

The Contribution of Competitive Sports in Reducing Psychological Burnout among Female Students of Physical and Sports Activities Sciences at Setif 2 University

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Abstract:

This study aims to explore the contribution of competitive sports to reducing psychological burnout among female students. Employing a descriptive approach, the research involved a cohort of 34 female undergraduates from the Department of Physical and Sports Activities Sciences at Setif 2 University.

The assessment tool employed was the Maslach Burnout Inventory-Student Survey, adapted into Arabic by Hassani (2012) and originally developed by Schaufeli et al. (2002a). The results demonstrate that competitive sports significantly alleviate psychological burnout by reducing levels of exhaustion and emotional numbness while simultaneously enhancing a sense of personal efficacy.

Keywords: Competitive Sports, Psychological Burnout, Physical and Sports Activities Sciences.

1- Introduction:

Psychological burnout is a prevalent phenomenon particularly observed in professions that entail direct public interaction, such as healthcare, education, and law enforcement. These roles, due to their nature of continuous engagement and high demands, often lead to substantial energy depletion in individuals.

The excessive demands of these jobs can overwhelm personal capacities, leading to difficulties in managing and adapting to ongoing pressures. Consequently, individuals experience marked fatigue, psychological stress, emotional blunting, and a discernible decrease in performance efficiency in their professional responsibilities. This debilitating state is widely recognized and studied as psychological burnout.

The significance of this phenomenon extends beyond professional boundaries, impacting the mental health of individuals, and is notably prevalent among university students. This demographic, although not typically engaged in professional 'social professions', faces similar pressures through academic and pedagogical demands, which can induce a comparable state of burnout.

Reflecting on previous studies, such as Bouyahia's (2012) "The Level of Psychological Burnout among University Students - A Field Study on a Sample of Fourth-Year Students in the Department of Psychology and Educational Sciences at Kasdi Merbah University," Majidr's (2017) "Psychological Burnout among Algerian Students - A Field Study at the Faculty of Medicine, Mouloud Mammeri University of Tizi Ouzou," and Warghi et al.'s (2020) "The Level of Psychological Burnout among University Students under the LMD System - A Field Study on a Sample of Third-Year Counseling and Guidance Students at Saïda University."

This study aims to build upon the existing research, focusing particularly on female students from the Department of Physical and Sports Activities Sciences, it examines whether competitive sports can serve as an effective strategy to counteract psychological burnout.

The primary research question this study seeks to address is:

- How do competitive sports contribute to reducing psychological burnout among female students of physical and sports activities sciences?

2- Hypothesis:

- Competitive sports play a role in reducing psychological burnout among female students of physical and sports activities sciences.

3- Research Objectives:

The principal aim of this research is to examine the effects of competitive sports on alleviating the three dimensions of psychological burnout. This inquiry specifically assesses the variations in burnout levels that correlate with the engagement in competitive sports within organized team environments, including leagues and cup competitions.

4- Research Significance:

This research addresses a critical and sensitive issue: the impact of psychological burnout on the mental health of university students within the Department of Physical and Sports Activity Sciences. To the best of the researchers' knowledge, the specific influence of competitive sports on psychological burnout within non-professional, academic settings has not been extensively studied before.

The novelty and importance of this study are further emphasized by its focus on female students in physical and sports activities fields, a group potentially vulnerable to academic-related stress and psychological burnout. By investigating whether physical exercise through sports can significantly reduce elements of psychological burnout, this study contributes to a broader understanding and potentially encourages the development of targeted sports training programs designed to mitigate burnout levels among students.

5- Definitions of Study Terms:

5.1 Competitive Sports:

These are defined as contests in specific sporting activities that are structured as challenges between individuals or groups, or between two or more teams. These competitions are conducted within a structured framework—whether local, regional, national, continental, or international—with the objective of achieving victory while adhering to the principles of fair play and sportsmanship.

5.2 Psychological Burnout:

As defined by Maslach, psychological burnout is "a syndrome of symptoms that includes emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do work that involves dealing directly with people" (Rashwan, 2018, p.39).

Additionally, Ali Asker describes it as "a state of physical and emotional exhaustion caused by prolonged exposure to high levels of stress, characterized by symptoms such as fatigue, feelings of helplessness, a loss of interest in others, depression, and a growing cynicism about the value of life and social relationships" (Barkouk, 2013, p.123).

5.3 Field of Physical and Sports Activities Sciences:

This academic field within the Algerian university system is devoted to the education of students pursuing careers related to applied sports. These include specializations in physical education, sports training, adaptive sports activity, as well as sports management and administration. It is studied in specialized institutes and departments across various regions, aiming to cultivate skilled professionals equipped to contribute in educational, youth, sports, higher education, and vocational training sectors.

6- Previous and Related Studies:

- **Bouyahia (2012)** carried out a comprehensive study titled "*The Level of Psychological Burnout among University Students: A Field Study on a Sample of Fourth-Year Students in the Department of Psychology and Educational Sciences at Kasdi Merbah University, Ouargla.*"

This research sought to assess the prevalence of psychological burnout among university students within the Faculty of Social Sciences, scrutinizing the influence of variables such as gender, academic specialization (Psychology, Educational Sciences), and type of residence (resident, commuter).

Utilizing the Psychological Burnout Scale, Bouyahia analyzed data collected from a randomly selected sample of 170 students through methods including frequencies, percentages, mean scores, and T-tests for significance. Findings indicated a significant presence of psychological burnout, with no discernible differences in burnout levels attributable to gender, type of residence, or academic specialization.

- **Majidr (2017)** authored an important study, "*Psychological Burnout among University Students (Causes, Symptoms, and Mitigation Methods): A Field Study at the Faculty of Medicine, Mouloud Mammeri University of Tizi Ouzou.*"

Majidr's research aimed to elucidate the nature of psychological burnout among Algerian students, identify its causes and symptoms, and determine effective mitigation strategies. Employing a questionnaire administered to a simple random sample of 80 students, this study incorporated statistical analyses such as frequencies and percentages to draw its conclusions.

It reported high levels of psychological burnout among students, with emotional exhaustion affecting 86.57% of participants, emotional blunting 65.55%, and a diminished sense of personal achievement observed in 57.68% of the sample.

- **Warghi et al (2020)** conducted a pivotal study titled "*The Level of Psychological Burnout among University Students under the LMD System: A Field Study on a Sample of Third-Year Counseling and Guidance Students at Saïda University.*"

This investigation focused on the prevalence of psychological burnout among university students, particularly those in their third year of Counseling and Guidance studies. It examined the differential impact of gender on burnout levels and addressed some psychological challenges faced by university students.

Utilizing a descriptive approach and the Psychological Burnout Scale for data collection, the study included a sample of 67 students selected through simple random sampling. The findings highlighted a high level of psychological burnout, with no significant differences observed based on gender.

These detailed studies collectively underscore the critical issue of psychological burnout within university settings, elucidating the varied dimensions and demographic influences that affect its prevalence and intensity. Each study contributes valuable insights into the underlying causes, manifestations, and potential interventions for psychological burnout, informing the current research focus on competitive sports as a viable mitigative approach for female students of physical and sports activities sciences.

7- Research Methodology:

The research employed a descriptive approach to rigorously pursue the objectives of the study.

8- Research Population and Sample:

The target population for this investigation comprised female students enrolled in the Department of Physical and Sports Activities Sciences at Setif 02 University for the academic year 2023/2024. The total population was 46 students.

This population was segmented into two samples: 12 students were selected for assessing the psychometric properties of the study instruments, and 34 students constituted the main study sample.

9- Research Tools:

9-1 Initial Version of the Scale:

The researchers used the Maslach Burnout Inventory - Student Version, developed by Schaufeli et al., (2002a) and translated into Arabic by Hassani (2012). This version consists of three dimensions:

Exhaustion	Depersonalization	Reduced Efficiency
1.2.3.4.5	6.7.8.9	10.11.12.13.14.15
Higher scores indicate higher levels of psychological burnout	Higher levels of	Lower scores indicate reduced levels of psychological burnout

Each statement on the scale is rated on a seven-point frequency scale, ranging from:

Never	A few times a year	Once a month	A few times a month	Once a week	A few times a week	Every day
1	2	3	4	5	6	7

9-2 Validity and Reliability of the Scale:

Validity:

To ensure the reliability and validity of the scale, internal consistency was calculated for each item within its respective dimension. The results are summarized in the table below:

Table (01): Correlation Coefficients between Each Item and the Total Score for Its Dimension

Exhaustion		Depersonalization		Reduced Efficiency	
01	0.866**	06	0.724**	10	0.557
02	0.708*	07	0.726**	11	0.569
03	0.825**	08	0.730**	12	0.783**
04	0.940**	09	0.556	13	0.770**
05	0.589*			14	0.721**
				15	0.758**

Following these analyses, items 9, 10, and 11 were excluded from further analysis due to their relatively lower correlation coefficients.

Reliability:

- A. **Split-half reliability:** After the exclusion of items that failed to demonstrate validity, the scale was subdivided into odd and even items. The correlation coefficient between these two subsets was computed, yielding a Spearman-Brown coefficient of 0.703. This coefficient underscores the reliability of the test, confirming that the divided halves of the scale consistently measure the same underlying construct.
- B. **Cronbach’s Alpha:** Further solidifying the reliability of the scale, Cronbach's Alpha was calculated and found to be 0.732.

9-3 Final Version of the Scale:

The revised version of the Maslach Burnout Inventory – Student Survey, now streamlined to enhance focus and reduce error, consists of 12 items distributed across the three defined dimensions:

Exhaustion	Depersonalization	Reduced Efficiency
1.2.3.4.5	6.7.8.	12.13.14.15
Higher scores indicate	higher levels of	Lower scores indicate reduced levels

psychological burnout	of psychological burnout
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Statistical Analysis:

- T-tests for independent samples are employed when the data distribution is confirmed to be normal.
- Mann-Whitney U tests are utilized when the data distribution deviates from normality.

10- Presentation and Discussion of Hypothesis Results:

To probe the efficacy of competitive sports in mitigating psychological burnout, the researchers formulated specific objectives:

- To examine the differences in the exhaustion dimension according to the engagement in competitive sports among the research sample.
- To explore the disparities in the depersonalization dimension as related to the participation in competitive sports within the study cohort.
- To investigate how engagement in competitive sports influences the dimension of reduced efficiency among the participants.

10-1 Verification of Distribution Normality:

Prior to conducting the appropriate statistical tests, the normality of data distribution was rigorously verified using the Kolmogorov-Smirnov test. The findings are summarized in the following table:

Table (02): Kolmogorov-Smirnov Test for Normal Distribution of Data

Dimension	z-value	Significance (sig)	α	Distribution Type	Appropriate Statistical Test
Exhaustion	1.27	0.078	0.05	Normal	T-test
Depersonalization	1.60	0.012		Non-normal	Mann-Whitney U-test

Reduced Efficiency	1.35	0.051		Normal	T-test
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From this table, it is evident that the dimensions of exhaustion and reduced efficiency exhibit a probability value (sig) above the 0.05 significance level, indicating a normal distribution and thus necessitating the application of T-tests for independent samples to analyze differences attributable to competitive sports engagement.

Conversely, the depersonalization dimension's probability value (sig) is below 0.05, suggesting a non-normal distribution. This necessitates employing the Mann-Whitney U-test to discern differences in this dimension related to competitive sports participation.

10-2 Comparison of Results with the Hypothesis:

10-2-1 For the Dimension of Exhaustion:

Table (03): T-test for Differences in the Dimension of Exhaustion Attributable to the Variable of Engaging in Competitive Sports

Status	Mean	Standard Deviation	T-value	sig	Significance
Practitioners	16.77	4.73	2.18	0.03	Significant Differences Found
Non-practitioners	21.37	7.38			

The statistical data presented in the study reveal significant findings in the dimension of exhaustion among practitioners and non-practitioners of competitive sports. Specifically, the mean score for those actively participating in competitive sports (practitioners) was recorded at 16.77 with a standard deviation of 4.73, contrasting with the mean score of 21.37 and a standard deviation of 7.38 for those who do not engage in competitive sports (non-practitioners).

The calculated T-value of 2.18, alongside a probability value (sig) of 0.03, strongly suggests a statistically significant difference between these two groups. Given that the sig value is

beneath the threshold significance level α of 0.05, it is evident that practitioners of competitive sports experience notably lower levels of exhaustion.

This differential in exhaustion levels can be attributed to several key aspects inherent to competitive sports involvement. Practitioners benefit from regular physical, skill-based, and strategic exercises, all integral components of athletic training within team environments.

Such engagement does not merely enhance physical conditioning and sport-specific skills but also fortifies mental resilience and psychological well-being. These psychological advancements are crucial in lowering the sensation of psychological exhaustion, thus contributing effectively to the mitigation of psychological burnout.

The team dynamics in sports also play a crucial role, where the interplay of anxiety, stress, emotional reactions, and psychological pressures could potentially culminate in psychological exhaustion if not managed effectively.

Sports coaches, equipped with training and firsthand experience, often incorporate psychological counseling into their coaching methodologies, either by consulting with professional counselors or by taking on these responsibilities themselves.

Such strategies include conditioning players through practice in simulated competitive environments — for example, training in front of large audiences or participating in trial matches against teams of comparable skill levels, and even training under varied climatic conditions like rain, or extreme temperatures. These experiences prepare athletes to handle competitive pressures adeptly.

Ekhlas (2002, p.148) discusses how this extensive regimen of physical exercises, strategic game-play training, and psychological counseling equips student athletes to face and manage exhaustion and burnout not only in sports but also in their everyday and academic lives. This holistic training approach helps them develop a robust capability to adapt to varying stressful conditions, a trait that translates into lower levels of exhaustion as evidenced by the statistical results presented.

These insights corroborate the hypothesis that engagement in competitive sports is instrumental in reducing the primary dimension of psychological burnout—exhaustion—

among university students, showcasing how such structured physical and psychological training can provide significant mental health benefits.

10-2-2 For the Dimension of Depersonalization:

Table (04): Mann-Whitney U Test for Differences in the Depersonalization Dimension Attributable to Competitive Sports Practice

Depersonalization	Average Rank	Z-value	sig	Significance
Practitioners	13.44	2.53	0.01	Significant Differences Found
Non-practitioners	22.06			

From the statistical data presented, it is observed that the average ranks for emotional blunting are notably different between the two groups examined: 13.44 for practitioners of competitive sports and 22.06 for non-practitioners, with a Z-value of 2.53 and a significance level (Sig) of 0.01. Given that the Sig value is below the alpha threshold of 0.05, it is statistically significant that competitive sports markedly reduce the level of emotional blunting, thereby positively affecting this dimension of psychological burnout.

Emotional blunting, which encompasses a person's diminished responsiveness to their environment, characterized by apathy, lack of interest, and an absence of emotional reactions, starkly contrasts with the behavior typically observed in athletes. Athletes demonstrate substantial emotional engagement during their participation in games and competitions, influenced by the outcomes of competitions, crowd interactions, and other in-game events.

This high level of emotional involvement is not confined to the realm of sports but extends into their everyday and academic lives, thereby elucidating the findings of lower levels of emotional blunting among student athletes as compared to their peers who do not engage in competitive sports.

This difference can be attributed to the demands of the competitive sports environment, which requires athletes to effectively manage their emotions and reactions under pressure. It is

notable that athletes experience a range of emotional expressions, from the distress associated with defeat, which might include crying, to the elation of winning or scoring.

These emotional expressions, though profound, are maintained within the confines of sportsmanship, underscoring their emotional engagement. The positive emotions stemming from achievements in sports, such as joy from victories or scoring, indicate a substantial reduction in emotional blunting, which in turn suggests a decrease in psychological burnout.

Further supporting this observation are numerous studies that have established the significant role of regular physical exercise in reducing anxiety and stress linked to emotional stagnation. Engaging in sports leads to the release of endorphins, often referred to as happiness hormones, which not only enhance mood but also serve as a buffer against various life stresses (Al-Kheir, 2022).

10-2-3 For the Dimension of Reduced Efficiency:

Table (05): T-test for Differences in the Dimension of Reduced Efficiency Attributable to Competitive Sports Practice

Reduced Efficiency	Mean	Standard Deviation	T-value	sig	Significance
Practitioners	25.72	3.13	2.63	0.01	Significant Differences Found
Non-practitioners	21.81	5.34			

The analysis presented in Table (05) illustrates a comparative assessment of reduced efficiency between practitioners and non-practitioners of competitive sports. Practitioners recorded a mean score of 25.72 with a standard deviation of 3.13, whereas non-practitioners registered a mean score of 21.81 with a standard deviation of 5.34.

The T-value of 2.63 and a significance level (Sig) of 0.01 indicate statistically significant differences between the two groups. Specifically, the Sig value being below the alpha level of 0.05 confirms that practitioners of competitive sports demonstrate a higher level of efficiency.

This enhanced efficiency among practitioners suggests that engaging in competitive sports significantly boosts this dimension, which in turn contributes to reducing psychological

burnout. The results imply that the psychological and physical benefits derived from regular participation in sports effectively enhance overall efficiency.

The training environments in competitive sports, which inherently involve managing pressures and stress, are particularly conducive to enhancing psychological resilience. Regular sports practice allows athletes to accumulate experience in coping with challenges, fostering psychological competence through the skills and experiences gleaned from each competition.

11- Conclusions:

- Competitive sports significantly contribute to lowering psychological burnout levels among female students in the field of Physical and Sports Activity Sciences.
- There is a notable reduction in the level of exhaustion among these students due to engagement in competitive sports.
- Competitive sports have been shown to decrease the level of emotional blunting among the students.
- An increase in the efficiency level among students is observed as a result of participation in competitive sports.

12- Recommendations:

- There is a need to foster awareness among female students regarding mental health, which will aid in overcoming stress and enhancing overall well-being.
- Encouragement for female students to participate in competitive sports across various teams, including local teams, should be a priority to ensure widespread benefits.
- It is recommended to develop and design specific training programs focused on sports training to actively reduce levels of psychological burnout among students.

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