

Stress perceived by houseman in a hospital in northern Malaysia

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ABSTRACT

Introduction: Being a houseman in Malaysian hospitals can be very stressful. Stress can affect decision making to a great extent while addressing the needs of the patient in an emergency setting. This necessitated a study to find out the main sources of stress among housemen.

Methods: This was a cross-sectional descriptive study carried out among 55 housemen using a questionnaire on sources of stress. The data was analysed using SPSS version 17.

Results: A total of 16 factors leading to stress were studied among the housemen. Poor work and social life balance, annoying non-clinical personnel and medico-legal threats were among the top causes of stress.

Conclusion: The factors leading to stress among housemen should be considered for effective working of the hospital and improving the workplace atmosphere for the housemen.

KEY WORDS:

Stress, housemen, Ipoh, Malaysia

INTRODUCTION

World Health Organization defines work-related stress as the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope.¹ Prolonged stress through the hypothalamic-pituitary-adrenal (HPA) axis results in suppression of the immune system, thyroid function, reproductive system, childhood skeletal growth, deterioration of memory and depression.² Apart from its effect on the physical and mental health, of stress in medical personnel may lead to burnout and eventually affect the quality of care delivered to patients.³

Inevitably, stress in medical profession is unavoidable. The realities of dealing with another person's life as a doctor can be daunting. Newly graduated doctors are expected to be directly responsible for the health of patients under their care. This is a stark contrast to years spent in the medical school where they were not responsible for the management of patient's health. Understandably, in the hierarchy of clinical

management team, a houseman is found to be suffering from stress the most.⁴

Previous studies have highlighted a number of causes for stress among houseman. Examples include the fear of making mistakes, work overload and uncooperative colleagues. The prevalence of stress among houseman was found to be high at 71.2%.^{5,6} Around 60% of housemen had anxiety symptoms.⁷ Housemen were also not satisfied with freedom to choose the method of working, recognition one gets for good work and the amount of responsibility specified. Additionally, a high degree of association between psychological stress and fatigue was found in previous studies. Prolonged fatigue also exposed houseman to the risk of having undetected psychological stress related disorders.⁸ It is disturbing to imagine that one has to risk his life in the hands of fatigued doctors, who are prone to make errors.

The struggles of houseman in Malaysian hospitals received wide coverage in the media. Numerous complaints from house officers made waves in the local newspapers. Occasionally even parents chip in to complain on the difficulties faced by their children working as a houseman. The plight of houseman in the Malaysian government hospitals necessitated a study to find out the main causes of stress of houseman. The aim of the study was to determine the cause of stress perceived among houseman.

MATERIALS AND METHODS

This is a cross-sectional descriptive study among housemen using a questionnaire on causes of stress. An initial survey was carried out on stress levels of 5th year medical students, from which the components related to stress, were identified and included in the questionnaire for this research. The questionnaire was validated using face and content validity. Criterion validity was done by collecting all the components of stress to be assessed in the study based on previous research articles. A pilot study was conducted among 10% of sample size and slight modifications were made in the questionnaire. Responses in pilot study were not included in the main research. Housemen were surveyed on possible causes of stress in their daily work. Sixteen questions were included in the present study, in addition to questions on socio-demography such as race, religion, gender, age, height, weight and BMI. Two open ended questions were also

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Table I: Perceived causes of stress according to their significance as rated by housemen (N=55)

Rank	Factors	Mean score (out of 5)	Standard
1.	Poor work and social life balance	3.291	1.498
2.	Annoying non-clinical personnel	3.127	1.280
3.	Medico - legal threats	3.073	1.189
4.	High patient load	3.000	1.236
5.	Frequent night duties	2.906	1.202
6.	Insufficient salary	2.778	1.397
7.	Inadequate time to be spend with friends and family	2.745	1.467
8.	Annoying patients and relatives	2.709	1.186
9.	Work Overload	2.574	0.993
10.	Lack of financial progress	2.551	1.539
11.	Death of a patient under care	2.509	1.292
12.	Substandard living condition in the housemen quarters	2.452	1.331
13.	Unappreciative patients	2.436	1.108
14.	Sleep deprivation	2.277	1.026
15.	Frequent On-Calls	2.245	0.989
16.	Consultants	1.927	1.093

Table II: Review of the Responses of the Qualitative Section

Other causes of stress	Solutions from housemen
1. Unhealthy working environment	1. Decrease working hours.
2. Lack of appreciation/support from superior	2. Social support (i.e. friends)
3. Lack of skills/ knowledge	3. Establishing good peer-peer relationship.
4. High workload	4. Healthy social life.
5. Scolded in front of patients	5. Renovate the facilities in hospital - it's too old
6. Zero time to be spent with families.	6. Need conducive working hours
7. No outdoor activities	7. Start back On-Call system.
8. Difficult to get personal leave or even apply for one as the duty roster is not prepared in advance.	8. Suggestion on the instruments used (i.e., use Brauns branulas instead of Eurecan branulas)
9. High expectations from family members	9. Improve the level of hygiene in canteen.
10. Unable to fully perform religious obligations	10. Only serve healthy food in canteen.
11. Substandard Medical Assistants (MA)'s, Pembantu Perawatan Kesihatan (PPK) and staff nurses.	11. MA's and nurses should do their work effectively.
12. Time management	12. Authorities should come up with job description/ job scope of housemen.
13. Irresponsible colleagues with bad attitude	
14. Unnecessary blood taking ordered	
15. Unhygienic canteen, unhealthy food.	

included in the questionnaire, being, other causes of stress and solution from a housemen's perspective to alleviate stress. Perception of housemen, regarding various causes for stress was ranked. Each cause for stress was ranked based on a scale ranging from 1 to 5. The score of 5 was given to a cause which housemen perceived as the most important reason for stress. Lesser stressors were given a lower score. Mean score obtained for each cause of stress, and standard deviation (SD) was calculated and ranked.

The recommendations for alleviating stress in the purview of housemen were assessed qualitatively using two open ended questions. Content analysis was carried out from the responses received for the open ended questions in the questionnaire. Responses for the open ended questions were listed out and ranked according to the frequency and presented in Table II.

The minimum sample size was calculated as 57 assuming that 70% of housemen would be stressed, with a precision of 10 using Cochran's formula. Since houseman's work schedule is hectic and expecting that non-respondent rate will be very high, we distributed the questionnaire among 150 houseman. The number of respondents were 55.

An approval from National Medical Research Registry (NMRR-12-842-13597) was obtained for the study. The study was conducted in Ipoh. Questionnaires were distributed to the housemen. Respondents were assured on the confidentiality of the collected data.

Housemen were encouraged to answer the self-administered questionnaire. However, as the housemen had unremitting workload, the response received was lower than expected. Response was received only from 55 out of 150 participants responded to the questionnaire. The response rate was 36.7%. Data collected was analysed using SPSS 21.

RESULTS

Socio-demography

Fifty-five respondents represented all the major races and religions of Malaysia. BMI of the respondents ranged from underweight to obese.

Table I showed the ranking of stressors, according to their intensity, as perceived by housemen. The two top most significant causes of stress (exceeding a mean of 3.00), were poor work and social life balance, and annoying non clinical

personnel. Interaction with consultants were found to be the least stressful cause for stress among housemen.

Table II shows the results of the two open ended question included in the study showing the other causes of stress and coping factors (Other causes of stress and solutions are not matched).

The foremost complaint among majority of the housemen was that they ended up doing the work of MA's and PPK's and staff nurse, and the housemen remarked on the attitude of Medical officers who constantly harassed them.

DISCUSSION

The study has identified the most significant causes for stress among housemen to be the poor balance between work and social life, annoying non-clinical personnel and medico-legal threats. This is in contrast from previous studies that have pointed out that the most significant stressor to be work overload, poor working condition or fear of making serious mistakes.⁹ According to a Review of the Houseman's Flexi Hour Shift System, Housemen may no longer feel overloaded with work due to the implementation of Graduate Medical Officer Flexi Hours Shift System (FHSS). This is in tandem with Malaysian Medical Association's Housemanship Survey.¹⁰ However, it should be noted that some of the respondents have expressed their concern about the degree and strictness of the implementation of the new system and claimed to be working for more than 70 hours rather than 60 hours as it is capped in the new system. Strict implementation of FHSS in turn can help them to find a balance between work and social life which was identified as the major source of stress. Their grouses also appeared in numerous newspaper report.^{11,12} This can be overcome by having a systematic review on the implementation of the shift system. This fact should also be taken into consideration by the authorities for further improvement of the planned hybrid shift system.

From housemen's perspective, they could be at a sudden realization that they could no longer afford adequate time to be spent with their friends and families.^{13,14} Just started working, the housemen were starting to become aware of the necessary social sacrifices needed for continual academic commitment and clinical skills improvement.¹⁵ Proper scheduling of work hours so that each one would get an adequate balance between their work and social life can be a better strategy to reduce stress.

Secondly, corresponding with previous studies, the second most significant cause of stress among housemen is the annoying non-clinical personnel such as X-Ray technicians, laboratory technologists.⁸ There has been a serious lack of cooperation between the non-clinical personnel and housemen. This was an alarming finding as the interdependence of various disciplines and departments had always been the cardinal feature of the healthcare system. Left unchecked, this would lead into the state of communication breakdown between housemen and the non-clinical personnel.

A significant number of housemen had pointed out that medical officers (MOs) were a major cause of their stress. They claimed that MOs constantly harassed them in an

abusive manner, rather than guiding them or correcting their mistakes in an appropriate manner. Notable number of housemen had commented in the open ended question section, that MOs tend to rebuke them in front of the patient, which was gravely detrimental to their confidence and also prevented them from carrying out their duties effectively. Worse, this might cast doubts in the patient about the capabilities of a houseman. This concern has been consistently observed. Some of the MOs were found to be non-empathetic to the plight of the housemen, as some of them even openly questioned of the purpose of the questionnaire to address the causes of stress among housemen. The incidences of houseman being bullied by senior doctors have been addressed in media.¹²

Staff nurses were also a cause of stress among housemen as they were not so helpful to the housemen. As a result, the housemen were burdened with extra work, which was not theirs. The antics of medical assistants (MA) and *Pembantu Perawatan Kesihatan* (PPK) was also a cause of stress to the housemen.

Thirdly, most housemen were stressed with the high amount of night duties they were needed to take charge. Understandably, frequent night duties deprived housemen of their much needed sleep, after a tiring schedule with high patient load. Sleep deprivation and being under constant stress, housemen were prone to make mistakes.¹⁶ Sleep deprived houseman may be a danger to the patients' well-being.¹⁷ Understandably, with less work time, FHSS brought more rest time for our sleep deprived housemen.^{10,18}

On the other end of the spectrum, the least stressful factor was consultants who were less abusive. Most housemen commented that the consultants extended a professional approach towards them.

Improvement to the planned hybrid shift system in the future with less stressful working hours¹⁹ and better scheduling and duty roster system could prevent housemen from being excessively stressed at work. Communication between housemen and the clinical personnel must be improved. More get-together sessions may be arranged between housemen and non-clinical personnel. A social support group consisting of fellow housemen, MOs, and consultants can be established.²⁰ Its activity must be scheduled, as its importance has been long lauded by the housemen. More workshops on professionalism at workplace should be carried out involving the entire workforce at the hospitals. Housemen should be given an opportunity to share their concerns with hospital administration, anonymously.²¹ Feedback from housemen in regard to any aspect should be facilitated to improve their work atmosphere. A mechanism to identify any housemen heading to clinical depression should be initiated and they should receive relevant intervention if needed. Stress management workshops can also be conducted among hospital staff. The limitation of the study was that the response rate was low. Although the questionnaires were distributed to all houseman, the response rate was low which coincides with the response rate observed in other studies.⁹ The other limitation was the time which was only a 6 week duration, of which a maximum period was expended in obtaining permission from NMRR to conduct the study.

CONCLUSION

The most perceived cause of stress among housemen was their poor work to social life balance. Other causes were annoying non clinical personnel and frequent night duties. Better working hour schedule and formation of peer support groups have been suggested to alleviate their stress. The study is free of any bias although there may have been some concerns in regard to sample size and questionnaire.

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