

RESEARCH ARTICLE

Psychological Distress, Burnout and Job Satisfaction among Academicians in Science and Technology Faculties in a Malaysian University

*Nor Jannah Raduan Nasution, Salina Mohamed, Nurul Azreen Hashim, Azlina Wati Nikmat
Norley Shuib, Nur Faizah Al[#]*

Department of Psychiatry, Universiti Teknologi MARA, Selangor, Malasiya

Abstract

In Malaysia, academic personnel are under pressure to build international reputation, increase funding and are expected to perform in the key performance indicators to bring education to an international standard. A cross sectional study was conducted among the academicians in Science and Technology faculties in UiTM. The participants were emailed the questionnaires and asked to complete questionnaires on their socio-demographic, Copenhagen Burnout Inventory, Job Satisfaction Survey and Depression, Anxiety and Stress Scale. A total of 129 academicians participated in the study with the mean age of 39 years old (SD=7.8). Majority were female, Malays and married. The average teaching hours per week was 13 hours (SD=5.3). The prevalence of stress was 6.2%, depression 11.7% and anxiety 18.7%. Majority has mild to moderate work, personal and client-related burnout. There is inverse correlation between job satisfaction and burnout. Academicians from science and technology faculties have high prevalence of anxiety and moderate prevalence of depression compared to general population. There is low job satisfaction level due to high work-related burnout. It needs to be addressed to ensure academicians have good mental wellbeing to execute their roles. *ASEAN Journal of Psychiatry, Vol. 23(6) June, 2022; 1-8.*

Keywords: Stress, Anxiety, Depression, Lecturers

Introduction

Academicians' worldwide experience increasing workload, higher demands on administrative duties in the past three decades. At the same time, academicians are expected to master the work and personal life balance. A study involving 14,000 university employees in 2013 reported that academicians experience higher stress than those in the general population due to heavy workloads, a culture of long hours and conflicting management's demands [1]. Other psychosocial risk factors that are associated with job stress and strain in academicians are the higher expectations in terms of cognitive and emotional demands such as job insecurity,

problematic schedules, and competitive career advancement opportunities, poor social support from upper managements as well as colleagues, salaries, rewards and work-life imbalances [2].

The interplay between these risk factors with the job-related stress if continuous may cause adverse effects to the academicians. Several studies found that the adverse impacts include burnout [3,4], declining job productivity and job dissatisfaction and psychological distress [5-7]. Job burnout has affected academicians globally where its prevalence has risen where workplace demands, intrinsic and extrinsic effort, negative coping and attribution behaviors were associated with high levels of

depression and anxiety and low job satisfaction in university employees [8,9]. Another study found that both general and academic staff reported a dramatic increase in stress during the previous 5 years with academic staff reported higher levels of stress than general [10]. Psychological distress such as depression and anxiety as a result of burnout syndrome will lead to more deterioration in terms of mental and physical health and work performance [11,12]. Meanwhile, job satisfaction is inversely related to burnout. Burnout was found to be positively correlated to passive coping strategies and negatively linked to self-efficacy and job satisfaction, physical and mental health [13,14].

In Malaysia, the academicians are not spared from the continuous pressures towards efficiency and accountability, increasing demands in terms of scientific research, publications and innovation as well as work-life imbalances and conflicts with administrative duties. Although there are several studies looking at burnout, and its relationship to psychological distress and job satisfaction, there are none that focuses on the academicians from the science and technology faculties [15]. Burnout is an increasing problem and negatively impacts on an individual's job satisfaction and physical and mental health. This problem needs to be addressed to maintain an individual's healthy physical and mental health as well as maintaining the integrity of the university as an organisation. Therefore, the aim of this study is to ascertain the prevalence of burnout and its relationship to job satisfaction and psychological distress among the science and technology academicians [16,17].

Methodology

A cross sectional study was conducted among the academicians from the science and technology faculties in Universiti Teknologi MARA (UiTM). UiTM is one of the largest universities in Malaysia and it has campuses in every state in Malaysia. Universiti Teknologi MARA has an estimated 17488 staffs, which comprised of both academician and non-academician. It has 13 science and technology faculties. All staff working from these science and technology faculties was asked to participate [18]. The participants were emailed the questionnaires through their university email and alternative email addresses. They were asked to complete questionnaires on their sociodemographic and work details, Copenhagen Burnout Inventory (CBI), Job Satisfaction Survey (JSS) and Depression, Anxiety and Stress Scale (DASS-21).

The staff received a cover letter prior to the answering the questionnaires reassuring them about anonymity, confidentiality, and that published results were solely for scientific purpose. Ethical approval was obtained from the University's Research Ethics Committee (REC/422/17).

Instruments

Copenhagen burnout inventory

Copenhagen Burnout Inventory (CBI), is a self-rated inventory measuring burnout in term of fatigue and exhaustion [19]. It consists of 19 items and comprises three sub-dimensions that are – personal burnout, work-related burnout, and client-related burnout. Personal burnout refers to degree of physical and psychological fatigue and exhaustion experienced by the person regardless of occupational status (e.g. young people, unemployed, early retired and pensioners). Work related burnout refers to degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his or her work. The work-related burnout scale enables one to identify persons who are tired but attributed his/her fatigue to non-work factors like health problems or family demands. Client-related burnout refers to degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his or her work with clients such as patients, inmates, children, students, residents, etc., This client-related burnout scale is intended to assess the degree to which people see a connection between their fatigue and their people-centred work. The CBI has been translated and validated in other languages and it is free to use. The Malay version was translated and validated for our population and it has good face and construct validity with a high internal consistency [20,21]. High scores ($\geq 50\%$) indicated high level of burnout. Moderate burnout is indicated with the scores of 50-74, high burnout 75-99 and severe burnout is considered when the score is 100 [22,23].

Job Satisfaction Survey (JSS)

The JSS is a self-rated scale to measure job satisfaction (Spector, 1985). The JSS consists of 36 items that are used to assess total job satisfaction using 9 subscales each consisting of 4 items. These subscales include pay, promotion, fringe benefits, contingent rewards, supervision, co-workers, operating procedures, nature of work and communication. Respondents rate the favorable and unfavorable aspects of their jobs ranging from 1

disagree very much to 6 agree very much. Higher scores on the JSS indicate higher levels of job satisfaction. The Malay version has been translated and validated [24,25].

The Depression, Anxiety and Stress Scale-21 Items (DASS-21)

DASS-21 is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. The Malay language version of DASS-21 has well documented reliability and has been validated on various Malaysian samples, including clinical and nonclinical populations, and therefore is valid instrument for use in a Malaysia population [26].

Statistical Analyses

The statistical analysis was carried out with help of Statistical Package for Social Sciences Software Version 24 (IBM Corp. Released, 2015). Continuous data were reported as mean and standard deviation. Categorical data were reported as

frequency and percentage. Prevalence was calculated using Chi-Square test with the formula X/n , where “X” signifies the number of participants who reported significant burnout, and “n” is the total number of participants in this study. All descriptive and inferential statistics were generated using SPSS 24. Descriptive statistics were computed to compare the demographical distribution of medical students with regards to the prevalence of significant burnout and its associated factors. Inferential statistics were used to test and estimates relationships between factors and categorical outcome by Chi-Square test.

Results

Table 1 describes the sociodemographic profile of UiTM academicians from science and technology faculties responding to this study. There was a total of 129 participants in the study with the mean age of 39 years old (SD=7.9). Majority of the participants were female, Malays and married. Regarding educational attainment, more than 50% of the participants owned at least Master’s degree. With reference to their financial situation, 63 participants (45%) reported having an income range from RM5000 to RM10000 monthly.

Table 1. Descriptive analysis of sociodemographic profile of study participants (UiTM staff)

Variable (n=129)	n	%	Mean (±SD)
Age			39.3±7.96
Gender			
Male	30	23.3	
Female	99	76.7	
Race			
Malay	119	93	
Chinese	2	1.6	
Indian	1	0.8	
Others	6	4.7	
Marital status			
Married	106	82.2	
Single	21	16.3	
Divorced/Widow/Widower	2	1.6	
Religion			
Islam	122	96.1	
Buddha	2	1.6	
Christian	2	1.6	

Others	1	0.8
Education		
Degree	2	1.6
Masters	76	59.4
PhD	50	39.1
Household income (monthly)		
<RM5000	7	5.4
RM5000-RM10000	55	45
RM10001-RM15000	33	25.6
>RM15000	34	26.4

Table 2 described the results from DASS-21, copenhagen burn out scale and job satisfaction scale. Majority of the participants reported to have normal level of depression, anxiety and stress. As

for burn out, majority of participants fall into mild to moderate categories due to work, personal and client-related causes.

Table 2. Descriptive analysis of outcome measures DASS, CBOS and JSS

Outcome variables	n	%
DASS (Stress)		
Normal	120	93.8
Mild	5	3.9
Moderate	3	2.3
DASS (Anxiety)		
Normal	105	81.4
Mild	9	7
Moderate	13	10.1
Severe	1	0.8
Extremely severe	1	0.8
DASS (Depression)		
Normal	114	88.4
Mild	6	4.7
Moderate	8	6.2
Severe	1	0.8
Burn out (Personal)		
Mild	54	41.9
Moderate	48	37.2
High	22	17.1
Severe	5	3.9
Burn out (Work)		
Mild	61	47.7
Moderate	53	41.4
High	14	10.9

Burn out (Client-related)		
Mild	87	67.4
Moderate	36	27.9
High	5	3.9
Mild	1	0.8
Job Satisfaction		
Dissatisfied	25	19.4
Ambivalent	64	49.6
Satisfied	40	13

Table 3 showed significant relationships were found between all outcome variables with the highest

correlation was noted between burnout due to personal reason and work-related.

Table 3. Correlation between psychological distress, burnout and job satisfaction.

	1	2	3	4
1. DASS	-			
2. Burnout (personal)	0.647**	-		
3. Burnout (work)	0.642**	0.778**	-	
4. Burnout (client)	0.541**	0.530**	0.630**	-
5. Job satisfaction	-0.494**	-0.426**	-0.660**	-0.592**

**Correlation is significant at the 0.001 level (2-tailed)

Discussion and Conclusion

The aim of this study was to investigate psychological distress, burnout and job satisfaction among academicians in science and technology faculties in a public university in Malaysia. Psychological distress is defined as “a set of painful mental and physical symptoms that are associated with normal fluctuations of mood in most people”. In some cases, it may be an early indicator of major depressive disorder, anxiety disorder, or a spectrum of other clinical illnesses. It also refers to depression and anxiety as assessed by numerous known self-report tools or questionnaires (APA Dictionary of Psychology, 2020)

The prevalence of stress was 6.2%, anxiety was 18.7% and depression was 11.7% in our study. The prevalence of stress fell within the range of 5.5-25.9% that was reported in higher institute of learning academicians in a recent systematic review looking at the prevalence of stress and its associated factors. Another local study which used the DASS-21 as a screening tool found higher prevalence of stress 21.7%, anxiety 37% and depression 40% among its staff compared to our study [27,28]. The

earlier study was conducted in a research-intensive public university, which generally has higher key performance indicators, and both academicians and non-academicians were recruited while our study was done in a non-research public university, which only involved academicians from the science and technology faculties. Job demand, paucity of support from supervisors and colleagues, depression, anxiety and avoidant coping skills were found to be predictors of stress [29,30].

In a different study involving 1210 university teachers in China, the prevalence of depressive symptoms was 58.9% using the Center for Epidemiologic Studies Depression Scale (CES-D). This study also found that occupational stress, as indicated by Effort-Reward Ratio (ERR) and over commitment scores, may be a risk factor for depressive symptoms whilst psychological capital which consisted of self-efficacy, hope, optimism and resilience might be protective against depressive symptoms [31,32]. A study conducted among 630 female teachers in Germany found that 18% showed evidence of mental health impairment when assessed with the General Health Questionnaire GHQ-12. Predictors that have significant effect on

mental health were effort-reward ratio, physical complaints, inability to recover and sense of coherence [33,34].

This study found that the academicians in science and technology faculties experienced some degree of burnout. Among the three-burnout dimensions studied, the most severe burnout was in personal domain followed by the work domain and then client related [35,36]. Personal burnout is the degree of physical and psychological fatigue and exhaustion experienced by the person. The work burnout focused on how much the person attributed the burnout symptoms to his/her work. It was interesting to note that in this study, the least severe burnout was related to the clients who are the students.

A local study in a public university found that prevalence of burnout was 10.7% using another scale, Maslach Burnout Inventory–Educators Survey (MBI–ES) and factors significantly associated with burnout were being a female academician, with fewer years of teaching experience and low job satisfaction. However, another local study done among academician in a private university documented a lower prevalence of burnout of 6% associated with younger age, junior ranks at work and lower total quality of working life score. A study of burnout among academicians in Faculty of Medicine and Pharmacy in Italy found that women, younger and part time professors reported higher score in personal and work burnout. A review revealed that university staffs that were exposed to many students especially the postgraduate tuitions had higher risk to develop burnout.

This study revealed that burnout was significantly correlated with psychological distress where the higher level of correlated with higher psychological distress. A recent meta-analysis demonstrated that burnout was a separate and different entity from depression and anxiety and recommended for more longitudinal studies to be done focusing on these relationships. Association between burnout and psychological distress, which include stress, depression and anxiety, had been shown before in

References

1. Andrew Chin RW, Chua YY, Chu MN, Mahadi NF, Wong MS, et al., Investigating validity evidence of the malay translation of the copenhagen burnout inventory. *J Taibah Univ Medical Sci* 2018; 13(1): 1-9.

other study populations. However, there is lack of studies looking at this problem among non-medical academicians. A study among academicians in China found that burnout was a mediator among job stress, the occurrence and exacerbation of depressive symptoms, and poor physical health. Resilience was found as the mediator between burnout and psychological distress. With regards to job satisfaction among academicians in science and technology faculties, our study found the majority of participants were ambivalent in their job satisfaction level. This is comparable to staffs of higher education in the United States where their job satisfaction level was also found to be ambivalent Spector, 1997. One of the objectives in this study is to find the correlation between burnout and job satisfaction. In this study, academicians who had work related burnout expressed lower job satisfaction. This is similar to other studies done before where there is significant burnout at work that leads to job dissatisfaction.

Academicians from science and technology faculties have high prevalence of anxiety and moderate prevalence of depression compared to general population. There is low job satisfaction level due to high work and personal-related burnout. The university needs to address the burnout problem among academicians which could lead to serious consequences like poor job performance, reduced work quality, consideration of job change, absenteeism and presenters to ensure academicians have good mental wellbeing to execute their roles. More awareness on importance of psychological distress are needed among academicians to identify their risk of burnout in order to improve job satisfaction leading to better outcome in work products.

Acknowledgement

The authors would like to express our appreciation to Universiti Teknologi MARA for supporting this research via Dana UITM Cawangan Selangor [600-UITMSEL (PI. 5/4)(051/2018)].

2. Cardozo BL, Crawford CG, Eriksson C, Zhu J, Sabin M, et al., Psychological distress, depression, anxiety, and burnout among international humanitarian aid

- workers: A Longitudinal Study. *PLoS One* 2012; 7(9): e44948.
3. Chen WS, Haniff J, Siau C, Seet W, Loh S, et al., Burnout in academics: An empirical study in private universities in Malaysia. *Int J Soc* 2014; 1(2): 62–72.
 4. Creedy DK, Sidebotham M, Gamble J, Pallant J, Fenwick J. Prevalence of burnout, depression, anxiety and stress in Australian midwives: A cross-sectional survey. *BMC pregnancy and childbirth* 2017; 9(4): 2209-2216.
 5. Dierdorff EC, Morgeson FP. Getting what the occupation gives: Exploring multilevel links between work design and occupational values. *Personnel Psychology* 2013; 66(3): 687-721.
 6. Driskell JE, Salas E. Stress and human performance. Psychology Press 2013.
 7. Fredman N, Doughney J. Academic dissatisfaction, managerial change and neo-liberalism. *Higher Education* 2012; 64: 41-58.
 8. Gillespie NA, Walsh M, Stough C, Winefield AH, Dua J. Occupational stress in universities: Staff perceptions of the causes, consequences and moderators of stress. *Work and Stress* 2001; 15(1): 53-72.
 9. Henny J, Anita AR, Hayati KS, Rampal L. Prevalence of Burnout and Its Associated Factors among Faculty Academicians. *J Med Health Sci* 2014; 10(1): 51–60.
 10. Huda B, Rusli B, Naing L, Tengku M, Winn T, et al., A study of job strain and dissatisfaction among lecturers in the School of medical sciences universiti sains malaysia. *Southeast Asian J Trop Med Public Health* 2004; 35: 210–218.
 11. Ibrahim RZAR, Ohtsuka K, Dagang MM, Bakar AA. Job satisfaction among Malaysian employees: An application of spector's job satisfaction survey in the South East Asian context. *Jurnal Pengurusan* 2014.
 12. Kinman G, Jones F. A life beyond work? job demands, work-life balance, and wellbeing in UK Academics. *J Hum Behav Soc Environ* 2008.
 13. Koutsimani P, Montgomery A, Georganta K. The relationship between burnout, depression, and anxiety: A systematic review and meta-analysis. *Frontiers in Psychology* 2019; 10(284).
 14. Kristensen TS, Borritz M, Villadsen E, Christensen KB. The Copenhagen burnout inventory: A new tool for the assessment of burnout. *Work and Stress* 2005; 19(3): 192-207.
 15. Ling K, Id T, Guan Y, Id N, Lim PY. Systematic review on the prevalence of illness and stress and their associated risk factors among educators in Malaysia. *Plus One* 2019; 1–19.
 16. Liu XS, Ramsey J. Teachers' job satisfaction: Analyses of the teacher follow-up survey in the United States for 2000-2001. *Teaching and Teacher Education* 2008; 24(5): 1173-1184.
 17. Mark G, Smith AP. Effects of occupational stress, job characteristics, coping, and attributional style on the mental health and job satisfaction of university employees. *Anxiety, Stress and Coping* 2012; 25(1): 63-78.
 18. Noor A, Ismail NH. Effects of Occupational stress and its associated factors among academicians in a research university, Malaysia. *Malaysian Journal of Public Health Medicine* 2016; 16(1): 81–91.
 19. Ofei-Doodoo S, Irwin G, Kuhlmann Z, Kellerman R, Wright-Haviland S, et al., Assessing work-related burnout and job satisfaction among obstetrics and gynecology residency program coordinators. *Kans J Med* 2019; 12(1): 11.
 20. Okwaraji FE, Aguwa EN. Burnout, psychological distress and job satisfaction among secondary school teachers in Enugu, south east Nigeria. *S Afr J Psychiatr* 2015.
 21. Ramli M, Salmiah M, Nurul AM. Validation and psychometric properties of bahasa Malaysia version of the Depression Anxiety And Stress Scales (DASS) among diabetic patients. *MJP Online Early* 2009.
 22. Reevy GM, Deason G. Predictors of depression, stress, and anxiety among non-tenure track faculty. *Frontiers in Psychology* 2014.
 23. Schat ACH, Kelloway EK, Desmarais S. The Physical Health Questionnaire (PHQ): Construct validation of a self-report scale of somatic symptoms. *J Occup Health Psycho* 2005; 10(4): 363–381.
 24. Schaufeli WB, Maslach C, Maslach C, Pines AM. Burnout: An existential perspective. In *Professional Burnout* 2018.
 25. Seibt R, Spitzer S, Druschke D, Scheuch K, Hinz A. Predictors of mental health in

- female teachers. *Int J Occup Med Environ Health* 2013; 26(6): 856–869.
26. Sestili C, Scalingi S, Cianfanelli S, Mannocci A, Del Cimmuto A, et al., Reliability and use of copenhagen burnout inventory in italian sample of university professors. *Int J Environ Res* 2018; 15(8): 1708.
 27. Shen X, Yang YL, Wang Y, Liu L, Wang S, Wang L. The association between occupational stress and depressive symptoms and the mediating role of psychological capital among Chinese university teachers: A cross-sectional study. *BMC Psychiatry* 2014a.
 28. Sheno AN, Kalyanaraman M, Pillai A, Raghava PS, Day S. burnout and psychological distress among pediatric critical care physicians in the United States. *Critical Care Medicine* 2018; 46(1): 116–122.
 29. Shin JC, Jung J. Academics job satisfaction and job stress across countries in the changing academic environments. *Higher Education* 2014.
 30. Sibel Y, Bostanci M. Determining the factors that affect burnout and job satisfaction among academicians: a sample application on the hitit university. *Turkish Studies* 2012; 72: 589–600.
 31. Spector PE. Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *Am J Community Psych* 1985; 13(6): 693–713.
 32. Spector PE. *Job satisfaction: Application, assessment, causes, and consequences.* Sage publications 1997; Vol 3.
 33. Tamini BK, Kord B. Burnout components as predictors of job & life satisfaction of university employees. *Indian J Ind Relat* 2011.
 34. Watts J, Robertson N. burnout in university teaching staff: A systematic literature review. *Educational Research* 2011; 53(1): 33–50.
 35. Zhong J, You J, Gan Y, Zhang Y, Lu C, et al., Job stress, burnout, depression symptoms, and physical health among chinese university teachers. *Psychological Reports* 2009; 105(3): 1248–1254.
 36. Zou G, Shen X, Tian X, Liu C, Li G, et al., Correlates of psychological distress, burnout, and resilience among chinese female nurses. *Industrial Health* 2016; 54(5): 389–395.

Corresponding author: *Nur Faizah Al, Department of Psychiatry, Universiti Teknologi MARA, Jalan Hospital 47000, Sg. Buloh, Selangor, Malasiya.*

E-mail: faizah7761@uitm.edu.my

Received: 24 May 2022, Manuscript No. AJOPY-22-67102; **Editor assigned:** 25 May 2022, PreQC No. AJOPY-22-67102 (PQ); **Reviewed:** 09 June 2022, QC No AJOPY-22-67102; **Revised:** 17 June 2022, Manuscript No. AJOPY-22-67102 (R); **Published:** 25 June 2022, DOI: 10.54615/2231-7805.4737.