

Stress and Burnout in One of Hospitals in Gauteng

Dr S. Avramenko (MBChB, DFM, DMH, Dip HIV Man);
Dr A.Valli, MBChB, FCPsych (SA), FFCH (SA), MPH
(California-Berkeley); Dr G.B. Hope PhD (Clin Psych);
Dr Elena N. Libhaber PhD Research Methodology and
Statistics (Wits); Glory Atilola MSc Research Methodology and Statistics, (Wits)

Objective: To determine the level of stress and burnout in doctors in a regional hospital in Gauteng and to find out how three different subscales of burnout correlate with the different types of stressors at work. The goal of the current research is to pinpoint specific stressors in order to improve the work environment.

Methodology: A cross-sectional study was conducted in one of the hospitals in Gauteng. Participants (doctors and nurses) received MBI (Maslach Burnout Inventory), SWSI (Sources of Work Stress Inventory), and a socio-demographic questionnaire. Data was analysed with the help of STATA 1C11

Results: From the 107 doctors, working in the hospital at that time, 65 doctors returned questionnaires (response rate 65%). High levels of emotional exhaustion were noticeable in 52% of participating doctors; 30% of respondents had high levels of depersonalization subscale; and 27% experienced low levels of personal accomplishment. High levels of emotional exhaustion and depersonalization were highly correlated with a lot of stressors at work.



- **Conclusion:** The authors feel that it is important to know what kind of stressors contribute to psychological impairment at work. It is hoped that these findings will help to develop better organization of the working environment and specific programmes in order to improve relationships at work and to reduce the level of stress, and eventually, psychological impairment from stress at work.
- Occupational stress in the health professions has long been of interest. It is logical that when professionals are under inordinate stress their ability to service clients is compromised and the efficiency and effectiveness of health service delivery is also compromised. Research on stress among health service professions, including its association with psychiatric disorders, has long been described.^{1,2}
An American study in 1979¹ showed that among women doctoral graduates, women physicians were more likely to have affective disorders (51%) compared to their counterpart academics with PhDs (32%). Prejudice in training or employment was shown to be reported in at least 50% of women enrolled in the study. Gender appears to be an important factor modifying the relationship between stress and mental psychiatric disorder in a British study looking at mental health staff.²
- Doctors have been the focus of many studies on occupational stress.³⁻⁶ A questionnaire survey of 1 133 specialist consultants found psychiatric morbidity in 27% of respondents.³
Specific occupations within the health service professions have also been the focus of several studies.⁷⁻¹⁵ These include oncologists^{7, 13} psychiatrists,^{8, 14} haemodialysis nurses,⁹ mental health nurses,¹⁰ ICU staff,¹¹ emergency services staff,¹² and nurses working in operating rooms.¹⁵ All of the studies document high levels of stress and resultant emotional exhaustion within these differing settings, with home life disruption as a result of work pressure. The studies identify varying factors in the different settings such as lack of teamwork or resources, which result in high levels of burnout. Burnout is seen as an important factor that could influence patient safety.

Females	27	42%
Males	38	59%
SA doctors	41	65%
Foreign qualified	22	35%
Fully registered	51	81%
Restricted registration	12	19%
Postgraduate qualification	18	29%
Exam stress	22	35%

Family: single	21	33
Living with a partner	5	8%
Married	36	56%
Divorced	2	3%
Children: 1	26	33%
2 or more children	37	58%
Work permit	7	12%
Permanent resident permit	9	15%
Citizen	43	43%

Casualty	18	29
Orthopaedics	5	10
Surgical/ophthalmology	5	10
Paediatrics	7	11
Medical/psychiatry/opd/ other	12	19
Gynecology	9	14
anesthesiology	3	5
radiology	1	1.61

The Maslach Burnout Inventory^{30,31} is a well-tested instrument that has been developed over a wide range of human services professionals. It is found to have high reliability and validity as a measure of burnout. Three subscales are used: Emotional exhaustion; Depersonalisation; Personal accomplishment. This scale was chosen in order to measure the levels of burnout in the nurses and doctors in this study.

The SWSI (Sources of Work Stress Inventory)³² is a South African scale developed to measure sources of work stress.

- The study on stress and burnout was conducted at one of the hospitals in Gauteng. The participants were 107 doctors. Three types of questionnaire were offered to all participants: a socio-demographic questionnaire; the SWSI (Sources of Work Stress Inventory); and Maslach's Burnout Inventory. 65 doctors (60%) answered the questions. Participation was voluntary. All the responses were anonymous. The socio-demographic questionnaire collected information on age, sex, and family structure of the participants, their salary, years of work, perception of workload, desirability of overtime and expectations from government. The socio-demographic questionnaires from doctors were slightly different from those for nurses. Excepting the above information on the participants' status (either citizens, permanent residents, or those with work permits), information was gathered on those currently studying or not, those with postgraduate qualifications, the desirability of on-call duties, and satisfaction with remuneration. The results of the socio-demographic information are presented in Tables 1 and 2.
94,2% of doctors worked overtime, and only one respondent worked normal hours. On the question of desirability of overtime, 71,4% of doctors answered that overtime is not desirable and 28,6% gave the answer that overtime is desirable. Call duty was desirable to 18,5% of doctors because of the increase in pay, and 12,3% of doctors said that they enjoy the work and therefore call duty is welcomed. 43% of doctors said call duty is not desirable because of physical stress, and 12,3% of respondents felt that call duty was not desirable because of emotional stress.
On the question of remuneration 70,5% of respondents said that their remuneration is not satisfactory, and 29,5% felt that their remuneration is fair. 84% of doctors felt their workload is heavy, and only 16% noted that their workload is satisfactory.

Discussion

The aim of this study is to determine the level of stress and burnout and to pinpoint specific stressors at work which contribute to the problem. It is hoped that analysis of this problem would help to develop specific programmes to effectively manage stress in the workplace. At least one symptom of burnout is experienced by every second doctor. High levels of emotional exhaustion were noticeable in 52% of the participating doctors, and 37% of respondents had high levels of depersonalization (this scale measures callousness). Low levels of personal accomplishment were noticeable in 26% of the doctors.

The results from Table IV (the table showing comparison of finding of stress and burnout in other countries) that the problem of burnout occurs not only in SA, but is universal. Countries presented in these tables are Greece, the USA, Canada, Australia, and the UK.

High levels of burnout in all these studies point to a big influence of the environment rather than personality problems. The results from our study probably reflect the fact that there is a relative lack of resources in RSA. High levels of burnout have been shown to be a significant factor influencing a doctor's productivity at work, and are associated with perceived medical errors and suboptimal levels of patient care (³³, ³⁴). Among suggested interventions are the following programmes: emotional intelligence training, team building, relaxation and meditation exercises, and time management techniques (²¹). Qualitative analysis showed that foreign qualified doctors are concerned about their career prospects and the possibility of becoming a specialist in a chosen specialty. Foreign qualified doctors have many problems with work permits and permanent residence permits. Other problems named were:

- understaffing ("more doctors and more nurses are needed");
- better management;
- high patient /doctor ratio;
- relationship at work with colleagues and supervisors;
- difficulties with tools and equipment; and

at that moment there were not enough anesthesiologists in the hospital, therefore theatre was not functioning at full capacity.

- The high levels of emotional exhaustion and depersonalization among doctors in this study is a matter of concern. It is well known that the burnout syndrome can lead to significant psychological and physical morbidity, disorganization at the workplace, high absenteeism, and high staff turnover, relationship problems in a hospital, medical mistakes and poor quality of care. From the patients' side, doctors' burnout can lead to patient dissatisfaction with services and poor adherence to medication. Interventions are difficult to implement, especially in a scarce resources environment, such as SA.
- However, after research was completed, hospital management were able to attract donations from other organizations and completely rebuilt casualty.

Limitations of the current study

Cross-sectional design allowed for looking at problems of stress and burnout only at specific times. Representation from 10 hospital departments was varied, sometimes not reaching 50%. Response rate from doctors was 60%, and a low response rate from nurses (34,7%) precluded an extrapolation of findings on the sample of nurses from the whole hospital.

- It is important to address issues of stressors at work in order to improve psychological morbidity, retention of qualified staff at work, and eventually, service delivery. Relative lack of resources at work, like an unsupportive environment and poor quality of relationship between colleagues can be overcome by better organization, effective leadership and effective communication between colleagues, and staff and management. Salary adjustments will also help to retain some qualified staff members in service for longer periods. Most nurses would like to work with a team they can be comfortable with.
- Conclusion: stress and burnout continue to plague the medical profession. More studies are needed to develop strategies for distressed work environments.



