

Prevalence of Burnout and Its Associated Factors among Faculty Academicians

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ABSTRACT

Mental health is a growing concern in the field of occupational health globally due to its social, health, and economic implications on the individual and the community at large. As universities in Malaysia are advancing towards becoming world-class research universities, academicians are now faced with more pressures, making them more vulnerable to burnout. A cross sectional study was conducted among 194 randomly sampled academicians from a faculty of a public university. Data was collected using a self-administered questionnaire to assess the sociodemographic characteristics, occupational characteristics and burnout. Analysis was done using SPSS version 21. The response rate was 87.1%. The overall prevalence of burnout was 10.7% with significant associations between gender ($\chi^2 = 4.61$; $p = 0.03$), teaching experience ($\chi^2 = 0.83$; $p = 0.02$), job satisfaction ($\chi^2 = 11.33$; $p = 0.001$). Female academicians have a higher prevalence of burnout (14.3%). Academicians who have fewer years of teaching experience (≤ 6 years) and those with low job satisfaction scores reported a higher prevalence of burnout (16.8% and 28.6%, respectively). As for prediction analysis, females were 4 times more likely to experience burnout compared to males (aOR = 4.53; 95%CI 0.95-21.72) and those with teaching experience of less than 6 years were also four times more likely to experience burnout (aOR = 4.14; 95%CI 1.21-14.19). The odd of experiencing burnout among those who were dissatisfied with their job was seven times more than among academicians who were satisfied with their jobs (aOR = 6.72; 95%CI 2.15-21.04). Burnout was found to be prevalent among academicians. Being a female academician, with fewer years of teaching experience and low job satisfaction were among the factors that have significant associations with burnout. Therefore, these groups should be targeted by the university administration to find mechanisms to reduce the prevalence of burnout which will eventually contribute to the quality of teaching and high job commitment and pave way for the institution towards a world-class university.

Keywords: burnout, academician, university, job satisfaction

INTRODUCTION

Burnout is more than just feeling blue and stressed; it is a chronic state of being out of energy and constantly overwhelmed and exhausted, lacking the enthusiasm and passion for the job that was previously present and reduced motivation, self-worth and professional efficacy. Burnout, work related stress, and job satisfaction are now recognized features of the current modern ways of life. With globalization and rapid changes in the nature of work, the economy, social, political and ecological changes around the world, there is a pressing need to reassess the concept of work, burnout and stress on the workforce.^[1] Burnout is hence one of the biggest occupational hazards of the Twenty-First century and it is currently reaching epidemic proportions among workers today.^[2]

The prevalence of general burnout in research is varied from as low as 2 to as high as 76%. Although burnout is not restricted to any occupation in particular, literature consistently demonstrates a higher prevalence of burnout among the human service professions including health care workers, teachers, social workers and police. In a study comparing the prevalence of burnout within five different occupational sectors in the United States and Holland, teaching was characterized by the highest level of emotional exhaustion.^{[3],[4],[5]}

Teaching is not only demanding but it is also a complex profession that requires the teachers to not only be fully engaged in their work with their heads but also with their hearts. It also appears to be a professional necessity for them to be emotionally committed to their work^[6], which is even truer when relating to tertiary education as it is regarded as one of the most important institutional organizations of a nation. It oversees issues on the national

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agenda and its effective running depends firmly on its coordination in the direction of societal expectations. Hence, the academic profession holds a pivotal position in higher education. Higher education today influences behaviour and ideas throughout the entire structure of the technocratic culture. Successful education programmes lie on the important contributions of efforts, involvement, and most importantly, on the overall academician's professionalization. Academicians form an important and integral component as pillars of the education sector. They bring with them unique experiences, apart from cultivating specialized knowledge in the classroom to allow universities to provide a diverse curriculum for both undergraduate and postgraduate education. In the recent years, public universities in Malaysia have been transitioning towards becoming world class Research Universities whereby the component of research and publication is increasingly seen as a crucial aspect and forefront of an entity as part of the Accelerated Programme for Excellence (APEX) initiative by the Malaysian Ministry of Higher Education. As a result, the measure of performance has become an agenda item in the tertiary institutions due to increasing competitive pressure, finite individual and institutional resources, and increased demand for universal access. This need for greater accountability and improvement created the new Key Performance Indicator (KPI) for universities, therefore putting academicians under new pressures because the end products are still to be the main generators of knowledge and skills, to maintain consultancy services, to produce increasing number of graduates as well as into publication and patent innovation.

There has been substantial research addressing the issue of burnout among teachers at the primary and secondary levels, as well as those who engage in teaching children with special needs. Nevertheless, within the academic profession of work, there is inarguably limited and fragmented research on burnout, especially within the higher learning institutions. Also, most studies on burnout have focused on the three individual dimensions of burnout rather than the overall burnout. A systematic review of burnout in university teaching staff reported a scarcity of studies across universities on burnout among academicians in Malaysia although the academic profession holds a pivotal position in higher education and is the foundation and asset of any institution.^[6] As universities in Malaysia are advancing towards becoming world-class research universities, academicians are now facing even more pressures, making them more vulnerable to burnout. Therefore, this study aimed to determine the overall prevalence and associated factors of burnout among academicians in a faculty within a Malaysian public university setting.

METHODOLOGY

This is a cross sectional study conducted among academicians from a faculty of a public institution. Data were collected from May 2013 to July 2013. Simple random sampling using a table of random numbers was used in this study so as to ensure that all academicians who were eligible for the study had an equal probability of being selected. The inclusion criteria include Malaysian academic staff, who have taught for at least 2 years at the University while those who were on sabbatical, maternity, medical or study leave throughout the period of study were excluded.

The sample size was calculated based on the cross-sectional (one group) estimate: proportion for prevalence and also the estimated size for hypothesis testing based on group comparison (two groups).^[7] From the two calculated sample size, the appropriate sample size chosen was 162 respondents. Adjusting for 20% non-response rate, the final sample size calculated was 194 respondents.

A total of 194 questionnaires were distributed to the pigeon holes of the selected academicians, along with an electronic mail reminder on the date of collection. In order to increase the respondents' participation, reminders and follow-ups were done on a biweekly basis. The instrument used for the study was a self-administered standardized, pre-tested and validated questionnaire. The questionnaire used was only in English as it is the medium for teaching at the University. The questionnaire was divided into three sections namely; sections A, B and C. Section A was the socio-demographic section consisting of six items which included age, gender, ethnicity, religion, marital status and underlying medical illness, while Section B covered the occupation related characteristics of the respondents. It consisted of eight items which included teaching experience, highest academic qualification, academic position, employment category, academic category, basic monthly salary, workload and job satisfaction (Minnesota Satisfaction Questionnaire). MSQ, which had good reliability (Cronbach alpha = 0.74-0.80), measured job satisfaction from 20 facets and the score was then categorized into 3 categories: high (76-100), moderate (26-75) and low (0-25). A score of 26 – 100 (moderate and high degree of job satisfaction) indicates that the individual is satisfied with his or her job. A score of 25 and below indicates that the individual is dissatisfied with his or her job.

Section C, which is the Maslach Burnout Inventory–Educators Survey (MBI–ES), was used to measure burnout among the academic staff in this study. MBI-ES is reliable (Cronbach alpha= 0.72-0.84) and widely accepted, and it has also been a frequently used instrument in assessment of burnout.^[8] MBI-ES consists of twenty-two statements describing the feelings an individual might have as a result of being overstressed or burnout. The respondents were

asked to indicate the frequency at which they experienced these feeling by selecting from seven response choices ranging from 0 (Never), 1 (A few times per year), 2 (Once a month), 3 (A few times per month), 4 (Once a week), 5 (A few times per week) and 6 (Everyday). MBI-ES measures burnout on three subscales, which are Emotional Exhaustion, Depersonalization and Personal Accomplishment.^[9]

This study was approved by the Medical Research Ethics Committee of the Faculty of Medicine and Health Sciences, UPM (Reference no: UPM/TNCPI/RMC/JKEUPM/1.4.18.1/ F1:FPSK_April (13)09). Data analysis was done using Statistical Package for Social Sciences (SPSS) version 21.0.

RESULTS

Out of the 194 respondents selected, 169 participated in the study, giving an overall response rate of 87.1%. Non respondents included academic staff who did not give consent to participate in the study.

In terms of socio-demographic characteristics, there were preponderance of females (66.3%), Malays (71.5%), and those with post-graduate qualification of Masters or PhD (95.3%). Majority of the respondents were between 31 – 40 years old (50.8%), with a mean age of 39.6 years \pm 7.25 years (see Table 1).

Table 1. Socio demographic characteristics of the respondents (n = 169).

	n (%)	Males (n = 57)		Females (n = 112)	
		n (%)	n (%)	n (%)	n (%)
Age (years)					
25 – 30	16 (9.5)	2 (3.5)	14 (12.5)		
31 – 40	86 (50.8)	30 (52.7)	56 (50.0)		
41 – 50	55 (31.4)	21 (36.8)	32 (28.6)		
\geq 51	14 (8.3)	4 (7.0)	10 (8.9)		
Total	169 (100.0)	57 (100.0)	112 (100.0)		
Marital Status					
Single	38 (22.5)	15 (26.3)	23 (20.5)		
Married	123 (72.9)	42 (73.7)	81 (72.3)		
Divorced/ Widowed	8 (4.8)	-	8 (7.2)		
Total	169 (100.0)	57 (100.0)	112 (100.0)		
Ethnicity					
Malay	121 (71.5)	33 (57.9)	88 (78.5)		
Chinese	27 (16.0)	10 (17.5)	17 (15.2)		
Indian	15 (8.9)	9 (15.8)	6 (5.4)		
Others	6 (3.6)	5 (8.8)	1 (0.9)		
Total	169 (100.0)	57 (100.0)	112 (100.0)		
Highest Qualification					
Bachelors/ Medical degree	8 (4.7)	-	8 (7.1)		
Masters	99 (58.6)	37 (64.9)	62 (55.4)		
PhD	62 (36.7)	20 (35.1)	42 (37.5)		
Total	169 (100.0)	57 (100)	112 (100.0)		

As for occupational characteristic of the respondent (see Table 2), the overall mean teaching experience was 7.13 \pm 5.85 years. Among the male academicians, the mean teaching experience was found to be slightly higher than that of the female academicians (7.91 \pm 5.63 and 6.73 \pm 5.94 years, respectively). However, majority of the male and female academicians are considered as junior academicians as they are still young in the teaching experience of 2 – 5 years (43.9% and 54.5%, respectively). Approximately two-third of the respondents (69.2%) were Medical Lecturers/Senior Lecturers. There were a higher proportion of Professors/Associate Professors among the males compared to the females (22.8% and 11.6%, respectively). Majority of (89.3%) of the respondents were permanent staff. The proportion of the respondents who were clinical academicians was slightly more than the non-clinical academicians (56.8% and 43.2%, respectively). The results indicate that the mean basic monthly salary of the respondents was RM 6,449.70 \pm 1834.33. Majority of the respondents (83.4%) in the study were

satisfied with their jobs. The proportion of respondents who were satisfied with their jobs was similar among the male and female respondents.

Table 2. Occupational characteristics of the academicians (n=169).

	n (%)	Males (n = 57)		Females (n = 112)	
		n (%)	n (%)	n (%)	n (%)
Teaching Experience (years)					
2 – 5	86 (50.9)	25 (43.9)	61 (54.4)		
6 – 10	55 (32.5)	20 (35.1)	35 (31.3)		
≥11	28 (16.6)	12 (21.0)	16 (14.3)		
Total	169 (100.0)	57 (100.0)	112 (100.0)		
Academic Position					
Professor / Assoc. Professor	26 (15.4)	13 (22.8)	13 (11.6)		
Medical Lecturer / Senior Lecturer	117 (69.2)	40 (70.2)	77 (68.8)		
Lecturer / Tutor	26 (15.4)	4 (7.0)	22 (19.6)		
Total	169 (100.0)	57 (100.0)	112 (100.0)		
Employment Category					
Permanent	151 (89.3)	51 (89.5)	100 (89.3)		
Contract	18 (10.7)	6 (10.5)	12 (10.7)		
Total	169 (100.0)	57 (100.0)	112 (100.0)		
Academic Category					
Clinical	96 (56.8)	31 (54.4)	65 (58.0)		
Non – Clinical	73 (43.2)	26 (45.6)	27 (24.2)		
Total	169 (100.0)	57 (100.0)	112 (100.0)		
Basic Monthly Salary (RM)					
2,000 – 4,000	17 (10.1)	2 (3.5)	15 (13.4)		
4,001 – 6,000	58 (34.3)	18 (31.6)	40 (35.7)		
6,001 – 8,000	83 (49.1)	33 (57.9)	50 (44.6)		
≥ 8,001	11 (6.5)	4 (7.0)	7 (6.3)		
Total	169 (100.0)	57 (100.0)	112 (100.0)		
Job Satisfaction					
Satisfied	141 (83.4)	47 (82.5)	94 (83.9)		
Dissatisfied	28 (16.6)	10 (17.5)	28 (25.1)		
Total	169 (100.0)	57 (100.0)	112 (100.0)		

In this particular study, the overall prevalence of burnout among the academicians was 10.7%, with higher prevalence among the younger (25-40 years old) female, those with Bachelor/Medical degree, and also among Chinese academicians. However, the only significant socio-demographic characteristic towards burnout was gender, whereby females (14.3%) were found to have a higher prevalence of burnout than compared to the males (3.5%); ($\chi^2 = 4.61$, $df = 1$, $p = 0.03$) (see Table 3).

As for occupational characteristics, those junior academicians (teaching experience 2-5 years) having contract employment, clinical academicians, with lower salary (\leq RM6000/month) and dissatisfied with their job had higher percentage of burnout. Despite these, the significant statistical association with burnout was only with teaching experience ($\chi^2 = 0.83$, $df = 1$, $p = 0.02$) and job satisfaction ($\chi^2 = 11.33$, $df = 1$, $p = 0.001$) (see Table 4).

Multivariate logistic regression was used to determine the predictors of burnout, where the 3 significant variables (gender, teaching experience, and job satisfaction) were analyzed using the “ENTER” method. There was no multicollinearity observed. There was also no significant interaction between the different variables. Table 5 presents the results of multivariate logistic regression for predicting burnout among the academicians. The findings indicated that females were four times more likely to experience burnout compared to males. Those with teaching experience of less than 6 years were also four times more likely to experience burnout. The odd of experiencing burnout among those who were dissatisfied with their job was 7 times more than among those who were satisfied with their jobs. Meanwhile, job satisfaction was the strongest predictor of burnout in this study. Despite the findings, the model fits the sample as $p = 0.841$ for Hosmer-Lemeshow. The Nagelkerke’s R square

Table 3. Prevalence of burnout and associated socio demographic characteristics.

	n	Burnout		χ^2	df	P
		Yes n (%)	No n (%)			
Age						
25 – 40	102	14 (13.7)	88 (86.3)	2.56	1	0.11
≥ 41	67	4 (6.0)	63 (94.0)			
Gender				4.61	1	0.03*
Male	57	2 (3.5)	55 (96.5)			
Female	112	16 (14.3)	96 (85.7)			
Highest Qualification				1.82	1	0.178
Bachelors/ Medical degree	8	2 (25.0)	6 (75.0)			
Masters / PhD	161	16 (9.9)	145 (90.1)			
Marital Status				0.38	1	0.54
Single / Divorced/ Widowed	46	6 (13.0)	40 (87.0)			
Married	123	12 (9.8)	111 (90.2)			
Ethnicity				5.01	3	0.17
Malay	121	11 (9.1)	110 (90.9)			
Chinese	27	6 (22.2)	21 (77.8)			
Indian	15	1 (6.7)	14 (93.3)			
Others	6	0 (0.0)	6 (100.0)			

χ^2 = Chi square, Level of significance (p) < 0.05, * = Significant association

Table 4. Prevalence of burnout and associated occupational related characteristics.

	n	Burnout		χ^2	df	P
		Yes n (%)	No n (%)			
Teaching Experience				5.83	1	0.02*
2 – 5	86	14 (16.3)	72 (83.7)			
≥ 6	83	4 (4.8)	79 (95.2)			
Academic Position				5.00	2	0.08
Professor / Assoc. Professor	26	2 (7.7)	24 (92.3)			
Medical Lecturer / Senior Lecturer	117	10 (8.5)	107 (91.5)			
Lecturer / Tutor	26	6 (23.1)	20 (76.9)			
Category of Employment				0.77	1	0.41
Permanent	151	15 (9.9)	136 (90.1)			
Contract	18	3 (16.7)	15 (83.3)			
Academic Category				0.71	1	0.40
Clinical	96	12 (12.4)	85 (87.6)			
Non-Clinical	73	6 (8.3)	66 (91.7)			
Basic Monthly Salary				1.02	1	0.31
RM 2,000 – 6000	75	10 (13.3)	65 (86.7)			
≥ RM 6,001	94	8 (8.5)	86 (91.5)			
Job Satisfaction				11.33	1	0.001*
Satisfied	141	10 (7.1)	131 (92.1)			
Dissatisfied	28	8 (28.6)	20 (71.4)			

χ^2 = Chi square, Level of significance (p) < 0.05, * = Significant association

showed that about 23.8% of the variation in burnout was explained by this logistic model. As such, it is likely that there are other predictors of burnout which have not been included in this study.

Table 5. Predictors of burnout.

Variables	B	SE	Wald	df	p	Adjusted Odds Ratio	95% CI
Gender							
Male	1.51	0.800	3.568	1	0.059	4.53	0.95 – 21.72
Female							
Teaching Experience							
2 – 5 years	1.42	0.628	5.119	1	0.024*	4.14	1.21 – 14.19
≥ 6 years							
Job Satisfaction							
Satisfied	1.91	0.92	10.69	1	0.001*	6.72	2.15 – 21.04
Dissatisfied							

Level of significance (p) < 0.05, * = Significant association

DISCUSSION

Statistics and research on burnout, work related stress and job satisfaction within Asia are however limited and mostly fragmented, especially so in its developing counterparts.^[10] In industrialized countries, people have become increasingly aware and familiar with burnout, work related stress and its management. However, this is not the case in the developing countries where mental health at the workplace is often overlooked if not just merely neglected.^[11]

The prevalence of burnout in this study was found to be 10.7%, and this was much higher than a study among academic otolaryngologists in a Washington university where the prevalence was reported to be 4%.^[12] Another study among academician in a Tanzanian university showed that the prevalence of burnout was be 8.1%, and this is slightly lower than the prevalence obtained in this study.^[13] The prevalence of burnout, however, was found to be much lower than a study among academic staff in a university in San Diego which reported a prevalence of 19.7% and another study on career fit and burnout among academic faculty physicians which reported a prevalence of 34%.^{[14], [15]} However, both the studies measured burnout to be present in their studies if the respondents had reported any one of the dimensions indicative of burnout (high emotional exhaustion or high depersonalization or low personal accomplishment). There is still a lack of consensus regarding the concept of burnout and the different burnout measures used in empirical research, one of the central questions is still whether to use a total score of burnout or its three dimensions separately.^[16] Although the concept of burnout was developed to describe a multifaceted syndrome with three dimensions, in some studies, the three dimensions had been separated and each was measured individually and separately. Although comparing the crude prevalence rates does provide some perspective on the magnitude of burnout in a Malaysian University setting, there are differences between the populations, as well as the confounders that need to be kept in mind that may limit generalization.

In this study, the prevalence of burnout was found to be relatively higher among females than males and there was a significant statistical association found between gender and burnout. This is consistent with the findings which reported that female academicians had higher rates of burnout ($p = 0.02$) and population based studies on burnout.^{[15], [17]} The traditional roles that women play as carers on the home front have not changed over time. A dual role as carer and worker is known to have caused significant mental health problems. For many female workers, the abundance in opportunities for employment has led to higher levels of total stress owing to increasing responsibilities at home and at work.

In addition, there was significant statistical association between teaching experience and burnout, whereby those with a teaching experience of two to five years found to have a higher prevalence of burnout. This is similar to the findings in a study among secondary school teachers that reported teachers with fewer years of teaching experience had higher burnout scores.^[18] A possible explanation for the observation could be that individuals with more teaching experienced had learned to cope with the stressors associated with the teaching job and are therefore less vulnerable to burnout. In contrast, another study in Texas reported higher burnout rates among teachers with more than 20 years of teaching experience.^[19]

This study also observed that a higher prevalence of burnout occurred among clinical academic staff although no significant statistical association was reported. Studies among clinical academicians have shown high prevalence of job burnout.^{[15],[20]} The high prevalence of burnout among clinical staff could possibly be attributed to not only the interaction with both students and patients but also to the complexity of their working hours, work environment, and the need to shuffle between both clinical and academic commitments, research included. However, there is a scarcity of literature comparing the association between academic category and burnout.

The overall prevalence of job satisfaction observed in this study was 83.4% and the majority of the respondents reported moderate levels of job satisfaction (69.2%). The prevalence of burnout was reported to be higher among those who were dissatisfied with their job, whereas a significant statistical association was shown between job satisfaction and job burnout in this study. In comparison, this prevalence was found to be higher than a study among lecturers in a tertiary institution in Singapore which reported a prevalence of 78.2%, and Job Satisfaction Survey (JSS) was employed in the measurement of job satisfaction.^[21] The findings in this study are similar to a study among 1600 physicians in China which reported a significant negative relationship between job satisfaction and job burnout. The study also reported that job satisfaction was negatively related to turnover intention and high emotional exhaustion as a significant predictor of turnover intention.^[22] Professionals who indicated more satisfaction with their jobs were found to be less likely to indicate symptoms of burnout.

The working environments are now constantly evolving as a result of globalization, new technology, shift in the economic, social, political, demographic and ecological characteristics, as well as changes in the way work is organized in our society today. These on-going changes in the workplace and work environment can be rather stressful to the workers even if the changes are actually intended to improve the working environment and the work process involved. As a result, occupational safety and health policies, and practices have to be constantly reviewed and updated to keep up with the changing work environment. This is to ensure the adaptation of work to the capabilities of the workers and also to establish and maintain a safe and healthy working environment to facilitate optimal physical and mental health in relation to work.

LIMITATION

This study was conducted among academicians within a single faculty, which is not representative of all the academicians in the university. Another important factor noted was that there was lacking in term of consensus and consistency to define a burnout case. Thus, comparisons among different researches differ. Some studies include high emotional exhaustion, high depersonalization and reduced personal accomplishment as a burnout case, whereas in other studies, the presence of one positive dimension was regarded as a case. This poses limitations for comparing the results between different studies. On the other hand, this study has provided an interesting insight into the limited body of knowledge regarding burnout among academicians in Malaysia. Being exploratory and rudimentary, it can serve as a basic framework for further research into the phenomenon of burnout among academicians.

CONCLUSION AND RECOMMENDATION

Burnout was found to be prevalent among academic staff. Among the various socio-demographic and occupation related factors that were included in this study, the factors that were found to be significantly associated with burnout in this study include female gender, with less than six years of teaching experience and job dissatisfaction. The predictors of burnout in this study were teaching experience and job satisfaction. Since female academicians, with fewer years of teaching experience and those with low job satisfaction were found to be significantly associated with burnout, these groups should be targeted by the university administration to find mechanisms to reduce the prevalence of burnout through better scheduling of lecture timetables and research activities, provision of specific research leave, as well as providing higher incentives and motivation to the academicians. It is also essential to conduct mental health programmes in the university consisting of sessions on stress management, encouragement of active feedback or suggestions and counselling services which should be easily accessible to the academicians. These will contribute to the quality of teaching, retention of academic talents and high job commitment to pave way toward becoming a world-class university producing high quality graduates.

REFERENCES

- [1] Freudenberg, H. J. (2011). *Stress and Burnout and their Implication in the Work Environment Encyclopedia of Occupational Health and Safety: International Labor Organization (ILO)*.
- [2] Leiter, M. P. & Maslach, C. (2011). *Banishing burnout: Six strategies for improving your relationship with work*: Jossey-Bass.
- [3] Blanchard, P., Truchot, D., Albiges-Sauvin, L., Dewas, S., Pointreau, Y., Rodrigues, M., & Soria, J. (2010). Prevalence and causes of burnout amongst oncology residents: a comprehensive nationwide cross-sectional study. *European Journal of Cancer*, 46(15), 2708-2715.
- [4] Elliott, B. & Crosswell, L. (2001). *Commitment to teaching: Australian perspectives on the interplays of the professional and the personal in teachers' lives*. Paper presented at the International Symposium on Teacher Commitment at the European Conference on Educational Research, Lille, France.
- [5] Backteman-Erlanson, S., Padyab, M., & Brulin, C. (2012). Prevalence of burnout and associations with psychosocial work environment, physical strain, and stress of conscience among Swedish female and male police personnel. *Police Practice and Research*, 1-15.
- [6] Watts, J. & Robertson, N. (2011). Burnout in university teaching staff: a systematic literature review. *Educational Research*, 53(1), 33-50.
- [7] Aday, L. A. & Cornelius, L. J. (2006). *Designing and Conducting Health Surveys: A Comprehensive Guide (3rd Ed.)*. San Francisco: Jossey-Bass.
- [8] Schaufeli, W. B. & Enzmann, D. (1998). *The Burnout Companion to Study and Practice: A Critical Analysis*. London: Taylor & Francis.
- [9] Maslach, C. & Jackson, S. E. (1986). *MBI: Maslach Burnout Inventory: Manual research edition*. University of California, Palo Alto: Consulting Psychologists Press.
- [10] Tsui, A. H. (2008). Asian wellness in decline: a cost of rising prosperity. *International Journal of Workplace Health Management*, 1(2), 123-135.
- [11] Leka, S., Griffiths, A., & Cox, T. (2003). *Work organization and stress: systematic problem approaches for employers, managers and trade unions representatives*. Geneva, Switzerland: World Health Organization (WHO).
- [12] Golub, J. S., Johns, M. M., Weiss, P. S., Ramesh, A. K., & Ossoff, R. H. (2008). Burnout in academic faculty of otolaryngology—Head and neck surgery. *The Laryngoscope*, 118(11), 1951-1956.
- [13] Lema, I. S. (2012). *Prevalence of burnout syndrome and its health effects among academic staff at a university*. Master of Science in Clinical Psychology, Muhimbili University of Health and Allied Sciences, Tanzania.
- [14] Lackritz, J. R. (2004). Exploring burnout among university faculty: incidence, performance, and demographic issues. *Teaching and Teacher Education*, 20(7), 713-729.
- [15] Shanafelt, T. D., West, C. P., Sloan, J. A., Novotny, P. J., Poland, G. A., Menaker, R., & Dyrbye, L. N. (2009). Career fit and burnout among academic faculty. *Archives of Internal Medicine*, 169(10), 990-995.
- [16] Taris, T. W., Le Blanc, P. M., Schaufeli, W. B., & Schreurs, P. J. (2005). Are there causal relationships between the dimensions of the Maslach Burnout Inventory? A review and two longitudinal tests. *Work & Stress*, 19(3), 238-255.

- [17] Norlund, S., Reuterwall, C., Höög, J., Lindahl, B., Janlert, U., & Birgander, L. S. (2010). Burnout, working conditions and gender-results from the northern Sweden MONICA Study. *BMC Public Health*, 10(1), 326-335.
- [18] Laub, A. (1998). *Isolation in the secondary school as a predictor of teacher burnout*. State University of New York Albany.
- [19] Dworkin, A. G. (2001). Perspectives on teacher burnout and school reform. *International Education Journal*, 2(2), 69-78.
- [20] Johns, M. M., & Ossoff, R. H. (2005). Burnout in academic chairs of otolaryngology: head and neck surgery. *The Laryngoscope*, 115(11), 2056-2061.
- [21] Paul, E. P. & Phua, S. K. (2011). Lecturers' job satisfaction in a public tertiary institution in Singapore: ambivalent and non-ambivalent relationships between job satisfaction and demographic variables. *Journal of Higher Education Policy and Management*, 33(2), 141-151.
- [22] Zhang, Y. & Feng, X. (2011). The relationship between job satisfaction, burnout, and turnover intention among physicians from urban state-owned medical institutions in Hubei, China: a cross-sectional study. *BMC Health Services Research*, 11(1), 235-248.

