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RESP

Burnout and habits harmful to the health of employees in the Argentine federal prison service

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ABSTRACT

Introduction: Given that psychosocial risks may be sources of stress at work and also encourage the presence of burnout, members of state security services are likely to present high levels of this syndrome.
Objectives: To describe the prevalence and relationship between burnout and unhealthy habits amongst workers of the Argentine Federal Prison Service (SPF).
Material and method: An ex post-facto study was carried out with descriptive, cross-sectional, comparative and comparative analyses. We used the Spanish adaptations of the Maslach Burnout Inventory MBI-HSS (Maslach and Jackson, 1986), the Test For Nicotine Dependence (Fagerström, 1978) and the Body Mass Index in 151 prison officers (88 men and 63 women of 22 to 52 years).
Results: The prevalence of burnout was 6.62%, while the results for dimensions were: smoking 37.09%, passive smoking 70.20%, overweight 45.03% and obesity 44.37%. The dimensions of burnout showed that differences between groups indicate a higher level of emotional exhaustion in treatment and treatment functions, passive smokers and those who consume less fruit and vegetables on a weekly basis. There was greater depersonalization in subjects that are currently smoking. There was lower personal fulfillment in obese people, passive smokers, current smokers, moderate level smokers, those who consume less fruit and vegetables every week and those with obesity.
Discussion: Smoking and high body mass index and links with eating habits are factors that may negatively affect the health and wellbeing of prison officers in terms of personal accomplishment.

Key words: burnout syndrome; tobacco use disorder; obesity; overweight; prisons.

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INTRODUCTION

Psychosocial risks are regarded as potential sources of occupational stress that can negatively affect people's health in and out of the workplace. They may also encourage occupational burnout[1] (which was included by the World Health Organisation in the nosology of the eleventh International Classification of Diseases [CIE-11] under the heading of burnout). Chronic stress in the workplace that has not been successfully addressed is characterised by three dimensions: feelings of energy depletion or exhaustion, increased mental distance from one's job, or negative or cynical feelings about it, and feelings of inefficacy and lack of fulfilment[2].

Along the same lines, studies of job absenteeism due to illness mention a multi-factorial aetiology in which workers' individual factors (concerns, expectations, needs, values, skills and knowledge) interact with conditions in and outside work that are determined by the social setting in which organisations operate[3].

Members of state security services present high levels of occupational stress, which results in progressive physical and mental deterioration, and is manifested in high levels of burnout[4].

In such a context, the evaluation of organisational factors that influence the wellbeing of members of the security services and the complex activities that they carry out is essential; not only because their main mission is to protect society against crime and reduce recidivism[5], but also because they are seen to be an essential part of the worldwide healthcare crisis, since they provide face-to-face services that cannot be interrupted.

There is the added impact of chronic diseases, such as smoking and obesity within the context of the SARS-CoV-2 pandemic. According to a meta-analytical study, obese persons are 46% more likely to catch the virus, 113% more likely to require hospitalisation. They have a 74% higher probability of being admitted to an intensive care unit, and are 66% more likely to need mechanical ventilation[6].

Likewise, current and ex-smokers are at greater clinical risk when they catch SARS-CoV-2, with a larger number of admissions to intensive care, a greater need for respiratory support and a higher risk of death[7].

The aim of this study is to consider the prevalence of unhealthy habits and occupational burnout amongst male and female employees of nine state prisons in the Province of Buenos Aires, and also to compare the differences between groups according to the dimensional levels of burnout, overweight, obesity and levels of smoking, considering the sociodemographic variables and health habits researched for the study.

MATERIAL AND METHOD

A quantitative ex post facto research design was used with a descriptive, cross-sectional and comparative analysis, in nine prisons located in the Province of Buenos Aires, in the months between December 2020 and March 2021, during which Argentina continued with the mandatory social isolation measures imposed by the COVID-19 pandemic of 2019.

Participants

The study population was made up of 151 employees of the Argentine state security services, of whom 88 were men and 63 were women, with ages between 22 and 52 years. Not working on-site was considered as an exclusion criterion. The sample was non probabilistic and intentional.

All the participants chose voluntarily to participate in the study and signed an informed consent, which informed them that the study was anonymous and that the information it contained would be used solely within the context of a research project for scientific purposes, according to the regulations of National Law 25.326 of the Argentine Republic[8].

Instruments

The instruments consisted of Maslach and Jackson's MBI (1981), adapted to Spanish by Seisdedos (1997)[9]. This tool enables the attitudes and feelings that characterise a subject with burnout to be evaluated. It consists of 22 items with seven response options on the Likert scale, ranging from lower to greater in terms of the frequency with which a person has experienced the situation described in the item in the last year, where 0 is equal to "never" and 6 to "every day".

The 22 items are divided into three scales, emotional exhaustion, which shows the feelings of a person who is emotionally exhausted by their work; depersonalisation, which describes an impersonal and unfeeling response towards recipients of their services or professional care; and personal accomplishment, which shows the feelings of negative self-assessment about competence, expectations and personal achievements at work. To interpret the results, the values corresponding to the items of each scale are added algebraically. The analysis of the Cronbach alpha analysis for reliability is 0.80 for all the items, 0.90 for the emotional exhaustion scale, 0.79 for depersonalisation and 0.71 personal accomplishment[10]. For this study, a Cronbach alpha coefficient of 0.72 was obtained for the global scale, 0.86 for emotional exhaustion, 0.61 for depersonalisation and 0.77 for personal accomplishment.

Given that there are no studies in Argentina that offers specific cut-off points for this occupation, the one provided by Seisdedos[9] for the 25 and 75 percentile in the three scales was used to estimate the low, medium and high level, based on the different scores of this study, and to improve the reliability of the results of the MBI. Therefore, a low level may be found between percentile 1 and 25; a medium level falls within percentile 26 to 75; and a high level from 76 to 99. Scores above percentile 75 indicate a high level of emotional exhaustion and depersonalisation; while scores below percentile 26 indicate a high level of personal accomplishment.

To globally evaluate the existence or absence of burnout, it was proposed that a professional would suffer from the syndrome if he/she presents high scores in the scales of emotional exhaustion and depersonalisation, and low scores in personal accom-

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plishment, without merging them into a single score, according to Olivares-Faúndez[10].

We also used the BMI (according to the classification of obesity for adults), to distinguish between overweight and obesity in the adult population for any sex or age, which is obtained by dividing weight by size squared (BMI = kg/m^2), so that a value of BMI that is equal to or more than 25 indicates overweight; and obesity if the score is equal to or over 30, (using the adjustment of the results relating to the limitations of the instrument, referring to the underestimate of weight by 1.39 kg and overestimate of size by 0.55 cm)[11].

Finally, to evaluate smoking levels, the six-item Fagerström Test for Nicotine Dependence was used (Heatherton, Kozlowski, Frecker y Fagerström, 1991), in a version translated to Spanish in the Guía de Práctica Clínica Nacional de Tratamiento de la Adicción al Tabaco by the Ministry of Health (2016)[12], which considers nicotine to be a primary booster of addictive behaviour with regard to smoking. The questionnaire itself consists of the following: four questions present dichotomous response options with a 0/1 score, and two present response options in a Likert scale, with a score of 0 to 3. The final score is from 0 to 10 points. To interpret the results of the test, the values obtained are algebraically added. A result of less than 3 indicates a slight level of dependence; 4 to 6 points is a moderate level; and 7 to 10 points indicate a severe one.

Data analysis

Once the data was gathered, it was compiled in a data base created with Excel 2007, and then migrated to a data base created with the IBM Statistical Package For The Social Sciences (SPSS), version 24.0. Descriptive and inferential calculations were then carried out to analyse the data according to the objectives.

After the descriptive analysis of the sample, a normality test was applied to the research variables, using the Kolmogorov-Smirnov (K-S) test, while statistically significant values of $P \leq 0.050$ were applied to the acceptance or rejection process for the hypotheses. The following was found after applying the test: the smoking variable obtained a value of $P = 0.000$; BMI obtained $P = 0.000$; the dimensions of emotional exhaustion obtained, $P = 0.000$; depersonalisation, $P = 0.000$; and personal accomplishment, $P = 0.000$. In other words, all the variables gave values of $P < 0.050$, and so non-parametric statistics were used for all the subsequent analyses, since they presented an abnormal distribution[13].

The Mann Whitney U test and the Kruskal Wallis H test were used to determine the differences between statistically significant groups. Cliff's delta calculation was used to evaluate the first of the effect sizes, using the software of the Cliff´s Delta Calculator (Macbeth and Razumiejczyk, 2009), using Cliff's delta as an interpretation criteria for the following effects: ≤0.43 high, ≤0.28 medium and ≤0.11 low, in accordance with Okada[14]. For the second test, the epsilon squared calculation was applied with the use of the Jamovi software (Jamovi Project, 2018), version 2.3.2.1, taking the following as interpretation criteria: ≤0.12 for a high effect; ≤0.06 for medium and >0.06 for low according to Varghay's[15] criteria

All the data used for this study was stored in accordance with the ethical standards and regulations currently in force, in compliance with Personal Data Protection Law 25.326[8], and the administrative authorisation of the National Directorate of the Argentine Federal Prison Service.

RESULTS

The sample was made up of 151 persons extracted from a target population of 2,442 subjects, of whom 58.28% (n = 88) were men and 41.72% (n = 63) were women, with ages ranging from 22 to 52 years, an average of 34.67 and a standard deviation of 5.59. They were all members of the Argentine Federal Prison Service, and worked in nine prisons located in the Province of Buenos Aires.

The distribution into specialised labour groups was as follows: 53.64% (n = 81) belonged to the treatment and care department (staff who carry out activities related to the supervision of admissions, placement and residence of male and female inmates, and application of the prison regime based on progressive direct contact with the prison population[16]); 25.17% (n = 38) belonged to the control and records department (staff who ensure the physical and psychological safety and integrity of the prison population, ensuring a regime of treatment that respects human dignity, adequate cohabitation, discipline, order and hygiene, via control and registration procedures, mobilisation of inmates, and intervention in the event of public order disturbances[16]); and 21.19% (n = 32), worked in the visits and correspondence department (staff responsible for managing services, processes and procedures based on quality management principles under ISO 9001 standards in a secure setting, related to care, admission, period of stay and exit of family members, friends and other persons who visit

the prison population, as well as the reception of mail and packages containing authorised items and foodstuffs[17]).

The age range according to the percentiles (25, 50 and 75) showed that the groups were made up of ages between 22 and 30 (21.85% (n = 33)); 31 and 34 (35.76% (n = 54)); 35 and 37 (15.23% (n = 23)); and 38 and 52, (27.15% (n = 41)). When answering the question about professional experience outside the prison services, 76.16% (n = 115) said "yes", and 23.84% (n = 36) said "no". The results for the working hierarchy showed that 60.93% (n = 92) were junior staff members, while 39.07% (n = 59) were higher ranking officers.

In the sample, 60.93% (n = 92) did some kind of physical activity, and 39.07% (n = 59), did not. 56.95% (n = 86) said that their diet at work was not healthy, and 43.05% (n = 65) said that it was. The results for the type of food consumed at work showed that 37.75% (n = 57) was made at home; 31.79% (n = 48) was provided by the organisation; 11.92% (n = 18) was provided by the organisation and made at home; 8.61% (n = 8) was made at home by others; and 4.64% (n = 7) was provided by the organisation, made at home by others.

The data for the number of days a week when the subjects ate vegetables and greens showed that 26.50% (n = 40) did so for 1 to 2 days; 41.05% (n = 62) for 3 to 4 days; and 32.45% (n = 49) for 5 to 7. The figures for the number of days when they ate fruit showed that 17.22% (n = 26) did so for 0 to 1 day; 45.70% (n = 69) for 2 to 3 days; 28.82% (n = 39) for 4 to 5 days; and 11.26 (n = 17) for 6 to 7. The BMI variable showed that 45.03% (n = 68) presented overweight; 44.37% were obese; and 10.60% (n = 16) were of normal weight.

As regards passive smoking at work, 70.20% (n = 106) said "yes (i.e. they are exposed to tobacco smoke in enclosed environments); while 29.80% (n = 45) said "no". 46.36% (n = 70) stated that they did not consume tobacco, 37.09% (n = 56) currently smoked; and 16.56% (n = 25) were ex-smokers, while smo-

Table 1. Mann Whitney U tests for two samples, according to socio-demogaphic characteristics, passive smoking and prevalence of burnout.

Variables	Dimensions of burnout			Level of smoking		Body mass index	
		Mann Whitney U test	*P*	Mann Whitney U test	*P*	Mann Whitney U test	*P*
Sex	EE	2,503.000	0.272	317.000	0.527	2,392.000	0.215
	DP	2,445.000	0.911				
	PA	2,420.000	0.148				
Professional experience outside AFPS	EE	1,759.500	0.143	191.500	0.287	1,970.000	0.641
	DP	1,818.000	0.227				
	PA	1,773.000	0.157				
Job of hierarchy	EE	2,509.500	0.399	344.000	0.168	2,501.500	0.597
	DP	2,672.000	0.860				
	PA	2,258.500	0.058				
Healthy diet at work	EE	2,456.000	0.168	303.500	0.126	1,780.000	0.000
	DP	2,420.000	0.122				
	PA	2,395.000	0.101				
Physically active	EE	2,428.500	0.424	373.000	0.718	2,606.500	0.195
	DP	2,216.000	0.086				
	PA	2,320.500	0.206				
Passive smoking at work	EE	2,321.000	0.778	172.500	0.555	2,192.500	0.034
	DP	1,962.000	0.059				
	PA	1,899.000	0.031				
Prevalence of *burnout*				142.000	0.402	273.000	0.103

Note. *EE: emotional exhaustion; †DP: depersonalisation; ‡PA: personal accomplishment; §AFPS: Argentine Federal Prison Sistem.

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king levels stood at: 73.21% (n = 41) slight, 21.43% (n = 12) moderate and 5.36% (n = 3) severe.

The data for burnout showed that 93.38% (n = 141) did not present the syndrome, while 6.62% (n = 10) did. According to the cut-off points (i.e. the percentiles 25 and 75) the prevalence of the dimension of low level emotional exhaustion (from 0 to 12 points) was 28% (n = 43); medium level (13 to 32 points) stood at 47.68% (n = 72); while the prevalence for high level emotional exhaustion (33 to 53 points) was 23.84% (n = 36). The prevalence of the depersonalisation dimension was as follows: low level (0 to 4 points) was 25.83% (n = 39); medium level (5 to 14 points), was 52.32% (n = 79); and high level (15 to 24 points) was 21.85% (n = 33). Finally, percentages for the dimension of personal accomplishment were: 23.18% (n = 35) low (39 to 48 points), 50.33% (n = 76) medium (25 to 38 points); and high (0 to 24 points) at 26.49% (n = 40).

Table 1 on the comparisons between groups showed that, according to the Mann Whitney U test, there are statistically significant differences between groups depending on the inclusion of a healthy diet and BMI ($P = 0.000$), and for passive smoking at work according to the level of personal accomplishment ($P = 0.031$) and BMI ($P = 0.034$).

On the other hand, in Table 2, the Mann Whitney U test for values of $P \leq 0.05$ show that the group that did not include a healthy diet at work presented higher BMIs with a high effect size; and that the group of passive smokers presented higher levels of BMI, and higher levels in the dimension of personal accomplishment, both with a low effect size.

Table 3 shows that for the Kruskall Wallis H test there are statistically significant differences between groups, according to age ranges and BMI ($P = 0.038$); for the work department, relating to the dimension of emotional exhaustion ($P = 0.008$); for the type of food consumed at work and BMI ($P = 0.006$); for the number of days that the subject eats vegetables and greens during the week in the dimensions of emotional exhaustion ($P = 0.046$) and personal accomplishment ($P = 0.009$), according to the number of days a week when the subject consumes fruit for the BMI variable ($P = 0.044$); emotional exhaustion ($P = 0.046$) and personal accomplishment ($P = 0.014$), according to the type of tobacco consumption for the depersonalisation variable ($P = 0.017$) and personal accomplishment ($P = 0.000$), according to the level of smoking and the personal accomplishment variable ($P = 0.040$), and according to the BMI and the personal accomplishment dimension ($P = 0.048$).

Using the results mentioned above, the average ranges for the Kruskall Wallis H test and the size of the effects for the $P \leq 0.05$ values were calculated. These can be seen in Tables 4, 5 and 6.

The group of ages between 38 and 52 years (Table 4) presents a higher BMI, with a medium to low effect size; the group that works in treatment and care presented higher levels of emotional exhaustion, with a medium to high effect size.

Likewise, Table 5 shows that the group that eats food at work provided by the organisation, made at home and provided by others, presented a higher BMI, with a high effect size; the group that consumes vegetables and greens for 1 to 2 days a week present higher levels of emotional exhaustion, with a medium to low effect size and higher levels of personal accomplishment, with a medium to high effect

Table 2. Ranges of Mann Whitney U test for values of $P \leq 0.050$ and effect size, according to healthy diet and being a passive smoker.

Variable	Group	n	Average rate	Cliff's Delta
	Inclusion of healthy diet at work			
Body mass index	Yes	65	59.75	0.446
	No	86	88.28	
	Total	151		
	Passive smoker			
Body mass index	Yes	120	99.23	0.136
	No	31	70.00	
	Total	151		
Personal accomplishment	Yes	106	80.58	0.203
	No	45	65.20	
	Total	151		

Table 3. Kruskall Wallis H test for more than two samples, according to socio-demographic characteristics, dietary habits, smoking, BMI and burnout dimensions.

Variables	Burnout dimensions				Level of smoking			Body mass index		
		Kruskall Wallis H test	LF	*P*	Kruskall Wallis H test	LF	*P*	Kruskall Wallis H test	LF	*P*
Age range (P25-P50-P75)	EE	2.921	3	0.404	3.055	3	0.383	8.452	3	0.038
	DP	0.168	3	0.983						
	PA	0.296	3	0.961						
Working area	EE	9.566	2	0.008	3.215	2	0.200	1.213	2	0.545
	DP	0.268	2	0.874						
	PA	0.313	2	0.855						
Type of food consumed at work	EE	7.441	5	0.190	16.278	5	0.799	2.347	5	0.006
	DP	6.025	5	0.304						
	PA	2.791	5	0.732						
Number of days a week subject consumes fruit and vegetables	EE	9.200	3	0.027	3.427	2	0.180	1.950	2	0.377
	DP	7.328	3	0.062						
	PA	11.542	3	0.009						
Number of days a week subject consumes fruit	EE	14.325	2	0.046	5.807	3	0.121	8.095	3	0.044
	DP	10.783	2	0.150						
	PA	17.585	7	0.014						
Type of tobacco consumption	EE	3.176	2	0.204				0.147	2	0.929
	DP	8.139	2	0.017						
	PA	17.959	2	0.000						
Level of smoking	EE	0.015	2	0.993				0.746	2	0.689
	DP	1.790	2	0.409						
	PA	6.441	2	0.040						
BMI	EE	5.345	2	0.069	0.724	2	0.696			
	DP	1.849	2	0.397						
	PA	6.057	2	0.048						
Emotional exhaustion					0.375	2	0.829	1.853	2	0.396
Depersonalisation					1.808	2	0.405	0.527	2	0.768
Personal accomplishment					0.473	2	0.789	2.397	2	0.302

Note. *EE: emotional exhaustion; †DP: depersonalisation; ‡GL: levels of freedom; §BMI: body mass index; ||PA: personal accomplishment; ¶B: burnout.

size. The group that consumed fruits from 0 to 1 day in the week present higher levels of BMI, with a high effect size, and higher levels of emotional exhaustion, with a medium to high effect size, and higher levels of personal accomplishment, with a medium to high effect size.

Table 6 shows that the group of current smokers presents higher levels in the depersonalisation dimension, with a low to almost nonexistent effect size. Therefore the alternative hypothesis was rejected. It also shows that the group of current smokers presents a higher level in the personal accomplishment dimension, with a low effect size; the group of moderate smokers presents a higher level in the personal accomplishment dimension, with a medium to high effect size; while the obese group presents a higher level in the personal accomplishment dimension, with a low effect size.

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Table 4. Ranges of Kruskall Wallis H test for values of *P* ≤0.050 and effect size, according to age range and working area.

Variable	Groups	n	Average rate	χ^2	ε^2
	Age range (P25-P50-P75)				
Body mass index	22 to 30	33	64,09	11,1	0,074
	31 to 34	54	70,83		
	35 to 37	23	85,00		
	38 to 52	41	87,37		
	Total	151			
	Department				
Emotional exhaustion	Treatment and care department	81	85,43	16,1	0,108
	Control and records	78	64,00		
	Visits and correspondence	32	62,41		
	Total	151			

Note. *χ^2: chi squared; †ε^2: epsilon squared.

DISCUSSION

The results of this study are important for employees working in the state prison service. Firstly, it found that this population present very low levels of burnout (6.62%), which means that it can safely be said that the population studied is not characterised by presenting this type of chronic occupational stress. However, the same population does present risk factors that have hardly been analysed in other studies, such as: passive smoking (70.20%); smoking (37.09%), mainly occasional smokers (73.21%); overweight (45.03%) and obesity (44.37%).

There were no significant differences in the group that presented burnout in relation to levels of smoking and BMI, when compared to persons who did not present the syndrome, and this sample did not show results similar to those found by Santana-Cárdenas[18].

However, although the effect size found in the presence of higher levels in the personal accomplishment for the group of passive smokers was low, it may be a variable worth considering for improving the working environment, given that negative working conditions such as involuntary exposure to tobacco smoke may encourage feelings of job dissatisfaction, increase any negative self-evaluations and feelings of incompetence in meeting needs imposed by the profession, as indicated in a high level of personal accomplishment[9], since, as Bringas-Molleda et al.[19] mention, this dimension has an effect on positive perceptions of the work setting.

Likewise, although the size in the differences was low where passive smokers present higher levels of BMI, this should be taken into account as an important factor, since it offers evidence that the characteristics of the working context may have an effect on the dietary patterns of behaviour associated with an increase in this area. This is even more important when one considers the fact that higher levels in the personal accomplishment dimension were observed in the group with obesity, which may be related to the comments made by Fernández[20], where he states that overweight persons tend to regulate emotional distress by consuming more food.

The group of persons currently smoking presented a higher level in the personal accomplishment dimension, especially the group that smokes moderately, who also showed higher levels in the personal accomplishment dimension. Smoking may, according to Álvarez-Cabrera's[1] conclusions on the subject, be another dysfunctional coping mechanism to manage the effects of chronic occupational stress in the Argentine federal prison service.

The group working in the treatment and care department, who are in close and constant contact with the inmates, present the highest prevalence of emotional exhaustion. This result matches the situational causes related to burnout, such as constant contact with users who are difficult to deal with[21]. This would indicate a more marked prevalence amongst members of this group in terms of insecurity about achieving proposed objectives or difficulties in making them a reality, due to the activities and responsibilities inherent to this specific type of work[16]. The consequences of an imbalance between occupational demands and the resources to effectively carry out their tasks would have the greatest impact in this case[22].

Table 5. Ranges of Kruskall Wallis H test for values of $P \leq 0.050$ and effect size, according to dietary habits.

Variable	Groups	n	Average rate	χ^2	ε^2
	Type of food consumed at work				
Body mass index	Provided by organisation	48	86.19	20.3	0.135
	Made at home	57	64.74		
	Made by others	13	97.23		
	Provided by organisation and made at home	18	68.83		
	Made at home and made by others	8	56.88		
	Provided by the organisation, made at home and made by others	7	98.71		
	Total	151			
	Number of days a week subject consumes fruit and vegetables				
Emotional exhaustion	1 to 2	40	85.98	10.34	0.068
	3 to 4	62	76.60		
	5 to 7	49	67.22		
	Total	151			
Personal accomplishment	1 to 2	40	89.70	17.4	0.116
	3 to 4	62	79.60		
	5 to 7	49	60.27		
	Total	151			
	Number of days a week subject consumes fruit				
Body mass index	0 to 1	26	94.63	23.1	0.154
	2 to 3	69	74.98		
	4 to 5	39	70.65		
	6 to 7	17	63.91		
	Total	151			
Emotional exhaustion	0 to 1	26	95.48	15.8	0.105
	2 to 3	69	67.39		
	4 to 5	39	76.41		
	6 to 7	17	80.21		
	Total	151			
Personal accomplishment	0 to 1	26	84.94	17.6	0.117
	2 to 3	69	83.14		
	4 to 5	39	68.32		
	6 to 7	17	50.94		
	Total	151			

Note. *χ^2: chi squared; †ε^2: epsilon squared.

Another aspect of the dimension of emotional exhaustion was that it was more prevalent in the group with low weekly consumption of greens, vegetables and fruit, which matches the results obtained by Robaina-Palmés[23], who observed that persons who presented high scores in this dimension also presented unhealthier dietary habits.

This result, alongside the high levels of the dimension of personal accomplishment in these two groups opens up the possibility of a link between patterns of dietary behaviour, in the case of a negative self-assessment of competence when working in the prison setting and the tendency of subjects to choose unhealthier foods. This factor also coincides with a

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Table 6. Ranges of Kruskall Wallis H test for values of $P \leq 0.050$ and effect size, according to smoking and BMI.

Variables	Groups	n	Average rate	χ^2	ε^2
	Type of consumption				
Depersonalisation	Non consumers	70	70,56	0,0697	0,004
	Ex-consumer	25	64,68		
	Current consumer	56	87,86		
	Total	151			
Personal accomplishment	Non consumer	70	68,45	2,667	0,017
	Ex-consumer	25	58,16		
	Current consumer	56	93,40		
	Total	151			
	Level of smoking				
Personal accomplishment	Low	41	27,39	6,44	0,117
	Moderate	12	36,00		
	Heavy	3	13,67		
	Total	56			
	BMI				
Personal accomplishment	Normal weight	16	52,69	6,06	0,040
	Overweight	68	78,35		
	Obese	37	79,18		
	Total	151			

Note. *χ^2: chi squared; †ε^2: epsilon squared; ‡BMI: body mass index.

higher BMI present in the group that consume less fruit.

When we analysed the multitude of factors related to the presence of higher levels of BMI, including dietary habits, low consumption of fruit and consuming any food available at work, considerations that the subjects' diet is not a healthy one and the greater age range, then the results in this case match the multi-factorial framework proposed by Ortega-Herrera et al.[24]. The reason for this belief is that such a prevalence may be linked to environmental, social and psychological factors that are deeply involved in their onset, continuation and increase.

The results mentioned above suggest that although the presence of burnout was a low one, the prevalence of smoking, passive smoking, high BMI, along with the close links between these factors and the dietary habits of the participants, have a negative impact on their health, especially in terms of personal accomplishment.

The potential weaknesses of this study are a possible bias linked to the type of sample and the size of the sample, given that the difficulties caused by the pandemic reduced the number of employees present at the time (the effect size would be affected by the sample size). Perhaps more subjects would have enabled a better interpretation of the results, since a small effect size may be of great practical importance in a particular context[25].

The observations made by Olivares-Faúndez[10] are also relevant to this case. The author states that there is a need to generate evidence about the specific standards cut-off points for this occupation that is clinically validated in the Argentine context, to achieve a greater level of confidence with regard to individuals who have developed the syndrome and those who have not, since this data is not provided in the manual[9].

Another factor to bear in mind is the difficulties inherent in maintaining a healthy routine during the pandemic, since physical activities were limited, leading to an increase in sedentary behaviour imposed by the medical restrictions, which would have a significant part to play in increased weight.

At the same time, the results obtained allow us to offer some suggestions for the future. The first one would be to consider the need for an interdisciplinary approach towards overweight, obesity, dietary habits and smoking at work. As Boragnio[26] states, to assess diet during the working day, it is necessary to consi-

der the physical energy needed to cope with the activity and the time required to do it, the money spent on buying food and its availability, the location of the workplace and the different ways in which a person's background, tastes, food choices and eating in company as a social practice are carried out, since this may also be related to positive situations that make employees happy, such as a party to celebrate a job promotion, meeting with a loved one, etc.

Smoking cessation programmes and the establishment of smoke-free zones, along with the benefits offered by changes in the stressful characteristics of the work setting, should be combined with courses on self-care and prevention of relapses as part of the promotion of healthy habits and working conditions that boost an employee's efficacy.

Finally, the psychosocial risks that have been identified up to this point highlight the importance of implementing programmes to improve the quality of working life, paying special attention to the specific dynamics of the activities that take place in an enclosed setting, although a prison may also be the ideal place to prevent these kinds of problems, with the proviso that such programmes are presented according to their characteristics as a source, of health, dignity and satisfaction[28].

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