

# The relationship among work stress, emotional intelligence, and emotional exhaustion: an empirical study on Taiwanese dietitians

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**Objectives:** The purposes of this study were to understand the work stress, emotional intelligence, and emotional exhaustion status of Taiwanese dietitians, and to determine the predictors of emotional exhaustion. **Methods:** A total of 320 practising dietitians voluntarily participated in the online questionnaire survey. The self-administered, structured survey consisted of the Occupational Stress Indicator-2, the Emotional Intelligence Scale, the Maslach Burnout Inventory - Chinese, and questions seeking general information. Descriptive statistics, one-way ANOVA, and hierarchical regression were performed for the analyses. **Results:** This study found that workload was the main source of work stress among dietitians and they were at moderate levels of burnout. The 5 subscales of emotional intelligence were all higher than the middle point of the measurement scale. Those who worked in hospitals had significantly higher levels of work stress and emotional exhaustion. The final model explained 46.2% of the variance in emotional exhaustion. Work place, work stress, and emotional intelligence were significant predictors of emotional exhaustion. **Conclusions:** Emotional exhaustion is a noteworthy issue among Taiwanese dietitians, especially for those working in hospitals. The study's findings suggest a significant association between emotional intelligence and emotional exhaustion; thus, enhancement of emotional intelligence may need to be at the core of future interventions. (*Taiwan J Public Health*. 2018;37(4):464-474)

**Key Words:** dietitian, emotional exhaustion, emotional intelligence, work stress

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## INTRODUCTIONS

Dietetic practice is an increasingly demanding field that deals with a complex interplay between food and the individual. Nutritional care cannot be provided by simply delivering nutritional information; it must be integrated with nutrition counselling skills to provide comprehensive nutrition care within a limited time-frame [1]. Throughout the counselling process, dietitians have to deal with the social, psychological, emotional, and environmental aspects of eating [2]. Sometimes

dietitians may be challenged with issues that they do not feel psychologically able to handle [3]. This interpersonal, emotion-laden, and complex nature of dietetics makes these professionals susceptible to high work stress and burnout. Burnout is often manifested as an individual's loss of compassion, respect, and enthusiasm for those whom he or she serves at work, as well as the workers' flinching away and alienation from their clients, colleagues, supervisors, and organisations. Burnout may even lead to reduced productivity, decreased job satisfaction, and increased turnover intention [4]. Maslach et al. [4] proposed that burnout included 3 subscales; i.e. emotional exhaustion (EE), depersonalisation, and personal accomplishment. Among them, EE was the core of burnout and was sometimes used interchangeably with burnout [5].

At present, Taiwanese dietitians mainly practice in hospital and school settings. Hospital dietitians, like other healthcare professionals, face increasing demands of the healthcare system, receive more complex cases, and have a shorter time frame in which to provide medical nutrition therapy [6]. School dietitians are inherently responsible for meal planning and management, as well as nutrition education. However, administrative work takes up most of their time nowadays. These changes constantly increase dietitians' workload and work stress. Stressors such as poor patient outcomes, conflict with peers, high workload, job demands, poor supervision, and lack of support are all associated with poor physical and mental health outcomes [7]. Long-term work stress will reduce work efficiency and may cause physical or psychological symptoms such as headaches, insomnia, social dysfunction, and depression, which will not only have a negative impact on personal, physical, and mental health aspects, and job satisfaction, but may also result in organisational, patient, or client losses [8].

The importance of emotional intelligence (EI) has been well recognized globally since Goleman published *Emotional Intelligence* in 1995 [9]. EI was defined by Goleman as '*a competency of managing yourself and your relationships with others, making effective teamwork, leading others, and forecasting the future, all of which have positive effects in terms of efficacy and job performance*'. Studies show that an individual with high EI thinks and functions in a constructive and rational way, and has a better ability to manage emotions [10]. Individuals with high EI are also more optimistic and have deeper relationships with staff, patients, and supervisors [11]. These characteristics provide an individual with more advantages at work, and are considered essential requisites for employees. Theoretically, EI can have a positive effect on quality of care for patients [12]. In terms of empirical evidence, literature indicates that higher EI is significantly related to lower stress and burnout among nurses [13]. Whether this relationship works within the dietitian population needs to be studied further.

Several studies focusing on work stress, EI, burnout, and the physical and mental health of medical personnel have been published in Taiwan and other countries [13-16]; however, relevant studies targeting dietitians are very few, especially in Taiwan [17-19]. In order to provide empirical evidence for designing strategies for future interventions focusing on preventing or improving the EE of dietitians, the purpose of this study was to answer the following research questions: (1) What is the status of work stress, EI, and EE among Taiwanese dietitians? ; and (2) What are the relationships among work stress, EI, and EE among Taiwanese dietitians?

## MATERIALS AND METHODS

### Participants and data collection

This was a cross-sectional study. The targeted population included dietitians all across Taiwan. An e-mail message was sent via the Taiwan Dietitian Association and its affiliated local dietitian associations to invite dietitians to participate in this study. Those who were interested in participation voluntarily logged in to the survey webpage and completed the self-administered questionnaire. It took approximately 10-20 minutes to complete the survey. A total of 320 valid questionnaires were collected using the online survey method. The data collection period was from December 2015 to January 2016. This study was conducted according to the guidelines set forth in the Declaration of Helsinki, and all procedures involving human subjects were approved by the Taipei City Hospital Research Ethics Committee (No. TCHIRB-10409105-W).

### Instruments

The instrument used in this study was a self-administered structured questionnaire comprising four parts:

1. General information: This had eight questions regarding age, gender, marital status and number of children, work-place setting, workplace location (North, Central, South, East, and Islands), job position, years of work experience, and average monthly income.
2. Work stress: This was adopted from the Occupational Stress Indicator 2 (OSI-2) – Chinese, designed by Lu et al. [20]. The OSI-2 consisted of 40 items and 8 subscales: workload (6 items), relationships (8 items), work-life balance (6 items), managerial role (4 items), personal responsibility (4 items), hassles (4 items), recognition (4 items), and organisation climate (4 items). A 6-point

Likert scale, with scores ranging from 1 (very sure that it was not stressful) to 6 (very sure that it was stressful) was adopted to measure work stressors. In the present study, in order to prevent respondent burden, only 3 subscales (workload, hassles, and organisation climate) with 14 items were included based on previous findings with this population [19].

3. EI scale: This was adopted from the EI scale designed by Wu et al. [21], which originated from Goleman's concept of EI [9]. This scale consisted of 40 items and included 5 subscales: self-awareness (6 items), self-regulation (11 items), self-motivation (8 items), social awareness (6 items), and social skills (9 items). A 5-point Likert scale, with scores ranging from 1 (very inconsistent) to 5 (very consistent) was adopted to measure EI; higher scores reflected better EI. Negatively worded items were reverse scored.
4. Burnout inventory: This was adopted from the Maslach Burnout Inventory (MBI) – Chinese version designed by Lu et al. [14]. The MBI included 3 subscales: emotional exhaustion (EE), depersonalization, and personal accomplishment. Since EE was at the core of burnout, and in order to prevent respondent burden, only EE (9 items) was included based on previous research with this population [19]. A 7-point Likert scale, with scores ranging from 0 (never) to 6 (every day), was adopted to measure the frequency of occurrence. According to the criteria of Maslach et al. [4], EE scores  $\geq 27$ , between 17 and 26, and  $\leq 16$ , were categorized as representing high, moderate, and low levels of burnout, respectively.

The reliability and validity of the OSI-2 Chinese, MBI-Chinese, and EI scales have been affirmed [20,21]. In the current study,

the values of  $\alpha$  were 0.70~0.87 for the three subscales of work stress, 0.93 for EE, and 0.78~0.89 for the five subscales of EI.

## Statistical Analysis

Statistical analyses were performed using SPSS 18.0. Descriptive statistics were used to provide information about participants' characteristics, and their status of work stress, EI, and EE. A one-way ANOVA was performed to test the differences in dietitians' work stress and EE, stratified by workplace setting. A hierarchical multiple regression with 4 steps was used to estimate the predictions of work place, work stress, and EI on EE (step 1: covariates of the known determinants of EE, including age, sex, average monthly income, marriage and children; step 2: work place; step 3: work stress; step 4: EI). A moderated multiple regression was also conducted to explore whether EI acts as a moderator in the relationship between work stress and EE. No interaction effect between work stress and EI was found in this study.

## RESULTS

Table 1 shows the characteristics of the participants and the population. In this study, a majority of the respondents were female (91.9%). The ages of the participants ranged from 23 to 64 years, with an average of 34.95 years ( $SD = 8.00$ ). Moreover, on average, the participants reported working for 8.13 years ( $SD = 7.03$ ). Regarding marriage and children, unmarried dietitians accounted for more than half of the sample, and those who were married with children accounted for about one third of the sample. Among this sample, the proportions of dietitians who worked in North, Central, and South Taiwan were 43.8%, 24.4%, and 28.1%, respectively. Those who worked in East Taiwan and the island area only accounted for

3.7% of the sample. Regarding the settings, nearly half of the dietitians worked in hospitals, while there were nearly equal numbers of those working in schools and other settings. Finally, the average monthly incomes of the dietitians were mostly concentrated in the range of 25,000 to 45,000 NT dollars, which accounted for 70% of all the participants. Compared with the total population, the sample was slightly younger, and their workplace distributions were very close to those of the overall population. The proportion of dietitians who worked at schools was larger in this sample than that of the population, which was at least partially a result of the differences in classification.

## Work stress, EI, and EE Status among the Dietitians

Regarding the work stress status of the dietitians, the mean scores on single items for 3 work stress subscales were all higher than 4 (Table 2). The largest stressor was workload (score = 4.61), followed by organisation climate (score = 4.44). As for EI status, the mean scores on the single items of the 5 EI subscales were all higher than the middle point of the measurement scale (Table 2). The best performance was found in self-awareness (score = 3.98), followed by social awareness (score = 3.76). Regarding EE status, the mean score was 25.94, suggesting a moderate level of burnout based on Maslach et al. criteria [4] (Table 2).

## Differences in Work Stress, EI, and EE in Various Work Places

Work stress and EE scores were significantly different when participants were stratified by the work place variable (Table 3). The mean scores on the 3 subscales of work stress for hospital dietitians ( $Mean = 28.88 \pm 5.17$ ,  $17.30 \pm 3.11$ , and  $18.31 \pm 3.34$  for workload, hassles, and organisation climate,

Table 1. Characteristics of participants and the population

Variables	Sample (December, 2015)		Population (May, 2018)	
	n (%)	Mean (S.D.)	n (%)	Mean (S.D.)
Age (years)		34.95 (8.00)		
≤30	124 (38.8)		705 (23.3)	
31~40	119 (37.2)		1,375 (45.4)	
41~50	66 (20.6)		700 (23.1)	
>50	11 (3.4)		250 (8.2)	
Gender				
Male	26 (8.1)			
Female	294 (91.9)			
Marriage and Children				
Unmarried	178 (55.6)			
Married and has children	110 (34.4)			
Married but no children	29 (9.1)			
Other	3 (0.9)			
Location of workplace				
North	140 (43.8)		1,430 (43.0)	
Central	78 (24.4)		877 (26.4)	
South	90 (28.1)		870 (26.2)	
East and islands	12 (3.7)		148 (4.5)	
Workplace				
Hospital	151 (47.2)		1,696 (51.0)	
School	85 (26.6) <sup>a</sup>		466 (14.0)	
Other	84 (26.3)		1,163 (35.0)	
Job position				
Supervisor	50 (15.6)			
Non-supervisor	270 (84.4)			
Working years		8.13 (7.03)		
Average monthly income (NTD\$)				
≤25,000	9 (2.8)			
25,001~35,000	119 (37.2)			
35,001~45,000	106 (33.1)			
45,001~55,000	49 (15.3)			
55,001~65,000	22 (6.9)			
>65,000	15 (4.7)			

Note: Demography of the population was based on the statistics of the Taiwan Dietitian Association (TDA) (<http://www.dietitians.org.tw/statistics/view/32>). Accessed May 11, 2018. The age distribution of the population was estimated based on the TDA's data since the accurate number was not available.

<sup>a</sup> This group includes dietitians who were employed by the quantity food preparation companies but actually worked at school, accounting for 7% of the sample.

respectively) were significantly higher than those of the school dietitians (Mean = 26.07 ± 5.83, 15.99 ± 3.01, and 16.80 ± 3.86 for workload, hassles, and organisation climate,

respectively). Moreover, the mean EE score of the hospital dietitians (Mean = 29.20 ± 11.66) was significantly higher than that of the dietitians working in other settings (Mean

Table 2. Work stress, emotional intelligence and burnout status of Taiwanese dietitians (N=320)

Variables	No. of items	Min.	Max.	Mean	S.D.	Mean of single item
Work stress						
workload	6	6	36	27.68	5.42	4.61
hassles	4	5	24	16.76	3.25	4.19
organization climate	4	4	24	17.74	3.61	4.44
Emotional intelligence						
self-awareness	6	13	30	23.9	3.04	3.98
self-regulation	11	26	53	38.36	5.06	3.49
self-motivation	8	16	40	29.93	4.34	3.74
social awareness	6	13	30	22.53	3.08	3.76
social skills	9	11	45	32.31	4.91	3.59
Burnout						
emotional exhaustion	9	1	52	25.94	12.13	2.88

Table 3. Comparisons of work stress, emotional intelligence, and burnout status of Taiwanese dietitians working in different settings (N=320)

	Hospital (n=151)	School (n=85)	Other (n=84)	F value
	Mean (SD)	Mean (SD)	Mean (SD)	
Work stress				
workload	28.88 (5.17) <sup>a</sup>	26.07 (5.83) <sup>b</sup>	27.13 (4.98)	8.228 <sup>***</sup>
hassles	17.30 (3.11) <sup>a</sup>	15.99 (3.01) <sup>b</sup>	16.55 (3.55)	4.821 <sup>**</sup>
organization climate	18.31 (3.34) <sup>a</sup>	16.80 (3.86) <sup>b</sup>	17.68 (3.67)	4.894 <sup>**</sup>
Emotional intelligence				
self-awareness	23.77 (3.03)	24.00 (3.00)	24.04 (3.11)	0.257
self-regulation	38.04 (4.77)	38.06 (4.94)	39.24 (5.60)	1.729
self-motivation	29.47 (4.26) <sup>a</sup>	29.54 (4.29)	31.13 (4.38) <sup>b</sup>	4.492 <sup>*</sup>
social awareness	22.26 (3.11)	22.35 (3.00)	23.18 (3.04)	2.617
social skills	31.72 (4.95)	32.35 (4.62)	33.35 (5.01)	3.016
Burnout				
emotional exhaustion	29.20(11.66) <sup>a</sup>	23.55(11.37) <sup>b</sup>	22.49(12.31) <sup>b</sup>	11.167 <sup>***</sup>

Note: The subgroup "Other" includes all organisations with dietitians other than hospitals and schools (e.g. nutrition consultancy, NGO).

\*\*\*p<.001; \*\*p<.01; \*p<.05; <sup>a,b</sup>represent that there is a significant difference between groups.

= 23.55 ± 11.37 and 22.49 ± 12.31 for school dietitians and those working in other settings, respectively). However, dietitians' performance on 5 EI subscales generally showed no differences in terms of work settings, except for the self-motivation subscale. The mean self-motivation score among hospital dietitians (Mean = 29.47 ± 4.26) was significantly lower than that of dietitians working in settings other

than hospitals and schools (Mean = 31.13 ± 4.38).

### Relationships among Work Place, Work Stress, EI, and EE

This study used work place, work stress, and EI to predict EE, and found that the final step of the hierarchical regression model for



EE was significant,  $F(16, 300) = 17.943$ ,  $p < .001$ , adjusted  $R^2 = .462$  (Table 4). The results indicated that work place, work stress, and EI explained 6.8%, 25%, and 11.7% of the variance in EE, respectively. Subscales that significantly predicted EE included working in hospitals, hassles, organisation climate, self-regulation, self-motivation, and social awareness. Among these, self-motivation and self-regulation were the most powerful, and were negatively associated with EE ( $\beta = -0.248$ ,  $p < .001$ ;  $\beta = -0.208$ ,  $p < .01$ , respectively). The other 4 predictors were all positively related to EE.

## DISCUSSIONS

The results of this study showed that the dietitian participants had large workloads and experienced moderate, although very close

to high, burnout levels. The burnout problem seemed to slightly reduce when compared with the previous survey [19] using the same population (Mean = 29.21). However, the mean EE scores for these two surveys of Taiwanese dietitian participants were much higher than those of their counterparts in other nations [17,18] as well as those of other healthcare professionals [4,14,22]. Although the proportion of dietitian participants with a high EE level decreased from 58.7% in 2013 to 47.2% in 2016, dietitian burnout might be still an issue of concern in Taiwan.

Particularly, work stress or EE status for hospital dietitians were more serious than those of their counterparts practising in other work places in this sample. This may be related to global changes in the medical environment within the past decade. Relevant studies

Table 4. Hierarchical regression for predictors of burnout among Taiwanese dietitians (Outcome variable is burnout,  $n=317$ )

	Model 2 <sup>b</sup>		Model 3		Model 4		VIF
	$\beta^a$	t	$\beta^a$	t	$\beta^a$	t	
Workplace							
Hospital <sup>c</sup>	0.297	4.509***	0.234	4.133***	0.195	3.750***	1.589
School <sup>c</sup>	0.062	0.941	0.105	1.873	0.033	0.626	1.611
Work Stress							
workload			0.078	1.245	0.059	1.028	1.961
hassles			0.243	3.506**	0.133	2.043*	2.486
organization climate			0.265	4.043***	0.217	3.486**	2.272
Emotional Intelligence							
self-awareness					0.038	0.683	1.826
self-regulation					-0.208	-3.416**	2.179
self-motivation					-0.248	-4.272***	1.983
social awareness					0.165	2.868**	1.934
social skills					-0.090	-1.399	2.440
$R^2$	0.123		0.372		0.489		
Adj $R^2$	0.100		0.350		0.462		
F	5.384***		16.442***		17.943***		
$\Delta R^2$	0.068		0.250		0.117		
$\Delta F$	11.910		40.418		13.708		

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Note: <sup>a</sup>  $\beta$ : standardized regression coefficient, <sup>b</sup> Model 1 is for adjustment. Control variables include age, sex, average monthly income, marriage and children (Adj  $R^2 = .037$ ). <sup>c</sup> Reference group is working in other settings.

have pointed out that hospital dietitians in the US face a constantly changing healthcare environment and have experienced an increase in clinical care accountability in recent years [23]. Hospital dietitians not only face increased professional workload in nutritional care, but they have also been given more administrative work responsibilities recently owing to the reduction in supportive manpower [24]. The current situation faced by hospital dietitians can explain the findings of the present study.

EE is an important problem that should be taken seriously by managers of dietitians. EE directly impacts the level of care patients receive and client services, which results in a high level of employee turnover that indirectly impacts patient outcomes or the productivity of an organisation [25]. Fortunately, the results of this study showed that EI was a protective factor against EE among the dietitian participants, which is consistent with the findings of other studies [5,13,25]. In this study, self-regulation and self-motivation were negatively associated with EE, and social awareness had a positive correlation with EE. According to the literature, an individual with good self-regulation will have the ability to adapt to changes and know when to withdraw from an argument with someone, while self-motivation allows individuals to be optimistic, enjoy challenges, and embrace diverse populations of patients and employees [26]. These two competencies can help dietitians cope with difficult situations and reduce the risk of burnout. Conversely, an individual with good social awareness may thoughtfully consider someone's feelings when acting, which may result in EE and increase the risk of burnout [26]. Therefore, the findings of this study suggest ways to improve dietitians' EI abilities through specific training programs, which are useful in promoting the ability to cope with stress and enrich interpersonal relationships in the work place that will

contribute to the reduction in burnout.

Additionally, the results of this study showed that the greatest stressor among the dietitian participants was workload; however, significant predictors of EE in the regression model were hassles and organisation climate. This finding implied that the occurrence of EE was not guaranteed, even in the case of a large workload. Hassles and organisation climate may have seriously overwhelmed the dietitian participants, thus resulting in EE in response to the workload. Hassle factors were defined as 'the increasingly intrusive and often irrational administrative, regulatory review and paperwork burdens being placed on patients and physicians by Medicare and other insurers' by the American College of Physicians [27]. Hassles experienced by healthcare professionals were not only caused by insurers, but also by the administrators of institutions with the purpose of ensuring quality measurements in both inpatient and outpatient practice. These quality measurements often consist more of a paper shuffle than a meaningful effort to identify and correct quality and safety problems [28]. In Taiwan, school dietitians were also given a lot of paper work to help low-income students apply for subsidies and fulfil administrative requirements. Thus, the elimination of such basic, meaningless hassles may provide relief from EE. Furthermore, some organisational factors such as lack of control, insufficient rewards, bad leadership, and lack of managerial communication could result in a negative organisational environment, and could even encourage work-place bullying, which would eventually contribute to burnout [29]. Like nurses, dietitians work in hierarchical organisational structures; hence, learning coping strategies to confront a negative organisational environment may be a good way for them to survive well within the work place.

Emotionally intelligent individuals



cope better with difficult situations such as interpersonal conflicts and work stress, which reduces EE and leads to good psychological and physical health [5]. Empirical evidence shows that training may improve EI, decrease occupational stress, and enhance physical and psychological health [30]. Therefore, the findings of this study suggest that it is necessary to launch intervention programs through EI assessment and training to avoid EE that is positively related to work stress.

There were some limitations that should be noted in this study. First, a causal relationship among the variables cannot be determined given the cross-sectional nature of this study. Data were collected using self-report methods, and the respondents could have intentionally or unintentionally misled investigators with their responses. Finally, the sample might not be representative of all Taiwanese dietitians as a non-probability sampling was used.

## Conclusion

The present study represents the first empirical examination of the relationships among work stress, EI, and EE among Taiwanese dietitians. This study's findings confirmed the positive relationship between work stress and EE, and the protective role of EI in EE. This provides not only baseline data for further studies but also valuable insights for administrators responsible for ensuring the future well-being of Taiwanese dietitians.

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## REFERENCES

1. Lu AH, Dollahite J. Assessment of dietitians' nutrition counselling self-efficacy and its positive relationship with reported skill usage. *J Hum Nutr Diet* 2010;**23**:144-53. doi:10.1111/j.1365-277X.2009.01024.x.
2. Gingras J. Evoking trust in the nutrition counselor: why should we be trusted? *J Agric Environ Ethics* 2005;**18**:57-74. doi:10.1007/s10806-004-3092-3.
3. Kirk S, Eaton J, Auty L. Dietitians and supervision: should we be doing more? *J Hum Nutr Diet* 2000;**13**:317-22. doi:10.1046/j.1365-277x.2000.00253.x.
4. Maslach C, Jackson SE, Leiter MP. *The Maslach Burnout Inventory Manual*. 3rd ed., Palo Alto, CA: Consulting Psychologist Press, 1996.
5. Moon TW, Hur WM. Emotional intelligence, emotional exhaustion, and job performance. *SBP Journal* 2011;**39**:1087-96. doi:10.2224/sbp.2011.39.8.1087.
6. Gingras J. The passion and melancholia of performing dietitian. *J Sociol* 2010;**46**:437-53. doi:10.1177/1440783310384450.
7. Lambert VA, Lambert CE, Petrini M, Li XM, Zhang YJ. Predictors of physical and mental health in hospital nurses within the People's Republic of China. *Int Nurs Rev* 2007;**54**:85-91. doi:10.1111/j.1466-7657.2007.00512.x.
8. Piko BF. Burnout, role conflict, job satisfaction and psychosocial health among Hungarian health care staff: a questionnaire survey. *Int J Nurs Stud* 2006;**43**:311-8. doi:10.1016/j.ijnurstu.2005.05.003.
9. Goleman D. *Emotional Intelligence: Why It Can Matter More Than IQ*. 10th ed., New York, NY: Bantam Books, 2005.
10. Akerjordet K, Severinsson E. Emotional intelligence: a review of the literature with specific focus on empirical and epistemological perspectives. *J Clin Nurs* 2007;**16**:1405-16. doi:10.1111/j.1365-2702.2006.01749.x.
11. Saad ZM, Marzuki NA. Emotional intelligence among nurses. *Advances in Natural and Applied Sciences* 2013;**7**:413-20.
12. Sumner J, Townsend-Rocchiccioli J. Why are nurses leaving nursing? *Nurs Adm Q* 2003;**27**:164-71. doi:10.1097/00006216-200304000-00010.
13. Gorgens-Ekermans G, Brand T. Emotional intelligence as a moderator in the stress-burnout relationship: a questionnaire study on nurses. *J*

- Clin Nurs 2012;**21**:2275-85. doi:10.1111/j.1365-2702.2012.04171.x.
14. Lu L, Lee HM, Shieh TY. Occupational stress, health and occupational burnout among dentists: a study of clinical dentists in Kaohsiung. Res Appl Psychol 2005;**(27)**:59-80. [In Chinese: English abstract]
15. Khamisa N, Oldenburg B, Peltzer K, Ilic D. Work related stress, burnout, job satisfaction and general health of nurses. Int J Environ Res Public Health 2015;**12**:652-66. doi:10.3390/ijerph120100652.
16. Bidlan JS, Sihag A. Occupational stress, burnout, coping and emotional intelligence: exploring gender differences among different occupational groups of healthcare professionals. Indian J Health and Wellbeing 2014;**5**:299-304.
17. Gingras J, de Jonge LA, Purdy N. Prevalence of dietitian burnout. J Hum Nutr Diet 2010;**23**:238-43. doi:10.1111/j.1365-277X.2010.01062.x.
18. Milosavljevic M, Noble G. Burnout levels among dietitians working in the New South Wales public hospital system: a cross-sectional statewide survey. Nutr Diet 2015;**72**:101-6. doi:10.1111/1747-0080.12109.
19. Lai IJ, Liao LL, Hsieh LC, Lee CH. Work stress, job satisfaction, burnout, and turnover intentions of dietitians in Taiwan: description and relationship. Taiwan J Public Health 2014;**33**:609-19. doi:10.6288/TJPH201433103078. [In Chinese: English abstract]
20. Lu L, Cooper CL, Chen YC, et al. Chinese version of the OSI: a validation study. Work & Stress 1997;**11**:79-86. doi:10.1080/02678379708256824.
21. Wu HC, Chang HS. The relationship between the emotional intelligence and burnout: an empirical study on nursing staffs in healthcare institutions. Cheng Ching Med J 2011;**7**:12-23. doi:10.30156/CCMJ.201110.0002. [In Chinese: English abstract]
22. Lavery JF, Patrick K. Burnout in nursing. Aust J Adv Nurs 2007;**24**:43-8.
23. Pratt PE, Kwon J, Rew ML. Perceived job importance and job performance satisfaction of selected clinical nutrition management responsibilities. J Am Diet Assoc 2005;**105**:1128-33. doi:10.1016/j.jada.2005.04.006.
24. Kwon J, Gilmore SA, Oakland MJ, Shelley MC 2nd. Clinical dietetics changes due to cost-reduction activities in healthcare systems. J Am Diet Assoc 2001;**101**:1347-50. doi:10.1016/S0002-8223(01)00322-4.
25. Zysberg L, Orenshtein C, Gimmon E, Robinson R. Emotional intelligence, personality, stress, and burnout among educators. Int J Stress Manag 2017;**24**:122-36. doi:10.1037/str0000028.
26. Freshman B, Rubino L. Emotional intelligence: a core competency for health care administrators. Health Care Manag 2002;**20**:1-9. doi:10.1097/00126450-200206000-00002.
27. American Society of Internal Medicine. America's health care system strangling in red tape. Available at: [https://www.acponline.org/acp\\_policy/policies/hassle\\_factor\\_americas\\_health\\_care\\_system\\_in\\_red\\_tape\\_1990.pdf](https://www.acponline.org/acp_policy/policies/hassle_factor_americas_health_care_system_in_red_tape_1990.pdf). Accessed August 26, 2017.
28. Sigsbee B, Bernat JL. Physician burnout: a neurologic crisis. Neurology 2014;**83**:2302-6. doi:10.1212/WNL.0000000000001077.
29. Giorgi G, Mancuso S, Fiz Perez F, et al. Bullying among nurses and its relationship with burnout and organizational climate. Int J Nurs Pract 2016;**22**:160-8. doi:10.1111/ijn.12376.
30. Fletcher I, Leadbetter P, Curran A, O'Sullivan H. A pilot study assessing emotional intelligence training and communication skills with 3rd year medical students. Patient Educ Couns 2009;**76**:376-9. doi:10.1016/j.pec.2009.07.019.

# 探究工作壓力、情緒智慧和情緒耗盡之 相關性：台灣營養師之實證研究

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**目標：**本研究旨在瞭解台灣營養師工作壓力、情緒智慧和情緒耗盡之現況，並找出情緒耗盡之預測因子。**方法：**全國共有320名執業中營養師志願透過線上問卷調查的方式參與本研究，研究工具包括職業壓力指標第二版、情緒智慧量表和職業倦怠量表中文版及個人資料問卷，資料分析方法為描述性統計、單因子變異數分析和多元階層迴歸分析法。**結果：**工作負荷大為營養師最主要的壓力來源，情緒智慧各面向表現皆高於平均值，情緒耗盡表現則為中度職業倦怠；在醫院工作的營養師工作壓力較大、情緒耗盡情況較為嚴重。階層迴歸模式顯示所有變項可以解釋營養師情緒耗盡46.2%的總變異量，工作地點、工作壓力和情緒智慧都是情緒耗盡之顯著預測因子。**結論：**台灣營養師之情緒耗盡情況是一個值得重視的問題，尤其是在醫院工作的營養師問題更為嚴重。本研究發現情緒智慧是情緒耗盡的顯著預測因子，提升營養師的情緒智慧或許是未來改善情緒耗盡的重要策略。（台灣衛誌 2018；37(4)：464-474）

**關鍵詞：**營養師、情緒耗盡、情緒智慧、工作壓力

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