

## Burnout in Academics: An Empirical Study in Private Universities in Malaysia

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### Abstract

The days when academe was regarded as a low-stress working environment were over. In the midst of changing environment alongside with advanced technology, teaching professionals experienced great pressure to stay abreast with new knowledge, skills or undertake new tasks. When academics do not experience a sense of well-being at work and feel lack of competencies, this may lead academics to experience high level of stress or even leave the teaching professions. Therefore, this study was conducted to examine the background characteristics of academics in private universities in Malaysia with burnout characteristics. A total of 229 academicians from private universities in Malaysia were recruited conveniently for this study. This study revealed approximately 6% of the academics demonstrated burnout characteristics and they were generally young with junior academic rank. In addition, lower total quality of working life score was found for those academics who exhibited burnout characteristics. In conclusion, it is essential for universities to recognize burnout because of its detrimental effects not only on academics, but also on the well-being of students. Hence, this study highly recommends universities to develop and implement appropriate intervention strategies to equip academics with necessary skills to combat burnout.

Keywords: Academic Burnout; Maslach Burnout Inventory – Educators Survey; Work-Related Quality of Life Scale; Malaysia

### Introduction

Traditionally, an academic was perceived as a knowledgeable person whose main duty was to dispense information or knowledge to students.

They were expected to apply the same teaching method to teach students from generation to generation. Generally, academics were well respected by communities and they were expected

to stand in front of the class delivering the same lessons year after year (Lanier, 1997).

Today, with massive revolutions in knowledge, information technology, and public demand for better teaching and learning quality, academics experience tremendous pressure to equip themselves to live up to such demands. Apart from disseminating knowledge, the day-to-day job of an academic encompasses exposing and directing students to different learning opportunities (Lanier, 1997). There are increasing demands for qualified academics who can provide future generations with quality education in a cyber environment (Darling-Hammond, 2005; Kirby et al. 2006). In addition, academics have been subjected to higher pressure by community to expand their roles beyond education. For example, since academics are considered frontliners in dealing with students, therefore, they are expected to have frequent interactions with students to correct their social problems such as family problems, relationship problems, addictions to drug or alcohol. All these demanding expectations can ultimately lead academics to feel demotivated towards their jobs (Maslach, Jackson & Leiter, 1996). It is well documented that younger academics were more likely to evidence signs of burnout than their older counterparts (Schwab, 1995). It was revealed that impact of burnout on academics also have consequences on the educational performance and well-being of students (Maslach & Leiter, 1995).

The concept of “burnout” was first introduced in the 1970s and it was defined as a feeling of failure and being worn out (Freudenberger, 1974). Another definition of burnout was a progressive loss of idealism, energy and purpose (Edelwich & Brodsky, 1980). This concept was further defined as a state of physical emotional and mental exhaustion (Pines & Aronson, 1981) or a coping mechanism to working conditions that are stressful, demanding and lacked recognition (Sarros & Densten, 1989). Burnout can be regarded as a response to prolonged emotional demands and stress at work, and is a composite measure comprising of three subscales namely emotional exhaustion, depersonalization and loss

of a sense of personal accomplishment (Maslach, Schaufeli & Leiter, 2001).

In order to cope with the rapid changes in the work environment, significant pressure has been placed on academics to adopt and adapt new knowledge and skills required to perform new tasks efficiently and effectively (Smylie, 1999). When academics do not experience a sense of well-being at work, the ultimate consequences were to leave the professions (Ramsey, 2000) or suffer high levels of stress (Trent, 1997).

Academic’s well-being has been found to be related to job satisfaction. Factors such as stress, burnout, work overload, and job dissatisfaction were found to contribute to teachers leaving the profession (Singh & Billingsley, 1996). Aspects such as workplace conditions, administrative control and organizational culture were found to be associated with job satisfactions among academics (Certo & Fox, 2002).

Another recent study conducted in the United Kingdom concluded the amount of stress that academics experience was on the rise. This was because the academics were experiencing job insecurity, poor working relationships with colleagues, lack of job control, inadequate resources and communication, and lack of levels of support from the university (Edwards, Van Laar & Easton, 2009).

An international systematic review study, comparing data across 12 countries, reported young full-time university academics appeared more vulnerable and suffered from greater emotional exhaustion. The study suggested gender had an impact on burnout. For example, male academics had higher depersonalization scores, while female academics tend to have higher emotional exhaustion due to multiple roles at work and at home. Factors such as high numbers of students, greater interactions with students and high contact hours with students appeared to predispose academics to burnout (Watts & Robertson, 2011).

The days when academe was regarded as a low-stress working environment are over. In the midst

of changing environment alongside with advanced technology, teaching professionals experienced great pressure to stay abreast with new knowledge and skills or to undertake new tasks (Smylie, 1999). When academics do not experience a sense of well-being at work and feel lack of competencies, this may lead to academics experiencing high levels of stress (Trent, 1997) or even leaving the teaching profession (Macdonald, 1999). Burnout has a detrimental effect on individuals and the level of burnout is very likely to impact the quality of services (Maslach & Goldberg, 1998; Maslach & Leiter, 1997). Therefore, the intention of this study is to examine the demographic background of academics in private universities in Malaysia with burnout characteristics. The secondary objective of this study was to examine whether the distribution of the total quality of working life score is significantly different among academics with and without burnout characteristics.

### *Malaysia*

Malaysia is a multi-racial country located in Southeast Asia with an approximate population size of 29 million. It comprises 13 states, 11 on the Peninsula and 2 on the island of Borneo. The predominant racial group is Malay, followed by Chinese and Indian. The official language is Bahasa Malaysia and the official religion is Islam. The majority of the population is able to speak and write in at least two languages (Department of Statistics Malaysia, 2013).

## **Methods**

### *Study instruments*

#### *1. Maslach Burnout Inventory – Educators Survey (MBI-ES)*

Teaching professionals nowadays are under tremendous pressure by the community to expand their roles beyond education. Since academics often are the first point of contact for students, therefore, they are expected to have frequent interactions and provide pastoral care to students with social problems such as family problems, relationship problems, addiction to drugs or

alcohol-related issues. All these demanding expectations can gradually cause academics to feel fatigue, emotional exhaustion and demotivation towards their job. The Maslach Burnout Inventory – Educators Survey (MBI-ES) was developed specifically to measure these aspects of burnout in educators. It comprises a total of 22 items measured on a seven-point Likert scale from 0 (never) to 6 (everyday) from 3 subscales, 1) emotional exhaustion (EE) refers to development of fatigue and tired feeling as a result of overextended emotional energies; 2) personal accomplishment (PA) assesses educator's achievements and accomplishments in contributing to students' development; and 3) depersonalization (DP) exists when educators experience negative feeling towards their students. To facilitate easier interpretation, the score for each subscale can further be categorized into Low, Average and High (Maslach, Jackson & Leiter, 1996).

It was documented in a recent study that the characteristics of burnout can be defined as individuals who have high scores in both the EE and DP subscales and low scores in the PA subscale (Pillay, Goddard & Wilss, 2005).

#### *2. Work-Related Quality of Life (WRQoL) Scale*

The Work Related Quality of Life (WRQoL) scale was developed and established by a group of psychologists from the University of Portsmouth, who ultimately formed a company called Quality of Working Life (QoWL). This scale has been enhanced after years of research incorporating feedback from more than 15,000 employees from the public sector. The WRQoL scale consists of 24 items evaluated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree) from 6 subscales such as 1) general well-being, 2) home-work interface, 3) job-career satisfaction, 4) control at work, 5) working conditions and 6) stress at work. Higher total score obtained from this scale can be interpreted as better quality of working life. To further enhance the interpretation of the scale, the quality of working life can be categorized into Low, Average and High (Quality

of Working Life (QoWL), 2012; Easton & Van Laar, 2012).

Permission was obtained from the Mind Garden, Inc. and Quality of Working Life to translate the English version of the MBI-ES and the WRQoL Scale into Bahasa Malaysia. These instruments have been cross-culturally translated, adapted and validated in Malaysia (Chen et al., 2014). Both the Malay MBI-ES and the Malay WRQoL scales are self-administrative questionnaires and it took approximately 30 minutes to complete them.

#### *Sample size justifications*

It was suggested to have a minimum of 5 respondents per item (Gorsuch, 1983) or 10 respondents per item (Everitt, 1975) in any questionnaire. Assuming 10 respondents were needed for each item per questionnaire, then, 220 respondents were required in this study.

#### *Respondents*

This study was approved by the Medical Research Ethics Committee, Ministry of Health Malaysia and also the SEGi University Ethics Committee. Informed consent was received from a total of 229 respondents recruited in this cross sectional study during the period of January to August 2013. The respondents were at least 21 years old and proficient in Bahasa Malaysia. They were academics with various academic ranks and were recruited on voluntary basis from private universities located in the Klang Valley area.

Table 1: Demographic background

Demographic	Burnout Characteristics N=14	No Burnout Characteristics N=215	Total N=229
Age in years			
Mean $\pm$ SD	35.6 $\pm$ 5.6	36.8 $\pm$ 8.9	36.7 $\pm$ 8.8
Median (min, max)	35 (27, 47)	36 (24, 66)	36 (24, 66)
Age group in years (n, %)			
21-30	2 (16.7)	53 (27.6)	55 (27.0)
31-40	8 (66.7)	92 (47.9)	100 (49.0)
41-50	2 (16.7)	31 (16.1)	33 (16.2)
$\geq 50$	0 (0)	16 (8.3)	16 (7.8)

#### *Statistical analyses*

Descriptive statistics were used to summarize respondents' demographic background. Due to non-normality distribution, Mann-Whitney U test was used to test the hypothesis that the distribution of the quality of working life score was significantly different for those with and without burnout characteristics. Statistical significance was set at 5% level. All missing data were excluded from analysis using IBM SPSS version 20.

#### **Results**

Table 1 revealed approximately 6% of the academics was found to have burnout characteristics in this study. The results further showed those with burnout characteristics were generally younger academics with a median age of 35 years, from the racial groups of Chinese (85.7%) with academic rank of associate lecturer (50.0%) followed by lecturer (41.7%) and senior lecturer (8.3%). The percentage of burnout characteristics was found to be equally split between male (50.0%) and female (50.0%) academics as well as single (46.2%) and married (46.2%) academics.

Demographic	Burnout Characteristics N=14	No Burnout Characteristics N=215	Total N=229
Gender (n, %)			
Male	7 (50.0)	64 (29.8)	71 (31.0)
Female	7 (50.0)	151 (70.2)	158 (69.0)
Race (n, %)			
Malay	2 (14.3)	68 (31.8)	70 (30.7)
Chinese	12 (85.7)	100 (46.7)	112 (49.1)
Indian	0 (0)	42 (19.6)	42 (18.4)
Others	0 (0)	4 (1.9)	4 (1.8)
Marital status (n, %)			
Single	6 (46.2)	68 (31.6)	74 (32.5)
Married	6 (46.2)	140 (65.1)	146 (64.0)
Divorced	0 (0)	7 (3.3)	7 (3.1)
Widowed	1 (7.7)	0 (0)	1 (0.4)
Rank* (n, %)			
Associate Lecturer	6 (50.0)	100 (48.3)	106 (48.4)
Lecturer	5 (41.7)	80 (38.6)	85 (38.8)
Senior Lecturer	1 (8.3)	22 (10.6)	23 (10.5)
Associate Professor / Professor	0 (0)	5 (2.4)	5 (2.3)

\* The rank of the respondents was categorized based on their reported monthly salary according to the academic salary scale in Curtin University Sarawak Malaysia website ([http://www.curtin.edu.my/staff/academic\\_salary.htm](http://www.curtin.edu.my/staff/academic_salary.htm))

The results in Table 2 revealed the distribution of the quality of working life score was significantly different for those with and without burnout characteristics ( $p$ -value < 0.001). As expected, higher quality of working life score was observed for academics without burnout characteristics.

An in-depth analysis on the subscales of WRQoL scale further revealed the general well-being score was statistically significant for those academics who and without burnout characteristics ( $p$ -value < 0.001). Specifically, more than half of academics (78.6%) with burnout characteristics reported only low general well-being, while

almost half (48.4%) of those without burnout characteristics reported average general well-being. On the other hand, subscales such as job-career satisfaction ( $p$ -value = 0.006) and working conditions ( $p$ -value = 0.005) could potentially contribute to the difference in quality of working life experienced by academics with and without burnout characteristics. In general, the majority of the academics who experienced burnout characteristics had low perception of overall life satisfaction (general well-being), lack of support from employer in home and work life balance (home-work interface), lack of employee's involvement in the decisions that affect their work (control at work), dissatisfactory feelings towards fundamental resources and necessities provided to perform the job effectively (working conditions), average feeling of satisfaction towards their job (job and career satisfaction), and average level of stress at work (stress at work).



Table 2 Quality of working life score

	Burnout Characteristics	No burnout Characteristics	Total	p-value
Quality of working life score	N=14	N=215	N=229	
Mean score $\pm$ SD	67.9 $\pm$ 11.0	80.5 $\pm$ 12.1	79.7 $\pm$ 12.4	
Median score (min, max)	70 (45, 89)	81 (33, 105)	81 (33, 105)	<0.001 <sup>a*</sup>
Subscales, n (%)				
General Well-Being				<0.001 <sup>b*</sup>
Low	11 (78.6)	55 (25.6)	66 (28.8)	
Average	2 (14.3)	104 (48.4)	106 (46.3)	
High	1 (7.1)	56 (26.0)	57 (24.9)	
Home-Work Interface				0.077 <sup>b</sup>
Low	9 (64.3)	82 (38.1)	91 (39.7)	
Average	4 (28.6)	61 (28.4)	65 (28.4)	
High	1 (7.1)	72 (33.5)	73 (31.9)	
Job-Career Satisfaction				0.006 <sup>b*</sup>
Low	6 (42.9)	28 (13.0)	34 (14.8)	
Average	5 (35.7)	77 (35.8)	82 (35.8)	
High	3 (21.4)	110 (51.2)	113 (49.3)	
Control at Work				0.107 <sup>b</sup>
Low	9 (64.3)	80 (37.2)	89 (38.9)	
Average	4 (28.6)	83 (38.6)	87 (38.0)	
High	1 (7.1)	52 (24.4)	53 (23.1)	
Working Conditions				0.005 <sup>b*</sup>
Low	9 (64.3)	53 (24.7)	62 (27.1)	
Average	2 (14.3)	47 (21.9)	49 (21.4)	
High	3 (21.4)	115 (53.5)	118 (51.5)	
Stress at Work				0.019 <sup>b</sup>
Low	5 (35.7)	37 (17.2)	42 (18.3)	
Average	7 (50.0)	65 (30.2)	72 (31.4)	
High	2 (14.3)	113 (52.6)	115 (50.2)	

<sup>a</sup> p-value was calculated based on Mann-Whitney U Test: \* for  $p < 0.05$

<sup>b</sup> p-value was calculated based on Chi-Square Test: \* for  $p < 0.05$

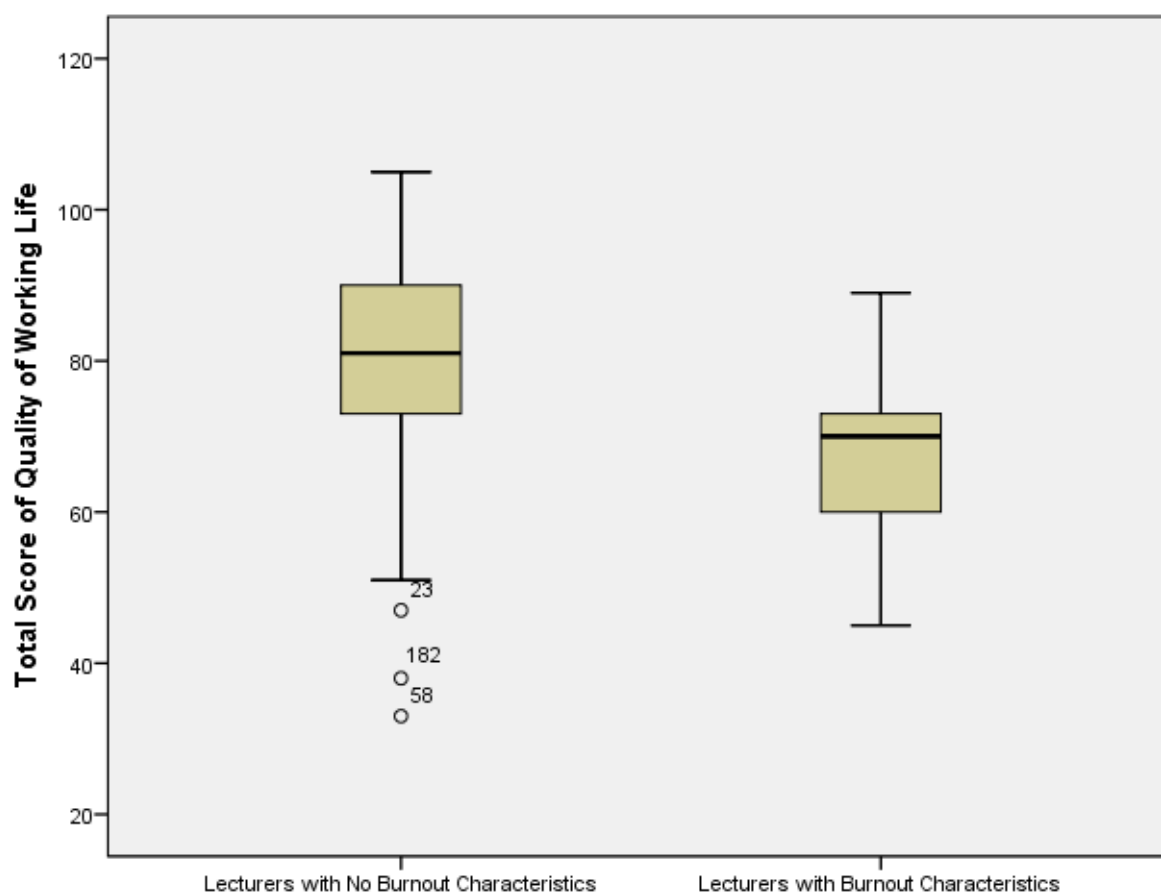
Figure 1 presented the distribution of the total quality of working life score for academics with and without burnout characteristics. As expected, the total quality of working life score was higher especially for academics without burnout characteristics. Interestingly, borderline cases for 3 academics without burnout characteristics but

exhibited low total quality of working life score were shown in this figure. Further analysis revealed respondent no. 23, who was a Chinese, married, female associate lecturer in her late 30s, had low scores in both DP and PA subscales, but a high score in EE subscale. On the other hand, respondent no.182 was a Chinese, married, male

associate lecturer in mid 30s age range, who had high score in both EE and PA subscales, but only average scores in DP subscale. Respondent no. 58,

who was a male, single, young, academic in his late 20s, had a high score in EE subscale but only average scores in both DP and PA subscales.

Figure 1: Boxplot comparing the total score of quality of working life by academics with and without the characteristics of burnout



## Discussions

Previous studies found significant differences in level of burnout among academics across demographic factors such as gender, age, marital status, academic rank and workload (Jackson et al., 1993; Kim-Wan, 1991). Work related stress, which is commonly caused by factors such as workload, time pressure, working conditions, lack of facilities and students' misbehavior, played an essential role in predicting the level of burnout among academics (Ganster & Schanbroek, 1991; Kim-Wan, 1991; Kokkinos, 2007; Moore, 2001; Salami, 2011).

This study indicated those reported with burnout characteristics were young academics. This observation was consistent with findings reported in the past (Jackson et al., 1993; Kim-Wan, 1991; Hind, Dornbusch & Scott, 1974; Watts & Robertson, 2011). Specifically, academics in the age group of 31-40 were found to experience the highest level of burnout. This was potentially due to younger academics being more likely to be exhausted when involving in undergraduate teaching as opposed to graduate teaching (Barkhuizen, Rothmann & Tytherleigh, 2004; Hind, Dornbusch & Scott, 1974; Kokkinos, 2007). Another possible explanation is younger academics struggle through hurdles of academic

rank and international recognition as opposed to the senior academics (Blix et al., 1994). Therefore, younger academics tend to have higher expectations and always want to achieve more. Hence, they are more prone to stress and burnout (Kokkinos, 2007).

It was found in this study that those with burnout characteristics were academics with junior academic ranks such as associate lecturers, lecturers or senior lecturers. Academic rank was found to be a significant factor in predicting academic burnout (Barkhuizen, Rothmann & Tytherleigh, 2004). Past studies argued that higher level of burnout among the junior academics was mainly due to higher teaching load in additions to conducting research (Kokkinos, 2007; Ghorpade, Lackritz & Singh, 2007).

Higher level of burnout was revealed among female academics (Barkhuizen, Rothmann, & Tytherleigh, 2004; Blix et al., 1994; Cordes, & Dougherty, 1993; Ghorpade, Lackritz & Singh, 2007; Hind, Dornbusch & Scott, 1974; Lackritz, 2004), mainly because female academics are more likely to be emotionally exhausted compared to their counterparts (Adekola, 2010). On the other hand, different research findings also acknowledged that men are also susceptible to experience burnout (Olorunsola, 2013). Therefore, it was interesting for this study to reveal no difference in the level of burnout between male and female academics. This observation was consistent with findings reported in past studies (Hakanen, 1999; Shanafelt et al., 2009). A possible explanation to this observation is increasing pace of work and the growing lack of job security have made burnout a common risk to the health and well being of men and women (Yolert & Bostanci, 2012).

In this study, no difference of burnout level was found according to marital status. This observation was consistent with findings reported previously (Evans et al., 2006; Gursel, Sunbul & Sari, 2002). One possible explanation to this could be single academics were more prone to burnout due to struggle with academic rank and also international recognition. On the other hand,

although more experienced and married academics may already have developed coping strategies with burnout, their level of stress was also elevated due to the responsibilities in caring for both children and also the aging parents in a family (Neal & Hammer, 2010; Nichols & Junk, 1997).

Higher burnout was found to be linked to poor job satisfaction (Evans et al., 2006; Gursel, Sunbul & Sari, 2002; Koustelios & Tsigilis, 2005; Ogresta, Rusac & Zorec, 2008; Ozyurt, Hayran & Sur, 2006; Renzi et al., 2005). Job satisfaction refers to the emotions, behaviors and the preferences about work (Ozyurt, Hayran & Sur, 2006). Another study argued favorable working environment, defined as work place that is clean, safe, quite, conducive, cozy, spacious, well-ventilated and with sufficient lighting, could boost the morale of academics to satisfaction and possibly prevent burnout (Renzi et al., 2005). Therefore, it was expected for this study to reveal lower total quality of working life score for those academics who exhibited burnout characteristics.

In conclusion, the characteristics of burnout were revealed particularly for younger academics (aged between 21 to 40 years old) with junior academic rank such as associate lecturer, lecturer and senior lecturer. It is essential for universities to recognize burnout because of its detrimental effects not only on academics, but also on the well-being of students. Therefore, appropriate intervention strategies which will emphasize improvement of the academics' skills in classroom management and time management should be developed and adopted as part of the professional development in academics. These strategies could even be incorporated into the orientation program of new academics, to ensure they are well equipped with the necessary support, knowledge and skills to combat burnout. In addition, academics should improve or expand their social networks for appropriate social supports when they have job related problems. On the other hand, burnout related assessment should be conducted particularly among the young academics with junior academic rank from time to time to ensure they receive relevant levels of support from the



university. Apart from the above, it would be beneficial to conduct a longitudinal study to examine the effectiveness of the above mentioned strategies in helping the young academics with junior academic rank to combat burnout.

Limitations exist in this study. The findings in this study were solely based on self-report measures, therefore, it would provide more comprehensive perspectives in applying in-depth interview techniques as well as focus group discussion methods to further complement and support the observations of this study. Nevertheless, the present study provided an insight about the burnout level of academics in private universities in Malaysia.

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#### Conflict of interest statement

The authors declare that there are no conflicts of interest.

#### References

- Adekola, B. (2010). Gender differences in the experience of work burnout among university staff. *African Journal of Business Management*, 4(6), 886-889.
- Barkhuizen, E.N., Rothmann, S., & Tytherleigh, M.Y. (2004). Burnout of academics in a South African higher education institution. *Paper presented at the 2<sup>nd</sup> South African Work Wellness Conference*, Potchefstroom, South Africa.
- Blix, A.G., Cruise, R.J., Mitchell, B.M. & Blix, G.G. (1994). Occupational stress among university teachers. *Educational Research*, 36, 157-161.
- Certo, J.L., & Fox, J.E. (2002). Retaining quality teachers. *The High School Journal*, 86(1), 57-75.
- Chen, W.S., Haniff, J., Siau, C.S., Seet, W., Loh, S.F., & AbdJamil, M.H. (2014). Pilot study of the Malay Maslach Burnout Inventory and Malay Work-Related Quality of Life Scale in Malaysia. *Studies in Asian Social Science*, 1(1): 20-26.
- Darling-Hammond, L. (2005). Prepping our teachers for teaching as a profession. *Phi delta Kappan*, 87, 237-240.
- Department of Statistics Malaysia. (2013). Monthly Statistical Bulletin Malaysia. *In Department of Statistics website*. Retrieved from [http://www.statistics.gov.my/portal/download/Buletin Bulanan/files/BPBM/2013/JUL/01\\_MSB\\_JUL2013.pdf](http://www.statistics.gov.my/portal/download/Buletin%20Bulanan/files/BPBM/2013/JUL/01_MSB_JUL2013.pdf)
- Easton, S. A., & Van Laar, D. L. (2012). *User Manual for the Work-Related Quality of Life (WRQoL) Scale: A Measure of Quality of Working Life*. United Kingdom: University of Portsmouth
- Edelwich, J., & Brodsky, A. (1980). *Burnout: stages of disillusionment in the helping professions*. New York: Human science press.
- Edwards, J., Van Laar, D.L., & Easton, S. (2009). The work-related quality of life (WRQoL) scale for higher education employees. *Quality in higher education*. 15: 3, 207-219.
- Evans, S., Huzley, P., Gately, C., Webber, M., Mears, A., Pajak, S., Medina, J., Jendall, T., & Katoma, C. (2006). Mental health, burnout and job satisfaction among mental health social workers in England and Wales. *The British Journal of Psychiatry*, 188, 75-80.
- Everitt, B.S. (1975). Multivariate analysis: The need for data, and other problems. *British Journal of Psychiatry*, 126, 237-240.
- Freudenberger, H.J. (1974). Staff burnout. *Journal of social issues*, 30; 159-65.

- Ganster, D. & Schaubroek, J. (1991). Work stress and employee health. *Journal of Management*, 17, 235-271.
- Ghorpade, J., Lackritz, J., & Singh, G. (2007). Burnout and personality: evidence from academia. *Journal of Career Assessment*, 15(2), 240-256.
- Gorsuch, R.L. (1983). *Factor analysis* (2<sup>nd</sup> ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gursel, M., Sunbul, A.M., & Sari, H. (2002). An analysis of burnout and job satisfaction between Turkish head teachers and teachers. *European Journal of Psychology of Education*, 17(1), 35-45.
- Hakanen, J. (1999). Gender-related differences in burnout. *Tiendonvalitys*, special issue, pp. 1-6.
- Hind, R.R., Dornbusch, S.M., & Scott, W.R. (1974). A theory of evaluation applied to a university faculty. *Sociology of Education*, 47, 114-128.
- Jackson, R.A., Barnett, C.W., Stajich, G.V., & Murphy, J.E. (1993). An analysis of burnout among school of pharmacy faculty. *American Journal of Pharmaceutical Education*, 57, 9-17.
- Kim-Wan, M.O. (1991). Teacher burnout: relationships with stress, personality, and social support. *Chinese University of Hong Kong Educational Journal*, 19(1), 3-11.
- Kirby, S. N., McCombs, J. C., Barney, H., & Naftel, S. (2006). *Reforming teacher education: something old, something new*. Santa Monica, CA: Rand Corp.
- Kokkinos, C.M. (2007). Job stress, personality, and burnout in primary school teachers. *British Journal of Educational Psychology*, 77(1), 222-43.
- Koustelios, A., & Tsigilis, N. (2005). The relationship between burnout and job satisfaction among physical education teachers: a multivariate approach. *European Physical Education Review*, 11(2), June, 189-203.
- Lackritz, J.R. (2004). Exploring burnout among university faculty: incidence, performance, and demographic issues. *Teaching and Teacher Education*, 20, 713-729.
- Lanier, J.T. (1997). *Redefining the role of the teacher: it's a multifaceted profession*. Retrieved from <http://www.edutopia.org/redefining-role-teacher>
- Macdonald, D. (1999). Teacher attrition: a review of literature. *Teaching and Teacher Education*, 15, 835-848.
- Maslach, C., & Goldberg, J. (1998). Prevention of burnout: New perspectives. *Applied and Preventive Psychology*, 7, 63-74.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory Manual* (3<sup>rd</sup> edition). Menlo Park, CA: Mind Garden
- Maslach, C., & Leiter, M.P. (1995, November). Teacher burnout: A research agenda. *Symposium presented as part of the conference: Teacher Burnout*, Marbach, Germany.
- Maslach, C., & Leiter, M.P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it*. San Francisco, CA: Jossey-Bass.
- Maslach, C., Schaufeli, W.B. & Leiter, M. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Moore, K. (2001). Hospital restructuring: Impact on nurses mediated by social support and a percentage of challenge. *Journal of Health and Human Services Administration*, 23(4), 20-27.
- Neal, M.B., & Hammer, L.B. (2010). Dual-earner couples in the sandwiched generation: effects of coping strategies over time. *The Psychologist-Manager Journal*, 12, 205-234.
- Nichols, L.S., & Junk, V.W. (1997). The sandwich generation: dependency, proximity, and task assistance needs of parents. *Journal of Family and Economic Issue*, 18, 299-326.

- Ogresta, J., Rusac, S., Zorec, L. (2008). Relation between burnout syndrome and job satisfaction among mental health workers. *Croatian Medical Journal*, 49(3), 364-74.
- Olorunsola, E.O. (2013). An appraisal of burnout among the university academics in Ekiti State, Nigeria. *Journal of Educational and Developmental Psychology*, 3(2), 133-137.
- Ozyurt, A., Hayran, O., Sur, H. (2006). Predictors of burnout and job satisfaction among Turkish Physicians. *Qjm: An International Journal*, 99(3), 161-169.
- Pillay, H., Goddard, R., & Wilss, L. (2005). Well-being, burnout and competence: implications for teachers. *Australian Journal of Teacher Education*, 30(2), 22-33.
- Pines, A., & Aronson, E. (1981). *From tedium to personal growth*. New York: Free press.
- Quality of Working Life (QoWL). (2012). *The Work-Related Quality of Life (WRQoL) Scale*. Retrieved from [http://www.qowl.co.uk/qowl\\_wrqol\\_scale.html](http://www.qowl.co.uk/qowl_wrqol_scale.html)
- Ramsey, G. (2000). *Quality matters. Revitalising teaching: Critical times, critical choices*. Sydney: New South Wales Department of Education and Training. Retrieved 10 August 2004, from [http://www.det.nsw.edu.au/teachrev/report\\_s](http://www.det.nsw.edu.au/teachrev/report_s).
- Renzi, C., Tabolli, S., Ianni, A., Di Pietro, C., Puddu, P. (2005). Burnout and job satisfaction comparing healthcare staff of a dermatological hospital and a general hospital. *Journal of the European Academy of Dermatology & Venereology*, 19(2), 153-157.
- Salami, S.O. (2011). Job stress and burnout among lecturers: personality and social support as moderators. *Asian Social Science*, 7(5), 110-121.
- Sarros, J.C., & Densten, I.L. (1989). Undergraduate students stress and coping strategies. *Higher education research and development*, 8: 47-57.
- Schwab, R.L. (1995). *Teacher stress and anxiety*. In Anderson, L.W., *International encyclopedia of teaching and teacher education* (2<sup>nd</sup> ed.). Oxford, UK: Elsevier Science.
- Shanafelt, T.D., West, C.P., Sloan, J.A., Novotny, P.J., Poland, G.A., Menaker, R., Rummans, T.A., VeDyrbye, L.N. (2009). Career fit and burnout among academic faculty. *Archives of Internal Medicine*, 169(10), 990-995.
- Singh, K., & Billingsley, B.S. (1996). Intent to stay in teaching. *Remedial & Special Education*, 17(1), 37-48.
- Smylie, M.A. (1999). Teacher stress in a time of reform. In R. Vandenberghe & A.M. Huberman (Eds.), *Understanding and preventing teacher burnout* (pp. 59-84). Cambridge: Cambridge University Press.
- Trent, L.M.Y. (1997). Enhancement of the school climate by reducing teacher burnout: Using an invitational approach. *Journal of Invitational Theory and Practice*, 4(2), 103-114.
- Watts, J., & Robertson, N. (2011). Burnout in university teaching staff: a systematic literature review. *Educational Research*, 53(1).
- Yolert, S., & Bostanci, M.O. (2012). International Periodical for the Languages, *Literature and History of Turkish or Turkic*. 7/4, Fall, 589-600.