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Burnout and associate factors among Bank employees in Angola. A cross-sectional study

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Abstract

Background The banking industry in Angola faces a series of difficulties and changes, including elevated non-performing loan ratios, bank branch closures and workforce reductions, and an accelerated implementation of digital and automation technologies. These factors intensified operational and productivity pressures on employees, influencing their well-being (e.g., health).

Methods This cross-sectional study addressed the occurrence of burnout and associated factors (e.g., depression) among 948 bankers (498 males and 450 females) working in private and public banks in Luanda (Angola). Data were analysed using univariate (e.g., ANOVAs) and multivariate methods (i.e., logistic regression).

Results In the univariate analyses, 323 (34,5%) of 935 bankers reported burnout, which was linked to being aged 55+ and widows/ers, having children aged 19+ years and intermediate education, receiving salary/other benefits and working for 1-5 years, and having concerns about how to live on with their present salary and cope with future living conditions. The bankers with burnout also used alcohol and tobacco more often, experienced high job demands and strain, had less ability to cope with stress, complained more often of diseases (e.g., gastrointestinal), physical symptoms (e.g., pain), and symptoms of anxiety and depression, had less emotional stability, and had lower social support from family, significant others and friends. A subsequent hierarchical logistic regression (5 blocks) revealed that burnout was significantly associated with older age (55+ years), being single, having intermediate education, salary with benefits, long tenure, worries about future economic situation,

gastrointestinal and other illnesses, and depressive symptoms. Social support from friends and coping with stress were reversed, turning out to be protective factors for burnout. Collectively, the variables across the 5 blocks accounted for 61.6% of the variance in burnout among bank employees.

Conclusions Overall, the results indicate that the Angolan banking industry is associated with psychosocial conditions (e.g., burnout, depression) that may compromise occupational and personal well-being, reinforcing the need for structured organisational interventions and contextualised occupational health policies.

Keywords Bank Employees, Burnout, Depression, Anxiety, Demographics, Luanda, Angola

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Introduction

Burnout has been defined in various ways, but all share some similarities. Maslach and Jackson [1] identified emotional exhaustion, depersonalization (or cynicism), and reduced personal accomplishment as core components of burnout. Kristensen et al. [2] underscored personal, work-related, and client-related dimensions. Demerouti et al. [3] described burnout as exhaustion and withdrawal from work, while Pines and Aronson [4] characterised it as physical, emotional, and mental exhaustion.

The present study is based on the burnout definition of Shirom–Melamed and colleagues [5-9], which conceptualised burnout as the chronic depletion of the energetic resources of an individual in terms of feeling physically exhausted and lacking energy, feeling emotionally drained and having difficulties thinking clearly, concentrating, or sustaining mental alertness. The symptoms, as outlined by Shirom and Melamed [5], Melamed et al. [6,7], Shirom et al. [8] and Shirom [9], may be elicited by sustained exposure to stressful experiences such as excessive workload, feeling overwhelmed, persistent fatigue or continuous emotional demands (see also, for example, [10,11]).

Burnout may correlate with conditions like depression, anxiety, and fatigue [12-15], and it has been argued that burnout may be best understood as occupational depression [16,17]. Nevertheless, burnout is distinguishable from these ailments as it is a response to prolonged and unmanaged stress (usually from work), which improves with rest and boundary-setting (e.g., [18-22])

Occupational Burnout

Evidence suggests that burnout is present across several professional groups, although the rates vary widely. For instance, burnout prevalence rates among health care professionals (e.g., nurses, physicians) range from 3.3% to 68% (e.g., [23-28]), while among teachers, burnout

ranges from 25 to 65% (e.g., [29-31]). Burnout rates among blue-collar workers differ across occupations, methodologies, and regions. Nonetheless, synthesised findings indicate that 10% to 35% of workers experience clinical burnout, while 30% to 60% have significant symptoms [32–38].

Multiple factors contribute to burnout across professions. However, commonalities exist across jobs, including work-life imbalance, excessive workload, limited job autonomy, mentally and physically demanding responsibilities, and poor leadership support (e.g., [23,29,24,34,35,30]).

The burnout effects may lead to problems, including anxiety, depression, irritability, cynicism, physical ailments (e.g., gastrointestinal, cardiovascular), increased absenteeism or presenteeism, biological alterations (e.g., expanded amygdala volume) and reduced quality of life (e.g., [32,39-44]).

Burnout in the International Banking Industry

Studies from multiple countries demonstrate that bank employees may experience considerable occupational stress, including excessive workloads, poor leadership support, customer-related pressures, limited decision authority, and job insecurity. These factors frequently contribute to employee burnout. However, reported burnout experiences vary across countries, studies, and methodologies (e.g., measures). In many cases, rates of burnout are unreported.

Studies examining burnout across private and public banking sectors in Africa, specifically Ghana, Cameroon, Nigeria, and South Africa, have offered insights into the characteristics of workplace burnout among a pooled sample of 1,693 bank officers (696 men and 814 women; two studies did not provide gender information). The collective data indicate that burnout is linked to various factors, including high job demands, job insecurity, role ambiguity, and work/life imbalance [45-53].

Demographic/socioeconomic and professional variables (e.g., sex, age, education level, job position) in general did not significantly influence burnout severity [45-53]. However, in South Africa, Sibindi and Platen [53] found a positive association between long weekly hours and burnout. Kudeto et al. [48] in Ghana revealed that anxiety and depression significantly mediated the association between occupational stress and burnout. Burnout rates vary from a moderate 22.6% [45] to alarming rates of 82.4% [46] and 97.2% [49].

Studies of employees (n =3,429; 1,343 men, 1,269 women; 3 studies did not provide gender information) from private and public banks across five Middle Eastern countries (Egypt, Iran, Jordan, Saudi Arabia, Turkey) found evidence of burnout ranging from mild to severe. Burnout was primarily associated with excessive stress, high workloads and demands and dissatisfaction with work [54-62]. Regarding other influences (e.g., demographics), a study in Egypt [55] reported that burnout was more common among employees in their forties, males, residents of urban areas, highly educated, and physically inactive and obese officers. The authors also observed elevated burnout levels among financial managers, client-facing employees, individuals with 15 years of tenure, and those working more than 8 hours per day [55]. Sheikhi et al. [62] in Iran found greater burnout symptoms among employees who were married, had children, and held managerial positions. Also in Iran, Karampoor and Rezabeigi [59] observed higher burnout symptoms in branch officers and an association between burnout, mental distress (e.g., anxiety and depression symptoms) and somatic symptoms (e.g., pains), whereas Lubbadah [61] in Jordan revealed higher burnout among older, divorced, and highly educated employees, as well as among those who had long tenures/weekly working hours, but no gender differences. In Saudi Arabia, Al-Kahtani and Allam [54] observed higher burnout levels among men than women and among employees less involved in the work. Research from Turkey revealed varied findings. Coban and Irmis [56] found a positive association between burnout and work-family conflict, while Elçia et al. [57] indicated that a low ethical climate

and low procedural and distributive justice were associated with higher burnout levels. Koyuncu et al. [60] in Turkey found that higher burnout levels were connected with employees who had low family income, worked more than 8,5 hours per day, had been exposed to mental and physical abuse, suffered from chronic diseases (e.g., cardiovascular) and dealt with too many customers per day. Older age was associated with lower burnout symptoms. Gümüstas and Karataş Gümüstas [58] in Turkey observed an association between burnout and abusive leadership, attenuated by friendship among colleagues. Finally, the exact prevalence of burnout was not shown.

Studies in Brazil [63-66], Puerto Rico [67] and the United States [68,69] regarding burnout among bank employees in private and public institutions (n=2,048; 1057 men, 1001 women) showed that burnout was mainly derived from such factors as high workloads and demands, job dissatisfaction, low support from leadership and competitiveness. Overall, no major differences emerged by gender or other demographic/socioeconomic factors. However, Coelho et al. [63] in Brazil found that low social support and being female were significantly associated with burnout, while Reatto et al. [65] showed that operational, technical, and managerial staff were more prone to experience burnout. Burnout levels tended to be high, though only two studies reported prevalence rates. In Brazil, De Oliveira et al. [63] and Valente et al. [66] reported burnout rates of 2,8% and 71,8%, respectively.

A series of studies with employees from private and public banks (n=10,461; 4529 men and 4,539 women; no sex information in 7 studies) across 11 Asian countries (Bangladesh, China, India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Thailand, Vietnam) found that burnout was common, but it varied between countries and studies. Burnout often stemmed from stress, lack of optimism, poor self-efficacy, reduced endurance, time pressure, overwork, dissatisfaction with working conditions, and poor leadership support [70-95].

Regarding the relationship between demographics/socioeconomic status and burnout, findings showed that women tended to report burnout more often than men, or that there were no differences between women and men (e.g., [87]). Nonetheless, studies by Mosharrafa et al. [80] in Bangladesh and by Haque and Aslam [74] in Pakistan found higher levels of burnout among men. Kahlid et al. [76] in Pakistan and Li et al. [81] in China reported that adequate rewards (e.g., salary) were negatively associated with burnout. Vinod and Ambatipudi [93] in India found an association between long tenure/long working days and high burnout levels. Furthermore, Mosharrafa et al. [80] in Bangladesh revealed a clear association between depression and anxiety, particularly severe anxiety (37% of the respondents), and burnout, with males scoring higher on depression, anxiety, and burnout, while Qiao et al. [82] in China showed that burnout predicted depression. Similar findings were reported in India by Vinod and Ambatipudi [93], where a relationship was observed between anxiety, depression, and burnout among staff who had long tenures and worked more than 8 hours per day. Seven studies (e.g., Bangladesh, India) reported burnout rates that diverged wildly, from 5,7% to 93,45% [71,80,92,83,88,93,94].

A synthesis of research across 9 European countries (Bosnia/Herzegovina, Croatia, Cyprus, Greece, Poland, Portugal, Russia, Slovenia, Spain) with staff from private and public banks (n=4,249; men 1,801, women 2,448) indicated that burnout was common in the banking sector, ranging from mild to severe levels. The studies identified various stressors, including excessive stress, overwork, high demands, exhaustion, low decision latitude, maladaptive coping mechanisms, direct contact with clients and job dissatisfaction [96-107]. Regarding demographic/socioeconomic factors, findings were inconsistent or remained unaddressed across the literature. On gender, studies in Portugal [98], Greece [101] and Bosnia/Herzegovina [105] found no significant differences in burnout levels. Belias et al. [97] in Greece reported mixed results, with women experiencing higher emotional exhaustion and men higher

depersonalization. Conversely, studies reported higher burnout levels among women in Spain [96] and Slovenia [103]. Age and professional tenure yielded conflicting results. Younger employees frequently reported higher burnout symptoms [96,97,101], whereas employees aged fifty-five and above reported no burnout symptoms [96]. However, long professional tenure and extended daily work hours were consistently connected to increased burnout in Portugal [98], Croatia [100], and Bosnia/Herzegovina [105]. Interestingly, one study in Spain [96] and two in Greece [97,101] observed high burnout at both ends of the career continuum, noting vulnerabilities among young employees and veterans with 10 or 30 years of service. Variables such as education level and work position were not correlated with burnout in Greece [97], while studies in Russia [102], Poland [106] and Cyprus [107] did not examine demographic/socioeconomic variables. Four studies (e.g., Spain, Russia) reported burnout prevalence rates ranging from 4.1% to 55.78%, with emotional exhaustion as the predominant dimension [96,100, 102,105].

Overall, the findings show that many bank employees across regions are exposed to difficult working conditions, which often result in high stress and burnout, but also in other effects such as depression and anxiety, seriously affecting their well-being. Notwithstanding, the literature in certain regions (e.g., Africa) remains limited, calling for further research.

The Banking Industry in Angola and Burnout

The Angolan banking sector continues to face significant system-wide vulnerabilities, including high non-performing loan ratios and a marked dependence on government debt. These problems endure despite technological and regulatory reforms, highlighting foundational vulnerabilities that compromise economic security. Additionally, dependence on oil revenues increases risk, as income fluctuations constrain government expenditure, reduce corporate earnings, and increase borrower defaults. Banks' high holdings of sovereign debt limit private-

sector lending and heighten exposure to fiscal shocks. Currency discordances and inconsistent access to foreign exchange aggravate liquidity risks by creating funding shortfalls. Division within the sector and disparities in financial strength underline the necessity for continued thorough restructuring. Bank closures resulting from sanctions and insufficient capitalisation show continued fragility. Additionally, staff cuts and the accelerated implementation of digital and automation technologies intensify operational and productivity pressures on remaining employees (e.g., [108-114]).

The Angolan banking industry is undergoing significant structural changes, characterised by institutional closures, workforce reductions, and intensifying productivity demands. These macroeconomic changes and adjustments are likely to impose a heavy operational burden on personnel. This could negatively impact employees' working conditions and well-being. Yet, as far as we know, there is no empirical research documenting the psychosocial conditions and workforce vulnerabilities in terms of burnout and other factors (e.g., depression) among banking sector employees in Angola. Presently, only anecdotal evidence connects these.

This study aims to address this knowledge gap by assessing the prevalence of burnout among bank employees in Luanda (Angola) and its associations with job strain and demands, stress coping, demographic and economic variables, physical health, anxiety and depression, personality traits, and social support. The sample includes both male and female employees from private and public banks. The findings are expected to provide insights into their work environment, health, and well-being, and inform intervention approaches.

METHODS

Participants

Angola's banking industry has lost more than 4,000 employees since 2020, driven by digital transformation, automation, bank branch closures, and corporate restructurings [115]. The

latest reliable data on bank employees is from 2025. The number of banking officers was 12,190, comprising 6,590 males and 5,600 females. Among these, 11,320 (6,110 males and 5,210 females) worked in the Luanda region, accounting for 92.7% of the national banking workforce [109,111,116,117]. Because most bank employees are concentrated in the capital city of Luanda, and logistical barriers made it difficult to access other regions, we restricted our sample to participants from this geographical area ($n = 11,320$). To address ethical constraints (confidentiality), we classified bank officers into five age groups: 18-24, 25-34, 35-44, 45-54, and 55+.

To ensure valid, dependable, and meaningful results, we conducted separate sample size calculations for male ($n=6,110$) and female ($n=5,210$) groups using the Raosoft calculator [118]. Assuming a 95% confidence level, a 5% margin of error, and a 50% response distribution, the minimum required sample size was determined as 385 per sex ($n=770$). To ensure that the required sample size was met, the first author distributed 1,200 questionnaires to contacts at 16 private and two public banks, in person and via WhatsApp and email. However, the total number of questionnaires received was 948, 450 from females and 498 from males, representing an excess of 178 participants (see Table 1). The reasons were in-person, mail, and electronic delays and desynchronisation between delivery and receipt of the questionnaires during the data collection period. Consequently, it was considered impractical and unethical to eliminate the excess of questionnaires.

Insert Table 1 here.

Design and Procedure

The study was cross-sectional, and the questionnaires received amounted to 948 (450 women and 498 men), exceeding the required number by 178 (see Table 1). Of the 948 respondents,

756 answered the paper-based version of the questionnaire and 192 the electronic version. Data collection was completed within six months, with three reminders.

The first author distributed questionnaires in person and via WhatsApp and email to colleagues at 16 private and 2 public banks, with the majority distributed in person. Subsequently, the colleagues disseminated the questionnaires among their co-workers. Upon completion, the questionnaires were collected in person or received through WhatsApp, email, or mail. The names and types of the banks are omitted due to ethical constraints.

The questionnaires were accompanied by detailed study information, the researchers' details, informed consent forms, and ethical considerations. Confidentiality regarding the individual, age, and bank names and types was emphasised. Participation was voluntary, and employees could refuse to take part in the study or withdraw their consent at any time without any prejudice or penalty. Additionally, the respondents were informed that the data would be used only for research purposes and within the scope of scientific/academic publications and communications, where the results are aggregated and published without individualising the information, in accordance with rights, freedoms and guarantees. The Universidade Europeia Ethics Committee and the institution's external Data Protection Officer (DPO) approved the study protocol (Portugal). Ethical approval was also obtained at the University Luísíadas (Angola). Each procedure adhered to the ethical principles outlined in the Declaration of Helsinki [119].

Measures

If measures were unavailable in Portuguese, translations (forward-backwards) were performed by bilingual experts and followed by pilot testing with five adults to ensure clarity and cultural relevance.

Burnout was assessed using the Shirom-Melamed Burnout Measure (The SMBM) [5-9], which was validated in Portuguese [120-123]. The SMBM consists of fourteen items divided into three subscales: Physical Fatigue (6 items), Cognitive Weariness (5 items), and Emotional Exhaustion (3 items). Each item is rated on a 1-7 scale, ranging from never/almost never to always/almost always. The total score is from 14 to 98. Subscale scores are obtained by averaging the items within each subscale, and the total burnout score is calculated as the average of all fourteen items. Official cut-off values do not exist, but a mean score of 4 or higher indicates burnout[124]. Cronbach's Alpha: 0.921

Job strain was measured using the Work Strain Scale (WSS) [125,126], which was validated in Portuguese [127]. The scale includes eleven items rated on a 1 to 4 scale (never/almost never - often). The WSS covers job demands with five items, e.g., working very intensively and job control with six items, e.g., deciding how work is performed. The job demands score ranges from 5 to 20, and control from 6 to 24. Work strain arises when work demands exceed the level of control available to the individual [125,126]. High scores correspond to high job strain. Cronbach's Alpha: 0.678.

Symptoms of anxiety and depression were assessed using the Hospital Anxiety and Depression Scale (HADS) [128], which was validated in Portuguese [129]. HADS comprises fourteen items, each rated from 0 to 3. Seven items evaluate anxiety symptoms (e.g., I feel restless as I have to be on the move), yielding an anxiety subscale score ranging from 0 to 21. The remaining seven items assess depressive symptoms (e.g., I have lost interest in my appearance), also producing a depression subscale score from 0 to 21. For each subscale, scores of 0 to 7 indicate non-cases. 8 to 10 indicate possible cases, and 11 to 21 indicate probable cases. High scores correspond to high levels of anxiety or depression. Cronbach's Alpha for anxiety and depression were 0.751 and 0.874, respectively.

Coping with stressful events was assessed using the Brief-COPE [130,131], which was validated in Portuguese [132]. It comprises sixteen items distributed across nine coping strategy subscales (e.g., active coping). Responses are rated on a 5-point scale ranging from 1 (never done) to 5 (almost always done). Total scores range from 16 to 80. Each subscale score is calculated as the mean of its items, and the total score is the average of all sixteen items. High scores in each subscale or across scales indicate the use of adaptive coping strategies, whereas low scores reflect avoidant or maladaptive coping. Cronbach's Alpha: 0.917

Personality was measured using the Ten-Item Personality Inventory (TIPI) [133,134], which was validated in Portuguese [135]. TIPI assesses the Big Five traits—extraversion (sociability and assertiveness). Agreeableness (cooperativeness and compassion). Conscientiousness (organisation and dependability). Emotional Stability (calmness and resilience), and Openness (imagination and curiosity)—with two items per trait, one positively and one negatively worded. Each item is rated on a 1-7 scale, where one indicates strong disagreement and seven strong agreement. TIPI provides a brief measure of personality, minimising the respondents' burden and is appropriate to include as a control variable. High scores reflect a great expression of the respective trait. Cronbach's alpha: 0.512

Social support was assessed using the Multidimensional Scale of Perceived Social Support (MSPSS) [136], which was validated in Portuguese [137]. MSPSS comprises twelve items, with four items each, evaluating support from family, significant others, and friends. Each item is rated on a 1-7 scale, where one indicates very strong disagreement, and seven indicates very strong agreement. The total scores range from 12 to 84. High scores denote great perceived social support. Cronbach's Alpha: 0.926

Physical health was evaluated using five questions regarding the presence of diabetes, cardiovascular (e.g., high blood pressure), gastrointestinal (e.g., gastritis), pulmonary (e.g.,

bronchitis), and other ailments (e.g., allergies). Responses were recorded in a yes/no/before format. In this study, we focus on the actual presence of diseases. Cronbach's Alpha: 0.771.

Physical symptoms were assessed using the 8-item version [138] of the Giessen Subjective Complaints List [139]. Symptoms are categorised into four domains, each comprising two questions: exhaustion (e.g., tiredness), gastrointestinal (e.g., stomach pain), musculoskeletal (e.g., backache), and heart distress (e.g., sudden bouts of heart trouble). Items were rated on a 1-5 scale, ranging from not affected to very much affected. The total score ranges from 8 to 40. High scores reflect great symptom impact. Cronbach's alpha: 0.940

Lifestyle factors were assessed through measures of alcohol and tobacco use. Alcohol consumption was evaluated using the Alcohol Use Disorders Identification Test (AUDIT) [140], which was validated in Portuguese [141]. AUDIT consists of ten items addressing alcohol consumption, related problems, and dependence. Cronbach's Alpha: 0.705. Tobacco use was assessed with seven items, including "Do you smoke?" with yes/no response options. Cronbach's Alpha: 0.796

Present economic worries were measured by asking: Are you worried about living on your current salary/income? Responses were rated on a 1–4 scale (not at all to always). High scores correspond to greater worries.

Future financial worries were assessed with six questions about personal and healthcare finances, covering living standards, medical costs from illness or accidents, and retirement funds. Each used a 1–4 scale (ranging from not worried at all to very worried) [142-145]. Total scores range from 6 to 24. Here we present the total score across activities. A high overall score indicates significant financial worries about the future. Cronbach's Alpha: 0.845.

Demographics/socioeconomics were assessed using variables such as age group, marital status, and education level.

Statistical Analysis

The data were analysed using chi-square (χ^2) tests and analysis of variance (ANOVA). The significance threshold for univariate analyses was set at $P < 0.01$ because of the several tests conducted. All scales were examined with Cronbach's alpha.

A multiple block-wise logistic regression analysis was performed to identify and quantify factors associated with burnout. Burnout was dichotomised as “no burnout” (scores < 4) and “burnout” (scores > 4). For the multivariate analyses, the significance level was $P < 0.05$.

The regression was conducted for the total sample, adjusting for potential confounders, which consisted of job strain and coping with stress, demographic and socioeconomic variables (e.g., education), economic factors (e.g., financial worries), lifestyle variables (e.g., alcohol use), diseases (e.g., diabetes), somatic health indicators (e.g., pain), anxiety and depression, personality, and social support. However, confounders were the variables that significantly distinguished the total sample in the univariate analyses ($P < 0.01$).

In block-wise logistic regression, variables are entered into the equation in sequential blocks. This approach evaluates each block's contribution to explaining the dichotomous dependent variable. Results are reported as odds ratios, Nagelkerke R^2 , and 95% confidence intervals. Nagelkerke R^2 [146] is a descriptive measure of model fit that quantifies the strength of the association between variables. Categorical variables with more than two categories were converted into dummy variables. Some data were missing for several variables. However, when possible, missing data were replaced. The missing item in a multi-item scale was replaced with the person's mean on the remaining items in that scale. The goodness-of-fit was checked with the Hosmer/Lemeshow test, and each block had a significance level greater than 0.05. To assess multicollinearity, a temporary linear regression was done using the same independent variables. Tolerance values were above 0.20, and VIFs ranged from 1 to 4. All data analyses were performed with SPSS 29 [147].

RESULTS

Univariate Analyses

Burnout, Demographic, Socioeconomic and Economic Variables

Table 2 indicates that 323 (34,5%) of 935 bankers reported burnout. Furthermore, employees reporting burnout were more often aged 55+, widows/ers, parents of young adults (19+ years), had intermediate education, received salary/other benefits, had worked for 1-5 years, and were more concerned about how to live on with their present salary and how to manage future living conditions. There were no differences in burnout by sex, having children per se, household size, profession, work function, or weekly working hours.

Insert Table 2 here.

Job Demands/Strain, Coping with stress, Lifestyle, Physical and Mental Health, Personality and Social Support

As shown in Table 3, employees experiencing burnout reported greater job demands and strain, and less ability to cope with stress, used alcohol and tobacco more often, report more diseases (except pulmonary) and somatic symptoms, more often complained of anxiety and depression symptoms, reported more probable and possible cases of anxiety and depression, showed less emotional stability and had lower social support from family, significant others and friends. There were no differences regarding job control.

Insert Table 3 here.

Multivariate Analyses

Job Demands, Job Strain and Coping with Stress

As reported in Table 4, contrary to the univariate results, no significant associations were found concerning job demands and job strain. As to the capacity to deal with stressful events, a shift seems to have occurred. After adjusting for other variables (e.g., job strain), the relationship reversed, revealing that employees with burnout were more able to cope with stressful events than non-burnout employees. Overall, the work stress block accounted for 6.2% of the variance in burnout ($R^2 = 0.062$).

Demographics, Socioeconomics and Economic Strain

This multivariable block revealed a significant positive association between burnout and several demographic and occupational factors: age (55+ years), single marital status, intermediate education level, salary/benefits, longer tenure (6–10 and 11+ years), and anticipation of future financial strain. While the findings for age, intermediate education, salary/benefits, and future financial strain mirrored the univariate results, the finding for single status contradicted them, suggesting that the influence of the other variables reversed the marital status direction. No other significant associations were observed. Overall, this block accounted for 40% of the variance in burnout ($R^2 = 0.40$).

Lifestyle and Health

In this block, only gastrointestinal diseases, other illnesses, and depressive symptoms had a significant positive association with burnout, mirroring the univariate results. Contrary to the univariate findings, no other variables (e.g., anxiety) were significant. Overall, this block accounted for 10,1% of the variation in burnout ($R^2 = 0.101$).

Personality

This block, which evaluated emotional stability, showed no significant association with burnout. This finding contradicted the univariate results, i.e., higher emotional stability was significantly linked with non-burnout. Overall, this block accounted for less than 1% of the variance in burnout ($R^2 = 0.001$).

Social Support

In contrast to the univariate results, the multivariate model showed that only support from friends was reliably associated with burnout. A shift seems to have happened. After adjusting for other interpersonal variables, the relationship reversed, transforming friend support into a protective factor against burnout. Overall, this block accounted for 5.2% of the variance in burnout ($R^2 = 0.052$).

Collectively, the variables across the 5 blocks accounted for 61.6% of the variance in burnout among bank employees ($R^2 = 0.616$).

Insert Table 4 here.

Discussion

Extent of burnout

The burnout rate among bank workers was 34.5%. While all reviewed studies in the banking industry report burnout as a common problem, few studies presented prevalence rates, which varied widely from 2,8% to 97,29% [45,46,49,96,64,66,71,80,83,88,93,94,100,102,105]. This broad variation is also found in other occupations (e.g., nurses, physicians), with rates ranging from 3.3% to 68% [23-28]. Variations in burnout rates may reflect different cultural definitions

of the phenomenon, structural differences between banks, use of varied assessment tools and statistical analyses, and uneven access to support systems across work environments.

Job Demands, Job Strain and Coping with Stress

Contrary to the univariate results, no significant associations between job demands and job strain were found. Regarding the ability to cope with stressful events, a shift occurred. After adjusting for other variables (e.g., job strain), the relationship reversed, revealing that employees with burnout were more able to manage stressful events than non-burnout employees.

This finding seems odd as one core element of burnout is the inability to cope with stressful events. An explanation may pertain to an illusory coping ability. People with burnout frequently develop cynicism or emotional numbness as a defence mechanism. This psychological detachment may be easily interpreted as calm composure or indifference from the outside, but it could be an indicator of withdrawal. What may have seemed like effective coping could, in reality, be a reduction in actual functional capacity. Another explanation could be "high-functioning burnout"; before collapsing from burnout, individuals are still in a highly active, over-committed state, where performance remains high, including coping with stressful events (see [148,149]).

Demographic, Socioeconomic and Economic Variables

The univariate analyses showed that employees with burnout were more often aged 55+ years, widows/ers, parents of young adults (19+ years), had intermediate education, received salary/other benefits, had been working for 1-5 years, and were more concerned about how to live on their present salary and how to manage future living conditions. No significant differences in burnout were found regarding gender, having children per se, household size,

profession, work function, or weekly working hours. In the subsequent logistic regression, we excluded these variables.

Broadly, existing literature on gender remains inconsistent. While some studies identify men as more prone to burnout than women (e.g., [55,80]), others reported the opposite (e.g., [96,63]), no gender differences (e.g., [101,105]), or did not examine the issue (e.g., [58,102]). Regarding having children per se, most studies did not address the issue, but Sheikhi et al. [62] in Iran found that it was related to burnout.

To the extent that professional position and working function were addressed, Karampoor and Rezabeigi in Iran [59] and Koyuncu et al. in Turkey [60] reported higher burnout among branch officers. In contrast, other researchers in Brazil [65], Egypt [55] and Iran [64] observed that managers were more vulnerable to burnout. When daily working duration was examined, several studies (e.g., Portugal, India) found an association between burnout and working more than 8 hours per day [55,60,93,98,100,105]. Meanwhile, the role of household size is overlooked. In Angola, the bankers' profession is often disassociated from organisational rank and, therefore, may not be connected with burnout. These disparate findings on demographics/socioeconomics such as gender and working position point to structural differences in banking organisational structures, cross-cultural variations, and distinct research methodologies.

Being aged 55+ years, parents of young adults (19+ years), having intermediate education, receiving salary/other benefits, having a tenure of 1-5 years, and being concerned about how to live on their present salary and how to manage future living conditions were associated with burnout in the univariate analyses. In the multivariate analyses, a suppression effect emerged when analysing marital status. Initially, in the univariate analyses, single individuals were less prone to burnout than widows or widowers. However, after adjusting for other variables, the relationship reversed, showing that single status was positively associated

with burnout. Furthermore, in the multivariate analyses, the significant relation between burnout and present financial strain and children's age disappeared.

As far as age is examined in relation to burnout, our findings that older employees (55+) were more susceptible to burnout align with one study in Jordan [61], while some studies in Spain [96] and Greece [97,101] showed a positive relation between younger employees and burnout. A plausible explanation is that workload distribution varies significantly by institutional culture. While banking institutions in some regions (e.g., Spain) may place heavier workloads on younger employees, specific regional environments exhibit the opposite trend. In Jordan [61] and Angola, older officers have assumed greater institutional responsibilities, thereby increasing their vulnerability to job burnout. It is also plausible that older Angolan bank officers faced exceptional pressures that led to burnout because technological changes, rigid performance targets, and shifting organisational roles are recent. Experience may help, but older bank officers may have faced cumulative stress and a mismatch between their traditional skills and the modern high demands of the banking sector. A study in Italy on banking-related stress supports this view [150].

Research on how marital status influences burnout in the banking sector remains limited and inconsistent. While Sheikhi et al. in Iran [62] found an association between marriage and burnout, Lubbadah in Jordan [61] linked burnout to being divorced. Conversely, our regression analysis connected burnout with single status. This divergence may mirror differing domestic, societal, and professional roles that marital statuses carry across two distinct regions, Africa and the Middle East. Intuitively, married and divorced individuals are likely to have greater economic and domestic responsibilities that compound workplace stress, thus increasing their risk for burnout. However, single bankers in Angola may have experienced higher burnout because they invested more in their professional performance, encountered greater workplace demands, and lacked the emotional buffer of a partner or immediate social support from

colleagues and managers. This vulnerability among single/unmarried individuals is consistent with literature about burnout (e.g., China), though outside the banking sector (e.g., [151-153]).

Contrary to previous research linking burnout in the banking sector directly to the presence of children per se, as shown in Turkey [56], our multivariate analyses reveal that neither parenthood status nor children's age predicted burnout. This difference stems from the structure of Angolan households, which traditionally are characterised by large, extended families. Unlike individualistic cultures, where childcare is often cited as a driver of burnout [154], children and large households seem not to be perceived as structural burdens in Angola, thus mitigating their impact on occupational stress. Meanwhile, data on the influence of children on parental burnout in the banking industry are scarce.

While research linking high education levels to burnout per se in the banking industry is limited, some literature indicates a positive correlation. Specifically, two studies in Egypt and Jordan [56,61] respectively, revealed that highly educated bank employees are more susceptible to burnout than their less-educated peers. This vulnerability could result from exposure to hyper-competitive work environments, over-identification with professional roles, and physical and cognitive overload, thus leading to burnout. In contrast to these results, the present study identified a reliable connection between intermediate education and burnout. A plausible explanation is that bankers with lower education levels, compared with highly educated bankers, face greater socioeconomic instability, have lower job control, feel higher job insecurity, and receive less support from colleagues and managers. They may also be more exposed to negative events such as abusive acts from customers. This explanation seems in accord with an empirical study on stress within the banking industry [150].

Both univariate and multivariate analyses revealed an unexpected positive association between salary/benefits and burnout. This finding contrasts with previous research, which found that organisational rewards, such as salary, are protective against burnout in Pakistan

[76] and China [82]. Within the Angolan context, this inconsistency may indicate that salary/benefits prompted overcommitment to work. Subsequently, employees may have suppressed or ignored early signs of stress to justify or maintain their earnings, unintentionally hastening the start of burnout.

Our multivariate analysis revealed a positive association between long tenure (6-10 and 11+ years) and burnout, aligned with findings from various studies in Europe (e.g., Portugal) [98,100,105], the Middle East (Jordan) [61] and India [93]. An explanation is that long tenure in banking leads to chronic stress and persistent work demands that accumulate over time. The individuals are drained of physical and mental energy continuously over the years, particularly if adequate interventions for recovery do not occur.

Present and expected future financial strain were associated with burnout in the univariate analyses, but only expected future financial strain remained significantly associated with burnout in the multivariate examination. The contribution of additional predictors in the multivariate model may have attenuated the specific influence of present financial strain. An explanation for this finding is the situation of the banking industry in Angola. It is characterised by factors such as significant system-wide vulnerabilities, including high non-performing loan ratios and a marked dependence on government debt, increased borrower defaults, bank and branch closures, staff cuts and accelerated implementation of digital and automation technologies, which intensify operational and productivity pressures on employees (e.g., [108-114]). This may have led to insecurity concerning their job and how they will manage future costs (e.g., living costs, pensioning). Although not related to burnout, a recent study in the Philippines [155] found that financial strain was significantly associated with stress among bank employees. Also not related to burnout, a study in the USA [156] found an association between financial worries and psychological distress among adults.

Lifestyle and Health

In the univariate analysis, bankers with burnout used alcohol and tobacco more often, reported more diseases and somatic symptoms (e.g., pain), and more often complained of anxiety and depression symptoms. However, adjusting for other variables, the relationships reversed, showing that in the multivariate analysis only gastrointestinal (e.g., gastritis) and other diseases (e.g., migraine), and depression symptoms were significantly associated with burnout.

There are scarce data on the relationship between burnout, physical problems, and depression among bank employees. Notwithstanding, Kudeto et al. in Ghana [48] revealed that depression significantly mediated the association between occupational stress and burnout. Other studies in Bangladesh [80], China [82], India [93], and Iran [59] reported an association between burnout, depression, and somatic symptoms, and Koyuncu et al. in Turkey [60] reported somatic symptoms (e.g., pains) and chronic diseases (e.g., cardiovascular) among bankers. This phenomenon has been found in other areas outside the banking sector regarding the association between burnout and physical and mental health (e.g., [32, 39-44]). A plausible explanation for the association between burnout and physical and mental health is that long-lasting workplace or/and situational stress depletes the brain's coping systems, alters stress hormones, and creates pervasive feelings of helplessness that bleed into all areas of life (e.g., [40]).

Personality

Among the five assessed personality traits (e.g., conscientiousness), only stability was significant in the univariate analysis. Respondents without burnout experienced greater stability than those with burnout. The effect disappeared in the multivariate analysis, due to the influence of other predictors. Data concerning the relationship between burnout and personality traits in the banking industry are scarce. However, a systematic review about this linkage in 16

European countries (France, Belgium, Bulgaria, Croatia, Germany, Greece, Italy, Netherlands, Norway, Poland, Romania, Serbia, Spain, Sweden, Switzerland, and the UK) concerning 36,627 participants from various professions (e.g., health services, teachers) found that personality traits like neuroticism served as a major risk factor for burnout and conscientiousness acted as a shield [157].

Social Support

The univariate analyses showed that bankers with burnout had less social support from family, significant others, and friends than those without burnout. However, when additional variables were introduced into the regression analysis, the effects reversed and help from friends turned positive, suggesting it became a protective factor for bankers experiencing burnout. Findings are limited regarding the relationship between burnout and these social support types among bankers, but in general, social support reduces the risk of burnout in various professions (e.g., health care workers) (e.g., [158-160]).

Strengths and limitations

This study provides several important contributions to the literature on burnout among bank employees in Angola. First, the findings offer new context-specific insights into the experience of burnout and its associated factors among Angolan bank employees, a population that remains underrepresented in the existing literature. The study also identified associations between burnout, depressive symptomatology, and physical complaints, highlighting the potential interrelationship between psychological and physical well-being in this occupational context. Furthermore, the consistency of some findings with previous research provides support for the credibility and relevance of the results. Taken together, these findings contribute

to a better understanding of the factors associated with burnout among bank employees in Angola and provide a basis for further research and occupational health interventions.

Despite these contributions, several limitations of this study should be acknowledged. First, the cross-sectional design precludes causal inferences. Establishing definitive temporal and causal relationships would require a longitudinal approach. Second, because the sample was recruited exclusively in Luanda, the findings may not represent bank employees across other regions of Angola, thereby limiting generalisability. Third, the study did not distinguish between private and public bank officers, preventing a comparative analysis of working conditions across different organisational settings. Fourth, the research relied entirely on participants' subjective self-reports. No objective or diagnostic measures were employed to corroborate these assessments or clinically confirm depressive symptomatology. Fifth, the analysis did not use more advanced statistical techniques, such as structural equation modelling, which could have allowed a more comprehensive examination of the variables studied, although such methods would not, per se, establish causality in a cross-sectional design. Finally, the study did not assess important factors such as career opportunities, promotion, and rewards, which may also be relevant to the development of burnout.

In conclusion, despite these limitations, the study provides valuable and novel insights into burnout among bank employees in Angola. The findings indicate that a substantial proportion of Angolan bank employees experience burnout, which is associated with various factors, including depressive symptomatology and physical complaints. These findings underscore the importance of further research into the occupational and organisational factors that may contribute to burnout and its associated consequences.

Conclusions

This study aimed to address the prevalence of burnout among bank employees in Luanda, Angola, and to examine its associations with work-related, demographic, socioeconomic, health-related, personality, coping, and social support variables. Burnout was reported by 34.5% of the participating bank employees. In the univariate analyses, burnout was associated with higher job demands and job strain, lower reported ability to cope with stressful events, higher alcohol and tobacco use, more physical diseases and somatic symptoms, higher symptoms of anxiety and depression, lower emotional stability, and lower perceived social support from family, significant others, and friends.

After adjustment in the multivariable analysis, burnout remained significantly associated with several demographic, socioeconomic, economic, and health-related factors. These included age 55 years or older, single marital status, intermediate education, receiving salary and other benefits, longer employment tenure, and greater concerns about future financial circumstances. Among health-related variables, gastrointestinal and other illnesses and depressive symptoms were significantly associated with burnout. Support from friends was also significantly associated with burnout in the final model, showing a protective pattern. Job demands, job strain, alcohol and tobacco use, anxiety, physical symptoms, emotional stability, and support from family or significant others were not independently associated with burnout in the final adjusted model.

Overall, the findings indicate that burnout is common among the bank employees studied in Luanda and is associated with a combination of demographic, socioeconomic, financial, and health-related factors, with perceived support from friends showing a potentially protective role. Given the cross-sectional design, these associations should not be interpreted as causal. Further longitudinal research is needed to clarify the temporal relationships between burnout and the identified factors among bank employees in Angola.

Declarations

Abbreviations:

ANOVA, DPO, SMBM, WSS, HADS, TIPI, MSPSS, AUDIT, VIF, SPSS

Ethics approval and consent to participate:

Ethics Approved. Informed consent was obtained from all participants involved in the study.

This is included in the 'Related manuscript' files

Consent for publication:

All authors consented.

Availability of data and materials:

The study was approved and participant consent obtained on the condition that data would remain confidential and not be shared beyond the research team. This was to safeguard participants' professional lives and due to the sensitivity of the questions involved. Therefore, we are unable to make the participant data available to others at this time.

Competing interests:

All authors declare that they have no competing interests.

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Authors' contributions

Conceptualization, M.F.S.C.; methodology, M.F.S.C., J.J.F.S., G.M., Ö.S., and C.P.; validation, M.F.S.C., J.J.F.S., G.M., Ö.S., and C.P.; formal analysis, M.F.S.C., J.J.F.S., G.M., Ö.S., and C.P.; investigation, M.F.S.C. and J.J.F.S.; data curation, M.F.S.C., J.J.F.S., G.M., Ö.S., and C.P.; writing—original draft preparation, M.F.S.C.; and writing—review and editing, M.F.S.C., J.J.F.S., G.M., Ö.S., and C.P.; visualization, M.F.S.C. All authors have read and agreed to the published version of the manuscript.

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Table 1. Received Questionnaires by Age and Sex

<i>Age</i>	<i>Sex</i>		Total
	Females	Males	
18-24	78	84	162
25-34	123	120	243
35-44	103	129	232
45-54	75	88	163
55+	71	77	148
Total	450	498	948

Table 2. Burnout by Demographic, Socioeconomic and Economic Variables

Variables	Burnout		Non-Burnout		Test statistics/ <i>P</i>
	n=323	(34,5%)	n=612	(65,5%)	
<i>Age Group</i> ^a					$(\chi^2(4) = 32,16, P < 0,001)$
18-24	39	(12,1)	121	(19,8)	
25-34	79	(24,5)	155	(25,3)	
35-44	77	(23,7)	153	(25,0)	
45-54	49	(15,2)	114	(18,6)	
55+	79	(24,5)	69	(11,3)	

<i>Sex</i> ^a					NS
Female	157	(48,6)	291	(47,5)	
Male	166	(51,4)	321	(52,5)	
<i>Marital Status</i> ^a					$(\chi^2 (4) = 19,85, P < 0,001)$
Single	57	(17,8)	153	(25,2)	
Married/cohabitant	175	(54,7)	346	(56,9)	
Divorced/separated	28	(8,8)	33	(5,4)	
Widow/er	26	(8,1)	19	(3,1)	
Single Parent	34	(10,6)	57	(9,4)	
<i>Children</i> ^a					NS
Yes	256	(79,8)	440	(72,5)	
<i>Children Age</i> ^a					$(\chi^2 (2) = 10,0, P < 0,007)$
0-6	77	(29,0)	152	(34,3)	
7-18	90	(34,0)	177	(40,0)	
19+	98	(37,0)	114	(25,7)	
<i>Household Size</i> ^a					NS
0	12	(4,0)	43	(7,4)	
1-4	190	(63,5)	557	(63,1)	
5+	96	(32,1)	268	(30,4)	
<i>Education</i> ^a					$(\chi^2 (2) = 26,55, P < 0,001)$
Secondary/equivalent	26	(8,3)	24	(4,0)	
¹ Intermediate	17	(5,4)	5	(0,8)	
University/equivalent	271	(86,3)	570	(95,2)	
<i>Financial support</i> ^a					$(\chi^2 (1) = 76,56, P < 0,001)$
Salary	249	(77,3)	581	(95,9)	
² Salary/Other	73	(22,7)	25	(4,1)	
<i>Profession</i> ^a					NS
³ MGMT	55	(17,1)	112	(18,6)	
Financiers'/economists,					
⁴ CA/CFA/FRA	173	(53,9)	374	(62,0)	
⁵ HR	26	(8,2)	23	(3,8)	
IT Specialists	25	(7,8)	39	(6,5)	
Jurists	21	(6,5)	30	(5,0)	
⁶ Other	21	(6,5)	25	(4,1)	
<i>Work Function</i> ^{a, b}					NS

³ MGMT	55	(17,2)	103	(12,2)	
Financiers'/economists,					
⁴ CA/CFA/FRA	130	(40,8)	207	(34,6)	
Bank Tellers	58	(18,2)	82	(13,7)	
Supervision/treasury					
auditors/assessors	32	(10,0)	96	(16,1)	
⁶ Other	44	(13,8)	110	(18,4)	
<i>Working Duration Years</i> ^a					$(\chi^2 (2) = 31,87, P < 0,001)$
1-5	179	(58,1)	224	(40,9)	
6-10	66	(21,4)	115	(21,0)	
11+	63	(20,5)	209	(38,1)	
<i>Weekly Working Hours</i> ^a					NS
<40	10	(3,2)	14	(2,5)	
40	275	(88,7)	498	(89,9)	
41+	25	(8,1)	42	(7,6)	
<i>Present financial Strain</i> ^{c, d}					$(F [1,917] = 14,956, P < 0,001)$
Mean (SD)	3,30 (0,807)		3,04 (1,037)		
<i>Future Financial Strain</i> ^{c, e}					$(F [1,914] = 13,707, P < 0,001)$
Mean (SD)	3,24 (0,637)		3,08 (0,605)		

a= categorial variables; b=working function is not necessarily the same as profession; c=continuous variables; d=financial strain to manage present living costs (e.g., housing); d=financial strain to manage future living costs (e.g., housing); 1=first cycle of secondary education (grades 7-9); 2=salary and benefits (e.g., support for further education); 3=MGMT, managers, business organisers, administrators; 4=CA, chartered accountants, CFA, chartered financial analysts, FRA, financial risk analysts; 5=human resources; 6=e.g., journalists.

Table 3. Burnout by Job Demands and Strain, Coping with Stress, Lifestyle, Physical and Mental Health, Personality and Social Support

Variables	Burnout		Non-Burnout		Test statistics/P
	n=323	(34,5%)	n=612	(65,5%)	
<i>Job Demands</i> ^a					$(F [1,893] = 21,509, P < 0,001)$
Mean (SD)	3.203	(0.511)	3,043	(0,478)	
<i>Job Control</i> ^a					NS
Mean (SD)	1,266	(0,343)	1,298	(0,345)	
<i>Job Strain</i> ^a					$(F [1,893] = 17,115, P < 0,001)$
Mean (SD)	2,174	(0.441)	2,048	(0.429)	

<i>Coping with stressful events</i> ^a					(<i>F</i> [1,913] =18,452, <i>P</i> <0,001)
Mean (SD)	1,961 (0,66)		2,137 (0,58)		
<i>Lifestyle</i> ^b					
Alcohol Use	209	(64,9)	280	(46,4)	(χ^2 (1) =28,74, <i>P</i> <0,001)
Smoking Use	48	(15,0)	39	(6,5)	(χ^2 (1) =17,53, <i>P</i> <0,001)
<i>Physical Diseases</i> ^b					
Diabetes	105	(33,1)	52	(8,7)	(χ^2 (1) =86,282, <i>P</i> <0,001)
Cardiovascular ¹	111	(35,0)	67	(11,2)	(χ^2 (1) =74,968, <i>P</i> <0,001)
Gastrointestinal ²	129	(40,7)	65	(10,9)	(χ^2 (1) =110,303, <i>P</i> <0,001)
Pulmonary ³	20	(6,3)	17	(2,8)	<i>NS</i>
Other ⁴	92	(37,9)	55	(11,7)	(χ^2 (1) =66,722, <i>P</i> <0,001)
<i>Somatic symptoms</i>					(<i>F</i> [1,918] =93,805, <i>P</i> <0,001)
Mean (SD) ⁵	21,721 (9,31)		16,891 (5,76)		
<i>Anxiety Symptoms</i> ^a					(<i>F</i> [1,906] =10,923, <i>P</i> <0,001)
Mean (SD) ⁵	9,753 (3,03)		8,484 (6,47)		
<i>Anxiety level</i> ^b					(χ^2 (2) =66,666, <i>P</i> <0,001)
No cases ⁶	89	(28,1)	320	(54,2)	
Possible cases ⁷	57	(18,0)	39	(6,6)	
Probable cases ⁸	171	(53,9)	231	(39,2)	
<i>Depression Symptoms</i> ^a					(<i>F</i> [1,916] =30,417, <i>P</i> <0,001)
Mean (SD) ⁵	10,486 (3,98)		8,619 (5,31)		
<i>Depression level</i> ^b					(χ^2 (2) =55,901, <i>P</i> <0,001)
No cases ⁶	86	(26,8)	299	(50,2)	
Possible cases ⁷	63	(19,6)	49	(8,2)	
Probable cases ⁸	172	(53,6)	248	(41,6)	
<i>Personality</i> ^a					
Emotional Stability					(<i>F</i> [1,908] =73,220, <i>P</i> <0,001)
Mean (SD) ⁵	4,40 (1,19)		5,26 (1,55)		
<i>Social Support</i> ^a					
Family					(<i>F</i> [1,907] =26,862, <i>P</i> <0,001)
Mean (SD) ⁵	22,674 (4,75)		24,217 (4,00)		
Significant other					(<i>F</i> [1,907] =50,292, <i>P</i> <0,001)
Mean (SD) ⁵	20,218 (4,77)		22,554 (4,71)		
Friends					(<i>F</i> [1,907] =106,010, <i>P</i> <0,001)
Mean (SD) ⁵	15,816 (6,53)		20,152 (5,77)		

a=continuous variables; b=categorical variables; 1=e.g., high blood pressure; 2=e.g., gastritis; 3=e.g., bronchitis; 4=e.g., migraine; 5= the means are based on total scores; 6=0-7; 7=8-10; 8=11-21.

Table 4. Factors Associated with Burnout Among All Bank Employees

Independent Variables	Odds ratio R-Square Change (in brackets)	CI (95%)
<i>Work Stress (block I)</i>		
Job Demands ^a	0,908	0,813-1,014
Job Strain ^a	0,664	0,402-1,204
Coping with Stress ^a	1.035**	1,013-1,058
R-Square Change (0,062)		
<i>Demographics/socioeconomics/economic strain (block II)</i>		

Age ^b		
25-34	0,769	0,227-2,611
35-44	0,450	0,115-1,759
45-54	0,258	0,062-1,072
55+	0,196*	0,042-0,911
¹ 18-24	1	
Marital Status ^b		
Single	0,103**	0,024-0,448
Single with Children	0,784	0,367-1,670
Divorced/Separated	0,563	0,226-1,401
Widow/er	0,434	0,151-1,248
¹ Married/Cohabitant	1	
Children's Age ^b		
0-6 Years	0,698	0,270-1,803
7-18 Years	0,927	0,444-1,937
¹ 19+ Years	1	
Educational Level ^b		
Secondary/Equivalent	0,940	0,266-3,322
Intermediate ²	0,176*	0,038-0,825
¹ University/Equivalent	1	
Work Duration ^b		
6-10 Years	0,314**	0,153-0,647
11+	0,090***	0,47-0,175
¹ 0-5 Years	1	
Present Financial Support ^b		
Salary/Other ³	0,054***	0,021-0,135
¹ Salary	1	
Financial Strain ^a		
Present	0,388	0,102-1,480
Future	0,915*	0,844-0,991
R-Square Change (0,400)		
<i>Lifestyle and Health (Block III)</i>		
Life-Style ^b		
Alcohol Use	0,868	0,455-1,655
¹ No	1	
Tobacco Use	0,914	0,345-2,420
¹ No	1	
Diseases ^b		
Diabetes	1,056	0,376-2,961
¹ No		

Cardiovascular ⁴	1,282	0,429-3,832
¹ No	1	
Gastrointestinal ⁵	0,404*	0,165-0,988
No	1	
Other ⁶	0,233***	0,107-0,506
¹ No	1	
Physical Symptoms ^a	0,959	0,914-1,007
Anxiety ^a	1,089	0,971-1,221
Depression ^a	0,785***	0,690-0,893
R-Square Change (0,101)		
<i>Personality (Block IV)</i>		
Stability ^a	1,138	0,889-1,457
R-Square Change (0,001)		
<i>Social Support (Block V)</i>		
Family ^a	1,042	0,958-1,135
Significant other ^a	1,056	0,975-1,145
Friends ^a	1,103**	1,038-1,173
R-Square Change (0,052)		
R-Square Total (0,616)		

a=continuous variables; b=categorical variables; 1=comparison categories; 2=first cycle of secondary education (grades 7-9); 3=salary and benefits (e.g., support for further education); 4=e.g., high blood pressure; 5=e.g., gastritis; 6=e.g., migraine; * $P<0.05$; ** $P<0.01$; *** $P<0.001$.