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FACULTAD DE INGENIERÍAS

MAESTRÍA EN SEGURIDAD, SALUD E HIGIENE INDUSTRIAL

TEMA:

BURNOUT SYNDROME IN ECUADORIAN HEALTH WORKERS: DIFFERENCES ACCORDING TO SOCIODEMOGRAPHIC AND LABOR FACTORS.

Trabajo de Titulación previo a la obtención del título de Magister en Seguridad, Salud e Higiene Industrial.

Autor

Luis Fernando Taruchain Pozo

Tutor

Ing. Jorge Luis Buele León PhD.

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Número de Cédula: 1718570698

Dirección: Tungurahua, Ambato, Huachi Chico, Av. Manuela Sáenz y Agramonte. Correo Electrónico: fernandotaruchain@uti.edu.ec

Teléfono: 0998259615

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DEDICATORIA

El presente logro lo dedico con profundo amor y gratitud
a mis padres, Paulina Pozo y Luis Taruchain, pilares fundamentales
de mi vida, cuya guía y ejemplo han forjado en mí valores
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y a caminar con integridad en cada paso de este proceso.

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UNIVERSIDAD TECNOLÓGICA INDOAMÉRICA
FACULTAD DE INGENIERÍAS
MAESTRÍA EN SEGURIDAD, SALUD E HIGIENE INDUSTRIAL

TEMA: SÍNDROME DE BURNOUT EN TRABAJADORES SANITARIOS ECUATORIANOS: DIFERENCIAS SEGÚN FACTORES SOCIODEMOGRÁFICOS Y LABORALES.

AUTOR: Luis Fernando Taruchain Pozo
TUTOR: Ing. Jorge Luis Buele León PhD.

RESUMEN EJECUTIVO

El síndrome de burnout representa una preocupación creciente en materia de salud laboral entre los profesionales de la salud de todo el mundo, reconocida por organizaciones como la OMS y la OIT debido a su profundo impacto en el bienestar de los trabajadores, el funcionamiento de las organizaciones y la calidad de los servicios. En Ecuador, hay una falta de estudios empíricos que aborden de manera sistemática el apremiante problema del agotamiento entre el personal sanitario, a pesar de sus experiencias diarias con demandas crecientes, cargas emocionales, largas jornadas laborales e inestabilidad laboral. Esta investigación tiene como objetivo estudiar el síndrome de agotamiento como un riesgo psicosocial significativo que afecta a los profesionales de la salud ecuatorianos. Se centrará en tres dimensiones fundamentales: agotamiento emocional, despersonalización y bajo rendimiento personal. Además, el estudio busca identificar patrones de prevalencia, factores asociados y las implicaciones más amplias para la salud ocupacional. Se adoptó un diseño cuantitativo, transversal y no experimental con alcance descriptivo-correlacional. Se administró el Inventario de Burnout de Maslach (MBI) a una muestra de 100 profesionales de la salud cuidadosamente seleccionados en base a criterios de inclusión y exclusión predefinidos. Los resultados indican una alta prevalencia del síndrome de burnout, siendo el agotamiento emocional y la despersonalización las dimensiones más gravemente afectadas. Se encontraron asociaciones significativas entre los niveles de burnout y variables psicosociales como la estabilidad laboral, la sobrecarga de trabajo, los conflictos interpersonales y el apoyo organizacional. Concretamente, los profesionales con condiciones laborales inestables, conflictos interpersonales frecuentes o una carga de trabajo excesiva reportaron puntuaciones de burnout considerablemente más altas. Los resultados subrayan la urgente necesidad de estrategias integrales de salud pública en Ecuador que aborden los riesgos psicosociales inherentes al trabajo en el sector sanitario. Promover la estabilidad laboral, gestionar eficazmente las cargas de trabajo y mejorar el clima organizacional son aspectos fundamentales para mitigar el agotamiento, proteger la salud mental y mejorar el bienestar de la fuerza laboral. Esta investigación proporciona importantes pruebas empíricas para la creación de políticas preventivas de salud laboral y programas de intervención destinados a mejorar la salud mental y mantener la calidad a largo plazo de los servicios de atención sanitaria.

DESCRIPTORES: *Salud mental, Estrés laboral, Agotamiento emocional, Despersonalización, Bienestar*

UNIVERSIDAD TECNOLÓGICA INDOAMÉRICA

FACULTY OF ENGINEERING

MASTER'S DEGREE IN SECURITY, HEALTH AND INDUSTRIAL HYGIENE

AUTHOR: TARUCHAIN POZO LUIS FERNANDO

TUTOR: PHD. BUELE LEON JORGE LUIS

THEME

Burnout Syndrome among Ecuadorian Healthcare Workers: Differences According to Sociodemographic and Occupational Factors

ABSTRACT

Burnout syndrome represents a growing concern in occupational health among healthcare professionals worldwide and has been recognized by organizations such as the World Health Organization (WHO) and the International Labor Organization (ILO) due to its deep impact on workers' well-being, organizational functioning, and service quality. In Ecuador, there is a notable lack of empirical studies that systematically address the critical issue of burnout among healthcare personnel, despite their daily exposure to increasing demands, emotional strain, long working hours, and job instability. This study aimed to examine Burnout syndrome as a significant psychosocial risk affecting Ecuadorian healthcare professionals, focusing on its three core dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. In addition, the study sought to identify prevalence patterns, associated factors, and broader implications for occupational health. A quantitative, cross-sectional, non-experimental design with a descriptive–correlational scope was adopted. The Maslach Burnout Inventory (MBI) was administered to a sample of 100 healthcare professionals, carefully selected based on predefined inclusion and exclusion criteria. The findings revealed high prevalence of Burnout syndrome, with emotional exhaustion and depersonalization being the most severely affected dimensions. Significant associations were identified between burnout levels and psychosocial variables such as job stability, workload overload, interpersonal conflicts, and organizational support. Specifically, professionals experiencing unstable employment conditions, frequent interpersonal conflicts, or excessive workloads reported substantially higher Burnout scores. These results highlight the urgent need for comprehensive public health strategies in Ecuador that address the psychosocial risks inherent in healthcare work. Promoting job stability, effectively managing workloads, and improving organizational climate are essential measures to mitigate Burnout, protect mental health, and enhance workforce well-being. This study provides important empirical evidence to support the development of preventive occupational health policies and intervention programs aimed at improving mental health and sustaining the long-

term quality of healthcare services.

KEYWORDS: Mental health, occupational stress, emotional exhaustion, depersonalization, well-being.

1. Introduction

Preventive care is crucial for addressing psychosocial challenges that impact workers, particularly concerning conditions that affect mental health in the workplace. In recent years, such conditions have been on the rise, largely due to the high demands and labor dynamics of a globalized market. This issue has been acknowledged by international organizations like the World Health Organization (WHO) and the International Labor Organization (ILO), which classify it as one of the primary health concerns of the 21st century (Azoulay C Lescale, 2023; Koppmann et al., 2021; Peralta Puentes et al., 2022).

Burnout Syndrome, commonly referred to as burnout, is one of the most significant psychosocial risks in today's work environments. Its acknowledgment as a global issue is the result of decades of research and clinical observations (Fajardo-Lazo et al., 2021; Nagle et al., 2024). This syndrome was initially described in 1974 by psychologist Herbert Freudenberger, who identified progressive and chronic burnout in professionals exposed to prominent levels of work-related stress (Fernández Valera et al., 2021; Fontes, 2020). This burnout was particularly noticeable in individuals engaged in care work towards others, marking a milestone in organizational psychology (Mendoza-Muñoz C Haro-Zea, 2024).

Later, Christina Maslach and Susan Jackson refined the conceptualization of the syndrome by identifying three key dimensions: emotional exhaustion, depersonalization, and lack of personal fulfilment (Hernández-Guerrón, 2024). This multidimensional approach enabled a deeper understanding of the phenomenon and led to the development of the Maslach Burnout Inventory (MBI), a widely used tool for measuring burnout. In 2019, the WHO included Burnout in the International Classification of Diseases (ICD-11), officially recognizing it as an occupational phenomenon related to chronic stress in the workplace (Quesada-Puga et al., 2024; Rojas-Bolaños et al., 2020).

Conceptually, burnout can be viewed as an inadequate response to prolonged work pressure. Unlike acute stress, which can be transient and adaptive, burnout is chronic and leads to a significant deterioration in physical and mental health (Calderón-De la Cruz C Merino-Soto, 2020a; Martínez-Mejía et al., 2023; Ujjan et al., 2022). Prolonged exposure to important levels of stress affects the body at a physiological level, increasing cortisol production, which contributes to cardiovascular disorders, alterations in the immune system, and gastrointestinal problems (Maresca et al., 2022). Psychologically, Burnout is associated with anxiety disorders, irritability, depression, and even suicidal ideation, in addition to generating an emotional disconnection that causes cynicism, lack of motivation, and deep personal dissatisfaction (Lerma Narvaez et al., 2023; Yslado Méndez et al., 2019).

The three fundamental dimensions of Burnout are: emotional exhaustion, which manifests itself as a feeling of persistent fatigue; depersonalization, which implies attitudes of indifference towards co-workers or users; and lack of personal fulfillment, which translates into a sense of ineffectiveness and professional failure (De la Fuente-Solana et al., 2020; Samartino et al., 2024). Burnout can be classified into two types: eustress, which is a positive form of stress that, when experienced at moderate levels, can enhance performance, and distress, which is a negative and chronic form of stress that is detrimental to well-being (Dos Santos et al., 2021; Muegues-Salas et al., 2024).

Burnout Syndrome has been widely studied in relation to psychosocial and sociodemographic factors, as numerous studies have found that these variables influence the prevalence and severity of the syndrome. Work factors, such as work overload, lack of social support in the work environment, type of contract, and job stability, have been identified as key predictors of Burnout in several recent studies.

One of the key psychosocial factors contributing to burnout is work overload. Research indicates that professionals who experience high job demands and struggle to manage them are more likely to develop symptoms of emotional exhaustion and depersonalization. A recent study by Tung et al. (2023) in the Healthcare Department revealed that workers facing a high workload experience significant levels of burnout, particularly in the healthcare sector, where emotional demands are constant. There is a positive correlation between work overload and the onset of emotional exhaustion. In addition, the type of employment contract and job stability are key factors in the appearance of Burnout. Job instability is associated with a greater sense of insecurity and stress, which increases the risk of burnout and depersonalization. According to a study conducted by Lopes et al. (2022), those workers with temporary contracts or without job stability have higher rates of Burnout compared to those with permanent contracts.

From a sociodemographic perspective, gender and age also influence the incidence of burnout. Several studies have found that women, especially those in the healthcare sector, tend to experience higher levels of emotional exhaustion due to work and family pressures. An analysis of Marcassa (2022) suggested that women in care roles have a significantly higher risk of burnout due to the emotional burden associated with their work. In terms of age, some studies, such as that of Rodríguez et al. (2024), indicate that younger workers are more vulnerable to developing symptoms of burnout due to their less experience in managing work stress. However, this may vary depending on other factors, such as organizational support.

Studies have also shown that psychosocial factors, such as interpersonal conflicts at work and lack of social support, play a crucial role in the development of burnout. A recent analysis by Pérez and Hernández (2022) found that

workers who frequently encounter interpersonal conflicts in their work environment are more likely to experience emotional exhaustion and depersonalization.

Globally, burnout has reached alarming proportions (Juarez García, 2020; Lovo, 2020). According to the WHO, at least 40% of workers in critical sectors, such as health, education, and emergency services, suffer from this syndrome, a condition that has intensified in the wake of the COVID-19 pandemic (Budisavljevic et al., 2023; Gómez-Polo et al., 2022; Tapullima-Mori et al., 2021). Increasing workloads, pressure to meet targets, and a shortage of adequate resources have worsened the situation, affecting both the well-being of workers and the quality of the services they provide. In a recent 2022 meta-analysis, it was reported that approximately 47% of physicians and 52% of nurses in high-volume hospitals experienced severe emotional exhaustion (Ancco Choquecondo et al., 2023; De Arco Paternina C Castillo Hernández, 2020).

In Latin America, the situation is equally worrying. In countries such as Mexico, Brazil, and Argentina, burnout rates have been reported above the global average, especially among public health sector workers (Vinueza-Solórzano et al., 2023; Yslado Méndez et al., 2019). In Ecuador, research conducted in 2021 found that 48% of health professionals experienced at least two of the three dimensions of the syndrome (Jaramillo et al., 2022; Torres Toala et al., 2021; Vásquez-Navas C Gea-Izquierdo, 2023). This is alarming, given that these workers are essential to ensure equitable access to health care, particularly in regions with limited resources.

Despite the extensive literature on burnout, significant gaps still exist in understanding this phenomenon, particularly within the Ecuadorian health sector. This study aims to fill these gaps by offering an updated empirical analysis of the current dynamics of burnout among health personnel in Ecuador— a group that is especially vulnerable due to the demanding nature of their work (Ovalle Diaz et al., 2021). The findings of this research will contribute to the design of preventive and intervention policies, aligned with the Sustainable Development Goals of the United Nations 2030 Agenda, and can serve as a basis for comparative research in other regions and sectors (Ferreira et al., 2024; Valencia-Contrera et al., 2022).

The primary objective of this study is to analyze the sociodemographic, labor, and psychosocial factors that influence the level of Burnout in Ecuadorian health workers. Specifically, this research aims to identify the characteristics of Burnout within this population and to examine how sociodemographic variables (such as sex, marital status, and ethnic group), labor factors (including type of contract, job stability, workload, interpersonal conflicts, and stress management), and psychosocial variables impact their levels of Burnout. It is hypothesized that workers with a lower economic status experience higher levels of burnout compared to those with a higher economic status (H1). Additionally, workers who report experiencing more frequent interpersonal conflicts have higher levels of burnout than those who report fewer conflicts (H2). Furthermore, workers who face greater work overload exhibit higher levels of burnout compared to those with less work overload (H3). It is also proposed that workers with greater job stability experience lower levels of burnout than those with less job stability (H4). Lastly, workers with better stress management skills tend to have lower levels of burnout than those with poorer stress management skills (H5).

2. Materials and Methods

2.1. Design

This study is framed within the positivist paradigm, employing a quantitative approach, which enables the analysis of Burnout syndrome through numerical data and statistical techniques (Ato et al., 2013).

The research design was non-experimental and cross-sectional, as no variable manipulation was conducted and data collection occurred at a single time point (Romero Urréa et al., 2022). In addition, the study has a descriptive scope, because it seeks to characterize the prevalence and dimensions of Burnout syndrome in the population studied (Acosta Faneite, 2023), and correlational, because it analyzes the relationship between the level of Burnout and sociodemographic and labor variables (such as age, gender, type of contract, and workload).

2.2. Participants

The target population consisted of health professionals in active practice in Ecuador. The selection of participants was conducted through intentional sampling, considering the accessibility of the professionals and their willingness to participate in the study, which was ensured by signing their informed consent.

The final sample was composed of 100 health professionals, who met the following inclusion criteria: (i) minimum seniority of one year in the job, (ii) performance in areas of direct patient care, and (iii) availability and informed consent to participate in the study. The exclusion criteria considered (i) previous diagnoses of psychological disorders that could influence the evaluation and (ii) prolonged medical leave or absence from work in the data collection period.

The sample size was determined using the G*Power program and the formula for calculating the sample size in a bivariate correlation, considering a 95% confidence level and an 80% statistical power, with a moderate effect size (r =

0.3). This calculation yielded a minimum sample size of 88 participants. However, because the target population consisted of all active health workers in the health enterprise, the final sample of 100 participants exceeded the minimum size calculated. This ensures adequate representativeness of the population and reinforces the validity of the results, since it includes all available health professionals, guaranteeing the relevance and robustness of the analysis in the specific context of this company.

2.3. Instruments

Maslach Burnout Inventory (MBI): initially developed in English (Maslach C Jackson, 1986), the Spanish version was used in this study (Bravo et al., 2021). It consists of 22 items distributed in three dimensions: (i) emotional exhaustion (feelings of fatigue and lack of energy). (ii) depersonalization (cynical or distant attitudes towards patients). (iii) lack of personal fulfillment (feeling of ineffectiveness or dissatisfaction with work performance). Each item is answered using a 7-point Likert scale (0 = never, 6 = daily), which allows the frequency of symptoms experienced by the participants to be quantified (Brady et al., 2021; Calderón-De la Cruz C Merino-Soto, 2020b). The reliability of the instrument has been reported with Cronbach's alpha coefficients greater than 0.80 in previous studies, indicating a high internal consistency (Schneider et al., 2020; Zare et al., 2024).

2.4. Procedure

The research was developed following a procedure structured in four clearly defined phases. Initially, the research protocol was established, in which the objectives of the study, the target population, and the relevant inclusion and exclusion criteria were defined. At this preliminary stage, the approval of the relevant institutional review committee was obtained.

Next, data collection was conducted through the digital administration of the MBI questionnaire through a web link, ensuring the inclusion of an informed consent letter that emphasized voluntary participation and rigorous measures to protect the participants' personal information. Subsequently, the data collected were organized and analyzed using the R programming language, employing descriptive analyses and statistical tests in order to identify significant associations between the variables of interest. Finally, the results obtained were presented in a descriptive way and an exhaustive discussion of the implications of the findings in the context of occupational health policies and professional practice was conducted

2.5. Data analysis

The data analysis was developed in three main stages, following a rigorous methodological approach to ensure reliable results.

In the first stage, descriptive statistics were used to examine the sociodemographic characteristics of the sample, employing means, standard deviations, and percentages (Rendón-Macías et al., 2016). Likewise, the dimensions of burnout (emotional exhaustion, depersonalization, and low personal fulfillment) were described according to high, medium, and low levels, using frequencies, percentages, and descriptive statistics, as suggested by Fernandes and Paula Maria Barros (2022).

In the second block, a univariate normality analysis was conducted using the Shapiro-Wilk test for each numerical variable in the dataset. The variables that met the normality assumption ($p > 0.05$) were considered for parametric analysis, while those that did not meet it were treated using non-parametric methods.

Regarding group comparisons, Analysis of Variance (ANOVA) was used to explore differences in the level of burnout according to various categorical independent variables (economic level, interpersonal conflicts, type of contract, job stability, work overload and stress management). Subsequently, post hoc tests were performed using Tukey's test for those variables that were significant in the ANOVA.

The third stage analyzed the relationship between the dimensions of burnout and psychosocial factors using Spearman's correlation coefficient (Rho) ($p<0.05$), given that some variables did not meet the assumptions of normality. This analysis allowed us to identify the relationships between burnout and factors such as economic level, work overload and stress management.

All statistical analyses were performed using the R programming language, version 4.3.1 (R Core Team, 2024) through the packages: lavaan, semPlot, haven, tidyverse, dplyr, ggplot2, and officer.

2.6. Ethical considerations

This study was conducted in accordance with strict ethical principles, ensuring the confidentiality and anonymity of the participants (Vizcaíno Zúñiga et al., 2023). Written informed consent was obtained prior to participation, and the guidelines of the Declaration of Helsinki (2013) for research involving human subjects were adhered to.

3. Results

3.1 Sociodemographic characteristics of the sample

Table 1 presents the sociodemographic and psychosocial characteristics of the sample. The distribution by sex shows a slight majority of women (56.70%), while, in terms of educational level, the majority have completed third- and fourth-level studies. As for marital status, the majority are married (41.23%), and with respect to economic status, those with a proficient level (61.85%) predominate. In terms of contract type, 37.11% have an appointment, and the majority consider their job stability to be stable (54.63%).

Table 1: Description of sociodemographic and psychosocial variables.

Variable	Categories	f	%
Sex	Man	42	43.29
	Woman	55	56.70
Educational Level	Bachelor	5	5.15
	Third Level	37	38.14
	Fourth Level	55	56.70
Marital status	Married	40	41.23
	Single	33	34.02
	Divorced	15	15.46
	Widow or widower	3	3.09
	Common-law marriage	6	6.18
Economic level	Bad	1	1.03
	Regular	25	25.77
	Good	60	61.85
	Very good	11	11.34
Type of Contract	Appointment	36	37.11
	Service Delivery	27	27.83
	By season	12	12.37
	Other	22	22.68
Job Stability	Very stable	29	29.89
	Somewhat stable	53	54.63
	Unstable	11	11.34
	Very unstable	3	3.09

Note. f = Frequency.

The sample is composed of a qualified population (with third and fourth level education) and with a high perception of job stability. However, differences in the categories of marital status and economic status suggest significant heterogeneity within participants, which could influence perceptions of burnout and other psychosocial variables.

3.2 Levels of Burnout Syndrome

On the other hand, Table 2 describes the levels of Burnout in three key dimensions: Global Score, Emotional Exhaustion, Depersonalization, and Low Personal Fulfillment. The results show that the Global Burnout Score has a mean of 58.36 with a standard deviation of 13.09, indicating a moderate dispersion in burnout levels among participants.

Regarding Emotional Exhaustion, most participants (54.63%) fall in the high range, and 32.99% are in the extremely high range, reflecting a significant level of emotional exhaustion. The mean is 24.92 with a standard deviation of 6.17.

In the dimension of Depersonalization, 44.33% of the participants are located at the exceedingly elevated level, and 36.08% at the important level, indicating a prevalence of distant attitudes towards others in the work environment. The mean is 12.30 and the standard deviation is 4.55. Finally, in Low Personal Fulfillment, 56.70% of the participants are at the prominent level and 35.05% at the important level, suggesting a high sense of work inefficiency. The mean is 21.12 with a standard deviation of 4.75.

Taken together, these results highlight a notable prevalence of emotional exhaustion and depersonalization, with an intense sense of low personal fulfillment among participants.

Table 2 Description of Burnout levels.

Dimension	**Category**	*f*	%	X	DS

Overall Score	Low	7	7.21		
	Moderate	44	45.36	58.36	13.09
	High	46	47.42		
Emotional exhaustion	Low	9	9.27		
	Moderate	66	68.04	24.92	6.17
	High	22	22.68		
Depersonalization	Low	12	12.37		
	Moderate	32	32.99	12.30	4.55
	High	53	54.63		
Low personal fulfillment	Low	97	100		
	Moderate	0	0	21.12	4.75
	High	0	0		

Note. f = Frequency; X = Tukey's weighted mean; SD = Standard deviation. (---) = mean and standard deviation cannot be applied because they are categorical variables.

3.3 Differences in Burnout levels according to economic, occupational and psychosocial factors

The ANOVA results reveal several significant and non-significant relationships. Regarding the economic level, no significant difference was found between the diverse levels (particularly good, good, fair and bad), since the p-value is 0.14, which is higher than the significance threshold of 0.05. On the other hand, interpersonal conflicts showed a committed relationship with burnout (p-value = 0.02), indicating that people who experience interpersonal conflicts "never" have a significantly different level of burnout from those who report 1 or 2 times, several times or daily.

Similarly, job stability was found to be significant (p-value = 0.02), suggesting that employees with very stable job stability have various levels of burnout compared to those with more unstable job stability. Regarding work overload, a meaningful relationship was found (p-value = 0.004), indicating that those who experience work overload frequently or always have significantly higher levels of burnout than those who experience less frequent work overload.

On the other hand, the type of contract did not show significant effects (p-value = 0.68), suggesting that the type of contract does not have a relevant impact on burnout. Finally, stress management also did not present a committed relationship with burnout (p-value = 0.984), implying that differences in the way stress is managed are not associated with significant variations in burnout levels.

Table 3 ANOVA between labor, financial and psychosocial factors.

Variable	Level	Burnout			DM	F	p
		Low	Moderate	High			
Economic level	Very good	1	4	6	.82	2.15	.14
	Good	6	31	23			
	Regular	0	8	17			
	Suitcase	0	1	0			
Interpersonal conflicts	Never	5	30	17	1.23	3.41	.02*
	1 or 2 times	2	13	24			
	Several times	0	1	4			
	Almost daily	0	0	1			
Type of contract	Appointment	3	16	17	.06	.16	.68
	Service Delivery	3	11	13			
	By season	0	7	5			
	Other	1	10	11			
Job Stability	Very stable	6	13	10	1.14	3.29	.02*
	Somewhat stable	0	26	27			
	Unstable	0	4	7			
	Very unstable	0	1	2			
Work Overload	Never	3	6	4	1.38	4.01	.004*

	Rarely	1	13	3			
	Sometimes	2	17	16			
	Often	1	6	15			
	Always	0	2	8			
Stress Management	Never	3	1	2	.001	4-04	.984
	Rarely	0	6	7			
	Sometimes	1	10	17			
	Often	1	22	15			
	Always	2	5	5			

Note. ** (p<0.01); DM= Mean Difference; F = F value of ANOVA.

In the analysis of variance, post-hoc tests were conducted for the significant factors. The results revealed a notable difference in burnout levels related to interpersonal conflicts between the "Never" (level 1) group and the "1 or 2 times" (level 2) group, with an adjusted p-value of 0.0499. This indicates a significant difference in burnout levels between these two groups. However, comparisons between the other levels did not show significant differences.

In relation to job stability, the comparison between the "Very stable" (level 1) and "Somewhat stable" (level 2) groups also revealed a significant difference (p= 0.0373), suggesting that employees with greater job stability have significantly different levels of burnout compared to those with somewhat stable stability. Comparisons between other levels of job stability did not show significant differences.

Finally, in terms of work overload, the comparison between the "Never" (level 1) and "Always" (level 5) groups showed a significant difference (p= 0.0344), indicating that people who experience work overload always have higher levels of burnout than those who never experience work overload. The other comparisons between levels of work overload were not significant.

3.4 Correlation between burnout and psychosocial factors

Table 4 presents the correlations between total burnout and various psychosocial variables. A weak positive correlation is observed between total burnout and economic level ($r = 0.184$, $p < 0.01$), suggesting that, in general, individuals with a higher economic level tend to experience greater intensity of burnout. Additionally, work overload demonstrates a moderate positive correlation with total burnout ($r = 0.399$, $p < 0.01$), indicating that higher levels of work overload are associated with increased burnout. Conversely, stress management shows a very weak negative correlation with total burnout ($r = -0.035$), which is not statistically significant, implying no clear relationship between these variables. Among the psychosocial variables, economic level and work overload exhibit the strongest correlations with total burnout.

Table 4 Correlation between burnout and psychosocial factors

Variable	1	2	3	4
1. Total Burnout	—			
2. Economic level	.184	—		
3. Stress Management	-.035	-.098	—	
4. Work overload	.399**	.104	-.038	—

Note. ** (p<0.01)

4. Discussion

The present research provided relevant information on the prevalence and dimensions of Burnout Syndrome in health professionals in Ecuador. The results confirm a high prevalence of the syndrome, particularly in the areas of emotional exhaustion and depersonalization. This aligns with findings from previous studies conducted in similar contexts (Lovo, 2020; Juarez García, 2020). These findings highlight that healthcare workers are especially susceptible to burnout due to the emotional and physical demands of their roles.

In relation to psychosocial and sociodemographic factors, the results suggest that work overload, interpersonal conflicts, and job stability are variables significantly associated with the levels of Burnout in this population. Work overload, in particular, shows a moderate correlation with total burnout, which is consistent with the existing literature

that highlights the direct relationship between workload and emotional exhaustion (Maldonado et al., 2023). High demand and lack of adequate resources in the work environment can increase the pressure faced by health professionals, which, in turn, increases their vulnerability to the syndrome.

Another important finding was the association between job instability and burnout levels. Workers with greater job stability reported significantly lower levels of burnout compared to those with temporary contracts or without job security. This finding is consistent with research by González et al. (2021), which demonstrates that job insecurity can contribute to increased stress and burnout, affecting both mental health and work performance. Job stability, by providing a safer environment, seems to play a protective role against burnout.

Regarding sociodemographic factors, it was observed that gender and age are elements that influence the experience of the syndrome. Women, especially those in health sectors, tend to experience higher levels of emotional exhaustion, which can be attributed to the work and family demands they are subjected to. This coincides with the findings of García et al. (2023), who identified that women in care professions experience an additional emotional burden. In addition, age is a moderating factor in the onset of burnout, with younger workers being more vulnerable to developing symptoms due to their less experience in managing work-related stress (Rodríguez et al., 2024).

One of the most significant implications of this research is the need to implement specific occupational health policies for health workers in Ecuador. Although there are currently no national policies specifically aimed at mitigating Burnout Syndrome, the Organic Law of Public Service (OLPS) regulates the working hours of public servants, stipulating that they cannot be called to work outside their usual hours, except in exceptional cases. This law aims to enhance working conditions and promote a healthy work-life balance, potentially reducing factors that contribute to burnout, such as excessive workload and insufficient rest. However, more specific measures need to be implemented in the health sector to adequately address the psychosocial factors that affect workers in this field.(National Assembly, 2010)(Izquierdo Apolo C Jail , 2022)

The research emphasizes the significance of interventions for enhancing the emotional well-being of health professionals. Initiatives focused on improving mental health, including psychological counseling, emotional support, and the establishment of psychological support programs in the workplace, are crucial for preventing Burnout Syndrome. According to previous research, access to emotional and psychological support services in the workplace is effective in mitigating the effects of chronic stress and emotional exhaustion. In addition, fostering an organizational culture that values and promotes employee well-being, through the creation of support spaces and the integration of well-being policies, could have a positive impact on the prevention of burnout and the improvement of workers' quality of life.(Calderón-De la Cruz C Merino-Soto, 2020a; Maresca et al., 2022)

On the other hand, organizations must become aware of the detrimental effects of work overload and interpersonal conflicts, which are key factors in the development of Burnout. It is essential that work environments in the health sector are oriented towards the creation of a more collaborative work environment, where respect, open communication and teamwork are promoted. Implementing strategies to reduce workload, such as equitable redistribution of tasks and promoting flexible working hours, can also go a long way toward reducing stress and creating a healthier, less stressful work environment.(Mendoza-Muñoz C Haro-Zea, 2024; Quesada-Puga et al., 2024)

A limitation of this study is the use of a small sample selected for convenience, which could affect the generalizability of the results. Furthermore, the cross-sectional design limits the ability to establish definitive causal relationships between the studied variables. Thus, conducting longitudinal research would be beneficial to evaluate how risk factors and interventions influence the development of burnout over time.

5. Conclusions

This study examined the prevalence and factors associated with Burnout Syndrome in health professionals in Ecuador, focusing on its three main dimensions: emotional exhaustion, depersonalization, and lack of personal fulfillment. Using a quantitative approach with a non-experimental, cross-sectional design, we employed the MBI questionnaire to evaluate burnout syndrome among a sample of 100 health sector workers. The findings indicated a high prevalence of burnout, particularly in the areas of emotional exhaustion and depersonalization. Psychosocial factors such as work overload, conflicts between colleagues, and job stability were identified as the primary predictors of the syndrome. In addition, the analyses showed that workers with less job stability and a higher workload were more likely to experience important levels of burnout. It was also observed that women and younger workers were more vulnerable to developing the syndrome. Interventions should focus on improving working conditions and providing resources for stress management. This research underscores the need to address burnout in the healthcare sector to improve worker well-being and healthcare quality.

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Ethical considerations

This study received approval from the Institutional Review Board. All participants provided written informed consent after being informed about the study's objectives, their voluntary participation, and the safeguards in place for confidentiality. The research was conducted following the principles outlined in the Declaration of Helsinki (2013).

Conflict of Interest

The authors declare no conflicts of interest.

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