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Article

Burnout and sleep quality in sports managers

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Abstract: Sports managers have great responsibilities aimed at coordinating and directing the organization through the employed staff who will be given precise tasks, regardless of their hierarchical position. Perfectionism or unfulfilled expectations can influence employees' subjective state, making them more or less vulnerable and prone to burnout. In the present study sleep quality and burnout dimensions (exhaustion and work disengagement) were addressed, in successful sports managers (n = 20), and, also, in the case of future managers (n = 23). The Oldenburg Burnout Inventory and The ATHENS Insomnia Scale were used. For data analysis and processing independent sample t-test and Mann-Whitney (U) test were performed. The results emphasized that female successful managers reported significantly poorer sleep quality and higher daytime sleepiness compared to male successful sports managers. Gender-related differences in terms of burnout dimensions were, also, discussed.

Keywords: exhaustion; sports managers; sleep quality

1. Introduction

The sport manager is the person who can lead all sport-specific activities, ensuring the coordination and efficient use of all the organization's resources. Workplace stress is a major problem for organizations around the world. Sports managers' job stress, in general, is positively related to employees' job stress, while sports managers' behaviors (e.g., supportive behavior, leadership style) are influenced by the stress experienced by employees. Phenomena such as burnout and perceived quality of life (e.g., sleep quality) of sports managers are particularly important to be investigated.

1.1. Sports managers

The manager has a multitude of duties and tasks, which is why he/she must have specialized, but, also, general knowledge in various fields of science (sociology, psychology, law, mathematics, computer science), and specific managerial skills (Croitoru, 2010). A manager must be a good leader and in this role, the manager has a great impact on the results of the organization and the entire staff, influencing the feelings and even the attitudes of employees (towards co-workers and towards work). Sports managers, as leaders, set the tone for teamwork and have a decisive influence on the work environment (Spector et al., 2024). Among the roles of the manager we highlight: interpersonal roles (representative figure, leader, liaison person), informational (information control and transmission), decisional role (e.g., to correct dysfunctions), resource distributor, negotiator and technical expert (Mihăilescu, 2006).

Horch and Schütte (2003) discussed about the following important activities of sports managers: leading and managing, communication (and information), lobbying for external support, social contacts and problem solving. Competitiveness and mental toughness are linked to managerial roles in sport (Messner, 2002), these management-related traits being (commonly) perceived as masculine (Schein, 2007).

1.2. Burnout

Burnout is a syndrome caused by exposure to stressors especially in the workplace, affecting the health of individuals (Stufano et al., 2022). The causes of burnout syndrome are usually linked to an imbalance between the demands of the job and the resources actually available to fulfill them. A number of factors contribute to burnout, including excessive, heavy workloads and constant pressure at work, making employees unable to cope with the demands of the job. The following key factors are specific to burnout: overwhelming exhaustion, detachment from work, feelings of cynicism or negativism related to one's job, and lack of achievement (WHO, 2019). Burnout produces extreme physical and mental fatigue and a feeling of being unable to achieve anything personally or at work (Leo et al., 2021). Unfavorable working conditions have a negative impact on the health of employees. There are different sources of stress at work, such as fear of failure, illness, dealing with other people, skepticism about one's own abilities, low self-esteem (causing vulnerability to stressors) or inadequate time management. Poor working conditions and lack of administrative support facilitate, also, burnout (Duyar, 2023). There is a very close connection between stress and anxiety, for example: social evaluation anxiety (criticism from others), anxiety in new/unusual situations (at work), separation anxiety —by a loved one for a certain period of time, etc. (Predoiu, 2016, for the circular relationship between stress and anxiety). Prolonged stress and anxiety have a negative influence on an individual's behavior and may lead to lack of appetite, digestive disorders, insomnia, headaches, dissatisfaction, low performances and burnout. This organizational pathology (burnout) creates problems not only in the workplace, but also in employees' families. There are some associations of burnout syndrome with health problems such as depression, increased alcohol consumption, insomnia, sedentary lifestyles, musculoskeletal pain or obesity (Salvagioni et al., 2017). A link between lack of control and burnout was, also, found; when employees have the ability to influence decisions that affect their work, they will be engaged in their work and the work will be effective (Maslach and Leiter, 2016).

1.3. Bleep quality

Quality sleep is good for cognitive and physical performance. A large number of individuals often experience poor rest, and deterioration in sleep quality leads to sleep disorders (Fujiwara et al., 2022). Sleep is essential for both mind and body. If the manager (sports manager in the present research) is rested then he/she can control his/her attention span, better process and manage negative and positive emotions, memory is improved, and reactions to employees in different circumstances are appropriate. Adults have some symptoms of insomnia and it can occur in combination with mental or physical problems (Yeung et al., 2018). The biological role of sleep is

linked to the prevention of overtiredness, prolonged interruption leading to serious disorders. Sleep duration varies a little depending on climate, geography, social contexts (hours chosen for sleep). An adult sleep between 7 and 8 h a night, but there are variations, with some people being satisfied with 6 h of sleep, while others need more than 9 h. Fichten et al. (2004) found that these variations are normal due to inter-individual differences. The authors found no significant differences between people who sleep more (9 h) and those who sleep less (6 h) in terms of: anxiety, depression, life satisfaction, diversity of activities engaged in, or perception of remaining leisure time. Performance at workplace (in general) is dependent on both the quantity and quality of sleep. The negative effects of sleep deprivation (and daytime sleepiness) are: slowed thinking, impaired memory capacity, reduced alertness, slower reactions, increased fatigue and impaired recovery (Davenne, 2009). Also, people may become aggressive and unsociable, exhibit unstable behaviors and regress emotionally. Tiredness and tension correlate negatively with the duration and quality of sleep (Lastella et al., 2014). Therefore, quality of sleep is essential for people in a management position, who must coordinate others in their work for organizational (and personal) achievements.

2. Methodology

Purpose:

The aim of the present study is to address sleep quality and burnout in experienced and successful sports managers, and, also, in the case of managers at the beginning of their career.

Objectives:

- Knowing the sleep quality of sports managers by gender;
- Identifying the degree of work disengagement and exhaustion (burnout dimensions) in sports managers, by gender;
- Highlighting the differences between future sport managers and experienced managers in terms of the variables investigated (burnout and sleep quality).

Hypothesis:

H1: There are significant differences between inexperienced and successful sport managers in terms of exhaustion and work engagement (burnout dimensions).

H2: Investigation of sleep quality reveals significant differences between experienced and future sport managers.

H3: There are gender-related differences in terms of sleep quality and burnout dimensions, in the case of sports managers.

2.1. Participants

The study involved 43 participants aged between 20 and 69 years, including 20 successful sports managers (15 men and 5 women) and 23 future managers (14 men, 9 women)—students in the Master's program Management and Marketing in Sports Structures, Activities and Events, at National University of Physical Education and Sports, Bucharest. The experienced sports managers hold leading positions in different state and private sport organizations, such as: school sports clubs, sports federations, private sports clubs (from different sport branches). We mention that 60%

—*n* = 8 (men), respectively *n* = 4 (women) of the experienced managers declared that they have at least one child (no data were collected on the exact number of children and their age, or regarding the managers' social status: married or unmarried). As for future sports managers, almost half of them (*n* = 10) are already working in various sports organizations (while also continuing their academic studies). With respect to the other participants (*n* = 13), they were only students at the time of testing, and in a few months they will be looking to integrate into the job market. None of the future sports managers declared they have children.

2.2. Instruments

1) Oldenburg Burnout Inventory (OLBI) (Demerouti et al, 2001)

The inventory (OLBI) measures the two basic dimensions of burnout: exhaustion and work disengagement. The questionnaire has 16 items, eight items for each dimension. The eight items of the Exhaustion subscale refer to general feelings of overwork, a strong need for rest and a state of physical exhaustion. Example items: There are days when I feel tired before I get to work or During my work, I often feel emotionally exhausted. Disengagement refers to distancing from the content of one's own work, negative, cynical behaviors and attitudes towards one's own work in general. Examples of items: It happens more and more often that I talk about my work in a negative way or I could easily do another job. Answer options: 4 = "Strongly Agree", 3 = "Agree", 2 = "Disagree", respectively 1 = "Strongly Disagree".

2) ATHENS Insomnia Scale (AIS) (Soldatos et al., 2000)

The AIS is a self-administered psychometric instrument consisting of eight items. The first five items relate to sleep induction, nocturnal awakenings, final awakening, total sleep duration and overall sleep quality. The last three items concern daytime feeling of well-being, physical and mental functioning (during the day) and daytime sleepiness. Examples of items (first and last items of the scale) and ways of answering:

1. SLEEP INDUCTION (time needed to fall asleep after turning off the lights): 0—No problem; 1—Slightly delayed; 2—Marked delay; 3—Very late or no sleep at all.

8. DAYTIME SLEEPINESS: 0—None (no sleepiness); 1—Slight; 2—Considerable; 3—Intense.

The total score ranges from 0 (denoting no sleep problems at all) to 24—representing the most severe level/degree of insomnia.

Also, questions related to age, gender, job in a managerial/leading position (or student at the time of testing, working or not within an organization) were asked to the participants. Not least, the following closed question was put forward— "Do you have at least one child?" (answer options: Yes/ No).

2.3. Procedure

The study was conducted between February 2024 and April 2024. The present research questionnaires were applied online using Google forms. Ethical principles were ensured: anonymity was assured, written informed consent of each participant was obtained, at any time participants had the possibility to withdraw from the

research and data were treated confidentially.

2.4. Quasi-experimental design

The dependent variables (DVs) are the participants' (sports managers) results in the case of the two basic dimensions of burnout: exhaustion and work disengagement, and for the reported sleep quality. The variable playing the role of the independent variable (IV) is the membership of sports managers to one of the two groups (successful, respectively early career managers).

3. Results

Using the independent samples *t*-test we investigated the differences between inexperienced/ future sports managers and successful managers in terms of exhaustion and work disengagement (regardless of gender).

Table 1. Independent *t*-test—burnout.

Homogeneity of Variances Test (Levene's)			
F	df	df2	*p*
0.924 (Exhaustion)	1	41	0.342
1.214 (Work disengagement)	1	41	0.277
Student's *t*	df		*p*
Exhaustion	0.270	41.0	0.788
Work disengagement	0.814	41.0	0.420

The alpha threshold value is greater than 0.05, the differences between the two groups of managers being insignificant, in terms of exhaustion and work disengagement (**Table 1**). Differences from average results (means) are almost non-existent: $M = 15.8$ (successful managers) and $M = 15.4$ (future sports managers) in the case of exhaustion, respectively $M = 16.7$ (successful sports managers) and $M = 15.5$ (future managers) for work disengagement. Exhaustion and work disengagement values are below average for both groups (therefore, the sports managers are, generally, involved in what they do/ in their activities).

Table 2. Independent *t*-test—sleep quality (regardless of gender).

Homogeneity of Variances Test (Levene's)			
F	df	df2	*p*
0.804 (Sleep quality)	1	41	0.375
2.025 (Daytime sleepiness)	1	41	0.162
Student's *t*	df		*p*
Sleep quality	0.210	41.0	0.835
Daytime sleepiness	−0.891	41.0	0.378

The differences between the two groups of managers are, also, insignificant ($p > 0.05$) in terms of sleep quality and daytime sleepiness (**Table 2**). Analyzing the average results (at group level) one can observe minor differences in reported sleep

quality: $M = 3.25$ (successful managers) and $M = 3.09$ (future sports managers). With regard to daytime sleepiness, novice/future sports managers have a slightly higher score, thus an increased daytime sleepiness, compared to successful sports managers ($M = 1.15$—successful managers, respectively $M = 1.52$ for future sports managers). However, night-time sleep is generally of good quality for both groups of managers, and daytime sleepiness is low (considering the values reported).

Next, we examined the differences between sport managers (separately, for each group of sport managers) by gender. The non-parametric Mann-Whitney (U) test was used.

Table 3. U test – gender-related differences in successful sports managers: Sleep quality and burnout dimensions.

DVs	Mann-Whitney *U*	*p*
Sleep quality	10.00	0.017
Daytime sleepiness	7.00	0.006
Exhaustion	19.5	0.124
Work disengagement	33.0	0.726

Differences between groups are significant ($p = 0.017$ for sleep quality, and $p = 0.006$ for daytime sleepiness)—see **Table 3**. Successful female sports managers have significantly poorer sleep quality ($M = 6.00$, $SD = 2.65$) and significantly higher daytime sleepiness ($M = 2.60$, $SD = 1.52$), compared to successful male sports managers ($M = 2.33$, $SD = 2.09$, respectively $M = 0.67$, $SD = 0.72$). The effect size index is $r = 0.52$ ($z = -2.35$) for night-time sleep quality, respectively r = 0.58 ($z = -2.61$) in the case of daytime sleepiness, meaning a strong difference between groups (see, for example, Predoiu, 2020 [22], for effect size interpretation).

This could be explained by the fact that a woman may have more responsibilities—in addition to her career, she is also a mother and has to manage both professional and family responsibilities, maintaining a balance between them. In the case of burnout dimensions, no gender-related differences were found ($p > 0.05$). However, female sports managers registered a higher value for exhaustion ($M = 18.4$, $SD = 4.16$), compared to men ($M = 14.9$, $SD = 4.40$).

Table 4. U test—gender-related differences in novice/future sports managers: sleep quality and burnout dimensions.

DVs	Mann-Whitney *U*	*p*
Sleep quality	33.5	0.063
Daytime sleepiness	52.5	0.515
Exhaustion	57.0	0.726
Work disengagement	51.5	0.487

Data analysis revealed no gender-related significant differences in the case of inexperienced sports managers ($p > 0.05$, **Table 4**). However, it is worth mentioning that male future managers reported poorer sleep quality ($M = 3.64$, $SD = 2.34$), compared to female future sports managers ($M = 2.22$, $SD = 2.33$).

4. Discussions and conclusion

The data analysis revealed that the level of exhaustion is below average for the two groups of sports managers, i.e., managers at the beginning of their career, respectively experienced and successful sports managers. A below average level of work disengagement was, also, observed. In other words, the investigated sports managers are generally engaged/ involved in their activity. Regarding the night-time sleep is generally of good quality for both groups of managers, while the daytime sleepiness is low.

There are almost no differences in the reported quality of sleep (night-time sleep) between the two groups of sport managers. However, with respect to daytime sleepiness the novice/future sports managers have a slightly higher score, thus an increased daytime sleepiness compared to the successful managers. These results could be explained by the fact that future sports managers can find it harder to cope with the life situations they face. We mention that the future managers investigated are second year Masters students, and almost half of them are, also, employed in different organizations. Stress can be felt at a high level when exams are approaching, the exam period being one that inevitably arouses strong emotions.

Gender-related differences among sports managers were explored. Female successful managers reported significantly poorer sleep quality and significantly higher daytime sleepiness compared to male successful managers. Taking into consideration that most experienced female managers have at least one child, the results can be understandable if we think at the responsibilities a woman has, in general, in raising children, in addition to her career. Female successful sports managers reported, also, a higher level of exhaustion than male successful managers (these differences were not statistically significant). Literature underlined that women are more vulnerable to stress (Tubić et al., 2022). In these conditions, is important to know that "tendencies to reappraise negatives experiences boosts resilience" (Mineva, 2023). To help participants who reported sleep dysfunction and a higher level of exhaustion, and, also, as a suggestion for future sports managers who will enter the labor market (to manage work/life balance so that burnout or sleep dysfunction does not become a problem for them as they progress in their careers), the WHOOP application can be a valuable tool. WHOOP is a non-invasive sleep monitor, and "measures all four types of sleep with lab-level accuracy, and will suggest optimal bedtimes based on what your body needs to recover" (What WHOOP measures—see https://www.whoop.com/us/en/the-data/).

The results of the current research are of interest for male and female sports managers (as well as for any person who will occupy or is already in a management position). The challenges at workplace (possible exhaustion, distress, or possible poor sleep quality) must be made aware, taking into consideration that "the first symptoms of maladaptive behaviors may be hidden in presumably usual activities and attitudes" (Kawalec et al., 2023). Therefore, specialists should know how to intervene in case of a possible organizational crisis, when working with sports managers and employees. Koweszko et al. (2023) present various means of intervention when working under distress (the risk of exhaustion being higher). Researchers emphasized, also, the important role of stress tolerance at workplace,

for a higher self-efficacy (Volgemute et al., 2023).

Research limitations include the relatively low number of participants, especially in the case of female sports managers. Even if the number of female managers increased over time (Ayman et al., 2009), researchers observed that men are still overrepresented in management positions, compared to women (Predoiu et al., 2021). Future studies need to shed more light (using larger samples) on the quality of sleep and the state of exhaustion experienced by sports managers according to gender, and, also, taking into consideration variables such as: social status (married or unmarried), number of children and their age, which can influence participants' sleep quality and reported fatigue. In the current study sports managers have not reported symptoms of burnout, in depth interviews being necessary, in the future, to better explain the findings, and to understand what served as a protective buffer for people in this profession. The limits of direct/ explicit measures are also known (Predoiu et al., 2022). However, questionnaires are essential tools in research worldwide.

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