due to illness in correctional officers and their relationship to aging?"

METHODS

Quantitative, observational and cross-sectional study, carried out by means of document analysis. CO(s) from two penitentiaries were studied: the female and male ones in a city in the interior of the state of São Paulo. The sample was by convenience, obtained from records of the human resources medical records and carried out in 2017, considering all absences that year due to illness according to the International Code of Diseases (ICD).

The variables analyzed were: gender, age, education, marital status, time in the profession, main health problems that led to the leaves, days of leaves, ICDs, total blocks of leaves in a year, and type of activity. There are three types of activities performed by this population of CO(s) - wall operative, internal operative or administrative:

- Wall operative: works on the wall, watching for escapes; has no contact with convicts and uses firearms;
- Internal operative: has direct contact with sentenced persons, is involved in surveillance, monitoring and searches and does not use firearms to carry out

his activities, but, when necessary, may resort to the truncheon and tonfa as a means of defense and immobilization;

- Administrative: works in the administration part; only has contact with the convicts who clean the place.

For easier analysis, the age range was divided into under 35 and equal to or over 35 years; the length of service equal to or under ten years and over ten years; and the total of blocks of absences into equal to or under two and over two. As for the workplace in the penitentiaries, the CO(s) were classified as wall/administrative (without contact with convicts) and internal (with contact with convicts), and the ICDs were grouped into the categories: emotional disorder, trauma in general, gastrointestinal disorder, and non-traumatic osteoarticular pains.

Qualitative variables are described by absolute (N) and relative (%) frequency distribution: the difference in frequency distribution of qualitative variables was analyzed by the chi-square test for proportion; and the relationship between them was done using the chi-square test for association. Quantitative variables are described by mean and standard deviation (SD). The normality distribution was verified by the Kolmogorov Smirnov test. The relationship between quantitative variables was performed using Spearman's correlation test; and the comparison between them, using the nonparametric

Mann-Whitney test. Data were analyzed using SPSS software (version 24.0) for a significance level of 5% ($p \leq 0.05$).

The research complied with Resolution 510/16, which regulates research with human beings. It was approved by the ethics committee of the Marília School of Medicine under opinion no. 2.597.731 and CAAE 85210218.7.0000.5413 and by the coparticipating institutions (penitentiaries) with the use of the consent form for conducting research in prison units of the state of São Paulo, through the Research Ethics Committee of the Secretariat of Penitentiary Administration of the state of São Paulo.

RESULTS

The total population of CO(s) in the evaluated penitentiaries was composed of 432 elements. Among them, it was observed that 79 had a record of absence in the 12 months prior to the date of data collection.

Thus, we noted a prevalence of absenteeism of 18.3%, with 95%CI of 14.9% to 22.2%.

Among the 79 participants who had withdrawal in the last year, 44 were female (55.7%), 67 were 35 years old or older (84.8%), 57 were in a stable union (72.2%), 41 had worked in the penitentiary for more than ten years (51.9%), and 43 worked in the women's penitentiary (54.4%).

In relation to the workplace, only two agents worked on the wall. Thus, considering that they do not have direct contact with the detainee, they were grouped together with the administrative staff. The internal CO(s) represented the majority of those who withdrew from work in the last year, totaling 67 (84.8%).

Of the total, 41 CO(s) took more than two leaves of absence in the year (51.9%), and the most commonly affected illnesses were emotional disturbance, trauma in general, gastrointestinal disorder, and osteo-articular pain.

Tables 1, 2, 3, 4, 5, and 6 follow, with the main results and their statistical analysis.

Table 1. Descriptive statistics of the quantitative variables of the general sample

Variables	N	Minimum	Maximum	Media	SD
Age (years)	79	29.0	66.0	41.3	7.7
Time in the profession (years)	79	1.0	29.0	11.5	5.0
Leaves of absence (n)	79	1.0	11.0	3.6	2.9
Leaves of absence (days)	79	1.0	372.0	67.3	115.0

SD: standard deviation; N: absolute frequency.

Table 2. Distribution of the absolute (N) and relative (%) frequency of the general characteristics of the sample in relation to the qualitative variables

Variables		N	%	Value of p
Sex	Male	35	44.3	0.311
	Female	44	55.7	
Age group	< 35 years	12	15.2	< 0.001*
	≥ 35 years	67	84.8	
Education	Highschool	46	58.2	0.144
	Higher education	33	41.8	
Marital Status	Single/widowed/separated	22	27.8	< 0.001*
	Married/stable union	57	72.2	
Time in the profession (categories)	Up to 10 years	38	48.1	0.736
	> 10 years	41	51.9	
Prison	Male	36	45.6	0.431
	Female	43	54.4	
Place of work	Wall/administrative	12	15.2	< 0.001*
	Internal	67	84.8	
Leaves of absence (categories)	Up to 2 per year	38	48.1	0.736
	> 2 per year	41	51.9	
Emotional disorder	No	59	74.7	< 0.001*
	Yes	20	25.3	
Trauma in general	No	70	88.6	< 0.001*
	Yes	9	11.4	
Gastrointestinal disorder	No	64	81.0	< 0.001*
	Yes	15	19.0	
Non-traumatic osteo-articular pain	No	68	86.1	< 0.001*
	Yes	11	13.9	

* Significant difference in proportion distribution by chi-square test for p value ≤ 0.05 .
N: absolute frequency.

Table 3. Comparison of the mean and standard deviation of age, time in the profession, number of days away from work and days away from work by gender, age group, time in the profession and place of work

	Sex				Value of <i>p</i>
	Male (n = 35)		Female (n = 44)		
	Mean	SD	Mean	SD	
Age (years)	43.3	7.7	39.7	7.4	0.037*
Time in the profession (years)	15.1	4.1	8.7	3.8	< 0.001*
Leaves of absence (blockss)	3.3	2.5	3.9	3.2	0.532
Leaves of absence (days)	42.1	89.8	87.3	129.3	0.090
	Age group				Value of <i>p</i>
	< 35 years (n = 12)		≥ 35 years (n = 67)		
	Mean	SD	Mean	SD	
Time in the profession (years)	8.8	2.0	12.0	5.3	0.056
Leaves of absence (blockss)	4.1	3.8	3.6	2.7	0.895
Leaves of absence (days)	106.5	155.5	60.3	106.2	0.182
	Time in the profession				Value of <i>p</i>
	≤ 10 years (n = 38)		> 10 years (n = 41)		
	Mean	SD	Mean	SD	
Age (years)	38.9	5.8	43.5	8.6	0.027*
Afastamentos (blocos)	3.7	3.2	3.6	2.6	0.892
Afastamentos (dias)	71.8	114.9	63.1	116.4	0.483
	Study location				Value of <i>p</i>
	Wall/Administrative (n = 12)		Internal (n = 67)		
	Mean	SD	Mean	SD	
Age (years)	39.4	6.3	41.6	7.9	0.292
Time in the profession (years)	14.2	3.8	11.1	5.1	0.022*
Leaves of absence (blockss)	5.3	3.4	3.3	2.7	0.054
Leaves of absence (days)	121.7	151.6	57.6	105.7	0.248

* Significant difference between means by nonparametric Mann-Whitney test for *p* value ≤ 0.05.
n: total.

Table 4. Analysis of the correlation between age and time in the profession with number of absences and days away from work

	Age (years)		Time in the profession (years)	
	R	p-value	r	Value of <i>p</i>
Leaves of absence (n)	-0.099	0.384	0.031	0.789
Leaves of absence (days)	-0.163	0.151	-0.063	0.583

r: Spearman's correlation coefficient; p-value for Spearman's correlation coefficient.
n: quantity.

Table 5. Analysis of the association between disengagement categories and qualitative variables

Variables	Category	Leaves of absence		Value of <i>p</i>	
		Up to 2 per year	> 2 per year		
Sex	Male	N	17	18	0.941
		%	44.7%	43.9%	
	Female	N	21	23	
		%	55.3%	56.1%	
Age group	< 35 years old	N	6	6	0.887
		%	15.8%	14.6%	
	≥ 35 years old	N	32	35	
		%	84.2%	85.4%	
Education	High school	N	21	25	0.609
		%	55.3%	61.0%	
	Higher education	N	17	16	
		%	44.7%	39.0%	
Marital status	Single/widowed/separated	N	7	15	0.074
		%	18.4%	36.6%	
	Married/stable union	N	31	26	
		%	81.6%	63.4%	
Occupation time (categories)	Up to 10 years	N	20	18	0.441
		%	52.6%	43.9%	
	> 10 years	N	18	23	
		%	47.4%	56.1%	
Prison	Male	N	17	19	0.887
		%	44.7%	46.3%	
	Female	N	21	22	
		%	55.3%	53.7%	
Work	Wall/administrative	N	3	9	0.084
		%	7.9%	22.0%	
	Internal	N	35	32	
		%	92.1%	78.0%	

Table 6. Analysis of the association between absence categories and diseases

Variable	Category	Leaves of absence		Value of <i>p</i>	
		Up to 2 per year	> 2 per year		
Emotional disorder	No	N	34	25	0.004*
		%	89.5%	61.0%	
	Yes	N	4	16	
		%	10.5%	39.0%	
Trauma in general	No	N	33	37	0.637
		%	86.8%	90.2%	
	Yes	N	5	4	
		%	13.2%	9.8%	
Gastrointestinal disorder	No	N	31	33	0.902
		%	81.6%	80.5%	
	Yes	N	7	8	
		%	18.4%	19.5%	
Non-traumatic osteo-articular pain	No	N	34	34	0.404
		%	89.5%	82.9%	
	Yes	N	4	7	
		%	10.5%	17.1%	

* Significant association by chi-square test for association considering p value ≤ 0.05 .
n: quantity.

DISCUSSION

As for the profile of CO(s), our research identified a prevalence of women. This diverges from a study conducted in the northeastern United States²² about health behaviors, health outcomes and psychosocial characteristics of working in prisons, in which men accounted for 78.2%; it also differs from research on mental health in CO(s), conducted in male units in Rio Grande do Norte - 90.6% of participants were men²³.

We can deduce that the present study allows extrapolations for both sexes, due to the fact that there is no statistical difference regarding this question. This fact is rare among researches on this theme, since, due to the predominance of male penitentiaries (where there is a prevalence of male workers), many studies tend to privilege this population.

The group of workers aged 35 years or more was the most prevalent and, overall, the population studied was characterized as relatively young, since the mean age was 41.3 years with a mean time worked of 11.5 years. Therefore, these are workers in the early stages of their careers as CO(s), showing that absenteeism harms those at a productive age and can impact not only the quality of life of these individuals, but also their working capacity, as already demonstrated¹².

In the UK, in a therapeutic prison, the average age of the CO(s) was 49 years, with length of service ranging from 2.5 to

22 years²⁴. In another survey, also in the UK, the average age of agents was 47 years; and of length of service, 17²⁵. In the United States, the average age of respondents in a prison facility was 42.3 years²². The data from our study regarding age are closer to the North Americans, but, in general, the average age of these professionals seems to be concentrated in the fourth decade of life. As for the length of service, the available literature did not allow us to make comparisons due to the wide range presented. When comparing the average age and the length of time in the profession in relation to gender, we notice that women are younger than men and have a shorter time in the profession than men.

Analyzing the possible correlation of the factors "age" or "length of service" with the number of absence blocks or the number of days away, we did not find any possible correlation. Therefore, through this analysis, it was possible to rule out the hypothesis that, as workers get older, they are more susceptible to sick leave. However, it is important to note that the population studied in this study was relatively young and with a short time in the profession, as mentioned above.

There was no statistical difference in this sample regarding the level of education, but the fact that most had at least a high school degree may mean that these workers have a good educational level. Studies on the mental health of CO(s) have revealed higher levels of education (higher education), corresponding to 45.2% in the

UK²⁴; 49.2% in Rio Grande do Sul²⁶; and 84.6% in the United States²³. These results may signify a regional/cultural issue, with higher schooling levels in places where there is a higher concentration of income, expectation and quality of life, more infrastructure, among other factors²⁷.

As for marital status, this sample was significantly made up of people who were married or in a stable union. This is similar to what was found in another study, in which the professionals evaluated who was married and/or lived with their partners totaled 73%.²²

We found a prevalence of absenteeism of 18.3% with 95%CI of 14.9% to 22.2%. An aspect already observed regarding absences is the following fact: workers who report difficulty at work, both physically and emotionally, have higher levels of absenteeism²⁸. Also the average number of blocks away was 3.6 in the year; and the average number of days away was 67.3 days in the year. The average number of blocks away in a study of public servants was three episodes in six years, which is significantly lower².

Regarding the causes of absences, we observed that traumatic or non-traumatic orthopedic disorders, as well as emotional and gastrointestinal conditions had a clear predominance - even with statistical significance - as reasons for absenteeism due to health problems. These data are somewhat related to the study¹⁵ which observed a higher prevalence of absenteeism among acute diseases than

chronic diseases, with a higher frequency of respiratory, musculoskeletal, connective tissue, digestive, mental and behavioral disorders. In relation to our work, the difference is mainly in mental disorders, which are justified by the average age of the participants, since the manifestations of chronic and potentially degenerative diseases are more common with increasing age¹⁵.

North American Study²² pointed out that the health status of the CO(s) is worse than that of the general population, presenting, in 85% of the cases, overweight/obesity, diabetes, cholesterol, anxiety/depression. This data is very worrying, because it indicates a great morbidity in this population.

In the analysis of the possible absence categories (up to two blocks in the year or more than two blocks in the year), due to the several qualitative variables, it was observed that only the emotional disorders presented positive statistical significance. This means that the emotional disorders were greater in those people who belonged to the group with more than two absence blocks in the year, and that the other qualitative variables and the other health problems were indifferently present in the two absence categories.

Working in public security has repercussions on the emotional and psychological life, causing a constant state of alertness, even outside the professional environment. There is, for example, a fear of being recognized and of their families being attacked during leisure time^{23,29}.

Many agents show symptoms of depression, most often due to the dehumanization experienced in the penitentiaries; and many reported aggressions and a violent climate in the pavilions, which is aggravated by the overcrowding of the penitentiaries. Moreover, the disproportionality between guards and convicts emphasizes the dangers of the profession and, thus, contributes to anxiety and stress in this environment and outside it, according to reports from CO(s)^{26,30}.

This occupational stress is a risk factor for the development of psychological disorders, including burnout syndrome; and the low level of psychological and emotional support contributes to CO(s) having higher levels of mental illness than other safety and emergency personnel²⁴⁻²⁶.

It is relevant to point out that tiredness in the morning and exhaustion at night, nervousness, anxiety, sleep problems, worry and mental tension are indicators of stress and/or depression at work¹¹. CO(s) do not receive support from a social worker or psychologist in their work environment: such assistance is only given to convicts, but its extension to these professionals may be an effective measure to minimize suffering, as officers working in therapeutic prisons have high job satisfaction; and, as already seen, this is a protective factor against stress⁴.

As limitations of this research, we could mention a numerically small sample, which was not previously calculated, and the relatively young age of the group analyzed. In addition, there is the short

average length of service of these workers, which precluded a better analysis of functional aging, for which we would probably need older workers with more time of service.

CONCLUSION

From this study, we can conclude that our sample was composed of relatively young workers, with little time of service and approximately equivalent numbers of men and women. Emotional problems, orthopedic problems, and gastrointestinal disorders were the most common causes of absenteeism due to health problems among the studied population. We did not find any differences between the absences regarding the analyzed gender; neither was there any correlation between the chronological age or the length of service of these workers and the quantity of absences. Thus, the data obtained is very similar to other national and international studies.

Furthermore, we observed a scarcity of scientific evidence addressing this class of workers. They play a very important role in society and, according to the results obtained here, they need improvements in their daily professional practice, so that they can perform their duties with greater dignity. To verify the frequent absences due to health problems to which they are subjected, many of which can be prevented, and new studies are needed, as well as public health policies aimed at this population.

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