

Nigerian Journal of Clinical Practice  
June 2010 Vol. 13(2):183-186

## A SURVEY OF PERCEIVED STRESS, INTIMIDATION, HARASSMENT AND WELL-BEING OF RESIDENT DOCTORS IN A NIGERIAN TEACHING HOSPITAL

\*OO Ogunsemi, \*OC Alebiosu, \*\*OT Shorunmu

*Departments of \*Medicine, and \*\*Obstetrics and Gynaecology, Olabisi Onabanjo University Teaching Hospital, Sagamu, Ogun State, Nigeria.*

### ABSTRACT

**Objective:** Stress levels of residency are under-reported in Nigeria despite the importance of well-being during residency training. We investigated the level of perceived stress, intimidation/harassment, mental health and well being among resident doctors.

**Methods:** This was a cross sectional questionnaire survey of all residents in training in a Nigerian teaching hospital located in south western part of Nigeria.

**Results:** The response rate was 80.6% (58 out of 72). Forty three (74.1%) of the respondents were males. The mean age was  $35.7 \pm 2.8$  years (range = 31-43 years). The mean number of working hours was 88.7 hours/week. Fifty percent of residents reported their life was stressful. There were gender differences in conditions like work situation, residency programme, employment status, personal and family safety, caring for children and discrimination in favour of men. Some residents resorted to the use of alcohol (5.2%), cigarette (1.7%), drugs and medications (8.6%) to handle stress.

A greater majority of the residents (61.4%) would pursue another career if they had to do it all over, while 34.5% would consider changing to another teaching hospital for their residency. Many residents reported experiencing intimidation and harassment. Eighteen (31%) of the residents admitted to have had emotional or mental health problems during the residency program. About 29% will require further screening for depression, 21.6% for panic disorder, 15.8% for generalized anxiety, 9.3% for social phobia and 8.8% for agoraphobia. The study design however did not allow prediction of proportion of individuals who had mental challenges, nor allow comparison of such rates to the normal population in the country.

**Conclusion:** Many residents experience significant stressors and intimidation/harassment, some of which differ among gender. This study can serve as a pilot for future research, resource application and advocacy for overall improvements of the well-being of residents in training.

**Key Words:** Residency, stress, intimidation, harassment, well being, mental health.

*(Accepted 27 February 2009)*

### INTRODUCTION

There is a lack of scientific literature about work environment of residency program. Residents are expected to be proficient clinicians, educators, researchers and administrators by the time they have completed their training.

The pressures of residency are high. Researchers have attempted to examine and categorize stressors experienced by residents in developed countries<sup>1</sup>. Resident responses to stress that have been described in literature include: depression, burnout, anger/irritability, anxiety and substance abuse<sup>1</sup>. Sleep deprivation alone, has been shown to predispose residents towards more medical errors, injuries, increased alcohol and drug use, and increased conflict with other healthcare staff<sup>2</sup>.

Involvement in stress management can lead to an overall more positive experience in medical residency<sup>3</sup>.

There has been no Nigerian study to date that has examined stress in residency training. It was our hope that by surveying members of the Association of Resident Doctors of a Nigerian hospital, we could increase our knowledge of current stressors affecting residents and improve residency training on a state / national level. This study assesses the stress level, intimidation/harassment and well-being of resident doctors in a Nigerian teaching hospital. The outcome will not only be important in planning future health policies concerning Postgraduate Medical Education in Nigeria, but would also open up new avenues and provide the opportunity of exploring and identifying weaknesses in this area, which have remained unrecognized.

---

Correspondence: Dr C O Alebiosu  
E-mail: dralechristo@yahoo.com

## **METHODS**

### **Participants:**

This cross sectional study was conducted in the months of June and July 2006 among members of the Association of Resident Doctors (ARD) of a Nigerian teaching hospital. Thus, the membership list of ARD served as a sampling frame for this survey. The entire population in the sampling frame was considered eligible for inclusion.

### **Survey Instrument:**

A detailed questionnaire used previously elsewhere for a similar study<sup>4</sup> was adapted to local needs to assess relevant aspects of the residency programmes including the domain of 'Stress', 'Intimidation/Harassment' and 'Wellbeing'. The questionnaire was reviewed after pre-testing on interns at the hospital. The questionnaire required approximately twenty minutes to complete. This self-administered questionnaire was given to all residents, who were requested to fill it and return within 30 minutes of receipt.

Confidentiality of all participants was ensured during collation and reporting. All data were collected over a two month period. The questionnaire (Appendix I) was divided into sections: demographics, stress, intimidation and harassment, and well-being. The 'stress' section contained questions regarding sources of stress as well as methods for dealing with stress (e.g. what would you say is the most important thing contributing to feelings of stress you may have?; thinking about the ways you deal with stress, how often do you do each of the following?) etc. The level of stress was measured quantitatively on a scale from "no stress" to "extreme stress". We did not define the term 'stress' in the questionnaire because our aim was to measure 'perceived stress' which might vary (quantitatively / qualitatively) among individuals. In similar vein, intimidation and harassment were not defined since they are also perceived differently. The two terms were linked to avoid any confusion among the residents when completing the questionnaire.

### **Statistical Analysis:**

Data were analyzed using the statistical package for social sciences (SPSS version 11.0). Descriptive statistics were computed to give an overview of the variables for comparison including demographic data, stress, intimidation/harassment and wellbeing of residents. Confidence intervals, Chi-squares, and Fisher exact tests were used to compare differences between groups. p-values less than 0.05 were interpreted as indicating statistical difference.

## **RESULTS**

### **Baseline Characteristics**

Fifty eight residents out of 72 in the residency program of the teaching hospital completed the

Questionnaire giving a response rate of 80.6%.

Table 1 shows the baseline characteristics of the study population. Forty three (74.1%) of the respondents were males. The mean age was 35.7 ± 2.8 years (range = 31-43 years).

### **Stress relating to residency program**

Fifty percent (50.0%) of the respondents rated most days of their life as being quite a bit stressful to extremely stressful. In the last 12 months of residency, 87.9% of the residents found this period of time to be "quite a bit" up to "extremely" stressful. Majority of the residents (72.4%) rated their ability to handle unexpected and difficult problems as 'good' or 'excellent'. Similarly, 70.7% reported 'good to excellent' ability to handle day to day demands in their life.

Residents were asked to rate the degree to which they agreed with how certain stresses relate directly to their residency programme in the past 12 months. Most of the residents (89.3% either 'agreed' or 'strongly agreed') felt that the residency programme was hectic. Majority of the residents (91.3%) agreed or strongly agreed that there was pressure of examinations and evaluations. About 60% agreed or strongly agreed that there was insufficient sleep and frequent hospital calls. About two-thirds (66.1%) of the residents 'agreed or strongly' agreed that there was pressure from clinical workload. Sixty four percent of the residents disagreed or strongly disagreed with the statement that residency allows them freedom to decide. About 62% of the residents agreed or strongly agreed that they were exposed to hostility and conflict from the people they worked with.

When asked about the residency programme in this hospital, 19 (34.5%) of the residents would consider changing their training programme. Furthermore, 35 (61.4%) of the residents reported that they would pursue another career if they had to do it all over again.

Residents rated different conditions as sources of stress in their day to day life as shown in Table 2. Categories were collapsed to a 3 point scale (from original 7 point scale), from conditions causing less stress to those causing extreme stress. Gender differences exist in conditions like work situation, residency programme, employment status, personal & family safety, caring for children and discrimination. Females reported work situation (female 93.3%, male 23.8%: p = 0.000), residency programme (female 86.7%, male 28.6%: p = 0.000), caring for children (female 16.7%, male 0%: p = 0.006), employment status (female 60.0%, male 11.9%: p = 0.001) and personal relationship (female 13.3%, male 0%: p = 0.049) as being extremely stressful than males. Females also reported discrimination (female 60.0%, male 19%: p = 0.003)

and personal and family safety (female 73.3%, male 33.3%:  $p = 0.004$ ) as being moderately stressful compared with the males. Residents were also asked to rank the most important thing contributing to feelings of stress. The ranking order differs between the two sexes. Males ranked financial situation (33.3%), employment status (23.8%) and time pressure (14.3%) as the first three contributors to feeling of stress while the females rated work situation (33.3%), time pressure (20.0%) and employment status (20.0%) as the first three contributors to the feeling of stress. Many residents handled their stress situations by talking to others (94.8%), looking at the bright side of life (96.5%), seeking spiritual help (91.4%), wishing the situation will go away (86.2%) and by relaxing (93.0%). Some dealt with their stress by blaming themselves (31.6%), avoiding being with people (33.3%), sleeping more than usual (31.1%) and by exercising (29.3%). Others resorted to taking alcohol (5.2%), cigarette (1.7%), drugs and medication (8.6%) and eating more (15.5%).

#### Intimidation and Harassment

More than three-quarters (77.6%) of the residents had experienced intimidation and harassment during the course of the residency training. Fifty-eight percent of them experienced intimidation and harassment from administration staff, 41.4% from the chief executive of the hospital, 40.4% of them from patient's relatives, 32.7% from the nursing staff, 30% from other residents and 28% from the patients. Only 7% of the resident doctors reported intimidation and harassment from the consultant staff of the teaching hospital. The intimidation and harassment were in the form of inappropriate verbal comments (67.4%), privileges/opportunities taken away (15.2%) and others (17.4%) which included work as punishment and recrimination for reporting these incidences. Majority of the residents who reported intimidation and harassment (91.5%) had

experienced such intimidation and harassment more than once.

#### Well-Being

On how satisfied residents were with life generally, 6.9%, 55.2%, 24.1% and 13.8% were 'very satisfied', 'satisfied', 'indifferent' and 'dissatisfied' respectively with their life. Majority of the respondents rated their physical (93.1%) and mental (96.6%) health as being 'good' to 'excellent'. Only 14% of the residents had a family physician. Eighteen (31%) of the residents admitted to have had emotional or mental health problems during the residency training program. Majority of these residents did not seek help because they felt the problem was of no importance. Only 2 (11.1%) of them received complementary or alternative therapy.

Table 1: **Characteristics of the Study Population.**

<b>Mean age (yrs)</b>	35.72 ± 2.8
<b>Sex</b>	
Male	43 (74.1%)
Female	15 (25.9%)
<b>Marital status</b>	
Married	52 (89.7%)
Single	06 (10.3%)
<b>Mean yrs in residency</b>	3.62 ± 1.9
<b>Mean hrs worked per wk</b>	88.74
<b>Institution attended</b>	
OUU	42 (72.4%)
Other Nigerian Universities	16 (27.6%)
<b>Department/specialty</b>	
Medicine	07 (12.1%)
Surgery	05 (08.6%)
Pediatrics	08 (13.8%)
O & G	11 (19.0%)
Anesthesia	08 (13.8%)
Family medicine	06 (10.3%)
Ophthalmology	04 (06.9%)
Pathology	02 (03.4%)

Table 2: **Amount of Stress in day to day life due to Various Conditions.**

Sources of stress	Less Stress (%)	Moderate stress (%)	Severe stress (%)
Time pressure	08(14.3)	42(75.0)	06(10.7)
Physical health problem	41(71.9)	15(26.3)	01(01.8)
Emotional health	45(78.9)	10(17.5)	02(03.5)
Financial situation	15(26.3)	30(52.6)	12(21.1)
Work situation	10(17.5)	23(40.4)	24(42.1)
Residency programme	09(15.8)	23(40.4)	25(43.9)
Employment status	19(33.3)	24(42.1)	14(24.6)
Caring for children	28(56.0)	20(40.0)	02(04.0)
Caring for others	24(42.9)	26(46.4)	06(10.7)
Other family responsibility	24(42.9)	23(41.1)	09(16.1)
Personal relationship	37(64.9)	18(31.6)	02(03.5)
Discrimination	36(63.2)	17(29.8)	04(07.0)
Personal & family safety	31(54.4)	25(43.9)	01(01.8)

## DISCUSSION

Generally in developing countries, there is paucity of literature about the work environment of residency programs. This study attempts to provide such data.

The response rate of 80.6% can be described as representative of the study population and better when compared to a response rate of 51% obtained in another developing country<sup>6</sup>.

The mean number of working hours of 88.7hours/week is in consonant with 80hours recommended by the American Medical Association<sup>7</sup>. However, there has been no official limit and monitoring of work hours of residency programs in Nigeria. Scanty information is available in medical literature about the number of hours that residents work in a developing-country setup.

Residents (50%) in the study reported most days of their life stressful. Similar to the studies done by Toews et al<sup>8</sup> and Cohen and Patten<sup>4</sup>, we also found that there were gender differences in conditions like work situation, residency programme, employment status, personal and family safety, caring for children and discrimination against women. This may be due to stresses that are unique to the female gender<sup>9</sup>.

It is noteworthy that some residents resorted to the use of alcohol (5.2%), cigarette (1.7%), drugs and medications (8.6%) to handle stress. Whether these figures are significantly more than the general population is unclear since there are no reliable local figures. However, these calls for concern in view of the role of resident doctors in the hospital care of patients<sup>10</sup>. However, due to the study design, we cannot predict what proportion of individuals had a mental illness, nor compare rates to the normal population in the country.

A greater majority of the residents (61.4%) would pursue another career if they had to do it all over again! Furthermore, 34.5% would consider changing from this hospital residency to another teaching hospital.

Harassment and discrimination negatively affect the performance, productivity and learning in professional and academic settings. Many residents reported experiencing intimidation and harassment. This result is consistent with other studies<sup>4,6</sup> examining resident bullying in developing / developed countries. It however differs from a Canadian study which concluded that intimidation in the psychiatric educational environment was not a significant issue<sup>11</sup>. The study design has some limitations. Self-administered survey questionnaires are susceptible to some bias in responses<sup>4</sup>; we believe that there might be slight under-reporting or over-reporting in some of the variables surveyed. Studies of this phenomenon indicate that such under-/over-reporting is usually small depending on the conditions under which the survey is administered and the questions being asked<sup>12</sup>. To minimize these errors, we pre-tested the questionnaire on interns to uncover defects in questions. However, these interns are likely to differ from residents because of their recent graduation from medical school.

In conclusion, it is clear that there are stressors incurred during residency in this hospital, some of which have

differences between gender. Intimidation and harassment occur among many residents. It is also important to recognize that a number of our residents are vulnerable to emotional and mental health concerns during the course of their training.

## REFERENCES

- 1 **Levey RE.** Sources of stress for residents and recommendations for programs to assist them. *Acad Med* 2001, 70(2):142-150.
- 2 **Baldwin DC Jr, Daugherty SR.** Sleep deprivation and fatigue in residency training: results of a national survey of first- and second-year residents. *Sleep* 2004, 27(3):371-372.
- 3 **Shapiro SL, Shapiro DE, Schwartz GER.** Stress management in medical education: a review of the literature. *Acad Med* 2000, 75(7):748-759.
- 4 **Cohen JS, Patten S.** Well-being in residency training: a survey examining resident physician satisfaction both within and outside of residency training and mental health in Alberta. *BMC Medical Education* 2005, 5:21 doi:10.1186/1472-6920-5-21.
- 5 Statistics Canada, Canadian Community Health Survey, Mental Health and Well-being, Canada 2002.
- 6 **Paice E, Rutter H, Wetherell M, Winder B, McManus IC.** Stressful incidents, stress and coping strategies in the pre-registration house officer year. *Med Educ* 2002, 36(1):56-65.
- 7 **Myers MF.** Canadian Psychiatric Association: Position paper: treatment of the mentally ill physician 1996.
- 8 **Toews JA, Lockyer JM, Dobson DJ, Simpson E, Brownell AK, Brenneis F, et al.** Analysis of stress levels among medical students, residents, and graduate students at four Canadian schools of medicine. *Acad Med* 1997, 72(11):997-1002.
- 9 **Gautam M.** Females in medicine: stresses and solutions. *West J Med* 2001, 174:37-41.
- 10 **Hurwitz TA, Beiser M, Nichol H, Patrick I, Kozak J.** Impaired interns and residents. *Can J Psychiatry* 1987, 32:165-169.
- 11 **Tibbo P, de Gara CJ, Blake TM, Steinberg C, Stonehocker B.** Perceptions of intimidation in the psychiatric educational environment in Edmonton, Alberta. *Can J Psychiatry* 2002, 47:562-567.
- 12 **Harvel AV.** Validation of self report: The research record. In Rouse B, Kozel N, Richards L, Editors. *Self report methods of estimating drug use: meeting current challenges to validity.* Rockville MD: National Institute of drug abuse; 1985.