

Reflections of Work Stress on Employees Public Health" A Field Study"

ضغوطات العمل وانعكاساتها على الصحة العامة للموظفين " دراسة ميدانية"

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Abstract:

The primary aim of this study is to grasp the facts related to work stress, and as a research priority, to identify its impact on the health of employees at the University of Algiers 2 – Abou El Kacem Saadallah. The study concluded that there is a strong relationship between work stress and the psychological and physical health of employees. The results revealed that an increase in work stress is associated with a rise in experiences of psychological disorders, tension, and anxiety, which often lead to chronic illnesses such as diabetes and hypertension. Furthermore, the study concluded that in order for employees to enjoy the highest standards of health, it is necessary to manage work stress, improve the work environment, and focus on the quality of work life. In light of these findings, the study recommended a set of practical and theoretical suggestions.

Keywords: Health; Work Stress; University of Algiers 2; Employees' Health; Occupational Burnout.

الملخص:

إن الغاية الأساسية لهذه الدراسة هي الإلمام بالحقائق المرتبطة بضغوطات العمل، وكأولوية بحثية هو معرفة تأثيرها على صحة الموظفين في جامعة الجزائر 2 أبو القاسم سعد الله، بحيث خلصت الدراسة هناك علاقة قوية بين ضغوط العمل والصحة النفسية والجسدية للموظفين. بحيث أظهرت النتائج أن زيادة ضغوط العمل ترتبط بزيادة في تجارب الاضطراب النفسي والتوتر والقلق، والتي غالبا ما تؤدي إلى الإصابة بأمراض مزمنة كالسكري والضغط. هذا وخلصت إلى أنه من أجل أن يتمتع الموظفون بأعلى معايير الصحة لابد من إدارة ضغوط العمل وتحسين بيئته والتركيز على جودة الحياة الوظيفية. وفي ضوء هذه النتائج أوصت الدراسة بمجموعة من التوصيات العملية والنظرية.

الكلمات المفتاحية: الصحة؛ ضغوط العمل، جامعة الجزائر 2؛ صحة الموظفين. الاحتراق الوظيفي

1. INTRODUCTION:

In recent decades, the professional world has undergone profound transformations encompassing various dimensions of the work environment. The pace of performance has become more accelerated, and expectations regarding productivity and discipline have risen. This has led to the emergence of work stress as an independent issue facing employees. Such stress is no longer confined to job-related tasks alone; rather, its effects extend to the individual's psychological and physical health, and are also reflected in the nature of his relationships and behaviors, both within and outside the workplace.

Accordingly, the subject of work stress has become one of the most prominent topics attracting the attention of researchers. Interest in this subject is relatively recent: at the beginning of the twentieth century, and specifically in 1932, Cannon was among the first researchers to address the impact of work stress on the individual and his biological system. Stress was viewed as inherent and unavoidable in any social system, with individuals being unequal in their capacity for social adaptation, especially since goals cannot always be entirely clear, nor roles and positions precisely defined. Thus, individuals are continuously exposed to stress. Hanson (1998) argued that work stress lies in the individual's ability to adapt to changes occurring within his work environment, since no profession is entirely free from stress. Athletes, students, businessmen, and employees alike face work pressures that may lead to pathological conditions, some of which can be fatal or have serious consequences for health.

The suffering of employees from work stress represents one of the critical aspects for institutions, as it directly affects organizational behavior as well as the overall health of employees.

What concerns us here is to grasp the facts related to work stress, and as a research priority in this study, to identify its health effects on employees from psychological, physical, and behavioral perspectives. This will be pursued through a field study that seeks to approach the Algerian reality in general, while providing a deeper analysis of employees' health at the University of Algiers 2. The study also attempts to uncover the most significant stressors faced by employees, including workload, job insecurity, and other factors that may lead to occupational burnout, which in turn affects their health through illness.

The subject of this article is to present the results of a field study conducted at the University of Algiers 2 on a sample of employees aged 23 years and above. The study relies on a scientific approach that allows for the exploration, description, and analysis of a number of indicators addressing the main dimensions of the research and serving its objectives.

2. Presentation of the Problem and Methodology:

2.1 The Problem:

Every type of work performed by an individual within society is essential for development, prosperity, and progress. However, this work is not always carried out in the desired manner or in the correct form within the professional system, due to the pressures faced by the individual in his work environment—whether imposed by the nature of the job itself or by the way the individual performs it. In both cases, such pressures often translate into a series of physical, psychological, familial, and social illnesses and symptoms, which in turn affect the outcomes of quality of work life.

Studies have shown that a work environment characterized by harassment, lack of ability to adapt to the job, absence of satisfaction and recognition from management, insufficient skills, dissatisfaction with material and social conditions, and the absence of plans and strategies that help employees cope with such situations, often poses a threat to the employee and his life goals. This results in a state of pressure accompanied by occupational burnout, manifested in psychological and physical strain such as anxiety, tension, anger, irritability, sadness, fatigue, and chronic illnesses.

In the same context, the World Health Organization declared years ago that work stress is a global problem, having spread in an epidemic manner across the world, and labeled it the “disease of the twentieth century.” This was confirmed by a survey conducted by Harris Interactive, a market research and consulting company in New York, which found that 70% of workers in the United States believe that people in workplaces are now exposed to greater stress than in previous years, and that one in four employees included in the study felt mentally and physically exhausted. The study concluded that psychological and physical work stress costs American companies 300 billion dollars annually, with one million people absent from work due to stress, and 60% of absenteeism attributed to health reasons.

Furthermore, the French National Institute for Research and Safety (INRS) reported that 25% of employees suffer from health problems related to occupational stress. Similarly, the International Labour Organization confirmed the rising rates of illnesses caused by work stress, estimating deaths due to occupational diseases at around 160 million cases worldwide.⁽¹⁾ In 2021, the WHO and ILO reaffirmed that long working hours constitute the greatest risk factor contributing to the burden of work-related diseases.⁽²⁾

Algeria has not been immune to this phenomenon. A study by Taleb Samia demonstrated that work stress negatively affects employees behaviorally, psychologically, and physically, and even impacts the organization internally.⁽³⁾ This was further confirmed by a study by Bahi Salima on teachers of the three educational levels, which found that teachers are exposed to moderate levels of stress that negatively affect their professional performance and their psychological and physical well-being.⁽⁴⁾

What is particularly noteworthy today are the repercussions that may result from work stress, which are clearly manifested in what is termed “psychosomatic disorders”.⁽⁵⁾ These have become a central concern for physicians, research centers, and universities across various medical fields, all seeking to develop appropriate strategies to reduce work stress and preserve individual health. Cooper’s study indicated that work stress leads to the emergence of certain disorders such as heart disease and mental illness. The British Heart Foundation also reported that tension and anxiety resulting from work stress often lead to fatal diseases such as cancer, immune system failure, stroke, and heart disease.⁽⁶⁾ This is consistent with prior research suggesting a potential association between psychological stress and cancer.⁽⁷⁾

Thus, work stress has negative repercussions both on the psychological state—manifested in tension, anxiety, and aggression—and on the physical state, accompanied by somatic symptoms such as cardiovascular disease, diabetes, and arthritis. This affects employees’ health

on the one hand, and organizational outcomes on the other. If stress exceeds employees' coping capacities, and they are unable to adapt quickly and effectively, it will have adverse effects on their psychological, physical, social, and mental well-being.⁽⁸⁾

To clarify the reality of work stress in Algeria and its repercussions on employees' health, we will attempt to answer the following research question, which represents part of the problem of this study:

How does work stress affect employees' health from psychological, physical, and behavioral perspectives?

2.2 Methodology Adopted in the Study:

Our field study was conducted at the University of Algiers 2 – Abou El Kacem Saadallah, on a statistical population composed of employees. The statistical unit of the study was the employee aged 23 years and above. As for the study sample, we selected a type of probability sampling, namely stratified sampling. This choice was imposed by the nature of our parent population, since the sampling frame was available in the form of a list containing the names, numbers, and addresses of employees working at the university.

To achieve the objectives of the study, a questionnaire was designed consisting of 40 questions divided into four axes, in order to reach results that were unknown at the beginning of the research.

The methodology adopted was the statistical method, which enabled us to interpret the data collected in the field through tabular and graphical presentation. For the purposes of the research, some descriptive statistical methods were used, such as the arithmetic mean, as well as analytical statistical methods such as analysis of variance and regression analysis in the case of quantitative variables, and the Chi-square test in the case of nominal variables. This allowed us to reach conclusions.

3. Presentation and Analysis of Results

3.1 Results Related to the Personal Data of Respondents

Table 1. Distribution of the Sample by Age

Age	N	Total
19-29	13	% 16
30 – 40	36	%46
41 – 51	18	%22
52 – 62	13	%16
Total	80	%100

Source: Prepared by the researcher

From the results of the field study, it became clear that the majority of the sample were aged between 30–40 years, representing 46%, compared to 16% in the age groups 19–29 and 52–62. Thus, we conclude that the average age of the sample is 39.26 years.

Table 2. Distribution of the Sample by Gender

Gender	N	Total
Male	39	% 51.3
Female	41	% 48.7
Total	80	%100

Source: Prepared by the researcher

From the statistical reading of the table, we observe that the majority of the sample were females at 51.3%, compared to 48.7% males. Hence, we conclude that the most common gender in the sample is female.

Table 3. Distribution of the Sample by Educational Level

EducationalLevel	N	Total
Middle School	5	%6.3
Secondary	17	%21.3
University	58	%72.5
Total	80	%100

Source: Prepared by the researcher

From the statistical reading of the table, we note that the majority of the sample had a university level of education, representing 72.5%, compared to 6.3% with a middle school level. Thus, we conclude that university graduates are the most common category.

Table 4. Distribution of the Sample by Exposure to Work Stress

Exposure to Stress	N	Total
Yes	14	% 17.5
Sometimes	39	% 48.75
No	27	% 33.75
Total	80	%100

Source: Prepared by the researcher

From the statistical reading of the table, we observe that the majority of the sample were sometimes exposed to work stress, representing 48.75%, compared to 17.5% who were always exposed. Thus, we conclude that employees who were sometimes exposed to work stress are the most common in our sample.

. 3.2 Results Related to the Impact of Work Stress on Employees' Psychological Health

Table 5. Relationship between Exposure to Stress and Suffering from Feelings of Frustration and Tension

Feeling of Frustration & Tension \ Exposure to Stress		Yes	Sometimes	No	Total
Yes	N	11	3	0	14
	%	78,6%	21,4%	0,0%	100%
Sometimes	N	17	15	7	39
	%	43,6%	38,5%	17,9%	100%
No	N	4	11	12	27

	%	14,8%	40,7%	44,4%	100%
Total	N	32	29	19	80
	%	40,0%	36,2%	23,7%	100%

Source: Prepared by the researcher

From this table, it appears that the general trend leans toward respondents who suffer from feelings of frustration and tension, at 40.0%, compared to 23.7% who do not suffer from such feelings.

The table further reveals that most respondents, regardless of their answers regarding exposure to stress, relatively supported the general trend of suffering from frustration and tension, with varying proportions: the highest among those exposed to work stress (78.6%), and the lowest among those not exposed (14.8%). Meanwhile, the majority of those who sometimes experienced frustration and tension were not exposed to stress (40.7%).

Based on the null hypothesis test, which stated that there are no statistically significant differences at 4 degrees of freedom and a 5% significance level between work stress and feelings of frustration and tension, the null hypothesis was rejected and the alternative hypothesis accepted. The calculated Chi-square value was 28.92, which is greater than the tabulated Chi-square value of 9.49. To measure the strength of this relationship, the contingency coefficient was calculated at 0.48. Thus, we can say that there is a moderate positive relationship between work stress and feelings of frustration and tension.

Accordingly, we can state that individuals' psychological state is one of the most important indicators for determining the outcomes or effects of stress, since each individual has a certain threshold and capacity for bearing stress. Once exceeded, psychological disorders and behavioral problems emerge. The results of this table therefore confirm the findings of the British Heart Foundation, which emphasized that work stress leads to tension and anxiety.

Drawing on Émile Durkheim's work on *anomie*, it can be said that continuous work stress represents a state of "normative disorder" within the institution, where employees feel a lack of standards and trust, leading to internal psychological disintegration.

Empirical evidence indicates a significant association between exposure to stress and increased levels of frustration and anxiety, as demonstrated by Song et al. who found a positive correlation between occupational stress and both anxiety and depression.⁽⁹⁾

Table No 6. The Relationship between Exposure to Stress and Suffering from Anxiety and Anger

Feeling of Anxiety and Anger Exposure to Stress		Yes	Sometimes	No	Total
Yes	N	4	9	1	14
	%	28.6	64.3	7.1	100%
Sometimes	N	13	15	11	39
	%	33.3	38,5%	28.2	100%
No	N	7	13	7	27
	%	25.9	48.1	25.9	100%
Total	N	24	37	19	80
	%	30	46.2	23,7	100%

Source: Prepared by the researcher

From the statistical reading of the table, we note that the general trend leans toward respondents who sometimes suffer from anxiety and anger, at 46.2%, compared to 23.7% who do not suffer from anxiety and anger.

When introducing the independent variable of exposure to stress, we observe that most respondents, regardless of their answers concerning the degree of exposure, supported the general trend of sometimes suffering from anxiety and anger, though at varying levels: the highest among those exposed to work stress (64.3%), followed by 38.5% among those sometimes exposed, and the lowest among those not exposed (48.1%).

To clarify the relationship statistically, we tested the null hypothesis, which stated that there are no statistically significant differences at 4 degrees of freedom and a 5% significance level between work stress and feelings of anger and anxiety. The null hypothesis was accepted, and the alternative hypothesis rejected, since the calculated Chi-square value (3.83) was smaller than the tabulated Chi-square value (9.488).

Thus, we cannot assert the existence of a statistically significant relationship between the two variables, even though it is sociologically expected.

Although the statistical results of our current study proved that there is no statistically significant relationship between work stress and feelings of anger and anxiety, sociological reality and previous studies contradict these findings. They confirm that employees often experience functional imbalance within the organization or institution in which they work, leading to decreased job satisfaction, weakened performance, reduced effectiveness, and role conflict. All these factors combined negatively affect employees' behavior in terms of self-control, making them more prone to irritability and anger.

Table No 7. The Relationship between Exposure to Stress and Experiencing a Psychological Disorder Episode

Experiencing a Psychological Disorder Episode \ Exposure to Stress		Yes	Sometimes	No	Total
Yes	N	0	14	0	14
	%	0	100	0	100%
Sometimes	N	5	26	8	39
	%	12.8	66.7	20.5	100%
No	N	2	10	15	27
	%	7.4	37.03	55.5	100%
Total	N	7	50	23	80
	%	8.7	62.5	28.7	100%

Source: Prepared by the researcher

From the general trend of the table, we observe that the majority of respondents sometimes experienced a psychological disorder episode, at 62.5%, compared to 8.7% who did not experience it.

The table further shows that most respondents, regardless of their answers concerning exposure to stress, supported the general trend of experiencing a psychological disorder episode,

though at varying levels: the highest among those exposed to work stress (100%), followed by 66.7% among those sometimes exposed, and the lowest among those not exposed (37.03%).

Based on the null hypothesis test, which stated that there are no statistically significant differences at 4 degrees of freedom and a 5% significance level between work stress and experiencing a psychological disorder episode, the null hypothesis was rejected and the alternative hypothesis accepted. The calculated Chi-square value (19.77) was greater than the tabulated Chi-square value (9.49). To measure the strength of this relationship, the contingency coefficient was calculated at 0.49. Thus, we can say that there is a moderate positive relationship between work stress and experiencing a psychological disorder episode.

Accordingly, we can state that employees often pay a price as a result of these pressures on the one hand, and their attempts to resist them on the other. They may suffer from frustration, dissatisfaction with work, and a negative outlook toward work-related issues. This leads to fatigue due to repeated attempts at resistance and adaptation. If successful, balance may be restored and hope for stability regained. However, in the case of repeated failure, employees may experience dissatisfaction with the work environment, reduced productivity, and thoughts of leaving the job. At this stage, symptoms of psychological illness begin to appear, such as frequent forgetfulness, negativity, depression, anxiety, and anger. With repetition, these may culminate in a psychological disorder episode.

Table No. 8 The Relationship between Exposure to Stress and the Use of Tranquilizers

Use of Tranquilizers Exposure to Stress		Yes	Sometimes	No	Total
Yes	N	13	0	1	14
	%	92.8	0	7.1	100%
Sometimes	N	31	4	4	39
	%	79.5	10.2	10.3	100%
No	N	17	8	2	27
	%	63	29.6	7.4	100%
Total	N	61	12	7	80
	%	76.2	15	8.8	100%

Source: Prepared by the researcher

From this table, we note that the general trend leans toward respondents who use tranquilizers, at 76.2%, compared to 8.8% who do not use them.

The table further shows that most respondents, regardless of their answers concerning exposure to stress, supported the general trend of tranquilizer use, though at varying levels: the highest among those exposed to work stress (92.8%), followed by 79.5% among those sometimes exposed, and the lowest among those not exposed (63.0%).

These results thus confirm the findings of the previous table, showing that the majority of the sample consume tranquilizers. This, if anything, indicates that employees suffer from psychological disorders, which drives them to take tranquilizers either to alleviate the severity of these disorders, to prevent their aggravation, or out of fear of developing additional disorders.

We reinforce this conclusion with what was proposed by the **Coping Theory** of Lazarus & Folkman, which demonstrated that employees who lack effective coping strategies tend to resort to tranquilizers or develop psychological disorders. This theory emphasizes the importance of

developing healthy coping strategies to deal with stress and strain, and that the inability to do so may lead to psychological problems.

According to this theory, when an individual faces stress without effective coping strategies, he may resort to unhealthy mechanisms such as taking sedatives or developing psychological disorders. Therefore, developing positive and effective coping strategies is of utmost importance for psychological and mental health. Coping thus involves a cognitive appraisal of the stressful event, identifying the resources available to the individual to deal with it, and then selecting the appropriate coping strategy. Problem-focused coping and emotion-focused coping are the two main strategies: the first involves attempting to change the stress-inducing event, while the second involves regulating the emotional responses to the event.

3.3 Results Related to the Impact of Work Stress on Employees' Physical Health

Table No. 9 The Relationship between Exposure to Stress and Feeling of Fatigue and Exhaustion

Feeling of Fatigue and Exhaustion Exposure to Stress		Yes	Sometimes	No	Total
Yes	N	6	8	-	14
	%	42.9	51.1	-	100%
Sometimes	N	11	14	14	39
	%	28.2	35.9	35.9	100%
No	N	2	10	15	27
	%	7.4	37.04	55.6	100%
Total	N	19	32	29	80
	%	23.8	40	36.3	100%

Source: Prepared by the researcher

From this table, we note that the general trend leans toward respondents who somewhat suffer from fatigue and exhaustion, at 40%, compared to 23.8% who do not suffer from it.

The table further reveals that most respondents, regardless of their answers concerning exposure to stress, supported the general trend of somewhat suffering from fatigue and exhaustion, though at varying levels: the highest among those exposed to work stress (51.1%), and the lowest among those sometimes exposed (35.9%).

Based on the null hypothesis test, which stated that there are no statistically significant differences at 4 degrees of freedom and a 5% significance level between work stress and suffering from fatigue and exhaustion, the null hypothesis was rejected and the alternative hypothesis accepted. The calculated Chi-square value (14.62) was greater than the tabulated Chi-square value (9.49). To measure the strength of this relationship, the contingency coefficient was calculated at 0.42. Thus, we can say that there is a moderate positive relationship between work stress and fatigue and exhaustion.

Work stress factors—including excessive workload, role ambiguity, weak managerial support, lack of recognition and motivation, communication problems, and imbalance between work and personal life—often lead to fatigue and exhaustion. These manifest in chronic physical strain, sleep disturbances, reduced concentration and motivation, as well as chronic health problems such as headaches, hypertension, muscle pain, and digestive issues. Mental fatigue

often transforms into physical exhaustion. If stress persists without solutions, the employee may suffer from "burnout," a state of psychological and physical collapse. This supports the theory of Positive Psychological Capital, which confirmed that the absence of hope and psychological resilience leads to burnout.⁽¹⁰⁾

The literature and studies indicate a strong causal relationship between work stress and individuals' feelings of fatigue and exhaustion, and that the persistence of such stress without intervention leads to deteriorating health and reduced professional productivity. A study by the World Health Organization proved that occupational fatigue resulting from work stress and overload is responsible for a 23% increase in the risk of heart disease. This is further illustrated in the following table.

Table No. 10 The Relationship between Daily Workload and Feeling of Fatigue and Exhaustion

Feeling of Fatigue and Exhaustion Daily Workload		Yes	Sometimes	No	Total
More than 8 hours	N	7	9	5	21
	%	33.33	42.85	23.80	100%
8 hours	N	10	20	15	45
	%	22.22	44.44	33.33	100%
Less than 8 hours	N	2	3	9	14
	%	14.28	21.42	64.28	100%
Total	N	19	32	29	80
	%	23.8	40	36.3	100%

Source: Prepared by the researcher

From this table, we note that the general trend leans toward respondents who somewhat suffer from fatigue and exhaustion, at 40%, compared to 23.8% who do not suffer from it.

The table further reveals that most respondents, regardless of their answers concerning exposure to stress, relatively supported the general trend of somewhat suffering from fatigue and exhaustion, though at varying levels: the highest among those working 8 hours per day (44.44%), and the lowest among those working more than 8 hours per day (42.85%). Meanwhile, those who did not suffer from fatigue and exhaustion were mostly employees working less than 8 hours per day, at 62.28%.

The World Health Organization and the International Labour Organization confirmed in a joint study that working long hours (55 hours or more per week) is associated with a 35% increased risk of stroke and a 17% increased risk of death from ischemic heart disease, compared to working 35–40 hours per week.⁽¹¹⁾

Observational data suggest an average 50% excess risk for CHD among employees with work stress.⁽¹²⁾

A study published in **PubMed Central** reinforced this, showing that healthcare workers suffering from emotional exhaustion have a higher risk of cardiovascular disease, highlighting the negative impact of occupational fatigue on cardiac health in particular, and on employees' general health overall. This will be detailed in the subsequent tables.

Table No. 11 The Relationship between Exposure to Stress and Employees' Health Status

Health Status Exposure to Stress		Good	Fair	Somewhat Deteriorated	Total
Yes	N	0	3	11	14
	%	0	21.4	78.6	100%
Sometimes	N	7	12	20	39
	%	17.9	30.8	51.3	100%
No	N	15	6	6	27
	%	55.6	22.2	22.2	100%
Total	N	22	21	37	80
	%	27.5	26.3	46.3	100%

Source: Prepared by the researcher

From the statistical reading of the table, we note that the general trend leans toward respondents whose health is somewhat deteriorated, at 46.3%, compared to 26.3% whose health is fair.

When introducing the independent variable “exposure to stress,” we observe that most respondents, regardless of their answers concerning exposure, supported the general trend, though at varying levels: the highest among those exposed to work stress (78.6%), and the lowest among those not exposed (22.2%).

Based on the null hypothesis test, which stated that there are no statistically significant differences at 4 degrees of freedom and a 5% significance level between work stress and health status, the null hypothesis was rejected and the alternative hypothesis accepted. The calculated Chi-square value (20.21) was greater than the tabulated Chi-square value (9.49). To measure the strength of this relationship, the contingency coefficient was calculated at 0.50. Thus, we can say that there is a moderate positive relationship between work stress and health status.

Thus, we can conclude that the pressure experienced by employees is often translated into emotional, physiological, and organic responses. The organ that controls these aspects is the brain, specifically the peripheral system, which regulates the autonomic nervous system composed of muscles, arteries, the stomach, intestines, heart, and lungs. The second system controlled by the peripheral system is the endocrine system, which secretes numerous hormones. Exposure to repeated waves of stress and tension drives both the autonomic nervous system and the endocrine system into a state of constant and unbalanced activity.⁽¹³⁾ This causes employees to feel a persistent deterioration and instability in their health, and once they surrender to this feeling, it marks the beginning of numerous health problems. This is what we address in the following table.

Table No. 12 The Relationship between Exposure to Stress and Suffering from Health Problems

Suffering from Health Problems Exposure to Stress		Yes	Sometimes	No	Total
Yes	N	0	12	2	14
	%	0	85.7	14.3	100%
Sometimes	N	7	32	0	39

	%	<i>17.9</i>	<i>82.05</i>	<i>0</i>	<i>100%</i>
No	N	<i>8</i>	<i>14</i>	<i>5</i>	<i>27</i>
	%	<i>29.6</i>	<i>51.6</i>	<i>18.5</i>	<i>100%</i>
Total	N	<i>15</i>	<i>58</i>	<i>7</i>	<i>80</i>
	%	<i>18.8</i>	<i>72.5</i>	<i>8.8</i>	<i>100%</i>

Source: Prepared by the researcher

From this table, we note that the general trend leans toward respondents who somewhat suffer from health problems, at 72.5%, compared to 8.8% who do not suffer from them.

The table further reveals that most respondents, regardless of their answers concerning exposure to stress, supported the general trend of somewhat suffering from health problems, though at varying levels: the highest among those exposed to work stress (85.7%), and the lowest among those not exposed (51.6%).

Based on the null hypothesis test, which stated that there are no statistically significant differences at 4 degrees of freedom and a 5% significance level between work stress and suffering from health problems, the null hypothesis was rejected and the alternative hypothesis accepted. The calculated Chi-square value (13.61) was greater than the tabulated Chi-square value (9.49). To measure the strength of this relationship, the contingency coefficient was calculated at 0.41. Thus, we can say that there is a moderate positive relationship between work stress and suffering from health problems.

These results are consistent with research findings that chronic stress reduces the body's ability to resist disease and increases the likelihood of developing health problems. Continuous stress associated with "psychological disorders" often produces harmful effects that result in specific bodily responses, manifesting in physical illnesses such as: risk of heart disease, headaches and muscle pain (tension causes muscle contraction, leading to headaches and neck and back pain), sleep disorders (difficulty falling asleep, insomnia, or frequent waking due to anxiety and constant work-related thoughts), as well as digestive problems. Chronic anxiety, stress, inability to relax, and anger increase the secretion of hydrochloric acid, which erodes the stomach lining and causes gastric ulcers, irritable bowel syndrome, acidity, loss of appetite, or overeating.

Table No. 13 The Relationship between Exposure to Stress and Illness

Illness \ Exposure to Stress		Yes	Sometime	No	Total
Yes	N	<i>8</i>	<i>4</i>	<i>2</i>	<i>14</i>
	%	<i>57.14</i>	<i>28.57</i>	<i>14.28</i>	<i>100%</i>
Sometimes	N	<i>6</i>	<i>18</i>	<i>15</i>	<i>39</i>
	%	<i>15.38</i>	<i>46.15</i>	<i>38.46</i>	<i>100%</i>
No	N	<i>4</i>	<i>15</i>	<i>8</i>	<i>27</i>
	%	<i>14.81</i>	<i>55.55</i>	<i>29.62</i>	<i>100%</i>
Total	N	<i>18</i>	<i>37</i>	<i>25</i>	<i>80</i>
	%	<i>22.5</i>	<i>46.25</i>	<i>31.25</i>	<i>100%</i>

Source: Prepared by the researcher

From the statistical reading of the table, we note that the general trend leans toward respondents suffering from non-chronic illnesses, at 46.25%, compared to 22.5% suffering from chronic illnesses.

When introducing the independent variable “exposure to stress,” we observe that most respondents exposed to stress suffered from chronic illnesses (57.14%). Meanwhile, the majority of respondents who were sometimes exposed or not exposed to stress followed the general trend of suffering from non-chronic illnesses, with the highest proportion among those not exposed to stress (55.55%), followed by 46.15% among those sometimes exposed.

Based on the null hypothesis test, which stated that there are no statistically significant differences at 4 degrees of freedom and a 5% significance level between work stress and illness, the null hypothesis was rejected and the alternative hypothesis accepted. The calculated Chi-square value (12.47) was greater than the tabulated Chi-square value (9.49). To measure the strength of this relationship, the contingency coefficient was calculated at 0.39. Thus, we can say that there is a moderate positive relationship between work stress and illness.

Work stress produces harmful effects on employees, and with its persistence, signs and symptoms of illness begin to appear, leading to physical diseases—some fatal, such as chronic illnesses, and others less severe, such as transient (non-chronic) illnesses. High levels of stress are often accompanied by high blood pressure and elevated cholesterol, which may lead to heart disease, gastrointestinal and musculoskeletal disorders. For example, those who overwork recklessly experience an increase in the hormone norepinephrine in their blood, which accelerates blood clotting in the arteries of the heart or brain. In addition, continuous stress leads to the secretion of stress hormones such as cortisol, which may cause high blood pressure.

4. Discussion of Results

4.1 Discussion of Results Related to the Impact of Work Stress on Employees’

Psychological Illnesses

Work stress is one of the most significant factors affecting employees’ psychological health balance, especially in contemporary work environments characterized by high competitiveness, accelerated organizational pace, and elevated expectations. These pressures affect employees in multiple ways, beginning with persistent feelings of tension and anxiety, and extending to more complex psychological symptoms such as depression, sleep disorders, and mental exhaustion.

This is confirmed by the findings of our study, which revealed that the majority of the sample suffer from symptoms of psychological illness: 40% suffer from feelings of frustration and tension, 46.2% sometimes suffer from anxiety and anger, and 62.5% sometimes experienced a psychological disorder episode. This situation compelled them to resort to painkillers and tranquilizers, with 76.2% of them consuming tranquilizers.

This, if anything, indicates that they were exposed to work stress and reached the stage of “psychological burnout,” with its negative effects on their mental health. The study found that the majority of respondents exposed to work stress suffer from feelings of frustration and tension at a rate of 78.6%, while 64.3% of them sometimes suffer from anxiety and anger. In contrast, most of those who sometimes experienced frustration and tension had not been exposed to stress, at 40.7%.

From the perspective of social psychology, the absence of recognition, role ambiguity, and

increasing professional demands without adequate support are all factors that contribute to employees' feelings of lack of control and loss of passion for work. This, in turn, increases the likelihood of chronic stress, which is usually associated with tension, anxiety, and anger, and consequently feelings of frustration and dissatisfaction with oneself. With the persistence of this situation, and the continuous accumulation of stress without sufficient periods of rest or psychological and social support, the employee reaches a state of emotional exhaustion and loss of motivation, eventually experiencing a psychological disorder episode, which compels him to resort to painkillers and tranquilizers.

This is consistent with the findings of our study, which revealed that all those exposed to work stress experienced a psychological disorder episode, and that 92.8% of them consumed tranquilizers.

From what we concluded in our field study, we can state that the organizational environment plays a pivotal role in this context. The absence of justice within the institution, weak professional relationships, and feelings of isolation can exacerbate psychological distress, thereby negatively affecting employees' quality of life, both inside and outside the workplace. Thus, work stress is not merely a temporary condition but a structural factor with profound implications for mental health, requiring multi-level interventions that involve the individual, the institution, and society as a whole.

4.2 Discussion of Results Related to the Impact of Work Stress on Employees' Physical Illnesses

From the study's results, we conclude that people differ in the extent to which they are affected by work stress, depending on their physical strength. It can be said that the weakest part of the body's biological or organic system is the part most affected by work stress. In other words, the pathological symptoms of work stress appear in the weakest part of the body, which, due to its low resistance, becomes vulnerable to breakdown or damage. The first manifestation of this is fatigue and exhaustion.

The study showed that work stress leads to fatigue and exhaustion, as continuous tension depletes both mental and physical energy. When employees feel constant pressure, the body secretes stress hormones (such as cortisol), which leads to persistent feelings of strain and fatigue. This negatively affects sleep quality, causing insomnia or interrupted sleep, which in turn impacts energy and concentration during the day. With this ongoing fatigue, employees become less productive, leading to task accumulation and, consequently, increased stress, creating a vicious cycle. If these pressures persist without solutions, employees suffer from what is known as "occupational burnout," a state of psychological and physical collapse.

Scientific evidence indicates that work stress does not only cause temporary exhaustion but leaves deep imprints on the body, potentially leading to chronic illnesses.

This was confirmed by our study, which concluded that employees suffering from this state of psychological and physical collapse are more vulnerable to chronic illnesses and health problems. The majority of respondents exposed to work stress somewhat suffered from health problems at a rate of 85.7%, and 78.6% of them reported that their health had somewhat deteriorated.

Thus, the current study's results confirm the findings of previous research on the

relationship between work stress and employees' health, which emphasized that work stress not only causes temporary fatigue and exhaustion but also leaves deep imprints on the body, potentially leading to chronic and serious illnesses. These studies also confirmed that work stress is closely linked to high blood pressure, heart disease, sleep disorders, and chronic muscular pain, particularly in the back and neck. Some studies further showed that the continuous physiological response to stress weakens the immune system and makes the body more vulnerable to disease.

This aligns with the results of our current study, which concluded that the majority of respondents exposed to stress suffered from chronic illnesses at a rate of 57.14%, including cardiovascular disorders, gastrointestinal disorders, chronic sleep disturbances, and musculoskeletal pain, in addition to effects on the immune system, hormonal imbalances, and metabolic disorders. Recent studies have shown that work-related psychological stress negatively affects the immune system, leading to reduced production of immune cells (T-cells and B-cells), and increased susceptibility to viral or bacterial infections, as well as slower wound healing and recovery from illness.

Under chronic stress, the body remains in a state of "biological alertness," which exhausts the defense systems and weakens their ability to confront external threats.

5. CONCLUSION

In conclusion, what can be drawn from the above is that there is a positive correlation between chronic work stress and the deterioration of employees' general health. Work stress represents a real threat to employees' public health. Therefore, it is essential to emphasize the importance of managing work stress. The ideal situation lies in improving the work environment, managing time effectively, setting priorities, and delegating tasks fairly, while enhancing psychological and social support. This requires institutions to adopt more humane policies that place employees' health and well-being at the core of their concerns. The better the professional conditions, the higher the productivity, and the lower the rates of illness and absenteeism, which positively reflects on the employee, the institution, and society.

It should also be noted that despite all the efforts and awareness campaigns undertaken by the Algerian state to manage and reduce these pressures, shortcomings remain. Responsibility falls on members of society, particularly specialists in the study and analysis of occupational health and safety, whose role is to prioritize improving working conditions and preventing occupational risks, including work stress. They must also identify the factors affecting workers' health, develop strategies for preventing occupational accidents and diseases, and provide recommendations to all categories of employees, instilling in them the values of preventive practices and surrounding them with a work environment that encourages effective preventive behaviors based on continuity and sustainability, rather than marginal behaviors activated only after illness occurs.

Looking ahead, if we wish to further explore the true health situation of employees, the field remains fertile. We must undertake a study that complements the current one, which should not be a purely theoretical study detached from reality, but rather a field study that reflects lived reality. It should address our research topic from another perspective no less important than the

current one, namely: "Employees' Healthcare and Its Impact on the Management of Work Stress." This would open the door to further research and deeper exploration of this group, enabling them to pass through this stage of life in good health, ensuring quality in their professional lives.

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