

# Assessment of Stress in the Banking Environment at the National Service of Occupational Medicine in Guinea

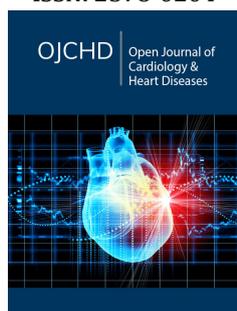
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## Summary

**Introduction:** Stress is the body's response to an exhausting, dangerous or distressing situation. Work stress is a person's reaction to high demands and pressure at work. The impact of work stress is generally considered to be harmful to workers' health and costly for society. They seem to affect all categories of workers, including managers. Numerous scientific works agree that stress at work is at the origin of pathologies such as musculoskeletal disorders (MSDs) and low back pain, cardiovascular diseases (CVD), depression [1,2].

**Patents and method:** The national service of occupational medicine and twelve (12) banks of the city of Conakry and their branch are used as framework for the realization of this study.

**Study material:** Our study focused on all bank employees working in the city of Conakry.

- A. Type and duration of study: This was a descriptive prospective study of a duration of 06 months from 10 June to 10 December 2017.
- B. Population target: All employees of the banks of the city of Conakry were targeted.
- C. Population study: Our study focused on all active employees of the banks of the city of Conakry.
- D. Inclusion Criteria: Included in this study were all bank employees in Conakry present during the survey who agreed to participate.
- E. Exclusion Criteria: Excluded from this study were all bank employees who did not accept the survey.
- F. Variable: For all employees, we determined the sociodemographic parameters (age, sex, marital status, workstation, residence) as well as the stress and stressor evaluation parameters.
- G. Data entry and analysis: The seizure analysis and presentation of this study were carried out using Pac Office 2013 and Epi Infos in version 7.2.1.0
- H. Ethical and deontological considerations: An investigation authorization and the free membership of employees to our investigation were requested and the information collected was kept in the confidentiality required by professional secrecy.

**Discussion:** We conducted a descriptive prospective study on the assessment of stress in the workplace: the case of banks in Conakry in which we recorded 844 workers. The average age of our workers was 37.02 years with extremes of 20 and 72 years, the age group of 30 - 39 years was the most affected with a proportion of 45.14%, followed by that of 20-29 years with a proportion of 23.10%. Oke A et al. [3] In Nigeria in 2008, a study of stress in the banking sector reported that the most represented age group was 31 to 40 years old with a proportion of 49.7%. Petarli et al. [4] Brazil in 2015 reported in a study on stress in the banking sector, that the most represented age group was 31 to 50 years with a proportion of 62%.

**Conclusion:** Stress is the body's response to an exhausting, dangerous or distressing situation. Then there is a statistically significant link between the level of stress and the stressors. The assessment of the factors intrinsic to the work situation would certainly make it possible to analyze the impact and possible corrective and preventive measures. As stressors are real risk factors for stress, conducting additional studies on stress in other sectors could lead to a better understanding of this phenomenon in order to prevent the occurrence of cardiovascular events.

## Introduction

Stress is the body's response to an exhausting, dangerous or distressing situation. Work stress is a person's reaction to high demands and pressure at work. The impact of work stress

is generally considered to be harmful to workers' health and costly for society. They seem to affect all categories of workers, including managers. Numerous scientific works agree that stress at work is at the origin of pathologies such as musculoskeletal disorders (MSDs) and low back pain, cardiovascular diseases (CVD), depression [1].

Other specific behavioral phenomena such as alcohol, tobacco and psychoactive drug abuse are also more common in stressful situations. This issue is all the more worrying as work stress is a growing phenomenon, partly due to the emergence of new technologies and the spread of new forms of work organization [1]. Thus, stress is not only important from the medical and psychological point of view, it is also important for the sciences of the organization and the manager. Stress is so involved in the functioning of organizations that it could almost be compared to the function of energy in physics [2]. The scarcity of study on the subject in the banking sector in our country, the need to make better known the phenomenon and its risk factors have motivated the choice of this topic entitled "Assessment of stress in banking at the national service of medicine of work in Guinea.

### Main Objective

To evaluate stress at work in the banking sector in Conakry.

### Specific Objectives

- Determine the level of stress of employees in banking
- Describe the stressors in banking
- Establish the relationship between the level of stress and stressors in the banking sector.

### Patents and method

The national service of occupational medicine and twelve (12) banks of the city of Conakry as well as their branch are used as framework for the realization of this study.

### Study material

Our study focused on all bank employees working in the city of Conakry.

**Support:** A survey form developed according to the Charly Cungi model and a computer equipped with Pack office 2013 served as a support for data collection.

- Type and duration of study: This was a descriptive prospective study of 06 months duration, from June 10 to December 10, 2017.
- Target population: All bank employees in the city of Conakry were targeted.
- Study population: Our study focused on all active bank employees in the city of Conakry.
- Inclusion criteria: All bank employees in Conakry present during the investigation and who agreed to participate were included in this study.
- Exclusion criteria: Excluded from this study were all bank employees who did not accept the survey.

f. Data entry and analysis: The entry, analysis and presentation of this study were carried out using Pac Office 2013 and Epi Infos in version 7.2.1.0

g. Ethical and deontological considerations: Authorization to conduct an investigation and the free participation of employees in our investigation were requested and the information collected was kept in the confidentiality required by professional secrecy.

## Result

(Table 1-8) (Figure 1 & 2)

**Table 1:** Distribution of workers by age group.

Age Range	Work Force	Percentage
20-29	195	23,10%
30-39	381	45,14%
40-49	154	18,25%
50-59	82	9,72%
60-69	27	3,20%
70-79	5	0,59%
Total général	844	100,00%

Average age=37.02 years min=20 years max=72 years

**Table 2:** Distribution of workers by profession.

Work Place	Work Force	Percentage
Reception agents	95	11,26%
Accounting agents	422	50,00%
Controlling Agents	131	15,52%
Administrative agents	82	9,72%
Drivers / Transportation	44	5,21%
IT Agents	24	2,84%
Other	34	4,03%
Assistants	12	1,42%
Grand total	844	100,00%

**Table 3:** Distribution of workers by stress level.

Stress Level	Work Force	Percentage
Very low stress	426	50,47%
Low stress	375	44,43%
High stress	43	5,09%
Very high stress	0	0%
Grand total	844	100,00%

**Table 4:** Distribution of workers according to different stressors.

Stressors	Effective	Percentage
Very low stressor	532	63,03%
Low stressor	204	24,17%
High stressor	104	12,32%
Very high stress	4	0,47%
Grand total	844	100,00%

**Table 5:** Distribution of workers according to different stressors.

Stressors	Not at all	Weakly	A Little	Enough	A lot	Extremely
Quality of life	333	195	170	75	56	15
Quality of life	587	159	58	21	11	8
Work overload	332	188	100	74	111	39
Printing in front of the stain	624	124	44	17	29	6
Family factors	524	153	56	28	60	23
Income on lifestyle	573	135	77	32	22	5
Extra professional activity	624	163	45	9	2	1
Degree of disease	723	84	15	5	11	6

**Table 6:** Distribution of workers according to the relationship between stressors and stress.

Stress Stressors	High Stress + Very High Stress	Stress low + stress low	General Total
stressors	14	94	108
No stressors	29	707	736
Grand total	43	801	844

OR = 3.63 IC [1.85 – 7.11] ; P-value = 0.0000

**Table 7:** Distribution of socio-demographic variables according to stress.

Variable	High Stress + Very High Stress n = 43	Very Low Stress + Low Stress n = 801	P-Value
AGE (moyenne)	40.02	36.88	0.04
(M/F)	35/8	526/275	0.03
Marital status (married / single)	33/9	594/199	0.59
Residence			
Dixinn	Jan-42	94/707	0.06
Kaloum	Mar-41	76/725	0.59
Matam	Aug-35	113/688	0.41
Ratoma	20/23	311/490	0.31
Matoto	Nov-32	200/601	0.92
Workplace			
Accounting agents	14/29	405/396	0.02
Administrative agents	Sep-34	112/689	0.2
Assistants	Jan-42	26/775	0.73
Reception agents	Mar-40	81/720	0.5
Agents Informaticiens	Jun-37	22/779	0
Heaters	Apr-39	36/765	0.15
Controlling Agents	May-38	90/711	0.93
Seniority (average)	8.15	6.93	0.24

**Table 8:** Distribution of socio-demographic variables according to stressors.

Variables	High and very high stressor n = 108	Very low and Low stressor n = 736	P-value
Age (average)	39.76	36.62	0
Gender (M / F)	82/26	479/257	0.02
Marital status (Married / Single)	80/24	547/184	0.64
Residence			
Dixinn	5/103	90/646	0.01
Kaloum	8/100	71/665	0.45
Matam	16/92	105/631	0.87
Ratoma	51/57	280/456	0.06

Matoto	26/82	185/551	0.81
Workplace			
Accountants	56/52	363/373	0.62
Administrative Agents	15/93	106/630	0.88
Assistants	5/103	22/714	0.36
Agents d'Accueils	Sep-99	75/661	0.54
IT Agents	5/103	23/713	0.41
Heaters	6/102	34/702	0.66
Controlling Agents	Oct-98	85/651	0.48
SENIORITY (average)	9.09	6.69	0

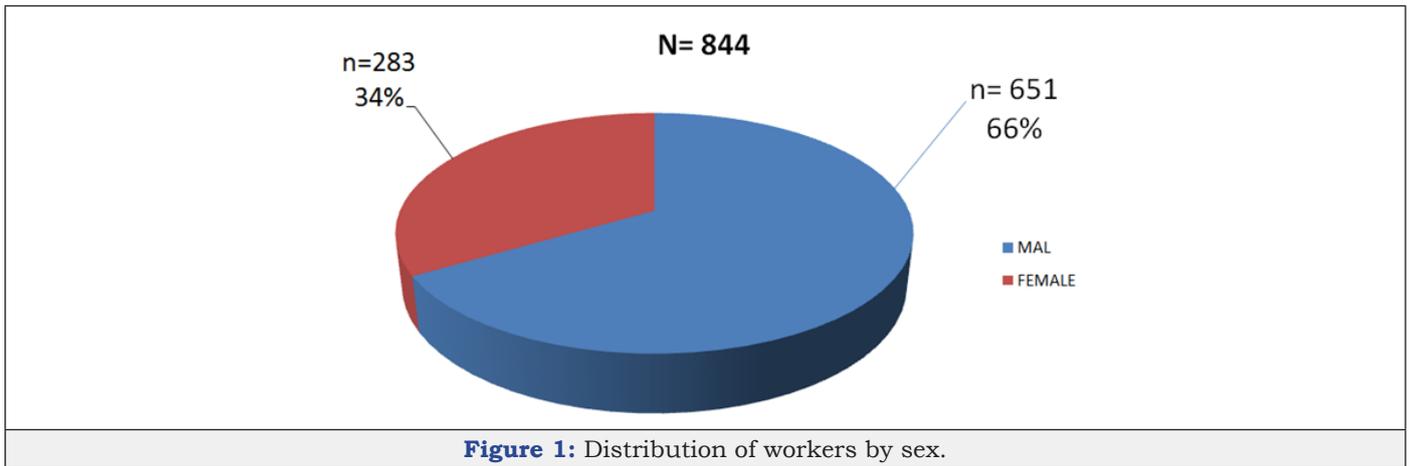


Figure 1: Distribution of workers by sex.

Sex-ratio = 1.98

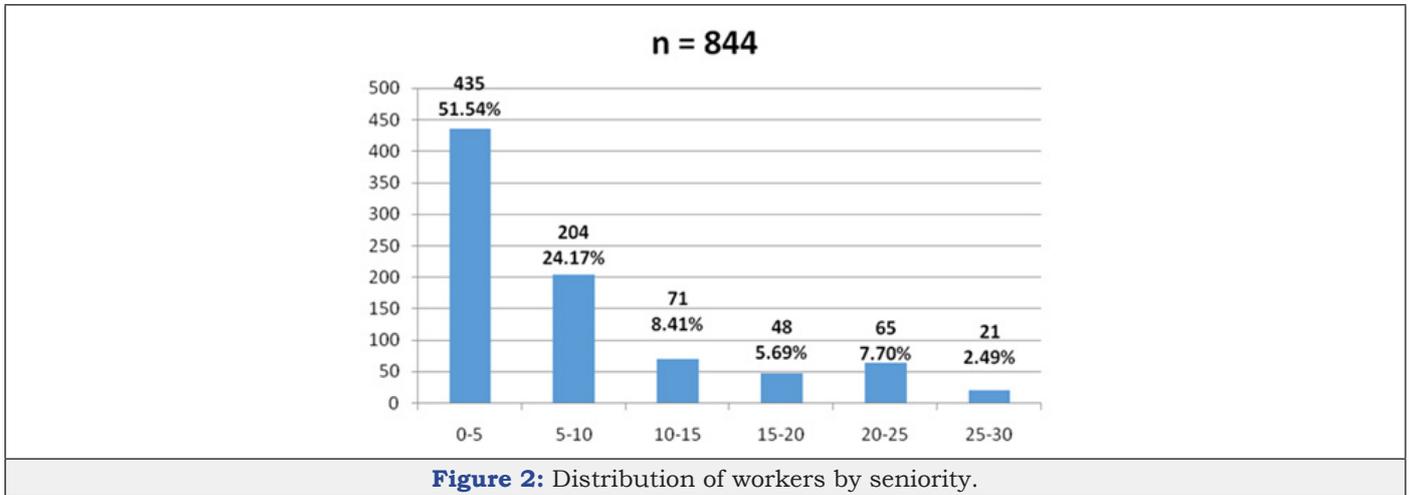


Figure 2: Distribution of workers by seniority.

Average = 7 years min = 0.038 years (2 weeks) max = 29 years

**Discussion**

We carried out a prospective descriptive study on the evaluation of stress in the workplace: the case of the banks in Conakry in which we registered 844 workers. The average age of our workers was 37.02 years with extremes of 20 and 72 years, the age group of 30-39 years was the most affected with a proportion of 45.14%, followed by that 20-29 years with a proportion of 23.10%. Oke A, et al. [3] in Nigeria in 2008 reported in a study, on stress in the banking sector, that the most represented age group was 31 to 40 years with a proportion of 49.7%. Petarli et al. [4] in Brazil in 2015 reported

in a study, on stress in the banking sector, that the most represented age group was 31 to 50 years with a proportion of 62%. Desouky A et al. [5] in Egypt in 2017 had reported in a study, on teacher stress, an average age of 39.4 years with the extremes of 21 and 58 years.

During this study, young adults are the most encountered. This result could be explained by the fact that in recent years companies and especially banks, in order to revitalize their activities, have implemented a policy of rejuvenation of their workforce by employing more and more young graduates. Among workers, men were the most represented with 561 cases or 66% against 283

cases of female sex or 34% with a sex ratio of 1.98. Oke A et al. [3] in Nigeria in 2008 who had reported in a study, on stress in the banking sector, a male predominance of 62.7%. Petarli et al. [4] in Brazil in 2015 who reported in a study, on stress in the banking sector, a male predominance of 51%. This could be explained by the fact that it is men who apply much more for employment. Also the number of women in clear evolution would be explained by the policy put in place by all the organizations to promote the female candidates.

The seniority was 7 years with the extremes of 0.038 and 29 years, 51.54% of the workers had a seniority of less than 5 years. Oke A et al. [3] in Nigeria in 2008 who had reported in a study on stress in the banking sector, 42% of employees had a seniority of less than 05 years. Desouky D et al. [5] in Egypt in 2017 who had reported in a study, on stress among teachers, 30.3% of employees had a seniority of less than 05 years. The relatively low seniority in this sector is linked on the one hand to the fact that most of the predominantly young employees are at the start of their career. On the other hand, the fact that the hiring and hiring process in these sectors is fairly regular.

Accounting officers (cashier, etc.) are the most encountered with a proportion of 50%, followed by controllers and reception staff with the proportions of 15.52% and 11.26% respectively. Oke A et al. [3] in Nigeria in 2008 who had reported in a study, on stress in the banking sector, 36.7% of employees are accounting officers. Petarli et al. [4] in Brazil in 2015 who had reported in a study, on stress in the banking sector, 55% of employees are administrative agents and 45% of agents. In the banking sector, the need for human resources is much more accentuated on these workstations; which explains the high number of employees in this field. In our series, we evaluated stress and stressors according to the model of Charly Cungi [6]; thus 5.09% of the workers had a high level of stress (score between 30 and 45) against 50.47% and 44.43% who respectively had a very low level of stress (score 11 and 19) and low (score between 19 and 30). None of the workers had very high stress levels.

Our data is comparable with that of: Oke A et al. [3] in Nigeria in 2008 who had reported in a study, on stress in the banking sector, that the most represented age group was 31 to 40 years with a proportion of 49.7%. Petarli et al. [4] in Brazil in 2015 who had reported in a study, on stress in the banking sector, 58% of employees had a low stress level and 41.7% had a high stress level. Desouky D et al. [5] in Egypt in 2017 who had reported in a study, on teacher stress, 67% of employees had a high level of stress and 26.1% had a medium level of stress. Jeyaraj SS et al. [7] in Indonesia in 2013 who had reported in a study, on teacher stress, 62% of employees had a medium level of stress and 17.7% had a high level of stress. Mishra B et al. [8] in India in 2011 who had reported in a study, on stress among teachers, 88.4% of employees had a moderate level of stress and 5% had a high level of stress. As for the stressors, 12.32% of the workers had a high stressor score between 18 and 28 against 63.03% and 24.17% who had respectively a very low stressor score score between 8 and 14 and

low score between 14 and 18. The most encountered stressors are regular work overload, family concerns.

Statistical analysis of this result reveals a statistically significant relationship between the level of stress and the stressors ( $p$ -value=0.00). The risk of being stressed in the presence of stressors is 3.63 times greater than in workers who have a low stressor score. Once again, this study shows that stressors are the risk factors for stress. In our study, advanced age ( $p=0.04$ ), gender ( $p=0.03$ ) and job position (accountants  $p = 0.02$  and computer scientists  $p = 0.00$ ) are the factors that are linked to stress. Oke A et al. [3] in Nigeria in 2008 who had reported in a study, on stress in the banking sector, a correlation between age and stress as well as seniority and stress. Petarli et al. [4] in Brazil in 2015 who had reported in a study, on stress in the banking sector, a correlation between marital status, job position, seniority and stress. Desouky D et al. [5] in Egypt in 2017 who had reported in a study, on teacher stress, a statistically significant link between sex, advanced age and stress. Jeyaraj SS et al. [7]. In Indonesia in 2013 who had reported in a study, on teacher stress, a statistically significant link between gender, length of service and stress. This would be due to the fact that responsibilities increase with age and that the demands of certain jobs are stressful factors.

## Conclusion

Stress is the body's response to an exhausting, dangerous or distressing situation. So there is a statistically significant link between the level of stress and the stressors. The assessment of the factors intrinsic to the work situation would certainly allow the impact and possible corrective and preventive measures to be analyzed. As stressors are real risk factors for stress, carrying out additional studies on stress in other sectors could lead us to better understand this phenomenon in order to prevent the occurrence of cardiovascular events.

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