Stress and burnout among healthcare professionals working in a mental health setting in Singapore

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ABSTRACT

International literature suggests that the experience of high levels of stress by healthcare professionals has been associated with decreased work efficiency and high rates of staff turnover. The aims of this study are to identify the extent of stress and burnout experienced by healthcare professionals working in a mental health setting in Singapore and to identify demographic characteristics and work situations associated with this stress and burnout. A total of 220 Singaporean mental health professionals completed a cross-sectional survey, which included measures of stress, burnout (exhaustion and disengagement), participants' demographic details, and working situation. Independent t-tests and one-way ANOVAs were used to examine between-group differences in the dependent variables (stress and burnout). Analyses revealed that healthcare professionals below the age of 25, those with less than five years experience, and those with the lowest annual income, reported the highest levels of stress and burnout. No significant differences were found with other demographic or work situation variables. Findings suggest that healthcare professionals working in a mental health setting in Singapore are experiencing relatively high levels of stress and burnout. It is important that clinicians, administrators and policy makers take proactive steps to develop programs aimed at reducing stress and burnout for healthcare professionals. These programs are likely to also increase the well-being and resilience of healthcare professionals and improve the quality of mental health services in Singapore.

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1. Introduction

While providing therapeutic interventions for clients with mental illness, healthcare professionals must listen closely to their problems and be empathetic towards their grief or anxiety (O'Donovan and May, 2007; Maslach, 2003). This can result in emotional exhaustion and stress, and may lead to burnout if not managed effectively (Bassett and Lloyd, 2001; Brown and Pranger, 1992; Bregar et al., 2011; Maslach et al., 2001). High levels of stress and burnout are, in turn, associated with decreased patient satisfaction, and with diminished work efficiency and high staff turnover rates in healthcare professionals (Edwards and Burnard, 2003; Stafford-Brown and Pakenham, 2012).

Stress is associated with a wide spectrum of health-related concerns including psychosocial and physical concerns (Keil,

2004). When stress levels at work exceed an individual's ability to cope over a prolonged period, burnout can result (Koolhaas et al., 2011; Le Fevre et al., 2003). Burnout is a psychological condition which develops as a result of an inability to cope with chronic stressors on the job (Maslach et al., 2001). Demerouti et al. (2010) conceptualised burnout as consisting of two dimensions: exhaustion and disengagement. Exhaustion refers to the experience of prolonged physical, cognitive or affective strain as a result of certain job demands (Acker, 2012; Demerouti et al., 2010). Disengagement from work refers to withdrawal or emotional distance from one's work (Demerouti et al., 2010).

Evidence reveals high levels of stress and burnout among healthcare professionals in both developing and developed countries (Rossi et al., 2012; Grau-Alberola et al., 2010; Gupta et al., 2012; Hamaideh, 2011; Acker, 2012). Acker (2012), in her survey of 460 mental health workers in New York State, reported that 56% of the workers experienced moderate to high levels of emotional exhaustion, and 73% experienced moderate to high levels of role stress. Several studies have also highlighted the association between demographic characteristics and burnout (Poulsen et al., 2014; Chiang and Chang, 2012). For example,

Poulsen et al. (2014) reported that having less than 10 years of working experience was associated with burnout among Australian occupational therapists.

In Singapore, Chan and Huak (2004) conducted a survey of 491 doctors and nurses in a general hospital setting to understand the impact of the work environment on their emotional health. The participants in this study reported high levels of job-related stress, and the prevalence of psychiatric disorders such as depression and anxiety among the doctors and nurses was 35% and 28%, respectively. However, nothing is known about the extent of stress and burnout among mental health professionals in Singapore.

The main aims of this study are to investigate the extent of stress and burnout in healthcare professionals working in a major mental health setting in Singapore, and to identify demographic characteristics and work situations associated with stress and burnout. Findings from this study are important precursors to the planning of programs to support healthcare professionals to manage their stress and diminish their risk of burnout.

2. Methods

This study was conducted using a cross-sectional survey design. Ethical approvals were obtained from the National Healthcare Group Domain Specific Review Board (Singapore), and The University of Queensland, Australia, in August 2013.

2.1. Data collection

The study sample was drawn from healthcare professionals employed at a large mental health institution in Singapore. Emails were sent to all staff, and those interested in participating in the study were directed to the online survey. In addition, printed copies of the survey were distributed to the different healthcare professional groups to encourage participation. All responses were collected anonymously. A total of 260 healthcare professionals commenced the survey (response rate of approximately 17%). However, only 220 professionals completed the key variables of interest for this study, thus the analytical sample size was N = 220. Demographics of the respondents are summarised in Table 1.

2.2. Measures

Perceived Stress Scale, PSS (Cohen et al., 1983; Lee, 2012). The PSS is a 10-item self-report questionnaire, measuring the degree to which situations in one's life are viewed as demanding and stressful. Items are rated on a 5-point scale, ranging from 0 (Never) to 4 (Very often). An item example is: "In the last month, how often have you found you could not cope with all the things that you had to do?" In a review, Lee (2012) concluded that it has good internal consistency (Cronbach's alpha > 70 in 12 studies). The Cronbach's alpha for the present study was 0.84.

Oldenburg Burnout Inventory, OLBI (Demerouti and Halbesleben, 2005; Vardakou et al., 2003). This is a 16-item self-report questionnaire, measuring two dimensions of burnout: exhaustion and disengagement from work. Items are rated on a 4-point scale, ranging from 1 (strongly agree) to 4 (strongly disagree). The questions in OLBI include both negatively and positively worded items. This reduces answering bias, and makes the OLBI psychometrically stronger than the more commonly used Maslach Burnout Inventory (MBI) which uses one-sided wording (Vardakou et al., 2003). In addition, the OLBI includes a more expanded conceptualisation of burnout, measuring not only the affective aspects of exhaustion, but also the physical and cognitive components (Demerouti and Halbesleben, 2005). Demerouti and

Table 1
Demographics of the sample, N = 220.

Variable		N	%
Profession	Nurse	79	35.9
	Occupational therapist	35	15.9
	Physiotherapist	1	0.5
	Social worker	24	10.9
	Psychologist	14	6.4
	Pharmacist	7	3.2
	Doctor/psychiatrist	28	12.7
	Case manager	23	10.5
	Counsellor	3	1.4
	Missing	6	2.7
Specialisation	Paediatrics	24	10.9
	Geriatric	12	5.5
	General psychiatric	130	59.1
	Rehabilitation	15	6.8
	Others (e.g., National Addiction Management Service)	39	17.7
Years of experience	Less than 5	84	38.2
	6–10	60	27.3
	11–20	42	19.1
	>20	34	15.5
Area of work	Clinical	204	92.7
	Administrative	11	5.0
	Research	5	2.3
Gender	Male	63	28.6
	Female	155	70.5
Age	<25	17	7.7
	25–30	65	29.5
	30–35	47	21.4
	>35	89	40.5
Income level	<S$30,000	25	11.4
	S$30,000–50,000	112	50.9
	>S$50,000	79	36.0

Halbesleben (2005) reported that the OLBI demonstrated good internal consistency and construct validity. The Cronbach's alphas for the exhaustion and disengagement subscales in the present study were 0.81 and 0.81, respectively.

Information about participants' demographic and work situations such as area of specialisation was also collected.

2.3. Data analysis

The data were analysed using SPSS (Version 17.0). Preliminary data checking was performed to test for normality of the Perceived Stress Scale and Oldenburg Burnout Inventory. The significance of the Kolmogorov–Smirnov test revealed that both dependent variables were non-normal; however, given the large sample size, Field (2005) indicated that significant values would arise even with small deviations from normality. Field (2005) suggested that it is more important to look at the shape of the distribution and calculate the skewness and kurtosis statistics if the sample size is more than 200. Visual examination of the histogram, Q–Q plots and kurtosis and skewness z-score suggested that the data approximated normality, thus parametric testing was used.

Descriptive statistics were calculated for all variables. Bivariate analyses (independent t-tests, one-way ANOVAs and Tukey post-hoc tests) were used to examine any significant between-group differences in the dependent variables (stress and burnout) according to demographic characteristics and working situations. Regression modelling was conducted with stress as the dependent variable and age, years of experience and income level as the independent variables. However, age was dropped from the analysis because of its high association with the years of experience. When years of experience and income were included in the regression analysis, only income level was found to be significantly associated with stress. With only one independent