Intralaboral psychosocial and psychological factors associated with self-care agency in university professors from Valle de Aburrá, Colombia

Factores intralaborales psicosociales y psicológicos asociados con la agencia de autocuidado de la salud en profesores universitarios del Valle de Aburrá, Colombia

Fatores psicossociais intralaborais e psicológicos associados à agência de autocuidado em professores universitários do Vale de Aburrá, Colômbia

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Abstract

This analytical study examined the relationship between intralaboral psychosocial factors, psychological dimensions relating to personality and coping, and self-care agency among 725 university professors from the Valle de Aburrá Metropolitan Area, Colombia. The assessment included the Intralaboral Psychosocial Factors Questionnaire, the Personality Inventory for DSM-5 Brief Form (PID-5-BF), the COPE Inventory, the Appraisal of Self-Care Agency Scale Revised (ASA-R), and a sociodemographic questionnaire. Low self-care agency was identified in 28.3% of the professors and was significantly associated with self-rated health, perceived as fair or poor, older age (46 to 74 years), and high or very high psychosocial risk in dimensions such as quantitative work demands, leadership, job control, and rewards. Maladaptive personality traits, such as negative affectivity and disinhibition, and the frequent use of passive-avoidant coping strategies were also associated with lower self-care agency, whereas social support acted as a facilitating factor. Overall, the findings indicate that demanding working conditions and maladaptive psychological patterns are associated with reduced self-care agency among university professors, highlighting the importance of interventions in university work environments aimed at preventing occupational illness and promoting comprehensive health.

Keywords:

self-care, coping strategies, psychosocial risk factors, professors, personality.

Resumen

Este estudio analítico examinó la relación entre los factores psicosociales intralaborales, las dimensiones psicológicas relacionadas con la personalidad y el afrontamiento, y la agencia de autocuidado en 725 profesores universitarios del Área Metropolitana del Valle de Aburrá, Colombia. Para la evaluación se utilizaron el Cuestionario de Factores Psicosociales Intralaborales, el PID-5-BF, el inventario COPE, la escala ASA-R y una encuesta sociodemográfica. Se identificó una baja agencia de autocuidado en el 28.3% de los docentes, asociada significativamente con un estado de salud percibido como regular o malo, una mayor edad (46 a 74 años) y un riesgo psicosocial alto o muy alto en dimensiones como las demandas cuantitativas de trabajo, el liderazgo, el control laboral y las recompensas. Asimismo, los rasgos de personalidad disfuncionales, como el afecto negativo y la desinhibición, y el uso frecuente de estrategias de afrontamiento pasivo-evitativas se asociaron con una menor agencia de autocuidado, mientras que el uso de apoyo social actuó como un factor favorecedor. Los hallazgos indican que las condiciones laborales exigentes y los patrones psicológicos desadaptativos impactan negativamente la capacidad de autocuidado entre los profesores universitarios, lo que resalta la importancia de promover intervenciones en los entornos de trabajo universitarios orientadas a la prevención de enfermedades laborales y al fortalecimiento de la salud integral.

Palabras clave:

autocuidado, estrategias de afrontamiento, factores de riesgo psicosocial, docentes, personalidad.

Resumo

Este estudo analítico examinou a relação entre os fatores psicossociais intralaborais, as dimensões psicológicas (personalidade e enfrentamento) e a agência de autocuidado em 725 professores universitários da Área Metropolitana do Vale de Aburrá, Colômbia. Foram utilizados o Questionário de Fatores Psicossociais Intralaborais, o PID-5-BF, o inventário COPE, a escala ASA-R e um questionário

sociodemográfico. Os resultados revelaram que 28,3% dos docentes apresentam baixa agência de autocuidado da saúde. Essa condição associou-se significativamente a um estado de saúde autopercebido como regular ou ruim, idade mais avançada (46 a 74 anos) e risco psicossocial alto ou muito alto em dimensões como as demandas quantitativas de trabalho, a liderança, o controle sobre o trabalho e as recompensas. Da mesma forma, traços de personalidade disfuncionais (afetividade negativa e desinibição) e o uso frequente de estratégias de enfrentamento passivo-evitativas relacionaram-se a menor autocuidado. Em contrapartida, o uso de apoio social atuou como fator favorecedor. Conclui-se que as condições de trabalho exigentes e os padrões psicológicos desadaptativos impactam negativamente a capacidade de autocuidado docente, tornando prioritária a intervenção sobre os ambientes de trabalho universitários para prevenir doenças ocupacionais e promover a saúde integral.

Palavras-chave:

autocuidado, estratégias de enfrentamento, fatores de risco psicossocial, docentes, personalidade.

Introduction

In the contemporary field of occupational health and occupational epidemiology, attention to the overall well-being of the working population has increased considerably worldwide. Various countries have implemented rigorous systems for the recording, reporting, and standardized analysis of occupational accidents and diseases, commonly referred to as *work-related accidents and occupational diseases* (ATEL) (Organización Panamericana de la Salud, 2017). However, in a considerable number of developing countries, conceptual inconsistencies, weaknesses in primary data sources, and the absence of unified official occupational safety and health information services persist. This fragmentation contributes to substantial epidemiological underreporting, hindering the formulation of public policies, the coordination of preventive programs, and the prioritization of relevant interventions that effectively address the actual dynamics of work environments (Villalobos, 2004).

In the specific context of Colombia, although the legal framework requires employers to report serious or fatal occupational accidents and diagnosed occupational diseases to the Ministry of Labor and the Occupational Risk Administrators (ARLs), the country lacks a fully integrated occupational epidemiological information platform (Ministerio del Trabajo, 2021). Longitudinal assessments of occupational accident and morbidity trends in Colombia have reported sustained annual increases of approximately 8.6% in the frequency of workplace accidents, an average occupational disease rate of approximately 60 cases per 100 000 workers, and projections exceeding 725 000 workplace accidents annually (Álvarez et al., 2019). This situation may also generate substantial costs for the health care system through medical care and rehabilitation resulting from absenteeism and loss of work capacity, creating a clear imbalance between investment in occupational risk prevention and the broader social and institutional costs associated with adverse health outcomes among workers (Programa de Formación SENA, 2013).

In this context, the study of work-related psychosocial factors has gained unprecedented relevance. In Colombia, over

the past two decades, a regulatory framework has been established for the identification, assessment, prevention, and intervention of these factors (Ministerio de la Protección Social, 2008). However, although epidemiological research has documented associations between adverse psychosocial conditions and the development or persistence of occupational diseases, the significance of their negative consequences is still not always sufficiently reflected in organizational dynamics or in the day-to-day implementation of the Occupational Safety and Health Management System (SG-SST) (Botero Álvarez, 2012).

Within the broad spectrum of occupational risk factors, intralaboral conditions—understood as characteristics related to organizational management, task content, mental workload, and social relationships at work—play an important role in worker's mental and physical health (Ministerio de la Protección Social, 2010).

Given that preventive strategies in occupational health have traditionally been structured around three levels of intervention—the source, the work environment, and the individual —it is also important to consider individual factors that may mitigate or exacerbate the effects of psychosocial risk (Ruiz-Frutos et al., 2007). Among these individual variables, self-care is particularly relevant. As defined institutionally within the Comprehensive Health Care Policy (PAIS) and in accordance with the World Health Organization (WHO), self-care encompasses the set of decisions, abilities, habits, and intentional actions undertaken autonomously by individuals to preserve life, promote well-being, and prevent or manage health conditions (Ministerio de Salud y Protección Social, 2016).

From the perspective of Dorothea Orem's Self-Care Deficit Theory, individuals who autonomously and intentionally perform actions aimed at maintaining their own vital functioning become agents of self-care (Orem, 1993). Self-care agency is conceptualized as a complex, learned capacity that enables individuals to identify their health needs—including universal, developmental, and health deviation requirements—and mobilize cognitive abilities, decisions, and behaviors to address those needs (Cavanagh, 1993). However, this capacity is not uniformly distributed across the population; rather, it varies along a continuum from lower to higher levels of self-care agency (Manrique-Abril et al., 2009).

In occupational settings, low self-care agency can be associated with a reduced ability to regulate work schedules, incorporate active breaks, manage physical and mental fatigue, and seek medical or occupational health assistance in a timely manner. These limitations may increase workers' vulnerability to occupational stressors, contributing to the occurrence of incidents, workplace accidents, prolonged work absences, and the exacerbation of chronic noncommunicable diseases (Berrío García and Vieco Gómez, 2021). Despite occupying a strategic intersection between health promotion and disease prevention, self-care has not been fully consolidated as a sustained component of either the Colombian health system or the Occupational Safety and Health Management System (SG-SST), both of which have historically placed greater

emphasis on curative approaches than on the consolidation of preventive and comprehensive models (Camacho Gutiérrez and Vega-Michel, 2014).

The consequences of low self-care agency among the working population extend beyond the individual sphere. However, important knowledge gaps remain regarding the extent to which low self-care agency is associated with work capacity, reduced individual and organizational productivity, family quality of life, and the deterioration of composite public health indicators, such as Health-Related Quality of Life (HRQoL), Quality of Well-being (QWB), Disability-Adjusted Life Years (DALYs), Potential Years of Life Lost (PYLL), and Years Lived with Disability (YLD) (Alvis and Valenzuela, 2010).

Additionally, evidence from systematic reviews across different countries indicates that empirical research on self-care agency has focused predominantly on clinical populations with chronic conditions and on older adults (Berrío García et al., 2023a). Among studies focused on asymptomatic or working-age populations, the literature has primarily examined older adults (38%) and undergraduate students (23%), revealing limited research on professionals and university faculty (Berrío García et al., 2023a). In the Colombian context, searches of open-access repositories of national scientific output, such as RedCol, also indicate a scarcity of studies examining self-care agency among faculty members at higher education institutions (HEIs), suggesting an important gap in the available evidence for this population (Ministerio de Ciencia, Tecnología e Innovación, 2022).

Epidemiological and public health research has devoted comparatively limited attention to the impact of demanding work conditions on the well-being of university faculty, partly reflecting the perception that academic work is associated with relatively low occupational risks. However, when analyzing this population under the premises of the Comprehensive Health Care Model (MIAS), university faculty members constitute a working population exposed to complex and emerging occupational conditions that may systematically undermine their quality of life (Ministerio de Salud y Protección Social, 2015).

University faculty work is frequently characterized by multitasking, fragmented working days, and high workloads. Professors may be required to simultaneously fulfill the core functions of higher education, including undergraduate and graduate teaching, scientific research, and community engagement or outreach, in addition to administrative tasks may extend beyond their formally allocated working hours (Robalino Campos and Körner, 2005). Furthermore, formal time allocations may be insufficient to cover important aspects of teaching work, such as meticulous lesson preparation, the design and grading of assessments, individualized tutoring, and the management of research projects. These demands may be compounded by institutional requirements related to career advancement and high-quality accreditation, which can include foreign-language proficiency, postgraduate academic training at the master's or doctoral level funded largely with personal resources, and sustained publication in high-impact, indexed journals (García et al., 2016).

Furthermore, precarious employment arrangements and insufficient remuneration may lead many faculty members to engage in multiple position or combine part-time work across multiple higher education institutions, as well as to undertake teaching assignments in graduate programs or regional extension courses on weekends (Vesga-Rodríguez and Díaz-Juarbe, 2020). The resulting overlap of work schedules may severely restrict opportunities for rest, leisure, family interaction, and physical recovery, potentially contributing to physical and mental burnout. This phenomenon takes on a key ethical and social dimension: university professors not only act as transmitters of specialized knowledge but also serve as role models whose behavior and self-care practices are learned and internalized by their students. Consequently, adverse workplace psychosocial factors may affect faculty members' health while also limiting their capacity to model and promote healthy lifestyles and self-care practices among future generations of professionals (Wilf-Miron et al., 2022).

Given the heterogeneity of individual responses to workplace demands, occupational epidemiology recognizes that exposure to psychosocial risks does not occur in isolation but interacts with sociodemographic variables, such as gender, age, and perceived health status, as well as the individual psychological characteristics (Moreno Jiménez and Báez León, 2010). Among these psychological factors, personality domains and coping strategies may play a critical role in health and disease processes (Jiménez Benítez, 2015).

Regarding personality, contemporary theoretical frameworks—based on the Big Five Model—conceptualize maladaptive personality traits through broad dimensions or domains such as Negative Affect, Detachment, Antagonism, Disinhibition, and Psychoticism, that explain how people perceive, process, and react to environmental stress (American Psychiatric Association, 2022). Explanatory approaches, including behavioral and stress-modulation models, suggest that traits characterized by negative affectivity and neuroticism may increase workers' vulnerability to perceived job demands, contribute to somatic responses, and reduce the tendency to engage in proactive self-care behaviors (Jiménez Benítez, 2015).

Coping strategies, in turn, refer to the changing cognitive, behavioral, and emotional efforts individuals use to manage specific internal or environmental demands that exceed their personal resources (Lazarus and Folkman, 1986). These strategies may be oriented toward active problem management, such as problem-solving, positive reappraisal, and seeking social support, or toward passive or avoidant responses, such as cognitive or emotional avoidance, aggressive reactions, and denial. The literature indicates that the predominant use of passive or maladaptive coping strategies in response to work overload is associated with the onset of burnout syndrome, higher levels of chronic stress, and less favorable self-care practices (Restrepo and López Velásquez, 2012).

In the Aburrá Valley Metropolitan Area (Antioquia, Colombia), a robust university ecosystem—comprising both public and private higher education institutions—

exposes faculty members to different organizational dynamics related to quantitative work demands, autonomy, leadership, contractual stability, and recognition. However, an important empirical gap remains regarding how psychosocial factors associated with academic work relate to faculty members' personality traits and coping strategies, and to what extent this interaction determines their capacity for self-care agency (Lemos et al., 2019).

Based on these considerations, the general objective of this study is to determine the association between workplace psychosocial factors and psychological factors, including personality domains and coping strategies, with self-care agency among university professors in the Aburrá Valley Metropolitan Area, Colombia.

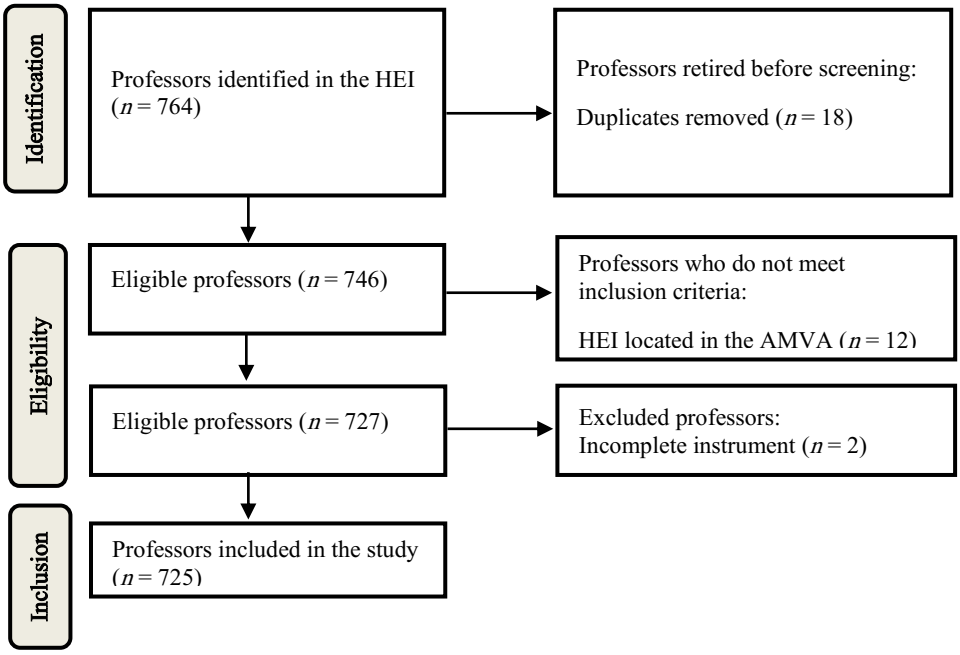
Method

Participants

The study population consisted of university professors working in one or more of the ten municipalities of the Valle de Aburrá Metropolitan Area (AMVA) who had been in their current position for at least three months. Professors on sabbatical leave and personnel exclusively assigned to administrative duties or to study, as well as to service commissions were excluded from the study. The sample size was calculated using the formula for estimating a proportion in a finite population, with a 95% confidence level, a maximum allowable error of 5%, and a design effect of 1.1. Participants were selected using a two-stage stratified probabilistic sampling design. The sample size was calculated in proportion to the sector of the higher education institution (HEI; public or private) and stratified, with proportional allocation according to the type of contract (full-time, part-time, and adjunct). Figure 1 presents the recruitment and assessment process of the participants. A total of 725 observations were included in the study.

For the psychometric validation of the instruments, a criterion of ten university professors per item was adopted (Carretero-Dios and Pérez, 2005). Accordingly, 280 professors were included for the Multidimensional Coping Inventory (COPE), and 150 for the Revised Self-Care Agency Scale (ASA-R). To account for potential nonresponse during data collection, each validation sample was increased by 10%, resulting in target samples of 308 for the COPE and 165 for the ASA-R.

Figure 1.
Participant recruitment and evaluation flowchart



Source: own elaboration.

Instruments

A battery comprising the following instruments was administered:

Intralaboral Psychosocial Risk Factors Questionnaire. This questionnaire is part of the Battery of Instruments for the Assessment of Psychosocial Risk Factors developed and validated for the Colombian population. It assesses psychosocial conditions related to work organization, job characteristics, and the work environment that may adversely affect workers' health. It contains 123 items and assesses four domains: Job Demands, Control Over Work, Leadership and Social Relationships at Work, and Rewards. The questionnaire has shown a very high level of internal consistency ($\alpha = 0.954$) (Ministerio de la Protección Social, 2010).

Personality Inventory for DSM-5 –Brief Form (PID-5-BF). This is a 15-item self-report instrument designed to assess five domains of personality traits in adults: Negative Affectivity, Detachment, Antagonism, Disinhibition, and Psychoticism. The version adapted for Colombian university professors was used, with each domain comprising three items. Internal consistency was $\omega = 0.86$ for the total scale and ranged from 0.68 to 0.77 across the five domains (Berrío García et al., 2024).

Multidimensional Coping Assessment Inventory (COPE). The version adapted for the general Colombian population was used (Berrío García et al., 2025). It is a 14-item inventory comprising three factors, with responses recorded on a four-point Likert-type scale: 1 (almost never), 2 (sometimes), 3

(usually), and 4 (very often). The inventory has an internal consistency coefficient of ω = 0.81. Higher scores indicate more frequent use of the corresponding coping strategy.

Appraisal of Self-Care Agency Scale (ASA-R). This is an 8-item scale widely used in the healthcare field worldwide to assess an individual's capacity for self-care. The scale is designed to assess evaluative, transitional, and productive self-care activities. Responses are recorded on a five-point Likert-type scale ranging from 1 (strongly disagree), representing the lowest level of self-care capacity, to 5 (strongly agree), representing the highest. Total scores range from 8 to 40 points. Participants with scores between 8 and 29 points were classified as having low self-care agency, whereas those with scores between 30 and 40 were classified as having high self-care agency. The version adapted for the general Colombian population was used. The scale has an internal consistency coefficient of ω = 0.93 (Berrío García et al., 2023b).

Procedure

Participants completed the instruments electronically using Google Forms. Univariate analysis was conducted to describe socio-economic, demographic, intra-labor psychosocial and psychological factors, and self-care agency. Bivariate analysis was used to identify non-causal associations between self-care agency and the independent variables, including intralabor psychosocial and psychological factors. The assumption of normality for continuous quantitative variables was assessed using the Shapiro-Wilk test, and the Chi-square test was used for bivariate analysis.

Ethical considerations

The study was classified as low risk in accordance with Colombian Resolution 8430 of 1993 (Ministerio de Salud, 1993) and was conducted in accordance with the principles of the *Universal Declaration on Bioethics and Human Rights* (United Nations Educational, Scientific and Cultural Organization, 2005). Digitally signed informed consent was obtained from each participant. Anonymity, confidentiality, and the protection of personal data were ensured in accordance with Law 1581 of 2012 and Article 15 of the Political Constitution of Colombia. The study protocol was reviewed and approved by the Research Ethics Committee for the Social Sciences, Humanities, and Arts (CEI-CSHA) of the Universidad de Antioquia.

Results

The study included 725 university professors from 30 higher education institutions (Table 1). Men accounted more teaching hours (52.9%), whereas women held more full-time positions (50.3%). Participants had a median age of 45 years (IQR = 15) and a median of 13 years of service as university professors (IQR = 13).

Table 1.
Sociodemographic and employment characteristics of university professors in the AMVA (n = 725)

	Variable	*n*	%	IC 95%
Age	24-45 years	367	50.6	47.0-54.3

	46-74 years	358	49.4	45.7-53.0
Multi-employment	Single employment	373	51.4	47.7 - 55.1
	Multi-employee	352	48.6	44.9 - 52.3
Multiple employment at HEI	No	496	68.4	64.9 - 71.8
	Yes	229	31.6	28.2 - 35.1
Type of HEI	Official	408	56.3	52.6 - 59.9
	Private	317	43.7	40.1 - 47.4
Type of contract	Lecture hours	306	42.2	38.6 - 45.9
	Part-time work	37	5.1	3.6 - 7.0
	Full-time work	382	52.7	49.0 - 56.4
Other work activities	No	378	52.1	48.4 - 55.8
	Yes	347	47.9	44.2 - 51.6
Perception of health status	Very good or good	649	89.5	87.3-91.7
	Fair or bad	76	10.5	8.2-12.7

Note: HEI: Higher Education Institution.

Source: own elaboration.

Regarding psychosocial risk in the domain of Leadership and Social Relationships at Work, 17.9% of the participants were classified as having low risk (95% CI: 15.2-20.9), 17.0% as medium risk (95% CI: 14.3-19.9), 16.4% as high risk (95% CI: 13.8-19.3), and 18.9% as very high risk (95% CI: 16.1-21.9). For Control Over Work, 20% were classified as having low risk (95% CI: 17.1-23.1), 24.4% as medium risk (95% CI: 21.3-27.7), 15.2% as high risk (95% CI: 12.6-18.1), and 13% as very high risk (95% CI: 10.6-15.6). For Job Demands, 22.8% were classified as having low risk (95% CI: 19.7-26%), 19.9% as medium risk (95% CI: 17.0-23.0), 14.1% as high risk (95% CI: 11.6-16.8), and 15.9% as very high risk (95% CI: 13.3-18.7). For Rewards, 18.3% were classified as having low risk (95% CI: 15.6-21.4), 19.6% as medium risk (95% CI: 16.8-22.7), 14.8% as high risk (95% CI: 12.3-17.5), and 14.5% as very high risk (95% CI: 12.0-17.3).

The distributions of personality domains and coping variables are presented in Tables 2 and 3, respectively.

Table 2.
Percentage distribution of personality domains

Personality domain		*n*	%	IC 95%
Negative affect	No alteration	191	26.3	23.1-29.5
	Slight alteration	309	42.6	39.0-46.2

	Moderate alteration	194	26.8	23.5-30.0
	Serious alteration	31	4.3	2.8-5.7
Detachment	No alteration	416	57.4	53.8-61.0
	Slight alteration	201	27.7	24.5-31.0
	Moderate alteration	96	13.2	10.8-15.7
	Serious alteration	12	1.7	.7-2.6
Antagonism	No alteration	584	80.6	77.7-83.4
	Slight alteration	120	16.6	13.8-19.3
	Moderate alteration	19	2.6	1.4-3.8
	Serious alteration	2	.3	.0-.6
Disinhibition	No alteration	315	43.4	39.8-47.1
	Slight alteration	305	42.1	38.5-45.7
	Moderate alteration	103	14.2	11.7-16.7
	Serious alteration	2	0.3	.0-.6
Psychoticism	No alteration	535	73.8	70.6-77.0
	Slight alteration	153	21.1	18.1-24.1
	Moderate alteration	35	4.8	3.3-6.4
	Serious alteration	2	.3	.0-.6
Total personality domains	No alteration	377	52.0	48.4-55.6
	Slight alteration	330	45.5	41.9-49.1
	Moderate alteration	17	2.3	1.2-3.4
	Serious alteration	1	.1	.0-.4

Source: own elaboration.

Table 3.
Percentage distribution for coping variables

	Variable	*n*	%	IC 95%
Active coping	Underutilized coping	182	25.1	21.9-28.3
	Coping depends on the circumstance	370	51.0	47.4-54.7
	Frequent coping	173	23.9	20.8-27.0
Social support	Underutilized coping	185	25.5	22.3-28.7
	Coping depends on the circumstance	404	55.7	52.1-59.3
	Frequent coping	136	18.8	15.9-21.6

Passive-avoidant coping	Underutilized coping	199	27.4	24.2-30.7
	Coping depends on the circumstance	433	59.7	56.1-63.3
	Frequent coping	93	12.8	10.4-15.3
Total coping	Underutilized coping	201	27.7	24.5-31.0
	Coping depends on the circumstance	374	51.6	47.9-55.2
	Frequent coping	150	20.7	17.7-23.6

Source: own elaboration.

Low self-care agency was identified in 28.3% of professors (n = 205), whereas 71.7% were classified as having high self-care agency (n = 520). Among professors aged 46 to 74 years, 42% had low self-care agency, with a statistically significant difference compared with those aged 24 to 45 years (PR = 0.9; 95% CI: 0.8-0.9). The proportion of low self-care agency among professors who perceived their health status as regular or poor was 22.4% (PR = 1.9; 95% CI: 1.4-2.5), whereas among professors who perceived their health status as good or very good, it was 77.6%. The prevalence of low self-care agency was twice as high among professors with poorer perceived health status.

Regarding Leadership and Social Relationships at Work, 24.4% of professors with very high risk in leadership characteristics had low self-care agency, with a statistically significant difference compared with professors without risk (PR = 1.3; 95% CI: 1.1-1.5). For social relationships at work, low self-care agency was observed in 22% of professors with high risk and 25.4% of those with very high risk. Both categories differed significantly from the reference category (PR = 1.3; 95% CI: 1.1-1.5 and PR = 1.2; 95% CI: 1.1-1.4, respectively). Among professors with high risk in performance feedback, 19.5% had low self-care agency, with a significant difference compared with those without risk (PR = 1.2; 95% CI: 1.1-1.4). At the overall domain level, low self-care agency was observed in 21% of professors with low risk, 20% of those with high risk, and 22.4% of those with very high risk, with statistically significant differences compared with the reference category.

For Control Over Work, low self-care agency was identified in 28.8% of professors with very high risk in role clarity and in 23.4% of those with high risk, with statistically significant differences compared with professors without risk (PR = 1.2; 95% CI: 1.1-1.3 and PR = 1.3; 95% CI: 1.1-1.5 respectively). Among professors with high risk in participation and change management, 24.9% had low self-care agency, with a statistically significant difference from the reference category (PR = 1.3; 95% CI: 1.1-1.5). Among those with very high risk regarding opportunities for development and the use of skills and knowledge, 10.7% had low health self-care agency, with a significant difference compared with professors without risk (PR = 1.3; 95% CI: 1.1-1.6). At the overall domain level, the proportion of low self-care agency among professors at very high risk was 19.5%, with a statistically significant difference from the reference category (PR = 1.4; 95% CI: 1.1-1.7).

For Job Demands, low self-care agency was observed in 26.8% of professors with moderate risk, 19% of those with high risk, and 19.5% of those with very high risk, with statistically significant differences from the reference category. For quantitative demands, 21.5% of professors with high risk and 19.0% of those with very high risk had low self-care agency, with significant differences from the reference category (PR = 1.5; 95% CI: 1.2-1.8 and PR = 1.4; 95% CI: 1.1-1.7). Among professors with very high risk regarding the influence of work on the non-work environment, 44.4% had low self-care agency, with a significant difference compared with those without risk (PR = 1.3; 95% CI: 1.1-1.5). Regarding work schedule demands, low health self-care agency was observed in 17.1% of professors, with a significant difference from those without risk (PR = 1.2; 95% CI: 1.1-1.4). Regarding role consistency, low self-care agency was identified in 23.4% of professors with moderate risk, 16.1% of those with high risk, and 18.0% of those with very high risk, with statistically significant differences from the reference category.

For rewards, low self-care agency was observed in 25.4% of professors with very high risk related to rewards derived from organizational membership and job performance, with a significant difference compared with professors without risk (PR = 1.2; 95% CI: 1.1-1.4). Among professors with high risk in recognition and compensation, 20.5% had low self-care agency, with a statistically significant difference from the reference category (PR = 1.2; 95% CI: 1.1-1.4). At the overall Rewards domain level, 18% of professors with very high risk had low self-care agency, with a statistically significant difference from the reference category (PR = 1.2; 95% CI: 1.1-1.4). For overall intralaboral psychosocial risk, low self-care agency was observed in 22% of professors with moderate risk, 19% of those with high risk, and 20.5% of those with very high risk, with statistically significant differences compared with the reference category.

Regarding personality domains, low self-care agency was observed in 45.9% of professors with mild negative affectivity dysfunction, 28.8% of those with moderate dysfunction, and 6.3% of those with severe dysfunction, with significant differences from professors without dysfunction. For Disinhibition, low health self-care agency was observed in 47.8% of professors with mild dysfunction and 17.1% of those with moderate dysfunction, with statistically significant differences from the reference category (PR = 1.1; 95% CI: 1.1-1.3 and PR = 1.2; 95% CI: 1.1-1.4). Furthermore, 54.6% of professors classified as having mild personality disorder had low self-care agency, with a statistically significant difference from professors without disorder (PR = 1.2; 95% CI: 1.1-1.3).

Regarding coping strategies, low self-care agency was observed in 58.5% of professors who used situational social support and in 25.4% of those who frequently used social support, with statistically significant differences compared with professors who rarely used this coping strategy (PR = 1.2; 95% CI: 1.1-1.3 and PR = 1.3; 95% CI: 1.1-1.5, respectively).

Complete association tables and analytical models are available in the

appendix deposited in the Open Science Framework: https://osf.io/6je2f/overview?view_only=81f6d02b311946a1b3d20593434633f1

Discussion

The objective of the present study was to analyze the associations between intralaboral psychosocial factors, psychological factors, and self-care agency among university professors from the Valle de Aburrá, Colombia. The findings provide insight into how characteristics of the university work environment, together with individual personality traits and coping strategies, are associated with faculty members' capacity to engage in actions aimed at preserving and promoting their own well-being and health.

Regarding sociodemographic and employment characteristics, the results showed that 48.6% of participants held multiple jobs, with many working simultaneously at several higher education institutions (HEIs). This employment pattern is consistent with the phenomena of job precariousness and intensification of academic work reported in national and international literature (Robalino Campos and Körner, 2005; Vesga-Rodríguez and Díaz-Juarbe, 2020). Nevertheless, 71.7% of the sample exhibited high self-care agency, with relatively similar levels across different contractual modalities (adjunct/hourly, part-time, and full-time). Despite this apparent stability, the proportion of low self-care agency was higher in professors in the younger age group (24 to 45 years) compared to older professors, suggesting that younger faculty members may be exposed to greater professional adaptation demands, lower job stability, or less consolidated health-oriented routines (Wilf-Miron et al., 2022). Likewise, fair or poor self-perceived health status was significantly associated with low self-care agency, nearly doubling its frequency (PR = 1.9; 95% CI: 1.4–2.5), a finding consistent with theoretical approaches suggesting that perceived deterioration in health may be related to an individual's motivation and capacity for self-management (Orem, 1993).

Regarding intralaboral psychosocial factors, high and very high levels of psychosocial risk were identified in one-third of the population evaluated. Domains such as Leadership and Social Relationships at Work and Job Demands showed notable levels of risk. Deficiency in leadership, difficulties in social relationships at work, and inadequate performance feedback were significantly associated with lower self-care agency. These findings are consistent with previous research indicating that university environments characterized by limited institutional support and ineffective hierarchical communication may reduce workers' cognitive and emotional resources and make it more difficult to maintain healthy habits (García et al., 2016; Gómez Ortiz et al., 2019).

Similarly, dimensions within Control Over Work—particularly lack of role clarity, for which 41.5% of participants presented high or very high risk, and limited participation in change management—were significantly associated with low self-care agency. In contemporary university teaching, role ambiguity arising from the simultaneous demands of teaching, research, extension, and administrative management, may contribute to increased mental workload and reduce the

time and resources required for personal self-care (Collado et al., 2016). Likewise, high work schedule demands (48.1% at high or very high risk) and the influence of work on the non-job environment, for which 33.5% of professors presented very high risk, illustrate the potential consequences of blurred boundaries between personal and professional life for time devoted to proper nutrition, rest, and physical activity (Fernández Espejo and Solari Montenegro, 2017). Additionally, the Rewards domain showed a combined high and very high risk of 29.3%, suggesting that insufficient compensation or recognition may be associated with lower motivation and, potentially, with difficulties in maintaining self-care practices.

At the psychological level, the results showed that a substantial proportion of faculty members presented mild to moderate alterations in personality domains such as Negative Affectivity (69.4%) and Disinhibition (56.3%). Higher levels of Negative Affectivity reflect a tendency to experience dysphoric emotional states, including anxiety, irritability, and vulnerability (American Psychiatric Association, 2022), which may act as psychological barriers to initiating and maintaining health-promoting behaviors (Pressman et al., 2019). Similarly, higher levels of disinhibition may involve greater impulsivity and difficulties in long-term self-regulation, which may be associated with inconsistent health behaviors or reduced adherence to healthy routines in the presence of recurrent workplace stressors.

On the other hand, the assessment of coping strategies showed that more than half of the professors reported using active coping (51.0%), social support (55.7%), and passive-avoidant coping (59.7%) depending on the situation. This high reliance on context to activate adaptive strategies suggests that the faculty body lacks consolidated responses to workplace stressors (Lazarus and Folkman, 1986). The interaction between a high-demand psychosocial environment and a personality characterized by negative affectivity increases the reliance on passive-avoidant coping strategies. Although avoidance may temporarily reduce emotional distress, in the long term, it may hinder proactive problem-solving and be associated with less effective self-care practices and greater vulnerability to professional exhaustion or burnout syndrome (Gil-Monte, 2005).

Overall, self-care agency among university professors does not appear to depend exclusively on individual characteristics but is also closely associated with psychosocial working conditions and available psychological resources. These findings highlight the importance of strengthening psychosocial risk surveillance and prevention strategies in higher education institutions. Such initiatives may include measures aimed at managing workloads, improving role clarity, but also at promoting transformational leadership environments and strengthening active coping psychological tools among faculty members (Villalobos, 2004).

Conclusions

The findings of this study provide a characterization of the sociodemographic, occupational, and psychological

characteristics of university professors in the Aburrá Valley Metropolitan Area (AMVA) and their associations with self-care agency. In the occupational and sociodemographic context, nearly half of the professors held multiple jobs, primarily through part-time teaching positions. Perceived health status and age were significantly associated with self-care agency, with higher levels observed among professors aged 46 to 74 years.

Regarding workplace psychosocial conditions, nearly one-third of the teachers presented high or very high levels of risk, both overall and across the domains of Leadership and Social Relationships at Work, Control Over Work, Job Demands, and Rewards. Exposure to this risk negatively impacts health, with substantially lower self-care agency observed among teachers at very high risk in dimensions related to control, leadership, and rewards, as well as among those with moderate and very high levels of overall workplace assessment.

At the individual psychological level, personality domains and coping strategies were also associated with self-care agency. Lower levels of self-care agency were observed among professors with greater elevations in Negative Affectivity and Disinhibition, as well as in the overall personality score. At the same time, specific trends were identified regarding coping strategies: self-care capacity was lower among those who seek social support frequently or when the circumstances require it, while higher agency was observed among faculty members who employ passive-avoidant strategies with the same frequency.

Overall, approximately 30% of university professors presented low self-care agency regarding health, with relatively similar levels across types of employment contract. These findings highlight the importance of designing organizational interventions aimed at reducing psychosocial risks and promoting comprehensive well-being in academic work environments.

Limitations and recommendations

The study had several methodological and operational limitations. First, the cross-sectional nature of the design precludes causal inference, restricting the study's scope to the identification of factors associated with low self-care agency. Furthermore, financial and logistical constraints prevented the collection of data provided by institutions of higher education (IHE), limiting the full application of a broader epidemiological and organizational approach.

Regarding the sample, the high prevalence of professors holding multiple jobs (nearly 50%) may have introduced potential biases that were difficult to control, particularly because of the complexity of identifying participants employed exclusively by a single institution. Furthermore, administration of the questionnaire battery through online surveys, as a consequence of the COVID-19 pandemic, may have increased the possibility of measurement inaccuracies arising from misunderstandings of the items and prevented precise calculation of the nonresponse rate. Nevertheless, online administration provided a feasible alternative

given the logistical, financial, and time requirements of in-person data-collection.

Furthermore, the limited availability of previous studies examining personality and coping using comparable psychometric criteria in university faculty also required comparison of the present findings with those obtained from heterogeneous populations.

Finally, we suggest conducting future epidemiological research using longitudinal designs, multilevel models, and larger samples. These approaches could provide stronger evidence to inform organizational interventions by higher education institutions, the Ministry of Education, and the Ministry of Labor, aimed at mitigating the identified risk factors.

Data availability

The datasets and analytical annexes supporting this study are openly available in the Open Science Framework repository referenced in the Results section.

Analytic methods availability

The statistical analysis methods used in this study are described in the Methods section. The analytical models and complete association tables supporting the reported results are available in the Open Science Framework (OSF) repository.

Materials availability

The materials used in this study, including the study instruments and supporting documentation, are described in the Methods section. The datasets and analytical annexes supporting the findings are openly available in the Open Science Framework (OSF) repository.

Use of generative artificial intelligence

Generative artificial intelligence tools were not used to generate, analyze, interpret, or modify the study data or statistical results. Mendeley was used for reference management, including the organization and formatting of bibliographic references. The authors reviewed and approved the final content of the manuscript and remain fully responsible for its accuracy and integrity.

Conflicts of interest

The authors declare no conflicts of interest related to this study or its publication.

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