

Prevalence of burnout among doctors in the National Hospital of Sri Lanka

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Abstract

Burnout is emotional exhaustion, depersonalization, and reduced personal accomplishment related to stressful working environment. According to the World Health Organization, burnout is defined as "a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed."

Objective of the study was to find out the prevalence of "burnout" among doctors in the National Hospital of Sri Lanka and to explore likely associations.

Method: Oldenburg Burnout Inventory (OLBI) was given to 304 doctors where 26 were non responders. Pearson Chi-squared test with 95% confidence was used to assess possible associations of burnout.

Results: Factors associated with burnout were, age between 30-40 years ($P=0.024$), being single ($P=0.007$), not having children ($P<0.05$), being an intern or a postgraduate trainee ($P<0.05$) and not involving in the private medical practice ($P=0.042$). A higher proportion of interns have features of burnout (67.9%).

Conclusions: Burnout is a significant problem in the state health sector. This could have serious impacts on quality of patient care.

Introduction

Burnout is a psychologically complex phenomenon. It is related to stressful working environment, long term exhaustion and diminished interest. This

phenomenon was first described by Herbert Freudenberger in his 1974 "Staff burnout", which was based on the 1960 novel "A Burnt-out Case" by Graham Greene¹.

Burnout is a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people¹. One in every three physicians is experiencing burnout at any given time².

Physicians are trained to be clinicians first. Working as a leader, team member, or manager is secondary. As a result, the majority of physicians are in the view that the purpose of working in the hospital is related only with clinical work. This attitude leads to disconnection between their training and the realistic need to work in harmony with the co-workers and patients which may contribute to inevitable burnout. By breaking medical training into small, discrete, measurable tasks, the medical education may have emphasized too heavily questions of assessment, thereby missing the underlying meaning and interconnectedness of how physician roles shape future physicians³.

It has been recognized that burnout of doctors could lead to poor relationship with colleagues, team members and patients eventually resulting in poor patient care⁴. In the majority of studies reviewed, moderate to high level of burnout is associated with poor patient safety outcomes including medical errors⁴.

Burnout usually begins during the medical school days, may continue during the internship, and can impact the daily practice of doctors⁵. Training students and residents to be resilient is important in health professional curricula. Although there has been lot of changes in the past few years to incorporate resilience training in undergraduate and postgraduate training⁶, stress management and burnout prevention are still not covered adequately in medical school or internship training^{5,6}. Medical school training is heavily skewed towards the technical skills associated with being a doctor rather than the interpersonal skills associated with being an active member of an organization^{5,6}.

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Although physician burnout is very common and damaging, it remains a taboo subject in the hospitals⁷. On literature review, we came across a study done on Sri Lankan postgraduate trainee doctors in Colombo to assess burnout among them and possible associations⁸. The findings of the study revealed that they have high personal and work-related burnout prevalence and low client-related burnout prevalence. Several personal, family, work and training factors were associated with burnout⁸. Another study carried out among doctors in teaching hospitals in Galle, Sri Lanka, revealed that at least over one third of the resident doctors have features consistent with burnout⁹. The study revealed that gender, marital status, place of accommodation or working experience has not shown a significant association with the level of burnout⁹. They observed that involvement in private practice and consumption of alcohol have shown statistically significant association with burnout.

Our study was conducted in order to find out the prevalence of "burnout" among doctors inclusive of both the doctors doing their postgraduate studies and those who are not doing postgraduate studies in the National Hospital of Sri Lanka and to search for the possible associations like demographic characteristics, medical specialty and their habits such as smoking and consumption of alcohol.

Methodology

A descriptive cross-sectional study was carried out at the National Hospital of Sri Lanka from 01/10/2018 to 15/12/2018 to recruit 278 doctors. Ethical approval for the study was obtained by the Ethics Committee of National Hospital of Sri Lanka. The Oldenberg Burnout Inventory (OLBI) was used as the study instrument. It is a self-administered questionnaire

that is free to use and internationally validated⁹. It was introduced by Prof Evangila Demerouti. The OLBI questionnaire was chosen because it is easy to answer by the study participants and the terms used are similar to Sri Lankan setting. Another questionnaire was administered to collect demographic data and other variables.

Data analysis was done by using SPSS software. Standard descriptive statistics to analyze the data was used. The factors associated with burnout were determined using Pearson Chi-squared test with 95% confidence.

Results

We have given the questionnaires to 304 doctors employed in the National Hospital of Sri Lanka in which 26 were non responders. We had a sample of 278 doctors inclusive of intern house officers, grade medical officers, postgraduate trainees and consultants participating in the study with a response rate of 91.45%.

Analysis of the demographic data revealed that majority of the participants were males (52.9%) and most of them were in the 30-40 age group (47.1%). Majority is married (75.2%) and most of them were having children (54.7%). Being a teaching hospital, most of the doctors participated in the study were postgraduate trainees (47.5%) and 39.2% were attached to medical units while 16.2% were in surgical units. Majority of the doctors were doing on call duties (83.5%) and 87.1% were not involved in private practice. Most of the doctors were non-smokers (97.8%) and majority of them (81.3%) did not consume alcohol. 31.3% of doctors were found to be burnt out (Table 2).

Table 1. Demographic factors of the study participants

<i>Variable</i>	<i>N</i>	<i>Percentage</i>
Age		
20-30 years	83	29.8%
31-40 years	131	47.1%
41-50 years	46	16.5%
51-60 years	18	6.5%
Sex		
Male	147	52.9%
Female	131	47.1%

(Continued)

<i>Variable</i>	<i>N</i>	<i>Percentage</i>
<i>Marital status</i>		
Married	209	75.2%
Unmarried	67	24.1%
Separated	2	0.7%
<i>Children</i>		
Yes	152	54.7%
No	126	45.3%
<i>Designation</i>		
House officer	28	10.1%
Grade medical officer	104	37.4%
Postgraduate trainee	132	47.5%
Consultant	14	5.0%
<i>On call duties</i>		
Yes	232	83.5%
No	46	16.5%
<i>Private practice</i>		
Yes	36	12.9%
No	242	87.1%
<i>Smoking</i>		
Yes	6	2.2%
No	272	97.8%
<i>Alcohol</i>		
Yes	52	18.7%
No	226	81.3%

Table 2. Prevalence of exhaustion, disengagement and burnout among study participants

<i>Variable</i>	<i>N=278</i>	<i>Percentage</i>
Exhaustion	97	34.9%
Disengagement	66	23.7%
Burnout	87	31.3%

Table 3. Association of burnout and patient characteristics

<i>Variable</i>	<i>Burnt out N (%)</i>	<i>Significance</i>	<i>Inferences</i>
Age			
20-30 years	35 (42.1)	P=0.02	Highest among younger age group (20-30) Most of them were intern house officers and postgraduate trainees.
31-40 years	40 (30.5)		
41-50 years	08 (17.4)		
51-60 years	04 (22.2)		
Sex			
Male	40 (27.2)	P=0.12	No significant association with gender
Female	47 (35.8)		
Marital status			
Married	56 (26.8)	P<0.05	Highest among unmarried
Unmarried	31 (46.3)		
Divorced/ separated	00		
Children			
Yes	33 (21.7)	P<0.05	Participants who have children, are less likely to be burnt out
No	54 (42.9)		
Designation			
House officer	19 (67.9)	P<0.05	Professional capacity is significantly associated. Burnout is highest among house officers followed by post-graduate trainees
Grade medical officer	22 (21.2)		
Postgraduate trainee	44 (33.3)		
Consultant	02 (14.2)		
On call duties			
Yes	74 (31.9)	P=0.627	
No	13 (28.3)		
Private practice			
Yes	06 (16.6)	P=0.04	Those who were not involved in private practice were significantly disengaged than those who were not.
No	81 (33.5)		
Smoking			
Yes	02 (33.3)	P=0.913	
No	85 (31.3)		
Alcohol			
Yes	17 (32.7)	P=0.810	
No	70 (31)		

Table 4. Association of disengagement and personnel characteristics

<i>Variable</i>	<i>Disengagement N (%)</i>	<i>Significance</i>	<i>Inferences</i>
Age			
20-30 years	31 (37.3)	P= 0.005	Highest among younger age group (20-30) Most of them were intern house officers and postgraduate trainees.
31-40 years	26 (19.8)		
41-50 years	07 (15.2)		
51-60 years	02 (11.1)		
Sex			
Male	29 (19.7)	P=0.96	No significant association with gender
Female	37 (28.2)		
Marital status			
Married	41 (19.6)	P=0.009	Highest among unmarried
Unmarried	25 (37.3)		
Divorced/ separated	00		
Children			
Yes	25 (16.4)	P=0.02	Participants who have children, are less likely to be disengaged
No	41 (32.5)		
Designation			
House officer	18 (64.3)	P=0.05	Professional capacity is significantly associated. Disengagement is highest among house officers followed by post-graduate trainees
Grade medical officer	20 (19.2)		
Postgraduate trainee	27 (20.4)		
Consultant	01 (7.1)		
On call duties			
Yes	57 (24.6)	P=0.466	
No	09 (19.6)		
Private practice			
Yes	04 (11.1)	P=0.056	Those who were not involved in private practice were significantly disengaged than those who were not.
No	62 (25.6)		
Smoking			
Yes	01 (16.7)	P=0.681	
No	65 (23.9)		
Alcohol			
Yes	08 (15.4)	P=0.116	
No	58 (25.7)		

Table 5. Association of exhaustion and personnel characteristics

<i>Variable</i>	<i>Burnt out N (%)</i>	<i>Significance</i>	<i>Inferences</i>
Age			
20-30 years	36 (43.3)	P=0.015	Highest among younger age group (20-30) Most of them were intern house officers and postgraduate trainees.
31-40 years	49 (37.4)		
41-50 years	08 (17.4)		
51-60 years	04 (22.2)		
Sex			
Male	47 (31.97)	P=0.279	No significant association with gender
Female	50 (38.2)		
Marital status			
Married	64 (30.6)	P=0.12	
Unmarried	33 (49.2)		
Divorced/ separated	00		
Children			
Yes	40 (26.3)	P=0.01	Participants who have children, are less likely to be exhausted
No	57 (45.2)		
Designation			
House officer	19 (67.9)	P<0.05	Professional capacity is significantly associated. Exhaustion is highest among house officers followed by post-graduate trainees
Grade medical officer	26 (25.0)		
Postgraduate trainee	50 (37.9)		
Consultant	02 (14.3)		
On call duties			
Yes	84 (36.2)	P=0.302	
No	13 (28.3)		
Private practice			
Yes	07 (19.4)	P=0.037	Those who were not involved in private practice were significantly exhausted.
No	90 (37.2)		
Smoking			
Yes	02 (33.3)	P=0.935	
No	95 (34.9)		
Alcohol			
Yes	17 (32.6)	P=0.712	
No	80 (35.47)		

Discussion

The OLBI questionnaire assesses the two main components of burnout. Questions 01, 03, 06, 07, 09, 11, 13, 15 assessed disengagement and questions 02, 04, 05, 08, 10, 12, 14 and 16 assessed exhaustion. The OLBI defines exhaustion as extreme fatigue caused by long-term exposure to emotional, cognitive and physical strain from work related conditions. Disengagement in the OLBI means distancing from work in general, from work object, work content, and involve an emotional, cognitive and behavioral rejection of the work. Of 278 doctors participated in the study, 97 doctors (34.9%) were exhausted and 66 doctors (23.7%) were disengaged while 87 doctors (31.3%) were burnt out.

Multiple international studies have shown that one in 3 physicians experience burnout¹⁰. The burnout figures derived from our study are compatible with these international studies as 31.3% of doctors in the study population were burnt out and that is approximately 1/3rd of doctors. A similar Sri Lankan study done at Teaching Hospital Karapitiya involving 155 doctors showed that 20.6% were burnt out⁹. Another study that was conducted in postgraduate doctors in Sri Lanka revealed a prevalence of personal, work-related and client related burnout of 41.6%, 30.6% and 8.9% respectively⁸. These studies provide evidence that burnout among doctors is a problem in main teaching hospitals in Sri Lanka which needs further assessment and implementation of preventive strategies. Our study too was carried out at the National Hospital of Sri Lanka, which is the premier tertiary care institution in Sri Lanka and generalizing the findings of our study to all doctors practicing in Sri Lanka is questionable. The prevalence rates of burnout in peripheral hospitals may differ from the value that we obtained from our study. Hence more research studies are needed involving other hospitals in Sri Lanka.

During subgroup analysis we found that the age being in the 30-40 years ($P=0.024$), being unmarried ($P=0.007$), not having children ($P<0.05$), being an intern house officer or a postgraduate trainee ($P<0.05$) and not involving in the private medical practice ($P=0.042$) were significantly associated with burnout. It was revealed that at younger age groups, prevalence of burnout was more than at older age groups. This may be because young doctors are novel to the field of medicine and less working experience may have contributed to the high level of burnout among junior doctors. It could also be due to unrealistic expectations from their supervisors, clinical load and responsibilities beyond their capabilities. A study done in United States to assess the number of resident deaths from all causes, including suicide has shown higher rates of

death early in residency⁶. Deaths by suicide were higher early in training, and during the first and third quarters of the academic year⁶.

Unmarried doctors and doctors who were not having children showed a statistically significant level of burnout which may indicate that the personal lifestyle factors may have had an impact on work related burnout as well.

Among the intern house officers 67.9% were found to be burnt out. Intern house officers face a lot of challenges at the workplace as they are the first contact with the patients and they are very new to the practice of medicine. Burnout can cause errors in judgment leading to poor patient care outcomes¹¹. Several studies have shown that the level of stress and depression are higher among intern house officers¹². One study has shown that nearly 73.0% of intern house officers were under stressed conditions. Most of the intern house officers were affected by a severe level of stress (34.9%), followed by mild (19.3%) and moderate (18.8%) levels of stress¹².

Postgraduate trainees also showed a statistically significant association with the level of burnout. In addition to the work commitments they need to prepare for the exams and periodic assessments. We need more studies to evaluate what factors may have contributed to the high prevalence of burnout among postgraduate trainees. These studies should include assessment of factors such as number of on call days per week, time for recreational activities, financial status, examinations and assessments, being unable to balance aspirations and workplace realities, the organization of care, working hour norms, responsibilities, fear of litigation, the nature of hierarchies and work culture.

Both the intern house officers and vast majority of postgraduate doctors belong to 20-30 age group. Burnout harms their youth, personal satisfaction and career advancements as well.

Statistically significant association was also observed in the level of burnout and not being involved in the private medical practices. A possible explanation for this could be that intern house officers and postgraduate trainees do not get involved in private practices and they are the categories of doctors who are mostly burnt out. Change in working environment and financial stability of those who are involved in private medical practice could be other reasons for this finding. Our study did not show a significant association of burnout, exhaustion or disengagement with the gender, on call commitments or the habits such as smoking and consumption of alcohol.

Conclusion

We feel that our study is an eye opener to the physician burnout in clinical practice which could lead to devastating personal and professional consequences. This issue needs to be addressed immediately as the majority affected are the young adults. Multidisciplinary actions including changes in the working environment, stress management programmes are needed. The best interventions are those that consider specific factors in a particular setting, and are based on a theory that connects individual, interpersonal and organizational factors¹³. A failure to do so would lead to interventions that do not fit well with the existing organizational framework¹³.

More research studies targeting medical students and doctors are needed to improve the quality of life of doctors as well as to enhance to quality of care delivered to the patients. Such studies should include more prospective studies to determine the causative factors of burnout and studies to assess the efficacy of interventions carried out to minimize the burnout.

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