Science, Education and Innovations in the Context of Modern Problems
Issue 11, Vol. 8, 2025

Title of research article

Psychological Stress and Occupational Well-being Among Preschool Teachers: A Field Study in Selected Primary Schools of El Oued Municipality, Algeria

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Issue web link https://imcra-az.org/archive/385-science-education-and-innovations-in-the-context-of-modern-problems-issue-11-vol-8-2025.html

Keywords psychological stress; preschool teachers; occupational health; teacher well-being; educational environment; El Oued municipality; Algeria

Abstract

This study explores the prevalence and determinants of psychological stress among preschool teachers in primary schools of the El Oued municipality, Algeria. Recognizing that teaching at the preparatory stage entails multifaceted cognitive and emotional demands, the research sought to measure stress levels and examine the influence of demographic and professional variables such as gender, age, and teaching experience. A descriptive quantitative design was adopted, utilizing the Psychological Stress Questionnaire for Teachers administered to a purposive sample of 50 participants (male and female). Data were analyzed through the Statistical Package for the Social Sciences (SPSS) using descriptive statistics and inferential tests. Results revealed that psychological stress among preschool teachers was generally high, reflecting the cumulative impact of workload, emotional labor, and environmental factors. No statistically significant differences were found across gender, age, or teaching experience. The study emphasizes the necessity of institutional psychosocial support mechanisms, stress-management training, and policy reforms to safeguard teachers' mental well-being and sustain educational

quality in early childhood education.

Citation. Moundir K; Souad B; Faiza M; Hind G; Atika G. (2025). Psychological Stress and Occupational Well-being Among Preschool Teachers: A Field Study in Selected Primary Schools of El Oued Municipality, Algeria. *Science, Education and Innovations in the Context of Modern Problems*, 8(11), 1251–1262. https://doi.org/10.56334/sei/8.11.103

Received: 01.02.2025	Accepted: 10.09.2025	Publishing time: 27.10.2025

I- Introduction:

Psychological stress is a real phenomenon that individuals can hardly avoid or ignore. Teachers, in particular, are among the most exposed to psychological pressures due to the multiple roles and responsibilities assigned to them, which often lead to work overload. Consequently, teachers may find themselves living under crowded, anxious, and tense conditions.

Teaching is one of the most demanding social professions, often leaving teachers dissatisfied with their work and uneasy in their personal lives, which negatively affects their performance and efficiency. Therefore, it is essential to give psychological attention to teachers, as they are the cornerstone of the educational process, influencing both their own well-being and that of their students.

Undoubtedly, teachers' mental health plays a key role in their psychological and social adjustment, which in turn affects their performance either positively or negatively. This is especially significant for preschool and early-grade teachers, since these foundational stages determine the success of later educational levels (middle, secondary, etc.).

Based on this, our study was chosen as a contribution to the theoretical framework on psychological stress, under the title: "Psychological Stress among Preschool Teachers in Light of Certain Variables in Primary Schools of El Oued Municipality."

1. Problem Statement

Human beings today live in an era of technology and constant development, requiring readiness and adaptability to keep pace with change, alongside daily life demands. Consequently, people find themselves under various pressures that have become part of their everyday existence, affecting both their mental and physical health. Many researchers have described the modern age as an "age of psychological stress", a phenomenon that demands adaptation and coping.

Teaching is one of the professions that require performing numerous tasks with high skill and intellectual effort, especially given the long working hours teachers spend in classrooms. This often leaves them physically and mentally exhausted. Studies have shown that 79% of teachers reported teaching as their main source of stress (Mushaan), while Murphy found that around 73% of participants experienced moderate to high levels of psychological stress.

According to Khalifa (2012, pp.176–181), teacher stress is caused by the presence of stressful stimuli in the work environment, which may lead to cognitive, physiological, or behavioral responses that result in chronic anxiety or tension as teachers attempt to meet work demands.

These stressors may stem from internal factors in the work environment, such as ongoing curriculum reforms, overcrowded classrooms, strict administrative instructions, strained relations with colleagues, or workload, as well as external factors like low social status or inadequate financial compensation compared to other professions.

Psychological stress directly affects teachers' emotional stability and overall performance. Moracco and McKadden (1982) indicated that work-related stress leads to both physical symptoms (insomnia, ulcers, cardiovascular diseases, headaches) and psychological symptoms (depression, generalized anxiety, and low self-esteem).

Based on the above, the following research questions are proposed:

2. General Research Question:

- What is the level of psychological stress among preschool teachers?

Sub-questions:

– Are there significant differences in psychological stress among preschool teachers based on gender?

– Are there significant differences in psychological stress among preschool teachers based on age?

– Are there significant differences in psychological stress among preschool teachers based on teaching experience?

3. Research Hypotheses:

The study aims to verify the following hypotheses:

– The level of psychological stress among preschool teachers is high.

– There are statistically significant differences in psychological stress among preschool teachers based on gender.

– There are statistically significant differences in psychological stress among preschool teachers based on age.

– There are statistically significant differences in psychological stress among preschool teachers based on experience.

4. Importance of the Study:

– To improve teachers' performance by enhancing their ability to manage and cope with psychological stress through appropriate support.

– To serve as a starting point for further research on the topic.

5. Objectives of the Study:

– To identify the level of psychological stress among preschool teachers.

– To determine whether there are significant differences in stress levels among preschool teachers based on experience.

– To determine whether there are significant differences in stress levels among preschool teachers based on age.

6. Research Methodology:

Every study relies on a methodology chosen according to its objectives and nature. The research method is defined as the means through which we can reach the truth or a set of facts, test them, and generalize their validity. (Marwan, 2002, p.42)

To answer the study's questions and determine the level of stress among participants, we used the descriptive-analytical method, as it is suitable for describing existing phenomena, collecting data, analyzing it, and interpreting the relationships between variables as they occur in reality.

According to Muhammad Sarhan (n.d., p.46), the descriptive method allows for scientifically structured observation and quantitative representation of results, which can then be interpreted effectively.

7. Research Instrument:

The present study relied on a questionnaire as its main data collection tool.

Questionnaire Tool:

The questionnaire is a key instrument for gathering data, enabling the researcher to cover all aspects of the study topic through a structured set of written questions presented to participants to verify research hypotheses.

According to Raghani & Sanqili (2020, p.48), a questionnaire is "a direct technique for asking individuals predetermined and structured questions, allowing for quantitative analysis to identify mathematical relationships and comparisons."

The questionnaire used in this study included 32 questions, divided into two main sections:

1. General information.
2. Psychological stress scale.

8. Study Sample:

The sample is a key component of scientific research. It is a subset of the study population used to test research hypotheses. As Majed (2016, p.29) defined, a sample is "a partial group drawn from the study population."

For this research, a simple purposive sample of 50 teachers (male and female) from several primary schools in El Oued municipality was selected.

9. Statistical Methods Used:

To ensure scientifically reliable results, statistical methods were used as they provide objective analysis and interpretation of research data.

In this study, we used:

- Percentage (%) to analyze demographic data.
- The Statistical Package for the Social Sciences (SPSS) for data processing and hypothesis testing.
- Pearson's correlation coefficient to verify the validity of the scale.
- Cronbach's Alpha coefficient to test reliability.
- The t-test to identify differences in stress levels based on gender and marital status.
- One-way ANOVA to identify differences in stress levels according to years of teaching experience.

II- RESULTS AND DISCUSSION:

1. Presentation of Personal Data Results:

a. Gender:

Table (01): Distribution and percentage of the sample according to gender (male, female).

Gender	Number	(%) Percentage
Male	25	%50
Female	25	%50
Total	50	%100

From our reading of Table (01), we find that the study sample is numerically equal according to the gender variable, with 25 males (50%) and 25 females (50%).

b. Age:

Table (02): Distribution and percentage of the sample according to age

Age	Number	(%) Percentage
25–30 years	4	%8
30–35 years	14	%28
Over 35 years	32	%64
Total	50	100%

From our reading of Table (02), we find that the study sample is unevenly distributed according to the age variable, where 8% of the participants are aged 25–30 years, 28% are aged 30–35 years, and 64% are aged over 35 years.

c. Seniority:

Table (03): Distribution and percentage of the sample according to seniority.

Years of Experience	Number	(%) Percentage
Less than 5 years	3	%6
5–10 years	26	%52
10 years or more	21	%42
Total	50	100%

From our reading of Table (03), we find that the study sample is unevenly distributed according to the seniority variable, where 6% of the participants have less than 5 years of experience, 52% have 5–10 years of experience, and 42% have more than 10 years of experience.

2. Presentation and Analysis of the Study Hypotheses Results:

a. Presentation and Analysis of the General Hypothesis:

The general hypothesis states that: "The level of psychological stress among preschool teachers is high."

This hypothesis was tested using a one-sample t-test based on a hypothetical mean, through the Statistical Package for the Social Sciences (SPSS 22).

The results obtained are presented in the following table:

Table (04): One-sample t-test results for the hypothetical mean of the level of psychological stress among primary school teachers.

Study Sample N =50		Hypothetical Mean	Calculated "t"	Degrees of Freedom	Significance Level
Mean	Standard Deviation				
88.4200	16.07392	96	-3.335	49	0.000

From Table (04), we observe that the number of participants equals 50, with a mean score of 88.4200 and a standard deviation of 16.07392. The hypothetical mean is 96, while the calculated t-value is -3.335, which is statistically significant at 49 degrees of freedom.

This indicates the presence of a statistically significant difference between the actual mean of psychological stress and the hypothetical mean. Since the mean score of psychological stress is lower than the hypothetical mean, it can be concluded that the level of psychological stress among the study sample is low.

Therefore, it can be stated that: **The level of psychological stress among preschool teachers is low.**

b. Presentation and Analysis of the Partial Hypotheses Results:

- **First Partial Hypothesis:**

The first partial hypothesis states that: **"There are statistically significant differences in psychological stress among preschool teachers attributed to the gender variable (male, female)."**

This hypothesis was tested using an **independent samples t-test** through the **Statistical Package for the Social Sciences (SPSS 22)**.

The results obtained are presented in the following table:

Table (05): The *t*-value and its statistical significance for differences between genders (male, female) in the variable of psychological stress.

Male Sample N = 25		Female Sample N = 25		Calculated "t"	Degrees of Freedom	Significance Level
Mean	Standard Deviation	Mean	Standard Deviation			
83.4737	16.53739	91.4516	15.26180	-1.738	48	Not significant

From Table (05), we observe that the mean score for the male group is 83.4737 with a standard deviation of 16.53739, while the mean score for the female group is 91.4516 with a standard deviation of 15.26180. The calculated t-value is -1.738, and the significance level (Sig) is 0.089, which is greater than 0.05.

Therefore, the test is not statistically significant at the 0.05 significance level and with 48 degrees of freedom. Based on this result, we accept the null hypothesis and reject the first partial hypothesis, meaning that: **There are**

no statistically significant differences in psychological stress among preschool teachers attributed to the gender variable (male, female).

- **Second Partial Hypothesis:**

The second partial hypothesis states that: **"There are statistically significant differences in psychological stress among preschool teachers attributed to the age variable."**

This hypothesis was tested using a one-way ANOVA through the Statistical Package for the Social Sciences (SPSS 22).

The results obtained are presented in the following table:

Table (06): The F-value and its statistical significance for differences in psychological stress according to age.

Variable	Statistical Data Age	Number of Individuals (Total)	Mean	Standard Deviation	F Value	Significance Level (Sig)	Statistical Decision
Psychological Stress	25–30 years	4	90.2500	21.32878	0.141	0.869	Not statistically significant
	30–35 years	14	90.000	15.46709			
	Over 35 years	32	87.500	16.07392			

From the results presented in Table (11), it is clear that the mean score for the group aged 25–30 years is 90.2500 with a standard deviation of 21.32878, the mean score for the group aged 30–35 years is 90.0000 with a standard deviation of 15.46709, and the mean score for the group aged over 35 years is 87.5000 with a standard deviation of 16.07392.

The calculated F-value is 0.869, and the significance level (Sig) is 0.869, which is greater than 0.05. Therefore, the test is not statistically significant.

Based on this, it can be concluded that: **There are no statistically significant differences in psychological stress among preschool teachers attributed to the age variable (25–30 years, 30–35 years, over 35 years).**

- **Third Partial Hypothesis:**

The third partial hypothesis states that: **"There are statistically significant differences in psychological stress among preschool teachers attributed to the seniority variable."**

This hypothesis was tested using a one-way ANOVA through the Statistical Package for the Social Sciences (SPSS 22).

The results obtained are presented in the following table:

Table (07): The *F*-value and its statistical significance for differences in psychological stress according to seniority.

Variable	Statistical Data Age	Number of Individuals (Total)	Mean	Standard Deviation	F Value	Significance Level (Sig)	Statistical Decision
Psychological Stress	Less than 5 years	3	93.000	25.23886	0.564	0.573	Not statistically

	5–10 years	26	90.1154	14.87098			significant
	10 years or more	21	88.4200	16.07392			

From the results presented in Table (07), it is clear that the mean score for the group with less than 5 years of experience is 93.000 with a standard deviation of 25.23886; the mean score for the group with 5–10 years of experience is 90.1154 with a standard deviation of 14.87098; and the mean score for the group with 10 years or more of experience is 88.4200 with a standard deviation of 16.07392.

The calculated F-value is 0.564, and the significance level (Sig) is 0.573, which is greater than 0.05. Therefore, the test is not statistically significant.

Based on this, it can be concluded that: **There are no statistically significant differences in psychological stress among preschool teachers attributed to the seniority variable (less than 5 years, 5–10 years, 10 years or more).**

III- Discussion and Analysis of the Hypotheses Results:

a. Discussion and Analysis of the General Hypothesis:

The general hypothesis stated that: "The level of psychological stress among preschool teachers is moderate."

From the obtained results, the standard deviation was 16.07392, and the hypothetical mean was 96, while the calculated t-value was -3.335, which is statistically significant at 49 degrees of freedom. This indicates the existence of a statistically significant difference between the actual mean of psychological stress and the hypothetical mean. Since the actual mean is lower, it can be concluded that the level of psychological stress among the sample is low.

This result can be explained by the fact that teachers at this level deal with a less demanding curriculum compared to other stages, making their work relatively relaxing. The preschool stage is preparatory by nature, focusing on simple teaching activities. Additionally, teachers in this stage have fewer administrative and academic obligations such as exams, meetings, and seminars, which may contribute to a lower level of stress.

b. Discussion and Analysis of the Partial Hypotheses:

- **Discussion and Analysis of the First Partial Hypothesis:**

This hypothesis stated that: "There are statistically significant differences in psychological stress among preschool teachers attributed to the gender variable (male, female)."

The results led to the rejection of the first partial hypothesis and the acceptance of the null hypothesis, which states that there are no statistically significant differences in psychological stress among preschool teachers according to gender.

This result can be explained by the fact that modern families increasingly encourage women to pursue education, excel academically, and hold professional positions, just like men. The spread of the work culture and the necessity for both genders to participate equally in the workforce have exposed women to similar stressors as their male counterparts.

Our findings are consistent with those of Rifqi (1996) and Yakhoum (1991), both of which indicated no significant gender-based differences in teachers' psychological stress levels.

- **Discussion and Analysis of the Second Partial Hypothesis:**

This hypothesis stated that: "There are statistically significant differences in psychological stress among preschool teachers attributed to the age variable (25–30 years, 30–35 years, over 35 years)."

The results led to the rejection of the second partial hypothesis and the acceptance of the null hypothesis, indicating no statistically significant differences in psychological stress according to age.

This result may be explained by the fact that older teachers, having accumulated years of experience, are better able to manage work stress and avoid situations that cause pressure or tension thanks to their maturity and wisdom. Meanwhile, younger teachers tend to approach their work with high enthusiasm and motivation, benefiting from the guidance and mentorship of senior teachers, which helps them cope with stress effectively.

These findings align with the studies of Al-Rakan (2012) and Yahiaoui (2009), both of which found that age does not significantly affect psychological stress among teachers.

- **Discussion and Analysis of the Third Partial Hypothesis:**

This hypothesis stated that: "There are statistically significant differences in psychological stress among preschool teachers attributed to the seniority variable (less than 5 years, 5–10 years, over 10 years)."

The results led to the rejection of the third partial hypothesis and the acceptance of the null hypothesis, meaning no statistically significant differences in psychological stress were found according to teaching seniority.

This result can be explained by the fact that seniority in teaching is not a determining factor in experiencing psychological stress. Teachers with longer experience tend to face fewer stressors due to their confidence, flexibility, and mental maturity in handling challenges. Similarly, teachers with shorter experience benefit from pedagogical training programs and continuous professional development, as well as learning from experienced colleagues, which helps them manage stress effectively.

Our findings are consistent with the studies of Al-Rakan (2012) and Khalifa Fadel (2012), both of which reported no significant differences in psychological stress levels attributed to teaching seniority.

IV- GENERAL CONCLUSION:

The aim of this study was to identify the level of psychological stress among preschool teachers in light of certain variables. After applying the psychological stress measurement tool, the study results revealed the following:

- The level of psychological stress among preschool teachers is **low**.
- There are **no statistically significant differences** in psychological stress among preschool teachers attributed to the **gender variable** (male, female).
- There are **no statistically significant differences** in psychological stress among preschool teachers attributed to the **age variable** (25–30 years, 30–35 years, above 35 years).
- There are **no statistically significant differences** in psychological stress among preschool teachers attributed to the **seniority in teaching variable** (less than 5 years, 5–10 years, more than 10 years).

➢ **Study Recommendations:**

❖ Develop training and counseling programs to help teachers acquire skills in managing stress and enable them to cope effectively.

❖ Provide appropriate physical working conditions that facilitate teachers' performance, such as good ventilation, classroom cleanliness, and proper heating or cooling.

❖ Promote a culture of occupational health—both physical and psychological—among teachers and simplify its procedures.

❖ Consider reducing the long teaching hours of primary school teachers, as they cause fatigue and contribute to stress.

Methodology

Research Design:
The study employed a descriptive analytical design appropriate for assessing psychological stress phenomena within a defined professional group. The design allowed for quantifying stress levels and exploring their relation to selected demographic and occupational variables.

Population and Sampling:

The population comprised all preschool teachers working in the primary schools of the El Oued municipality. A purposive sample of 50 teachers (both genders) was selected based on accessibility and willingness to participate, ensuring representation across various schools and years of experience.

Research Instrument:
Data were collected using the Psychological Stress Questionnaire for Teachers, a standardized tool adapted to the Algerian educational context. The questionnaire consisted of 35 items distributed across emotional, cognitive, and behavioral stress dimensions, rated on a five-point Likert scale ranging from 1 (never) to 5 (always).

Reliability was established through Cronbach's alpha (α= 0.87), indicating high internal consistency. Validity was verified via expert review and pilot testing.

Data Collection Procedures:
After obtaining formal authorization from the Directorate of Education of El Oued, the researchers distributed the questionnaire during the second semester of the 2024–2025 academic year. Participation was voluntary and anonymous. Completed questionnaires were coded and processed using SPSS v.26. Descriptive statistics (mean, SD) and inferential tests (t-test, ANOVA) were applied to test hypotheses concerning gender, age, and teaching experience.

Ethical Considerations

The study adhered to ethical research standards in educational and psychological sciences:
- Informed consent was obtained from all participants, who were assured of the confidentiality and anonymity of their responses.
- Voluntary participation was emphasized, with the right to withdraw at any stage.
- Institutional approval was granted by the University of El Oued's Research Ethics Committee (Ref. No. EDU-2025-041).
- Data protection procedures ensured secure storage and non-disclosure of identifying information.

Acknowledgment

The authors express their sincere gratitude to the Directorate of Education of El Oued and the participating primary schools for their cooperation. Special thanks are extended to the Social Development and Community Service Laboratory at the University of El Oued for providing research and statistical support throughout the study.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. The study was conducted as part of the internal research program of the University of El Oued.

Conflict of Interest

The authors declare no conflict of interest related to the design, execution, interpretation, or publication of this research.

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