Burnout among house officers in Myanmar: A cross-sectional study

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ABSTRACT

Background: Burnout can result in a serious negative impact on a doctor's life, the quality of patient care, and the healthcare organization. This study aims to determine the prevalence of burnout and factors affecting burnout among the house officers in Myanmar.

Materials and methods: An exploratory cross-sectional quantitative survey study was conducted using a self-administered, web-based survey. House officers working in any of the government hospitals in Myanmar were invited to participate in the study. The survey link was distributed online via Facebook. To measure burnout, we utilised a non-proprietary single-item measure, validated to serve as a reliable substitute for the Maslach Burnout Inventory Emotional Exhaustion (MBI:EE). To measure global life satisfaction, the validated Satisfaction with Life Scale (SWLS) was used. The questions for the scales regarding the psychosocial environment were extracted from the long version of the validated Copenhagen Psychosocial Questionnaire (COPSOQ II). The scales selected were "possibilities for the development", "meaning of work", "commitment to workplace", "recognition", "social support from colleagues" and "social support from supervisors". Multiple logistic regression method was applied to determine the factors associated with burnout.

Results: Regarding the prevalence of burnout, out of 159 participants, 42.8% (n = 68) of the participants had no symptoms of burnout. 57.2% (n = 91) had one or more symptoms of burnout. Multivariate analysis showed that the only significant factor associated with burnout was "recognition" (OR 0.96, 95% CI: 0.94–0.97, P < 0.001).

Conclusion: From this study, we have determined the relatively high burnout prevalence and that recognition is the only preventive factor; increase in recognition will decrease the odds of burnout. Hence, urgent interventions are recommended to prevent undesirable effects on both health professionals and patients. Recognition for work done should always be in the heart of the health authorities and medical community in Myanmar.

1. Introduction

Burnout is a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment [1]. It can cause a deleterious impact on doctors causing intent to quit medical practice [2], intention to leave the current position [2], and poor health [3]. It can also negatively affect the quality of patient care [3,4], and decrease patient safety [4].

In Myanmar, there are five civilian medical schools – University of Medicine (1) and (2), Yangon; University of Medicine, Mandalay; University of Medicine, Magway and University of Medicine, Taunggyi, and one military medical school – Defence Services Medical Academy, and no private medical schools. University of Medicine, Taunggyi is a new medical school, and currently, none of the students has reached house officer training years. In our study, 'house officers' refer to civilian house officers since military house officers are under different employment system.

Before graduation, medical students have to complete compulsory one-year house officer training in government hospitals [5]. They have to rotate through internal medicine, surgery, obstetrics & gynaecology wards for three months, a paediatric ward for two and a half months, and community medicine training centre for two weeks [5]. The training is considered to be equivalent to Foundation Year One in the United Kingdom [6], and the trainees are considered as the first-line service providers in the government hospitals [7]. However, a limited clarity regarding roles and responsibilities [8] raises frustrations among them. Moreover, the stipend per month granted by the medical school to each house officer is only 100,000 MMK (approximately 76 US$) [9], and hence, 912 US$ per annum. According to the World Bank, the Gross National Income (GNI) per capita of Myanmar, reflecting the average income of the citizens, is 1190 US$ [10]. After satisfactory completion of the training, Bachelor in Medicine and Bachelor in Surgery (MBBS)

degree is awarded [5], but there is no immediate job offer; a clear recruitment policy for appointment in government hospitals is lacking [8].

In this situation, burnout is likely to be prevalent, although there is no evidence in this setting. Hence, this study aims to determine the burnout prevalence and factors associated with burnout.

2. Methods

An exploratory cross-sectional quantitative survey study was conducted using a self-administered, web-based survey. House officers working in any of the hospitals in Myanmar were invited to participate in the study. The survey was hosted on "Google Forms" as an open, voluntary survey. We distributed the survey link via social media, Facebook by posting on the "University of Medicine (1), Yangon" Student Union official page and two Facebook Groups consisting of current Myanmar house officers as members. An incentive of 10,000 MMK was randomly provided to two respondents. The study was conducted independently of the supervisors in the hospitals, to minimize the influence of the investigators on the responses.

The study was conducted from 15th June 2017 to 6th July 2017, the last two weeks of the house officer training plus one week after finishing it. Further continuation of this study beyond this time period could result in recall bias.

The English language was used to conduct the study. The main reason was to preserve the accuracy and validity of the original questionnaires. Another reason was that the house officers were taught in English as a medium of instruction in our medical schools.

To prevent multiple entries from the same individual, we could not use cookies, IP check or log file analysis, due to software limitations by Google Forms. Instead, we decided to include in the informed consent, the statement that each person is allowed to participate in the survey only once.

2.1. Survey measures

2.1.1. Sociodemographic and work characteristics

Regarding the sociodemographic characteristics, three items; age in years, gender, and marital status, were asked. Regarding the work characteristics, five items were asked; current rotation, plain off days (≥ 24 h)/month, working hours/week, and the hospital in which the respondent was working last week.

2.1.2. Burnout

To measure burnout, we utilised a non-proprietary single-item measure, validated to serve as a reliable substitute for the Maslach Burnout Inventory Emotional Exhaustion (MBI:EE) in the healthcare setting [11]. The main reasons were to make the questionnaire easy to respond, to save time for busy house officers and to increase the response rate [12,13]. It has been used in several previous studies on doctors including national surveys [14–16]. The scoring system involves an ordinal scale and a calculation cut-off point for burnout (Table 3). Accordingly, the operational definition of burnout will be focused on emotional exhaustion in this study.

2.1.3. Global life satisfaction

To measure global life satisfaction, the original validated Satisfaction with Life Scale (SWLS) [17,18] was used. It utilizes a five-item scale where the respondents have to answer with a seven-point Likert scale ranging from 7 strongly agree to 1 strongly disagree. The scores from each item were summed up to calculate the total score reflecting the global life satisfaction. The scale reliability (Cronbach's alpha) was 0.74 according to a previous study [19].

2.1.4. Psychosocial environment

The scales for this questionnaire were extracted from the long version of validated Copenhagen Psychosocial Questionnaire (COPSOQ II) [20]. The scales selected were "possibilities for development", "meaning of work", "commitment to workplace", "recognition", "social support from colleagues" and "social support from supervisors". The scale reliability (Cronbach's alphas) were 0.77, 0.74, 0.76, 0.83, 0.70 and 0.79 respectively [20]. All the scales were scored 0–100 points.

Questionnaires for the scales; "possibilities for development" (four-item), "meaning of work" (three-item) and "recognition" (three-item), were directly extracted from the original scales. No modifications were made. However, regarding the scale "commitment to workplace" (originally four-item), the question "How often do you consider looking for work elsewhere?" had been omitted as, at the time of conducting the study, the house officers from Myanmar did not have the option to change the hospital as they wish, resulting in three items.

For the scales "social support from colleagues" (three-item) and "social support from supervisors" (three-item), no modifications were made to the original questionnaire. Further details regarding COPSOQ II are available on the website of National Research Centre for the Working Environment, Denmark [21].

2.2. Statistics

The responses from the survey were extracted from Google Forms and opened in Microsoft Excel (Microsoft Corporation, Redmond, WA) to calculate the scores. The data were imported and analysed using SPSS Version 22.0 (IBM Corporation, Armonk, NY). Simple logistic regression was applied to determine the potential variables. Variables having $p \leq 0.25$ were included to proceed for further multivariable analysis. Variables for multivariable analysis were decided not only based on statistical significance but also on principles of parsimony and biological plausibility. Multiple logistic regression method was applied to determine the factors associated with burnout. Final results were presented with crude and adjusted odds ratio with 95% CI, Wald statistic and corresponding p-value. $p < 0.05$ was taken as significant.

2.3. Ethics

Before completing the survey, the respondents were required to agree on an informed consent explaining study objectives and confidentiality of the information. Responses were anonymous, i.e. the respondent had to enter neither the name nor email address, to answer the survey. This study was part-audit, part-quality improvement, and not an interventional study, and hence ethical approval was not needed. Moreover, it implies the guidelines for Ethical Decision-Making and Internet Research [22].

3. Results

3.1. Response rate

There were 159 respondents at the end of the survey which is estimated to be 10% of all house officers in Myanmar (approximately 1600). As this study has used a web-based survey, the response rate was described according to the suggestion by Eysenbach [23] Unique site visitor, View rate (Ratio unique site visitors/unique survey visitors) and Participation rate (Ratio unique survey page visitors/agreed to participate) could not be obtained due to software limitations. However, completion rate (Ratio agreed to participate/finished survey) could be obtained and was found to be 100%.

3.2. Descriptive statistics

Sociodemographic, work characteristics, global life satisfaction, and scores for psychosocial environment of the respondents are described in Table 1. Hospitals were recategorized according to geographical regions since the respondents were working at a wide range of hospitals. The