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Psychological Stress Among Physical Education Teachers : Levels and Differences According to Professional and Demographic Variables

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Abstract:

This study aimed to determine the level of psychological stress among physical education teachers and examine differences according to educational stage, age, professional experience, employment status, and marital status. A descriptive-analytical design was employed using the Psychological Stress Scale developed by Mohammed Abdullah Mohammed Al-Eisary. The study sample consisted of 89 physical education teachers from Djelfa Municipality, Algeria. The findings revealed a very high level of psychological stress. No statistically significant differences were found according to educational stage, age, employment status, or marital status, whereas statistically significant differences were observed according to professional experience, with teachers having less than 10 years of experience reporting higher levels of psychological stress. The study recommends improving working conditions and strengthening psychological support programmes to reduce psychological stress among physical education teachers.

Keywords: Psychological stress; Physical education teachers; Occupational stress; Professional experience; Working conditions.

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1. Introduction and Research Problem:

Psychological stress is a universal human experience that occurs throughout all stages of life, from childhood to old age. It may be mild and short-lived or severe and distressing. Although moderate levels of stress can stimulate motivation, achievement, and problem-solving, excessive stress may hinder effective functioning and contribute to psychological and physical disorders, particularly when individuals are unable to cope with it. (Abdullah, 2023, p. 13)

Psychological stress has therefore become a major focus of research in public health, psychology, education, and other social sciences because of its profound effects on individuals and society. It is widely recognised as one of the defining challenges of modern life owing to its association with numerous psychological and physical health problems (Al-Ghurair & Abu Asaad, 2009, p. 17)

Teaching is widely regarded as one of the most demanding professions because of its continuous responsibilities, increasing workload, and evolving professional expectations. These demands require teachers to possess high levels of technical competence and personal skills. Consequently, many teachers experience considerable psychological stress, although their responses vary according to individual coping abilities. Addressing these stressors is therefore essential to reducing their negative impact within the workplace (Aybo, 2019, p. 29)

Teachers play a vital role in educational and societal development ; consequently, considerable attention has been devoted to the factors influencing their professional effectiveness. Previous research indicates that psychological stress arising from both personal and environmental sources can adversely affect teachers' mental health and job performance. Owing to the diverse cognitive, instructional, evaluative, and administrative responsibilities they undertake, teachers are frequently exposed to situations that evoke anxiety, frustration, fear, and anger. Most of these pressures originate from the nature of teaching itself and the organisational environment in which it is practised (Al-Nawaisah, 2013, p. 38)

The ability of physical education teachers to cope effectively with occupational demands enables them to maintain positive psychological adjustment, professional competence, and teaching effectiveness. Conversely, when job demands exceed their coping capacity, prolonged stress may result in

maladjustment and psychological strain, leading to reduced interest in teaching, diminished attention to students, and increased absenteeism (Mejadi, 2022, p. 794)

In light of the foregoing, and given the pivotal role of physical education teachers in achieving educational objectives, understanding the psychological stress they experience has become increasingly important. Such stress may adversely affect both their mental well-being and professional performance. Accordingly, the present study investigates the level of psychological stress among physical education teachers and examines whether it differs according to selected personal and professional variables. This objective is reflected in the following research question :

What is the level of psychological stress among physical education teachers, and are there statistically significant differences according to educational stage, age, professional experience, employment status, and marital status ?

-Sub-questions :

1/ What is the level of psychological stress among physical education teachers in lower and upper secondary schools in Djelfa Municipality ?

2/ Are there statistically significant differences in psychological stress according to educational stage, age, professional experience, employment status, and marital status ?

2. Hypotheses :

1. Physical education teachers experience a high level of psychological stress.
2. There are no statistically significant differences in psychological stress according to educational stage, age, professional experience, employment status, and marital status.

3. Research objectives :

The present study aims to achieve the following objectives :

- To determine the level of psychological stress among physical education teachers.
- To examine differences in psychological stress according to educational stage, age, professional experience, employment status, and marital status.
- To contribute to the existing body of knowledge on psychological stress among physical education teachers.

4. Significance of the research :

- The findings may assist educational professionals in developing counselling programmes to reduce psychological stress among physical education teachers.

The findings may also help teachers recognise the sources of their psychological stress, thereby enhancing job satisfaction and professional performance.

5. Research Conceptually :

1.5. Psychological stress :

Terminologically : The term *stress* originates from the Latin *stingere*, meaning *to pinch, tighten, or bind*. In the seventeenth century, it was commonly associated with pain, hardship, grief, loss, and adversity. By the late eighteenth century, it had come to denote strength, tension, or intense effort. At the beginning of the twentieth century, the concept evolved to refer to the forces and motives that drive human behaviour. (Mohamed A. , 2005, p. 18)

Operational Definition : In the present study, psychological stress refers to the total score obtained by participants on the Psychological Stress Scale. Higher scores indicate higher levels of psychological stress.

2.5. Physical Education Teacher :

Terminologically : BOLDYREW states that the teacher is the leader ; they are the organiser and initiator of work and activity within the class group. Their role is not limited to imparting knowledge and skills to pupils and assessing their cognitive and practical abilities; it also involves organising the class group and fostering its social development. (Mohamed & Abdelrahim, 2014, p. 396)

Operational Definition: Operationally, a physical education teacher is any teacher responsible for teaching physical education at the lower or upper secondary level in Djelfa Municipality who participated in this study.

6. Previous and similar studies :

- Majadi (2022) : investigated the factors contributing to psychological stress and their impact on the performance of secondary school physical education teachers. Using a descriptive approach, the study surveyed **37 teachers** through a researcher-developed questionnaire. The findings showed that multiple psychological stressors negatively affected teachers' performance, particularly those related to the social environment and workplace relationships, which constituted the most influential sources of stress. (Mejadi, 2022)

- Habara, Mohamed, et al. (2022) : examined the coping strategies adopted by secondary school physical education teachers in M'sila. Employing a descriptive approach, the study involved **60 teachers** and used the *Psychological Stress Coping Strategies Scale*. The findings indicated that teachers generally used coping strategies to a moderate extent, with problem-focused and emotion-focused behavioural strategies being the most frequently adopted. (Habara, Ghalmi, & Ben Abdellah, 2022)

- Qaloul (2022) : explored the main strategies used by secondary school physical education teachers to cope with psychological stress. A descriptive approach was adopted using a questionnaire covering seven dimensions and administered to **20 randomly selected teachers**. The findings emphasised that reducing teachers' stress requires improving the professional environment and working conditions

while promoting personal practices such as regular exercise, relaxation, and religious and moral commitment to strengthen psychological resilience. (Kaloul, 2022)

- Zhu and Feng (2022) : investigated the relationship between work-related stress and mental health among **237 secondary school teachers** in Guangzhou, China. Using a descriptive approach and questionnaire data, the researchers analysed the results through *t*-tests, one-way ANOVA, correlation, and regression analyses. The findings revealed above-average work stress and average mental health levels, with significant differences according to gender, job position, age, teaching experience, and subject taught. Work-related stress was also positively associated with mental health dimensions and significantly predicted teachers' mental health. (Zhu & Feng, 2022)

- Santiago, Otero-López, Castro, and Villardefrancos (2008) examined the effects of disruptive student behaviour and difficulties in classroom conflict management on occupational stress among **1,386 secondary school teachers**. Using a descriptive design and questionnaire, the study found that both factors were major sources of occupational stress. Stress levels differed according to gender, professional experience, and educational stage, being higher among female teachers, teachers in the second stage of secondary education, and those at the mid-career stage. The authors recommended preventive and counselling programmes to reduce occupational stress among teacher (Santiago, Otero-Lopez, Castro, & Villardefrancos, 2008)

7. Commentary on previous studies :

The reviewed studies demonstrate growing scholarly interest in psychological stress among teachers, particularly physical education teachers. They examined the sources of stress, coping strategies, and its relationship with professional performance and mental health, while also identifying differences associated with selected personal and professional variables. The present study benefited from these studies in developing its theoretical framework, selecting the methodology and research instrument, and interpreting the findings. It extends previous research by examining psychological stress among physical education teachers in Djelfa Municipality and analysing differences according to educational stage, age, professional experience, employment status, and marital status, thereby contributing to the literature in this field.

8. Methodological procedures :

Study Design

The study adopted a descriptive-analytical design to determine the level of psychological stress among physical education teachers and examine differences according to selected personal and professional variables.

Participants

Population. The study population comprised all physical education teachers working in lower and upper secondary schools in **Djelfa Municipality** during the 2024/2025 academic year (**N = 99**), including **58 lower secondary teachers** from **29 schools** and **41 upper secondary teachers** from **17 schools**

Sample. The study included **89 physical education teachers**, comprising **50 lower secondary** and **39 upper secondary teachers**, representing **89.9%** of the study population.

Instrument

The study employed the **Psychological Stress Scale** developed by **Mohammed Abdullah Mohammed Al-Eisary (2008)** because of its relevance to the study objectives and its comprehensive assessment of the main sources of teachers' psychological stress. The instrument comprises two sections. The first collects participants' demographic and professional data, including educational stage, age, professional experience, employment status, and marital status. The second consists of **64 items** distributed across **seven dimensions** measuring the main sources of psychological stress, as presented in **Table 01**

Table 1. Dimensions of the Psychological Stress Scale

Dimension	Work load	Role ambiguity	Role conflict	Career development	Interpersonal relationships	Financial reward	Social status
Number of statements	12	07	10	08	09	09	07

Source: Al-Eisary, (2008).

Responses were scored using a five-point Likert scale as follows : Very high/Always (5), High/Mostly (4), Average/Sometimes (3), Low/Rarely (2), and Very low/Never (1).

- Psychometric properties of the instrument :

- Validity of the study instrument :

The validity of the scale was established by Mohammed Abdullah Mohammed Al-Eisary (2008) through face validity, construct validity, internal consistency, and concurrent validity. The internal consistency coefficient reached 0.96, indicating excellent validity and confirming the suitability of the instrument for the present study.

- Reliability of the study instrument :

The reliability of the instrument was assessed using Cronbach's alpha coefficient to determine its internal consistency.

Table 2. (Cronbach's Alpha Coefficients for the Study Instrument)

Factor number	Factors	Cronbach's alpha
01	Workload	0.78
02	Uncertainty regarding the role	0.61
03	Role conflict	0.78
04	Career development	0.62
05	Interpersonal relationships	0.70
06	Financial return	0.87
07	Social status	0.63
Overall score on the teachers' psychological stress scale		**0.92**

Source: *Prepared by the researcher based on SPSS output*

Table 2 shows that the overall Cronbach's alpha coefficient for the scale was 0.92, indicating excellent internal consistency. The coefficients for the sub-dimensions ranged from 0.61 (Role Ambiguity) to 0.87 (Financial Rewards), demonstrating acceptable reliability for research purposes

Data Analysis

Data were analysed using **IBM SPSS Statistics**. The following statistical techniques were employed :

- Cronbach's alpha to assess the internal consistency of the study instrument.

- Means and standard deviations to determine the level of psychological stress among physical education teachers.

- Independent-samples *t*-test to examine differences in psychological stress according to educational stage, age, professional experience, employment status, and marital status.

- A significance level of $\alpha \leq .05$ was adopted for all statistical analyses.

To facilitate the interpretation of the results, mean scores were classified into five levels based on the five-point Likert scale :

1.00–1.80 (Very Low), 1.81–2.60 (Low), 2.61–3.40 (Moderate), 3.41–4.20 (High), and 4.21–5.00 (Very High).

Results and Discussion

First Hypothesis

" **Hypothesis 1 :** Physical education teachers at the lower and upper secondary levels in Djelfa Municipality experience high levels of psychological stress."

To test this hypothesis, means and standard deviations were calculated for the overall psychological stress score and its dimensions. Table 3 presents the means and standard deviations for each dimension of psychological stress.

Results by Dimension

Table 3. Means and Standard Deviations of Psychological Stress Dimensions

Table 3. (Cronbach's Alpha Coefficients for the Study Instrument)

No	Dimension	Mean	SD	Level	Rank
01	Workload	4.43	0.67	Very High	2
02	Role Ambiguity	4.22	0.69	Very High	4
03	Role conflict	3.96	0.79	High	7
04	Career Development	4.36	0.68	Very High	3
05	Interpersonal Relationships	4.14	0.77	High	6
06	Financial Rewards	4.47	0.66	Very High	1
07	Social status	4.18	0.75	High	5
Overall Psychological Stress Score		**4.25**	**0.69**	**Very High**	

Source: *Prepared by the researcher based on SPSS output*

Table 3 indicates that the participants experienced a **very high** level of psychological stress (**M = 4.25, SD = 0.69**). The highest variability in responses was observed for **Role Conflict** (**SD = 0.79**), whereas **Financial Rewards** showed the lowest variability (**SD = 0.66**), indicating greater consistency in participants' responses.

Four dimensions were rated at a **very high** level. **Financial Rewards** ranked first (**M = 4.47, SD = 0.66**), followed by **Workload** (**M = 4.43, SD = 0.67**), **Career Development** (**M = 4.36, SD = 0.68**), and **Role Ambiguity** (**M = 4.22, SD = 0.69**).

The remaining three dimensions were rated at a **high** level. **Social Status** ranked fifth (**M = 4.18, SD = 0.75**), followed by **Interpersonal Relationships** (**M = 4.14, SD = 0.77**) and **Role Conflict** (**M = 3.96, SD = 0.79**).

These findings suggest that physical education teachers experience substantial psychological stress arising from multiple occupational sources. This may be attributed to the demanding nature of their profession, which requires sustained physical and psychological effort, extensive instructional and organisational responsibilities, limited material resources, inadequate financial rewards, and

insufficient social recognition. Together, these factors adversely affect teachers' psychological well-being and increase their vulnerability to occupational stress. The prominence of **Financial Rewards**, **Workload**, **Career Development**, and **Role Ambiguity** further indicates that organisational and professional factors constitute the principal sources of psychological stress among the participants.

The present findings are consistent with **Majadi (2022)**, who reported that psychological stress among physical education teachers results from multiple professional and social factors that negatively affect job performance, particularly those related to the work environment and social relationships. Similarly, the findings support those of **Habara et al. (2022)**, who found that physical education teachers experience psychological stress requiring the continuous use of coping strategies, reflecting the persistent nature of these pressures.

The results also corroborate the findings of **Qaloul (2022)**, who emphasised that reducing psychological stress among physical education teachers requires improving the professional environment, working conditions, and financial support while strengthening teachers' psychological well-being. The prominence of **Financial Rewards**, **Workload**, and **Career Development** in the present study further supports this interpretation.

At the international level, the findings are consistent with **Zhu and Feng (2022)**, who reported that teachers experience above-average levels of occupational stress and that work-related stress is positively associated with mental health outcomes. Likewise, the results parallel those of **Santiago et al. (2008)**, who identified disruptive student behaviour and difficulties in conflict management as major sources of occupational stress and demonstrated that stress levels vary according to educational stage and professional experience. These findings reinforce the conclusion that the demanding working conditions faced by physical education teachers substantially contribute to elevated psychological stress.

Overall, the findings confirm that psychological stress among physical education teachers represents a persistent occupational challenge rather than a temporary condition. Consistent evidence from both Arab and international studies suggests that this stress is closely associated with organisational, professional, financial, and social factors. These findings underscore the importance of improving teachers' working conditions and providing psychological and professional support programmes to reduce occupational stress and enhance educational performance.

Second Hypothesis

Hypothesis 2 : There are no statistically significant differences in the level of psychological stress among physical education teachers according to educational stage, age, professional experience, employment status, and marital status.

To test this hypothesis, **means, standard deviations, and independent-samples *t*-tests** were calculated. The results are presented in **Table 4**.

Table 4. Table 4. Independent-Samples *t*-Test Results for Differences in Psychological Stress According to the Study Variables.

Variable	Group	n	M	SD	t	p	Decision
Educational Stage	Lower Secondary	50	225.32	30.61	0.62	.536	Not Significant
	Upper Secondary	39	221.35	29.25			
Age	< 35 years	43	226.30	31.69	0.82	.414	Not Significant
	≥ 35 years	46	221.04	28.27			
Professional Experience	< 10 years	52	224.59	32.97	2.54	.013	Significant
	≥ 10 years	37	222.16	25.39			
Employment Status	Permanent	74	221.67	29.46	-0.59	.557	Not Significant
	Contract	15	233.00	31.41			
Marital Status	Married	73	221.71	29.50	-0.80	.425	Not Significant
	Single	16	232.12	31.28			

Source: *Prepared by the researcher based on SPSS output*

Table 4 indicates that **no statistically significant differences** were found in psychological stress according to **educational stage, age, employment status, or marital status** ($p > .05$). In contrast, **professional experience** showed a statistically significant effect ($t = 2.54$, $p = .013$), with teachers having **less than 10 years of experience** reporting higher levels of psychological stress than those with **10 years or more** of professional experience.

Educational Stage

No statistically significant differences were found between lower and upper secondary school teachers, indicating that psychological stress is experienced similarly across both educational stages. This finding may be attributed to the comparable professional responsibilities, workload, administrative duties,

curriculum requirements, and working conditions shared by teachers at both levels.

This finding is consistent with **Majadi (2022)**, who concluded that psychological stress is primarily associated with professional and social working conditions rather than the educational stage. It also supports the findings of **Habara et al. (2022)**, who reported that psychological stress is a common characteristic among physical education teachers, regardless of the educational level at which they teach.

Age

The results revealed no statistically significant differences according to age, suggesting that teachers of different age groups experience similar levels of psychological stress. This may be explained by the fact that occupational demands and organisational challenges affect teachers similarly regardless of age.

This finding is consistent with **Majadi (2022)**, who reported that occupational stress is more strongly associated with work-related factors than with personal characteristics. It is also broadly consistent with **Zhu and Feng (2022)**, although their study identified age-related differences, which may reflect differences in educational systems and cultural contexts.

Professional Experience

Unlike the other variables, professional experience produced statistically significant differences, with teachers having **less than 10 years of experience** reporting higher psychological stress than their more experienced counterparts. This finding suggests that early-career teachers may experience greater psychological demands while adapting to professional responsibilities, classroom management, and administrative requirements. In contrast, experienced teachers are more likely to have developed effective coping strategies and professional skills that enable them to manage occupational stress more successfully.

This finding is consistent with **Santiago et al. (2008)**, who demonstrated that occupational stress varies according to professional experience. It also supports the findings of **Zhu and Feng (2022)**, who identified years of experience as an important factor influencing teachers' work-related stress.

Employment Status

No statistically significant differences were found between permanent and contract teachers. This suggests that psychological stress is primarily associated with the nature of teaching duties rather than employment status. Despite differences in contractual arrangements, both groups perform similar instructional and professional responsibilities under comparable working conditions.

This finding is consistent with **Majadi (2022)**, who attributed psychological stress mainly to working conditions and professional relationships rather than employment characteristics. It is further supported by **Qaloul (2022)**, who emphasised that improving the professional environment and working conditions is essential for reducing psychological stress.

Marital Status

Similarly, no statistically significant differences were observed according to marital status, indicating that married and single teachers experience comparable levels of psychological stress. This finding suggests that occupational demands have a greater influence on teachers' psychological stress than personal or family circumstances.

This result is consistent with **Majadi (2022)**, who concluded that psychological stress is primarily driven by organisational and professional factors. It also agrees with **Qaloul (2022)**, who highlighted the importance of improving working conditions as a key strategy for reducing psychological stress regardless of teachers' personal characteristics.

Overall, the findings provide **partial support** for the second hypothesis. The hypothesis was supported for **educational stage, age, employment status, and marital status**, as no statistically significant differences were observed across these variables. However, it was **not supported** for **professional experience**, as teachers with **less than 10 years of experience** reported significantly higher levels of psychological stress than their more experienced colleagues, indicating that professional experience plays an important role in shaping teachers' psychological stress.

Conclusion

Based on the findings of the present study, the following conclusions can be drawn :

1. Physical education teachers at the lower and upper secondary levels in Djelfa Municipality experience a **very high level of psychological stress**, confirming that occupational stress represents one of the major challenges facing this professional group.
2. **Financial Rewards** emerged as the primary source of psychological stress, followed by **Workload**, **Career Development**, and **Role Ambiguity**, highlighting the significant influence of organisational and professional factors on teachers' stress levels.
3. **Social Status**, **Interpersonal Relationships**, and **Role Conflict** also recorded high levels of psychological stress, indicating that teachers' stress extends beyond financial aspects to include social and professional dimensions.
4. No statistically significant differences were found in psychological stress according to **educational stage, age, employment status, or marital status**, suggesting that psychological stress is a common phenomenon among physical education teachers regardless of these characteristics.
5. Statistically significant differences were found according to **professional experience**, with teachers having **less than 10 years of experience** reporting higher levels of psychological stress than their more experienced counterparts.
6. The findings emphasise that improving working conditions, enhancing the professional environment, and providing psychological and professional support are essential measures for reducing psychological stress and improving teachers' professional performance.

Recommendations

Based on the findings of the present study, the following recommendations are proposed:

1. Improving the material and professional conditions of physical education teachers in a manner commensurate with their responsibilities and workload.
2. Reducing unnecessary administrative and organisational burdens to enable teachers to focus more effectively on their educational responsibilities.

3. Providing regular psychological support and counselling programmes within educational institutions to reduce psychological stress and promote teachers' mental well-being.
4. Organising training programmes and workshops on stress management and professional coping strategies, with particular attention given to newly recruited teachers.
5. Improving the working environment by providing appropriate sports facilities and equipment to facilitate the teaching process and reduce sources of occupational stress.
6. Enhancing the professional status of physical education teachers within educational institutions and society by recognising their important contribution to educational and health objectives.
7. Encouraging teachers to participate regularly in physical, recreational, and relaxation activities as effective strategies for reducing psychological stress.
8. Conducting periodic assessments of teachers' psychological stress levels to facilitate early identification of psychological problems and the implementation of appropriate intervention programmes.
9. Conducting further research on the relationship between psychological stress and other variables, such as burnout, job satisfaction, professional motivation, and quality of working life.
10. Expanding future research to include different regions and educational levels in order to facilitate broader comparisons and produce findings with greater generalisability.

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