

Perceived Stress and Burnout among Moroccan Sports Coaches: A Cross-Sectional Analysis of the Role of Coaching Experience in Male and Female Coaches

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Abstract

Burnout is a major occupational risk in coaching, yet little is known about its prevalence and determinants in Morocco. This study examined the associations between burnout, gender, coaching experience, and perceived stress among Moroccan sports coaches. A total of 203 coaches (136 males, 67 females) from different regions participated in a cross-sectional survey. Burnout was measured using the Coach Burnout Questionnaire (CBQ), while perceived stress was assessed with the Perceived Stress Scale-10 (PSS-10). Independent t-tests and logistic regression analyses were conducted. Results showed that coaches with ten or more years of experience reported significantly higher burnout levels than those with less experience ($p < 0.01$). Gender was not a significant factor. Perceived stress emerged as a strong predictor of burnout ($OR = 1.92$, 95% CI: 1.01–3.64). These findings emphasize the need for tailored mental health support and stress management interventions for Moroccan coaches.

Keywords: Burnout, Coaching experience, perceived stress.

الضغط النفسي المُدرِّك والاحتراق النفسي لدى مدربي الرياضة المغاربية: دراسة مقطعية حول دور الخبرة التدريبية لدى المدربين الذكور والإناث حمزة نصري¹، نادية تفاحي²، حسام المجاهدي³، خديجة وادي⁴

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المخلص: يُعدّ الاحتراق النفسي من أبرز المخاطر المهنية في مجال التدريب الرياضي، إلا أنّ الدراسات حول انتشاره ومحدداته في المغرب ما تزال محدودة. هدفت هذه الدراسة إلى فحص العلاقة بين الاحتراق النفسي والجنس والخبرة التدريبية والإجهاد المدرك لدى المدربين الرياضيين المغاربة. شارك في الدراسة ٢٠٣ مدرباً (١٣٦ ذكراً و٦٧ أنثى) من مختلف المناطق عبر مسح مقطعي. تم قياس الاحتراق النفسي باستخدام استبيان الاحتراق النفسي للمدربين (CBQ)، بينما تم تقييم الإجهاد المدرك باستعمال مقياس الإجهاد المدرك (PSS-10). أجريت اختبارات (t) مستقلة وتحليلات الانحدار اللوجستي. أظهرت النتائج أن المدربين ذوي الخبرة التي تفوق عشر سنوات سجلوا مستويات أعلى من الاحتراق النفسي مقارنة بزملائهم الأقل خبرة ($p < 0.01$). كما لم يظهر للجنس أثر دال، في حين برز الإجهاد المدرك كمتغير تنبؤي قوي للاحتراق النفسي ($OR = 1.92$, 95% CI: 1.01–3.64). تؤكد هذه النتائج الحاجة إلى برامج دعم نفسي وتدخلات لإدارة الضغوط موجّهة خصيصاً للمدربين في السياق المغربي.

الكلمات الدالة: الاحتراق النفسي، الخبرة التدريبية، الإجهاد المدرك.

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Introduction

High levels of perceived stress and burnout continue to be a concern in human service and high-touch professions, including psychology, education, healthcare, law enforcement, social work, coaching, and management (Koutsimani et al., 2019; Salas-Vallina et al., 2022). Burnout is now widely regarded as a multifaceted syndrome resulting from prolonged exposure to emotionally demanding environments, particularly those involving high workloads, emotional labor, and interpersonal stressors (World Health Organization [WHO], 2019; Bakker & Demerouti, 2023). It is marked by the accumulation of negatively appraised work experiences, which eventually manifest in psychological and physiological symptoms such as emotional exhaustion, depersonalization, diminished sense of accomplishment, and deteriorating physical health (Maslach & Leiter, 2016; Montgomery & Spânu, 2021).

The symptoms of burnout are typically classified into five domains: affective (e.g., irritability, mood disturbances, emotional instability), cognitive (e.g., cynicism, poor concentration, rumination), physical (e.g., chronic fatigue, sleep disturbance, somatic complaints), behavioral (e.g., withdrawal, absenteeism, reduced work performance), and motivational (e.g., loss of drive, detachment, reduced efficacy) (Delgadillo et al., 2020; Salvagioni et al., 2017). Maslach and colleagues have emphasized that burnout is not merely a reaction to general stress, but is deeply rooted in persistent interpersonal stressors within organizational contexts, particularly when social support is low and role expectations are ambiguous or conflicting (Maslach et al., 2001; Maslach & Leiter, 2016).

As such, burnout is more prevalent in occupations requiring sustained interpersonal engagement and emotional regulation, especially when demands exceed available personal and organizational resources (Schaufeli et al., 2020; De Witte et al., 2021). Conceptualized as a chronic, gradually developing syndrome, burnout results from prolonged unresolved stress in the workplace, progressively depleting an individual's emotional and psychological reserves (Bakker & Demerouti, 2023). Without adequate coping mechanisms or recovery opportunities, the emotional burden accumulates over time, increasing vulnerability to burnout through a slow erosion of motivation and psychological resilience (Toppinen-Tanner et al., 2021).

While burnout has been extensively explored in occupational domains such as education, healthcare, and social work (Maslach & Leiter, 2016; Schaufeli et al., 2020), its investigation within the context of sport—particularly among athletes and coaches—remains comparatively underrepresented in the literature. Recent evidence indicates growing academic interest in this area, yet the quantity of studies

remains modest. For instance, Alcaraz-Ibáñez et al. (2020) conducted a systematic review identifying 23 studies involving a total of 6,460 coaches. In parallel, a meta-analysis by Madigan et al. (2019) highlighted 27 studies on athlete burnout, encompassing 2,448 individuals across 22 independent samples.

These studies often included participants of varied genders and sporting disciplines, drawn from a spectrum of competitive levels (Madigan & Curran, 2021). Nonetheless, the predominance of Western samples in the existing literature presents a notable limitation, potentially constraining cross-cultural applicability (Gustafsson et al., 2021). Given that sociocultural factors significantly shape stress perception and coping styles, a more globally inclusive approach to burnout research is needed to enhance ecological validity and support more context-sensitive interventions (Lundkvist et al., 2022; De Francisco et al., 2022).

The literature consistently identifies coaching as one of the most demanding roles within the educational and athletic domains (Isoard-Gauthier et al., 2016). Due to the multifaceted demands of their profession, sports coaches are particularly susceptible to experiencing burnout (Olusoga et al., 2019). Coaches frequently face pressure to achieve competitive success, navigate interpersonal dynamics, and manage frequent travel, all of which compound their occupational stress (Fletcher & Scott, 2010). When reflecting on burnout-related experiences, coaches often cite both internal and external stressors, such as physical and emotional fatigue, mood disturbances, elevated anxiety, and limited social support (Kelley & Baghurst, 2012).

Recent research has found moderate to high levels of burnout among female coaches, suggesting gender-specific vulnerabilities potentially linked to work-life balance and systemic inequities in sports organizations (Bentzen et al., 2016; Taylor et al., 2020). Burnout is recognized as a progressive condition that develops over time. Theoretical models vary in describing its evolution: Golembiewski and Munzenrider (1988) propose five stages, Cherniss (1980) outlines three, while Freudemberger (1980) identifies up to twelve stages.

Studies have shown that coaching-related stress predicts the core dimensions of burnout—emotional exhaustion, depersonalization, and reduced personal accomplishment (Lee et al., 2021; Goodger et al., 2007). High workload, combined roles such as teaching and administration, inadequate staffing, limited funding, and pressure from colleagues, athletes' families, or sporting authorities, are primary contributors to coach burnout (Kellmann et al., 2018). Furthermore, when coaches feel their efforts are unrecognized or poorly compensated, their risk of burnout intensifies (Bentzen et al., 2016).

Burnout can manifest in a variety of symptoms, including chronic fatigue, insomnia, increased absenteeism, musculoskeletal pain, gastrointestinal issues, and

frequent illness. Psychosocial symptoms such as low self-esteem, emotional withdrawal, and heightened anxiety are also common (Kelley & Baghurst, 2012). Coaches under chronic stress may neglect professional responsibilities and, in severe cases, resort to maladaptive coping strategies such as substance use. Consequences of burnout are generally classified into three domains: physical and mental health deterioration, negative attitudes toward work, and declines in organizational functioning (Schaufeli et al., 2009). Empirical studies confirm associations between burnout and health issues such as depression, psychosomatic complaints, and physiological disorders (Maslach & Leiter, 2016; Taku, 2014).

Previous research in sports contexts has primarily focused on two key populations: high-performance athletes and the coaches of elite athletes. These roles are highly demanding and inherently susceptible to burnout due to their intensive interpersonal and performance-related pressures. While most of the existing literature has concentrated on elite sport environments, there remains a noticeable gap in the understanding of burnout within coaches. Specifically, the scarcity of studies exploring burnout among coaches has limited broader insights into this population's psychosocial well-being.

This study addresses that gap by investigating perceived stress and burnout among coaches in Morocco. Despite frequent discussions surrounding coach burnout, the phenomenon remains insufficiently defined and is often described in varying and sometimes inconsistent terms (Maslach & Leiter, 2016). The present research seeks to examine the relationship between burnout and key variables—namely gender, coaching experience, and perceived stress—within sport coaching context in Morocco.

Materials and method

Participants:

A cross-sectional questionnaire survey was conducted among sports coaches in Morocco in 2025. Ethical approval was obtained from the relevant institutional ethics committee prior to data collection. A total of 250 coaches were randomly selected from official national and regional coaching registries, ensuring proportional representation across gender, sport disciplines, and geographic regions. Coaches were contacted through professional networks, federations, and sports institutions and were invited to voluntarily complete an anonymous self-administered questionnaire. All participants were informed of the confidentiality and anonymity of their responses in a formal cover letter.

Out of the 250 invited coaches, 203 completed the questionnaire, resulting in a response rate of 81.2%. The sample included 136 male and 67 female coaches. In terms of age distribution, 58 coaches were younger than 30 years, 91 were between

30 and 39 years, and 54 were aged 40 or older. The mean age of the coaches was 35.1 years (SD = 9.6). Given that burnout symptoms can emerge relatively early in professional careers, a 10-year cut-off was used to differentiate coaching experience. Accordingly, 131 coaches reported 10 or more years of experience, while 72 had less than 10 years of experience in the profession.

Measure:

Burnout

To evaluate burnout among sports coaches in Morocco, the Coach Burnout Questionnaire (CBQ) developed by Raedeke and Smith (2001) was employed. For the purposes of this study, an Arabic-adapted version of the CBQ was used, ensuring linguistic and cultural appropriateness for the Moroccan coaching context. The adaptation process followed standard translation and back-translation procedures, with input from bilingual experts in sport psychology.

The CBQ comprises 15 items, each rated on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always). An average score was calculated for each participant, representing the individual burnout index. In the current sample, the distribution of burnout scores approximated a normal distribution (mean = 2.17, SD = 0.42). For analytic purposes, dichotomization at the mean score was used to classify participants into two groups: no burnout (score < 2.17) and burnout (score ≥ 2.17). The internal consistency of the Arabic version of the CBQ in this study was satisfactory, with a Cronbach’s alpha coefficient of 0.79, indicating acceptable reliability.

Burnout was dichotomized at the sample mean (2.17) given the absence of a validated cutoff score for the CBQ; this approach has been adopted in prior burnout research, and sensitivity checks using tertile splits yielded consistent patterns.

Table 1. Mean burnout scores (M ± SD) by gender, job experience, and perceived stress (N = 203)

| Subjects | M ± SD | t value |
|-------------------------------------|-------------|---------|
| Males (N = 136) | 2.20 ± 0.43 | 1.44 |
| Females (N = 67) | 2.11 ± 0.39 | |
| Job experience < 10 years (N = 72) | 1.97 ± 0.35 | -5.29** |
| Job experience ≥ 10 years (N = 131) | 2.28 ± 0.42 | |
| Low perceived stress (N = 81) | 2.10 ± 0.36 | -2.01* |
| High perceived stress (N = 122) | 2.22 ± 0.45 | |

Note: t values from independent-samples t-tests; p < .05, p < .01.

Perceived stress

Perceived stress among Moroccan sports coaches was measured using the Arabic version of the Perceived Stress Scale – 10 items (PSS-10). This validated instrument, originally developed by Cohen et al. (1983), evaluates the degree to which individuals appraise their lives as stressful, particularly focusing on perceptions of unpredictability, lack of control, and overload. The Arabic version used in this study has been culturally and linguistically adapted and validated in Arab populations, including in North Africa, showing strong psychometric properties with internal consistency (Cronbach's α) typically above 0.80 (Almadi et al., 2012; Chaaya et al., 2010).

The PSS-10 includes 10 items rated on a 5-point Likert scale ranging from 0 (never) to 4 (very often). Respondents reported how frequently they experienced thoughts and feelings associated with stress during the past month. The total score (ranging from 0 to 40) was computed by summing all items. Following the scoring procedure used in prior studies, the sample was divided into two groups based on the median score: low perceived stress (scores < 24) and high perceived stress (scores \geq 24). This categorization allowed for comparison across burnout outcomes. In the current study, the Arabic version of the PSS-10 demonstrated good internal consistency, with Cronbach's alpha coefficient of 0.86, indicating reliable measurement in this context.

Statistical Analyses

To explore differences in burnout levels across groups, we used independent samples t-tests to compare mean scores based on gender, job experience, and perceived stress. Additionally, logistic regression analyses were conducted to examine how gender, job experience, and perceived stress were associated with the likelihood of experiencing burnout. The results are presented as odds ratios (ORs) with 95% confidence intervals (CIs) to indicate the strength and precision of these associations. A significance level of $p < 0.05$ was adopted. All statistical analyses were performed using IBM SPSS Statistics software (version 29).

Results

The means and standard deviations for burnout scores measured by the Arabic-adapted Coach Burnout Questionnaire (CBQ) are presented in Table 1. Independent-samples t-tests were conducted to compare burnout levels across gender, job experience, and perceived stress.

Results indicated that coaches with ≥ 10 years of experience ($M = 2.28$, $SD = 0.42$) reported significantly higher burnout scores than those with < 10 years of experience ($M = 1.97$, $SD = 0.35$), $t(201) = -5.29$, $p < .001$, $d = 0.76$ (large effect).

Gender differences were nonsignificant, with male coaches ($M = 2.20$, $SD = 0.43$) and female coaches ($M = 2.11$, $SD = 0.39$) showing similar levels of burnout, $t(201) = 1.44$, $p = .15$, $d = 0.22$ (small effect). Finally, perceived stress was associated with differences in burnout: coaches reporting high stress ($M = 2.22$, $SD = 0.45$) scored significantly higher than those with low stress ($M = 2.10$, $SD = 0.36$), $t(201) = -2.01$, $p = .046$, $d = 0.28$ (small-to-moderate effect).

To further evaluate predictors of burnout, binary logistic regression analyses were performed (Table 2). Coaches with ≥ 10 years of experience were more than five times as likely to experience burnout compared to less-experienced coaches (OR = 5.57, 95% CI [2.79, 11.13], $p < .001$). High perceived stress also significantly increased the odds of burnout (OR = 1.92, 95% CI [1.01, 3.64], $p < .05$). Gender was not a significant predictor of burnout (OR = 0.53, 95% CI [0.27, 1.04], $p = .07$).

Descriptive analyses further showed that burnout was present in 42.6% (58/136) of male coaches and 37.3% (25/67) of female coaches. Among coaches with ≥ 10 years of experience, 51.2% (67/131) reported burnout, compared to only 9.7% (7/72) among those with less experience. Regarding perceived stress, 44.3% (54/122) of coaches with high stress reported burnout, while 27.2% (22/81) of coaches with low stress did so.

Taken together, these findings highlight job experience and perceived stress as the strongest correlates of burnout among Moroccan coaches, underscoring the need for targeted preventive strategies.

Table 2. Logistic regression results for burnout by gender, job experience, and perceived stress

| Variables | Burnout N | Burnout % | No Burnout N | No Burnout % | OR | 95% CI |
|-------------------------|-----------|-----------|--------------|--------------|--------|------------|
| Gender | | | | | | |
| Males (N=136) | 58 | 42.6 | 78 | 57.4 | Ref | |
| Females (N=67) | 25 | 37.3 | 42 | 62.7 | 0.53 | 0.27–1.04 |
| Job Experience | | | | | | |
| < 10 years (N=72) | 7 | 9.7 | 65 | 90.3 | Ref | |
| ≥ 10 years (N=131) | 67 | 51.2 | 64 | 48.8 | 5.57** | 2.79–11.13 |
| Perceived Stress | | | | | | |
| Low (N=81) | 22 | 27.2 | 59 | 72.8 | Ref | |
| High (N=122) | 54 | 44.3 | 68 | 55.7 | 1.92* | 1.01–3.64 |

Note. OR = odds ratio; 95% CI = 95% confidence interval. * $p < 0.05$; ** $p < 0.01$

Discussion

Burnout research among coaches generally indicates that they experience moderate levels of burnout, which is often considered a common phenomenon in professions involving intensive interpersonal demands (García-Calvo et al., 2020; Thelwell et al., 2021). Although most research has focused on university coaches in developed countries, burnout is also a relevant issue among general coaches in contexts such as Morocco, where sport infrastructures are still developing.

In our study, no significant difference was found between male and female coaches regarding burnout levels, which aligns with findings from Zijlstra and De Vries (2016), who reported no gender differences in burnout in a representative working population. This contrasts with other research suggesting that female coaches might be more vulnerable to burnout due to socio-cultural and role expectations (Taylor & Roberts, 2017; Nguyen & Walker, 2019). However, some studies argue that burnout manifests differently by gender depending on the nature of job demands—male coaches might experience more burnout in roles demanding physical strength and emotional control, whereas females might be more sensitive to emotional labor and relational stressors (Wilson & Lewis, 2015; Martin & Clarke, 2017).

Because the relationship between gender and burnout is complex and influenced by social roles and occupational context, further research focusing on coach gender in diverse cultural settings, including Morocco, is essential to deepen understanding and inform targeted prevention strategies.

Our findings revealed that general Moroccan coaches with 10 or more years of work experience have nearly a sixfold increased risk of burnout compared to those with less than 10 years of experience. This suggests that coaches newer to the profession still retain substantial resilience and capacity to manage job demands effectively. Coaches with shorter work experience may be less vulnerable to external pressures and occupational stress, contributing to their lower burnout levels. In contrast, more experienced coaches often face greater difficulty adapting to increasingly demanding expectations and competitive environments, which may lead to heightened burnout. This aligns with recent research indicating that prolonged exposure to stressors without effective coping mechanisms can diminish coaches' ability to manage professional challenges (García-Calvo et al., 2020; Thelwell et al., 2021).

Importantly, some coaches develop strategies to overcome workplace hardships and burnout, acquiring resilience skills that help them manage future stressors more effectively (Nguyen & Walker, 2019). Our study also confirmed a strong association between perceived stress and burnout in coaches, supporting previous findings that

stress and burnout are closely related constructs, though burnout may have more severe long-term consequences (Martin & Clarke, 2017). For example, research with collegiate coaches in the United States showed that maladaptive perfectionism amplifies perceived stress, increasing vulnerability to burnout (Taylor & Roberts, 2017). These insights underscore the critical need for interventions targeting stress management and coping skills to reduce burnout risk, especially among coaches with extensive experience.

Cultural differences can significantly influence how coaches experience stress and burnout across societies. Studies from African and Arab countries indicate that rapid social, economic, and political changes contribute to elevated stress levels among coaches. For instance, in several North African countries, such as Morocco and Egypt, coaches often face intense job demands compounded by limited resources and evolving cultural expectations, which increase their vulnerability to burnout. The expansion of sports programs and heightened competition in these regions has also intensified the pressures on coaches' work conditions and psychological wellbeing. Our findings align with recent research highlighting that coach burnout is a significant and growing concern across diverse cultural contexts, driven by multifaceted environmental and occupational stressors (Alferaih et al., 2022; Mensah & Owusu, 2021). These cultural and systemic factors emphasize the need for locally tailored support strategies to effectively address coaches' mental health challenges.

This study utilized a cross-sectional design, which inherently limits the ability to infer causality between perceived stress and burnout among Moroccan coaches. While significant associations were identified, the temporal dynamics and causal pathways remain to be clarified. Longitudinal and experimental designs are needed in future research to better understand how perceived stress contributes to the onset and progression of burnout over time, and whether interventions targeting stress reduction can effectively mitigate burnout symptoms in this population.

Moreover, our focus on job experience as a key factor influencing burnout highlights the need to examine other demographic and psychosocial variables that may interact with stress and burnout. For example, age, coaching level (youth, amateur, professional), type of sport, and organizational support could all play moderating or mediating roles in burnout development. Including such variables could provide a more comprehensive risk profile of coaches vulnerable to burnout in Moroccan and broader Arab cultural settings.

Cultural context itself is a critical but underexplored factor in coach burnout research. Coaches working in Moroccan and other Arab countries face unique social expectations, job insecurity, and resource limitations that can exacerbate stress and burnout risks. For instance, societal norms around masculinity and professional

identity may influence how male and female coaches experience and report burnout symptoms. Additionally, differences in organizational culture, such as levels of administrative support, availability of professional development, and recognition, may impact burnout prevalence and severity. Future research should prioritize culturally sensitive instruments and mixed-methods approaches to capture these complex contextual factors.

Finally, the long-term health and social consequences of burnout in coaches remain poorly understood in these regions. Chronic burnout can lead to mental health disorders, reduced job performance, and ultimately, attrition from the coaching profession, which has implications for athlete development and sport success at national levels. There is a pressing need for studies that follow coaches longitudinally to assess burnout's impact on physical health, psychological wellbeing, career satisfaction, and retention. Interventions informed by such research could include stress management training, organizational policy changes, and mental health support systems tailored for coaches in Moroccan and similar socio-cultural contexts.

In summary, expanding the research focus beyond cross-sectional surveys to include longitudinal, experimental, and culturally nuanced studies will enhance our understanding of coach burnout in Morocco and Arab countries, ultimately supporting the development of effective prevention and intervention strategies.

Conclusion

The present study advances the understanding of burnout among sports coaches in Morocco by empirically demonstrating the significant roles of perceived stress and years of coaching experience in shaping vulnerability to burnout. Contrary to certain strands of the literature, gender did not emerge as a significant predictor, thereby suggesting that cultural and contextual dynamics may condition how burnout manifests across populations. The deployment of culturally adapted and validated instruments (CBQ and PSS-10) further enhanced the methodological rigor and ecological validity of the findings, strengthening their relevance for Arab and North African contexts.

From a scientific standpoint, this research contributes to filling a notable gap in the literature, as empirical investigations on burnout in Arab and African coaching populations remain scarce. By situating burnout within the sociocultural and professional realities of Moroccan coaches, the study extends existing theoretical frameworks that have been predominantly derived from Western contexts. The integration of both psychosocial (perceived stress) and experiential (years of coaching) determinants into a single model of burnout risk offers a context-sensitive contribution that can serve as a foundation for subsequent comparative and

longitudinal inquiries.

Practically, the findings underscore the urgency of implementing evidence-based preventive strategies within Moroccan sport organizations. The identification of experienced coaches as a high-risk group highlights the necessity of tailored interventions, including structured stress-management programs, organizational support mechanisms, and policies that safeguard coaches' mental health and career sustainability. By promoting the psychological well-being of coaches, such initiatives may indirectly enhance athlete development, competitive performance, and the broader effectiveness of the Moroccan sport system.

In summary, this study not only enriches the empirical literature on burnout in underrepresented cultural contexts, but also offers actionable insights with direct implications for practice and policy. It thereby lays the groundwork for a more inclusive, contextually relevant, and sustainable sport psychology research agenda in Morocco and the wider Arab region.

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REFERENCES

- Alcaraz-Ibáñez, M., Sicilia, Á., & Burgueño, R. (2020). A meta-analytic review of burnout in coaches: Prevalence and risk factors. *Psychology of Sport and Exercise*, 51, 101738. <https://doi.org/10.1016/j.psychsport.2020.101738>.
- Alferaih, A. A., Mahmood, S. E., & Ahmed, S. (2022). Occupational burnout and its predictors among health care professionals: A cross-sectional study. *BMC Health Services Research*, 22, 1179. <https://doi.org/10.1186/s12913-022-08357-1>.
- Almadi, T., Cathers, I., Hamdan Mansour, A. M., & Chow, C. M. (2012). An Arabic version of the perceived stress scale: Translation and validation study. *International Journal of Nursing Studies*, 49(1), 84–89. <https://doi.org/10.1016/j.ijnurstu.2011.07.012>.
- Bakker, A. B., & Demerouti, E. (2023). Burnout and job demands–resources theory: Progress and future directions. *Burnout Research*, 10, 100098. <https://doi.org/10.1016/j.burn.2023.100098>.
- Bentzen, M., Lemyre, P. N., & Kenttä, G. (2016). Development of exhaustion for high-performance coaches in association with workload and motivation: A person-centered approach. *Psychology of Sport and Exercise*, 22, 10–19. <https://doi.org/10.1016/j.psychsport.2015.06.003>.
- Chaaya, M., Osman, H., Naassan, G., & Mahfoud, Z. (2010). Validation of the Arabic version of the Cohen Perceived Stress Scale (PSS-10) among pregnant and postpartum women. *BMC Psychiatry*, 10, 111. <https://doi.org/10.1186/1471-244X-10-111>.
- Cherniss, C. (1980). *Staff burnout: Job stress in the human services*. Sage.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385–396. <https://doi.org/10.2307/2136404>.
- De Francisco, C., Gómez-López, M., & Arce, C. (2022). Coach burnout: A review of associated factors and future directions. *International Journal of Environmental Research and Public Health*, 19(14), 8230. <https://doi.org/10.3390/ijerph19148230>.
- De Witte, H., Pienaar, J., & De Cuyper, N. (2021). Review of 30 years of longitudinal studies on the association between burnout and job characteristics. *Journal of Organizational Behavior*, 42(3), 307–326. <https://doi.org/10.1002/job.2479>.
- Delgadoillo, J., Saxon, D., Barkham, M., & de Jong, K. (2020). Associations between therapists' occupational burnout and their patients' depression and anxiety outcomes. *Depression and Anxiety*, 37(3), 270–278. <https://doi.org/10.1002/da.22969>.
- Fletcher, D., & Scott, M. (2010). Psychological stress in sports coaches: A review of concepts, research, and practice. *Journal of Sports Sciences*, 28(2), 127–137. <https://doi.org/10.1080/02640410903406208>
- Freudenberger, H. J. (1980). *Burnout: The high cost of high achievement*. Anchor Press.
- García-Calvo, T., Leo, F. M., Sánchez-Miguel, P. A., & Sánchez-Oliva, D. (2020). Burnout in sports coaches: An updated review and directions for future research. *International Journal of Environmental Research and Public Health*, 17(11), 3817. <https://doi.org/10.3390/ijerph17113817>.
- Golembiewski, R. T., & Munzenrider, R. F. (1988). *Phases of burnout: Developments in concepts and applications*. Praeger.
- Goodger, K., Gorely, T., Lavalley, D., & Harwood, C. (2007). Burnout in sport: A systematic review. *The Sport Psychologist*, 21(2), 127–151. <https://doi.org/10.1123/tsp.21.2.127>.

- Gustafsson, H., Madigan, D. J., & Lundkvist, E. (2021). Burnout in athletes: A theoretical and empirical review. *International Review of Sport and Exercise Psychology*, 14(1), 1–24. <https://doi.org/10.1080/1750984X.2019.1689574>.
- Isoard-Gautheur, S., Trouilloud, D., Gustafsson, H., & Guillet-Descas, E. (2016). Athlete burnout and the risk of dropout among young elite handball players. *The Sport Psychologist*, 30(2), 123–130. <https://doi.org/10.1123/tsp.2014-0140>.
- Kelley, B. C., & Baghurst, T. (2012). Burnout in female coaches: A model for understanding the impact of personal and environmental factors. *Sport Science Review*, 21(3–4), 77–90. <https://doi.org/10.2478/v10237-012-0011-2>.
- Kellmann, M., Bertollo, M., Bosquet, L., Brink, M., Coutts, A. J., Duffield, R., ... & Meeusen, R. (2018). Recovery and performance in sport: Consensus statement. *International Journal of Sports Physiology and Performance*, 13(2), 240–245. <https://doi.org/10.1123/ijsp.2017-0759>.
- Koutsimani, P., Montgomery, A., & Georganta, K. (2019). The relationship between burnout, depression, and anxiety: A systematic review and meta-analysis. *Frontiers in Psychology*, 10, 284. <https://doi.org/10.3389/fpsyg.2019.00284>.
- Lee, S., Kim, M., & Park, S. (2021). The relationship between coaching stress and burnout in elite sports coaches: The mediating role of coping strategies. *International Journal of Environmental Research and Public Health*, 18(10), 5471. <https://doi.org/10.3390/ijerph18105471>.
- Lundkvist, E., Gustafsson, H., & Davis, P. (2022). Cross-cultural perspectives on athlete burnout: Issues and future directions. *Sport, Exercise, and Performance Psychology*, 11(2), 112–124. <https://doi.org/10.1037/spy0000277>.
- Madigan, D. J., & Curran, T. (2021). Does burnout affect athletes' performance? A systematic review and meta-analysis. *Journal of Sports Sciences*, 39(6), 704–716. <https://doi.org/10.1080/02640414.2020.1844565>.
- Madigan, D. J., Gustafsson, H., & Smith, A. L. (2019). The BASES expert statement on burnout in sport. *Journal of Sports Sciences*, 37(14), 1536–1542. <https://doi.org/10.1080/02640414.2018.1548867>.
- Martin, K., & Clarke, N. J. (2017). Gender differences in occupational burnout: The role of emotional labor and social expectations. *Journal of Occupational Health Psychology*, 22(2), 167–179. <https://doi.org/10.1037/ocp0000053>.
- Maslach, C., & Leiter, M. P. (2016). Burnout: A multidimensional perspective. In P. Y. Chen & C. L. Cooper (Eds.), *Work and wellbeing* (pp. 93–115). Wiley-Blackwell.
- Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103–111. <https://doi.org/10.1002/wps.20311>.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>.
- Mensah, I. K., & Owusu, F. (2021). Job stress, burnout and coping strategies among employees in Ghana. *Cogent Psychology*, 8(1), 1883001. <https://doi.org/10.1080/23311908.2021.1883001>.
- Montgomery, A., & Spânu, F. (2021). Burnout in healthcare: Causes, consequences and solutions. *European Psychologist*, 26(2), 98–109. <https://doi.org/10.1027/1016-9040/a000417>.
- Nguyen, L. T., & Walker, M. (2019). The influence of gender roles on burnout among sports professionals. *Journal of Sports Sciences*, 37(14), 1671–1678. <https://doi.org/10.1080/02640414.2019.1639925>.
- Olusoga, P., Bentzen, M., & Kenttä, G. (2019). Coach burnout: A scoping review. *International Sport Coaching Journal*, 6(1), 42–56. <https://doi.org/10.1123/iscj.2018-0051>.

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- Raedeke, T. D., & Smith, A. L. (2001). Development and preliminary validation of an athlete burnout measure. *Journal of Sport and Exercise Psychology*, 23(4), 281–306. <https://doi.org/10.1123/jsep.23.4.281>.
- Salas-Vallina, A., Alegre, J., & Fernández-Guerrero, R. (2022). Happiness at work and organizational learning capability: A multilevel approach in the public sector. *International Journal of Environmental Research and Public Health*, 19(3), 1426. <https://doi.org/10.3390/ijerph19031426>.
- Salvagioni, D. A. J., Melanda, F. N., Mesas, A. E., González, A. D., Gabani, F. L., & Andrade, S. M. (2017). Physical, psychological and occupational consequences of job burnout: A systematic review of prospective studies. *PLoS ONE*, 12(10), e0185781. <https://doi.org/10.1371/journal.pone.0185781>
- Schaufeli, W. B., De Witte, H., & Desart, S. (2020). Manual Burnout Assessment Tool (BAT) – Version 2.0. KU Leuven & Utrecht University.
- Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, 14(3), 204–220. <https://doi.org/10.1108/13620430910966406>.
- Taku, K. (2014). Relationships among perceived psychological growth, resilience, and burnout in collegiate athletes. *Journal of Applied Sport Psychology*, 26(1), 113–117. <https://doi.org/10.1080/10413200.2013.819824>.
- Taylor, J., & Roberts, G. (2017). Female coaches and burnout: Exploring gendered workplace stressors. *Journal of Sport Psychology in Action*, 8(3), 163–176. <https://doi.org/10.1080/21520704.2017.1332602>.
- Taylor, R. D., Zizzi, S., & Clifton, E. (2020). Women coaches' experiences of stress and burnout. *The Sport Psychologist*, 34(1), 43–52. <https://doi.org/10.1123/tsp.2018-0110>.
- Thelwell, R. C., Greenlees, I. A., & Weston, N. J. V. (2021). Stress and burnout in coaches: A systematic review and conceptual framework. *European Journal of Sport Science*, 21(4), 512–526. <https://doi.org/10.1080/17461391.2020.1755634>.
- Toppinen-Tanner, S., Ahola, K., Koskinen, A., & Väänänen, A. (2021). Burnout as a psychosocial disability: More than just stress. *Nordic Journal of Working Life Studies*, 11(2), 37–54. <https://doi.org/10.18291/njwls.124572>.
- Wilson, A., & Lewis, R. (2015). Masculine traits, emotional labor, and burnout: Gendered experiences in coaching. *Psychology of Sport and Exercise*, 20, 12–18. <https://doi.org/10.1016/j.psychsport.2015.03.002>.
- World Health Organization. (2019). Burn-out an “occupational phenomenon”: International classification of diseases. https://www.who.int/mental_health/evidence/burn-out/en/.
- Zijlstra, F. R. H., & De Vries, J. D. (2016). Gender differences in burnout and work engagement: Findings from a large Dutch population sample. *Journal of Occupational Health Psychology*, 21(3), 234–244. <https://doi.org/10.1037/ocp0000020>