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O. O. OLORUNSOGO  
B. L. SALAKO**

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## Work related stress and coping mechanisms among bankers in Lagos, Nigeria

FA Olatona<sup>1</sup>, EN Ezeobika<sup>1</sup>, IP Okafor<sup>1</sup> and OBA Owoeye<sup>2</sup>

Departments of Community Health<sup>1</sup> and Physiotherapy<sup>2</sup>, Lagos University Teaching Hospital/College of Medicine, University of Lagos, Lagos Nigeria.

### Abstract

**Background:** This study assessed knowledge, prevalence, associated factors and mechanisms of coping with stress among bankers in Lagos State.

**Methods:** It was a descriptive cross sectional study. A two stage sampling technique was used to select two hundred and twenty seven (227) respondents. Data was collected using a structured self administered questionnaire. The analysis was done using Epi-info version 2002 software and Chi Square was used to determine association between variables at p value 0.05. Fischer's Exact test was used where Chi-square was not valid.

**Results:** The age range of respondents was between 20 and 49 years while the mean age was  $31.3 \pm 5.0$  years. Only 3.6% had good level of knowledge about stress, 42.2% had fair level while more than half of the respondents had poor level of knowledge about stress (54.3%). Majority (67.0%) of the respondents were moderately stressed while one quarter (24.7%) were highly stressed. Majority (92.4%) of the respondents used good coping mechanisms though 69.5% of the respondents also used bad coping mechanisms.

A greater proportion of those who had poor knowledge about stress were stressed or highly stressed ( $p=0.002$ ). A statistically significant association was also found between the departments in the bank and level of stress of the respondents ( $p=0.002$ ).

**Conclusion and Recommendation:** The prevalence of stress was high among the bank workers studied. It is recommended that effective stress management programmes are implemented to address the problem of stress among bank workers.

**Keywords:** Work related stress, prevalence, coping mechanisms, bankers, Lagos, Nigeria.

### Résumé

**Introduction:** Cette étude évaluait la connaissance, la prévalence, les facteurs et les mécanismes d'adaptation au stress parmi les banquiers dans l'état de Lagos au Nigeria.

Correspondence: Dr. Foluke A. Olatona, Department of Community Health, Lagos University Teaching Hospital/ College of Medicine, University of Lagos, Lagos, Nigeria. E-mail: folaton@gmail.com.

**Méthodes:** C'est une étude transversale descriptive ou deux techniques d'échantillonnages ont été utilisées pour sélectionner deux cent vingt-sept (227) personnes interrogées. Les données ont été recueillies à l'aide d'un questionnaire structuré auto-administré. L'analyse a été réalisée à l'aide du logiciel Epi-info 2002 et Chi carré a été utilisée pour déterminer l'association entre variables à valeur  $P < 0,05$ . Le test exact de Fischer a été utilisé où Chi-carré n'était pas valide.

**Résultats:** La tranche d'âge des répondants était de 20 et 49 ans alors que l'âge moyen était de  $31,3 \pm 5,0$  ans. Seulement 3,6% avait un bon niveau de connaissances sur le stress, 42,2% avaient bon niveau tandis que plus de la moitié des répondants avaient un faible niveau de connaissance sur le stress (54,3%). La majorité des répondants (67,0 %) étaient modérément stressés alors que le quart (24,7 %) était fortement stressé. La majorité (92,4 %) des répondants a développé un bon mécanisme d'adaptation. Une plus grande proportion d'entre eux-ci avaient de pauvre connaissance de la pression du stress ( $P=0.002$ ). Une association statistiquement significative a été aussi trouvée entre les départements dans la banque et le degré de pression/stress des banquiers ( $P= 0.002$ ).

**Conclusion et recommandation:** La prévalence du stress était élevée parmi les travailleurs des banques étudiées. Il est recommandé que les programmes de gestion efficaces du stress soient mis en œuvre pour résoudre le problème de pression/stress chez les employés de banque.

### Introduction

Stress is defined as an organism's total response to environmental demands or pressures [1]. It is a state of physiological or psychological pressure caused by potentially adverse stimuli, physical, mental or emotional, internal or external, that tend to disturb the functioning of an organism and which the organism naturally desires to avoid [1]. If an individual has a positive response to the stimuli which can depend on one's current feelings of control, desirability, location, and timing of the stressor, it is referred to as eustress [2]. However, if a person is unable to adapt completely to stressors and their resulting stress and shows

## Results

The age range of respondents was between 20 and 49 years while the mean age was  $31.3 \pm 5.0$  years. About 55% of the respondents were males and 45% were females. Most (90.1%) of the respondents were Christians. Fifty-seven percent were single while 41.3% were married. Majority of the respondents (70%) were junior staff, about 24% were managerial staff while 6% were executive staff. Half (50.2%) were accountants which could be teller or cash operations department; 16.1% were in marketing department; 14.3% in finance department; 8.5% in customer care; 5.8% in credit risk management and 3.1% in the information technology department.

**Table 2:** Prevalence of self-reported work related stress among respondents

Stress level	Frequency	Percentage (%)
Mildly stressed	19	8.5
Moderately stressed	149	66.8
Highly stressed	55	24.7
Total	223	100.0

Only 3.6% had good level of knowledge about stress, 42.2% had fair level while more than half of the respondents (54.3%) had poor level of knowledge about stress. Causes of stress identified by respondents included work overload (80.7%), long working hours (45.0%), lack of time to relax (44.4%).

**Table 3:** Mechanisms used by respondents to cope with stress\*

Coping mechanisms*	Frequency (n=223)	Percentage (%)
Exercise	115	51.6
Meditation/Yoga	50	22.4
Reflecting on the positive/ Refocusing	43	19.3
Breathing relaxation	47	21.1
Muscle relaxation	45	20.2
Listening to music	64	28.7
Sleeping	60	26.9
Withdrawal/Detachment	57	25.6
Smoking	20	9.0
Drinking alcohol	14	6.3
Over-eating	50	22.4
Crying	46	20.6
Doing nothing	11	4.9

\*Multiple responses given

Effects of stress identified by respondents include: anxiety (60.5%), sleeplessness, hypertension (51.6%), poor health status (92%), and job dissatisfaction (67.7%), poor working relationship with others (65.5%) and low productivity (83%). (Table 1)

One quarter of the respondents (24.7%) were highly stressed, two thirds (67.0%) were moderately stressed, and only 8.5% respondents were mildly stressed (Table 2). Respondents adopted one or more

**Table 4:** Association between level of knowledge, department, gender and stress level of respondents

Variable	Mildly stressed	Moderately stressed	Highly stressed	Total
<i>Level of knowledge</i>				
Poor	8 (6.6)	75 (62.0)	38 (31.4)	121 (100.0)
Fair	7 (7.4)	70 (74.5)	17 (18.1)	94 (100.0)
Good	4 (50.0)	4 (50.0)	0 (0.0)	8 (100.0)
$X^2 = 16.77$ ; Fischer's exact $p = 0.002$				
<i>Department</i>				
Accounts (Teller, cash operations)	5 (4.5)	81 (72.3)	26 (23.2)	112 (100.0)
Finance	6 (18.2)	22 (66.7)	5 (15.2)	33 (100.0)
Customer care	5 (10.5)	11 (63.2)	5 (26.3)	21 (100.0)
Marketing	7 (2.8)	21 (58.3)	14 (38.9)	48 (100.0)
Credit risk management	5 (38.5)	7 (53.8)	11 (7.7)	22 (100.0)
Others (Audit etc)	8 (20.0)	5 (51.4)	12 (28.6)	25 (100.0)
$X^2 = 31.57$ ; $p = 0.002$				
<i>Gender</i>				
Male	12 (9.8)	80 (65.0)	31 (25.2)	123 (100.0)
Female	7 (7.0)	69 (69.0)	24 (24.0)	100 (100.0)

$X^2 = 0.65$ ;

$df = 2$ ;

$p \text{ value} = 0.721$

represented and financial activities are high [21]. The study population was bank workers. Only commercial banks were included, micro-finance and other smaller financial institutions were excluded. For the respondents, only permanent workers were included in the study while contract staff were excluded.

A minimum sample size of 207 was determined with the formula for descriptive studies. This was however increased by 10% to 227 in order to make up for non response. A two-stage sampling technique was used to select the respondents. At the first stage, all nineteen (19) banks as listed by the Central Bank of Nigeria directory were included in the study and one branch of each was selected by simple random sampling (balloting). At the second stage, twelve eligible bankers in each bank were selected using systematic random sampling on the workers list. An appropriate sampling interval in each bank was calculated considering the total number of eligible respondents.

Data was collected using a structured, self-administered questionnaire between June and August 2012. The questionnaire determined level of knowledge, prevalence and mechanisms of coping with stress. Level of knowledge about stress was assessed by asking questions on meaning, causes and effects of stress. Measurement of the stress level was done using an adapted version of the stress questionnaire by International Stress Management Association (ISMA), UK [24]. Questions on the questionnaire elicited information about bringing work home at night, not having enough hours in the day to do all the things meant to be done, feeling that there are too many deadlines in work and life that are difficult to meet, not having enough time for relaxation, frequently having guilt feelings if some time is spent to relax, thinking about problems during relaxation, feeling fatigued on waking up after an adequate sleep, experiencing mood swings and having difficulty concentrating.

Data was analyzed with EPI-info 2002 (version 6.04) statistical software package. Chi square and Fisher's exact tests were used to test for association between variables at a 5% significance level. There were six (6) questions of 32 responses used to assess the knowledge about stress. For each correct score, respondents were assigned one mark and for the wrong response, zero was awarded. The scores were then collated, converted to percentage and graded as follows: Good (75% -100%), Fair (40%-74%), Poor (0%-39%).

There were twelve (12) questions to determine the stress level of the respondents. Each

correct answer was scored one point. Those who scored 9 to12 points were reported to be highly stressed, between 5 and 8 were classified as moderately stressed, and below 5 were classified as mildly stressed. Eighteen responses were used to determine the coping mechanisms of respondents towards stress. The responses consisted of nine (9) good coping mechanisms and nine (9) bad coping mechanisms. A respondent was said to have a good coping mechanism if he/she has practiced up to 4 out of the 9 good coping mechanisms. A respondent was said to have a bad coping mechanism if he/she has practiced up to 4 out of the 9 bad coping mechanisms.

Ethical approval was obtained from the Health Research and Ethics Committee of Lagos University Teaching Hospital and written informed consent was obtained from participants before collecting data. Names were not required to maintain anonymity and confidentiality was assured so that respondents could freely express themselves without fear of victimization of their employers. Those who were found to be stressed were counselled and referred to appropriate caregivers.

The fact that equal number of bankers was selected from each bank finally selected irrespective of their varying population constitutes a limitation to this study because the workers selected may not be a true representation of the banks with larger work forces.

**Table 1:** Respondents' knowledge about stress\*

Variable	Frequency	Percentage (%)
<i>Causes of stress*</i>		
Work overload	180	80.7
Long working hours	100	44.8
Lack of time to relax	99	44.4
Impatient customers	59	26.5
Job insecurity	44	19.7
<i>Effects of stress*</i>		
Anxiety	135	60.5
Sleeplessness	115	51.6
Hypertension	115	51.6
Poor health	205	91.9
Job dissatisfaction	151	67.7
Poor work relationship	146	65.5
Low productivity	185	83.0
<i>Level of knowledge</i>		
Poor	121	54.3
Fair	94	42.2
Good	8	3.6
Total	223	100

\* Multiple causes and effects identified by some staff

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coping mechanism in order to ease stress. Coping mechanisms adopted by respondents include: exercise (51.6%), listening to music (28.7), meditation (22.4%) and over-eating (22.4) among others. (Table 3).

There was a statistically significant negative association between the level of knowledge about stress and stress level of respondents ( $p=0.002$ ). A greater proportion of those who had poor knowledge about stress were highly stressed depicting that there was an inverse association between the two variables. As knowledge about stress improved, the proportion of 'highly stressed respondents decreased significantly. A statistically significant association was also found between respondents' department in the bank and level of stress ( $p=0.002$ ). Among those who were mildly stressed, respondents from the marketing department form the least percentage whereas the highest percentage of those who were highly stressed was from this department. Gender was not significantly associated with stress level of respondents ( $p=0.721$ ) (Table 4).

## Discussion

Work overload has been identified as mainly responsible for work stress and this is in agreement with other studies [25-27]. The heavy workload demands in the banks often translate into long working hours which is the second major known cause of stress. For example, an average worker in Nigerian banking industry resumes work as early as 7.30am and may not leave the office until late in the evening around 9.00pm [21].

Work stress contributes to decreased employee overall performance and quality of work [27]. The continuous reforms in the Nigerian banking sector and high prevalence of fraud within the system also contribute to heavy work load, long working hours and consequent work stress. The on-going reforms have also led to down-sizing of human resources in these banks causing job insecurity, another cause of work stress reported by other groups of bankers in Pakistan [27,28]. The negative effects of stress have been well documented [28-31]. Research shows that there is a link between stress and depression, as work stress was seen to precipitate diagnosable depression and anxiety in previously healthy young workers [31,32]. Apart from health, other areas of the bankers' life like job satisfaction, work relationship and productivity can also be affected by stress [33,34].

The prevalence of work related stress (moderately and highly stressed) among bankers was 91.7%. This high prevalence supports other studies

which also reported similar high findings among bankers [20,34,35]. The marketing staff constituted the highest proportion of bankers who were highly stressed and the least proportion of those who were mildly stressed; the difference was statistically significant. This may be the result of the high (and sometimes unrealistic) targets set for them by the management within short periods of time, thus putting them under undue pressure because they may even lose their jobs.

The use of exercise adopted by 51.6% of respondents as a coping mechanism is not very popular among other bankers from another study; however, withdrawal used by 25.6% and meditation used by 22.4% are also common among other bankers in Nigeria and India [34]. These good coping mechanisms are encouraged in addition to having the right attitude to work [34].

As knowledge about stress improved, the proportion of 'highly stressed' respondents decreased significantly. They were probably equipped with better knowledge of preventive measures. Contrary to other studies which showed those females experienced a higher level of occupational stress than males [34-36], this study did not find any significant association between gender and the level of stress. The reason for this disparity could be due to the fact that globally, equality in the workplace between men and women is being emphasized such that women can also be promoted to high positions that will enable them earn enough income to provide means of coping with their stress.

## Conclusion

Most of the bankers (74.9%) had positive attitude to issues about work related stress but majority (91.5%) were stressed at work. Most (92.4%) of them however practiced good coping mechanisms even though most (69.5%) of them combined them with bad ones. There is a need for implementation of effective stress management programmes to help relieve the problem of stress among bank workers.

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medical problem [1]. Pregnant women constitute the main adult risk group for malaria and 80% of deaths due to malaria in Africa occur in pregnant women and children below five years. In Africa alone, perinatal mortality due to malaria is at about 1500/day. In areas where malaria is endemic, 20-40% of all babies born may have a low birth weight. MIP has been described as a priority area in the Roll Back Malaria (RBM) strategy [1].

It has been argued that malaria and pregnancy are mutually aggravating conditions. The physiological changes of pregnancy and the pathological changes due to malaria have a synergistic effect on each other. The synergy makes life difficult for the mother, the child, the attending nurses, midwives and physicians [2]. Besides, it has been observed that *Plasmodium falciparum* malaria can run a turbulent and dramatic course in pregnant women; the non-immune primigravidae are usually the most affected. In pregnant women, the morbidity due to malaria infection includes anaemia, febrile illness, hypoglycaemia, cerebral malaria, pulmonary oedema and puerperal sepsis. In addition, mortality may occur from severe malaria and haemorrhage [3]. The problems in the new born include low birth weight, prematurity, Intrauterine Growth Retardation IUGR, malaria illness and mortality as well [2, 4, 5]. The recommended Intermittent Preventive Treatment – Sulphadoxine pyrimethamine (IPT-SP) is already in place and its use as malaria prophylaxis during pregnancy has been proven to be very effective and affordable globally [6]. However, the high prevalence and persistence of the disease during pregnancy everywhere in Nigeria including Ibadan is of concern to well meaning stakeholders. It is believed that vulnerable pregnant women in areas faced with serious environmental sanitation management challenges such as Ibadan could benefit maximally from receiving IPT.

The 2008 Nigeria Demographic and Health Survey (NDHS) reported that only 6% of pregnant women in Southwest Nigeria received IPT-SP. However, this study was conducted among postpartum women in order to explore the use of IPT across the three trimesters of their pregnancy.

## Materials and methods

### *Study design and settings*

This clinic-based descriptive survey was employed to determine utilization of WHO's recommended malaria preventive measures during pregnancy among postpartum women attending postnatal and child welfare clinics of the selected hospitals.

The selected study settings are all within Ibadan, the state capital of Oyo state, Nigeria. Ibadan

is the largest city in West Africa sub-region. It is located in the South-Western geo-political zone of Nigeria. The city is densely populated with most of the population living in slums and high-density areas. Ibadan is blessed with different levels of health care facilities such as primary health care centres, general hospitals, a teaching hospital, and mission and private hospitals. Out of the facilities listed above, three hospitals were purposively selected for the study on the basis of their being strategically located within the reach of people (both the rich and the poor) and their high client flow rate. The postnatal and child welfare clinics of the following selected hospitals were used for the study: University College Hospital (UCH), Adeoyo Specialist Maternity Hospital and Saint Mary's Catholic Hospital, Eleta in Ibadan, Oyo State.

UCH is the only tertiary health institution in Ibadan. UCH is majorly utilized by people of middle and upper socio-economic status but serves as a referral centre to other health care facilities across the country. The maternity unit comprises of the antenatal clinics, a labour ward, antenatal wards, postnatal wards, postnatal and child welfare clinics. The postnatal and child welfare clinics are utilized by women who delivered their babies in and outside UCH. The unit is relatively well-staffed with Obstetricians and Gynaecologists and Nurse-Midwives of different cadres. The antenatal clinic is provided with a malaria laboratory unit where pregnant women are screened for the malaria parasite.

Adeoyo Specialist Maternity Hospital belongs to Oyo State government, Nigeria. It is a secondary health care facility, which provides gynaecologic, obstetric and neonatal care services to dwellers of Ibadan metropolis and suburbs. The centre is popularly known for a high rate of patronage of obstetric services. Hence, it is commonly referred to as "baby factory". Women of low socio-economic status are known to use this centre more than other categories of women. The centre is staffed with relevant health professionals such as Nurse-Midwives, Obstetrician-Gynaecologists, Pharmacists, Laboratory Scientists and other supporting staff. Besides, Adeoyo Maternity serves as a referral centre to primary health care (PHC) centres, faith-based clinics, Traditional Birth Attendant (TBA) homes, private clinics and hospitals within Oyo State. However, complicated cases are referred from the centre to the University College Hospital, Ibadan for further management. Also, participants were drawn from the child welfare clinic of Saint