

## Stress and Coping Styles: The Experience of Nursing Staff Working At Two Public Hospitals in Klang Valley, Malaysia

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### ABSTRAK

Walaupun stres dikalangan kakitangan kejururawatan adalah biasa, mempunyai kaedah menangani masalah yang efektif dapat membantu meminimalkan tahap stres. Objektif kajian ini adalah untuk membandingkan tahap stres di kalangan kakitangan kejururawatan, mengenal-pasti kaedah menangani masalah (coping style) dan menentukan hubungan di antara tahap stres dan kaedah menangani masalah. Kajian rentas ini melibatkan 106 kakitangan kejururawatan yang telah disampel secara universal dari wad psikiatri dan jabatan kecemasan di dua buah hospital awam di Lembah Klang. *Stress Arousal Checklist* (SACL) dan *Coping inventory for Stressful Situations* (CISS) digunakan untuk menguji tahap stres dan kaedah menangani masalah. Tiada perbezaan signifikan didapati pada tahap stres diantara kedua-dua kumpulan. Dimensi stres pada SACL antara kakitangan psikiatri ( $6.53 \pm 3.18$ ,  $p=0.372$ ) dan kecemasan ( $6.02 \pm 2.67$ ,  $p=0.372$ ) tidak menunjukkan perbezaan signifikan. Dimensi *arousal* pada SACL antara kakitangan psikiatri ( $8.60 \pm 1.70$ ,  $p=0.372$ ) dan kecemasan ( $9.19 \pm 1.61$ ,  $p=0.07$ ) juga tidak menunjukkan perbezaan signifikan. *Task coping* adalah kaedah menangani masalah yang paling utama digunakan di kalangan kakitangan psikiatri ( $55.36 \pm 9.85$ ) dan kecemasan ( $57.73 \pm 9.87$ ). Dimensi stres pada SACL menunjukkan hubungan yang signifikan tetapi lemah dengan 'task coping' ( $r=-0.313$ ,  $p=0.001$ ) dan 'emotion coping' ( $r=0.292$ ,  $p=0.001$ ). Dimensi 'arousal' pada SACL juga menunjukkan hubungan yang signifikan tetapi lemah dengan 'task coping' ( $r=0.271$ ,  $p=0.003$ ) dan 'emotion coping' ( $r=-0.251$ ,  $p=0.005$ ). Memandangkan profesion kejururawatan mempunyai tahap stres yang tinggi, hubungan yang signifikan di antara stres dan kaedah menangani masalah membolehkan intervensi dijalankan untuk adaptasi yang lebih baik kepada persekitaran kerja dengan tahap stres yang tinggi.

**Kata kunci:** stress, menangani masalah, kakitangan kejururawatan

### ABSTRACT

Although stress among nursing staff is common, adopting effective coping styles helps in minimizing the problem. The objectives of this study were to compare stress level

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among nursing staff working in the above disciplines, to identify common coping style used and to determine the relationship between stress and coping styles. This cross-sectional study involved 106 nursing staff who were universally sampled from psychiatric wards and emergency departments in two public hospitals in the Klang Valley. Self-rated questionnaires i.e. Stress Arousal Checklist (SACL) and Coping inventory for Stressful Situations (CISS) were used to assess stress levels and coping styles respectively. There was insignificant difference in terms of stress level between the two nursing staffs. Stress dimension of SACL between the psychiatry ( $6.53 \pm 3.18$ ,  $p=0.372$ ) and emergency ( $6.02 \pm 2.67$ ,  $p=0.372$ ) nursing staffs were insignificant. Arousal dimension of SACL was also insignificant between psychiatry ( $8.60 \pm 1.70$ ,  $p=0.372$ ) and emergency ( $9.19 \pm 1.61$ ,  $p=0.07$ ) nursing staff. Task coping was the most commonly used coping styles among the psychiatry ( $55.36 \pm 9.85$ ) and emergency ( $57.73 \pm 9.87$ ) nursing staff in this study. Stress dimension of SACL showed weak significant relationship with task coping ( $r=-0.313$ ,  $p=0.001$ ) and emotion coping ( $r=0.292$ ,  $p=0.001$ ). Arousal dimension of SACL was also found to have weak significant relationship with task coping ( $r=0.271$ ,  $p=0.003$ ) and emotion coping ( $r=-0.251$ ,  $p=0.005$ ). While nursing was found to be a stressful profession, a significant relationship between stress and coping styles allows intervention to enable better adaptation to the stressful working environment.

**Key words:** stress, coping skills, nursing staff

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## INTRODUCTION

Nursing staff have been identified to possess high level of work stress (Dickinson & Wright 2008; Healy & McKay 1999; Wang & Patten 2001; Weinberg & Creed 2000) given the nature of their work environment. Common sources of stress among nursing staff include workload, leadership style, professional relationships and emotional demands (McVickar 2003). Perception of stress is very subjective and depends on the interaction between such individuals and his or her environment (McVickar 2003).

In Malaysia, stress among nursing staff is prevalent (Emilia & Noor Hasim 2007; Majdah 1999; Rokiah 1994). Rokiah (1994) reported more than 49.5% of nurses in a public hospital in Kuala Lumpur had stressful experience related to workplace factors. A study among medical and surgical nurses in a teaching hospital in Kuala Lumpur reported work-

load as a major source of stress (Emilia & Noor Hasim 2007).

Nursing staff working in the same discipline as well as different disciplines or different workplaces may face different stress level which depends on the interaction of the multiple factors involved. Psychiatry and emergency medicine are among two highly stressed working environments for nursing staff (Kilfedder et al. 2001; Yang et al. 2001). Psychiatric nursing staffs have to cope with emotional burden handling patients who are mentally ill. They face aggression, abuse and emotional trauma such as suicide among the patients that they treated. On the other hand, nursing staff working in emergency medicine faced a different emotional burden of having to deal with emergency cases and death among patients that they see in casualty.

Stress among nursing staff has to be dealt efficiently since it may lead to various emotional problems that may be af-

fecting work functioning. Work stress among the emergency nursing staff has been associated with Posttraumatic Stress Disorder symptoms but the causal nature of such relationship needs to be further established (Judith et al. 2003).

The subjective experience of stress is the balance between two processes. i.e. the process of primary appraisal to determine the meaning of event and a process of secondary appraisal which takes place to assess one's coping abilities (Taylor 1990). The big question asked is, how do nursing staff working in stressful environment adapt and cope with such stressors?

This study aimed to compare stress level among nursing staff working in disciplines of psychiatry and emergency medicine, identify common coping styles used and to determine the relationship between stress and coping styles among nursing staff in the above disciplines.

## MATERIALS AND METHODS

This was a cross-sectional, study examining coping styles and stress level among nursing staff working in two stressful disciplines i.e. psychiatry and emergency medicine in two public hospitals in Klang Valley. A total of 106 nursing staffs were universally sampled from the psychiatric ward and the emergency department.

Demographic data such as age, sex, race, marital status and duration of working at the current workplace were collected. Self-rated questionnaires were used and subjects were given two weeks to complete the questionnaires. Stress Arousal Checklist (SACL) (Cox & Mackay 1985; Corcoran & Fischer 2000) assessed stress level whereas coping inventory for Stressful Situations (CISS) (Endler & Parker 1990) assessed coping styles among the subjects. The stress dimension of the SACL refers to the subjective experience in response to the

external environment (e.g. tense, relaxed, apprehensive, worried) whereas the arousal dimension refers to the ongoing somatic or autonomic activity (e.g. energetic, drowsy, stimulated, activated). The stress scores ranged from 0 to 18 whereas the arousal score ranged from 0 to 12, whereby higher scores reflected more stress and arousal.

The CISS is a 48 item questionnaire measuring coping styles i.e. task, emotion, avoidance, distraction and social diversion coping. Nursing staff with good understanding of English and consented to participate were included. The study was approved by the ethical committee of the respective settings.

### Statistical analysis

The statistical package of Social Science was used to analyse the data. Independent t-test, Chi-square test, correlation test, and ANOVA test were used to analyse the data.

## RESULTS

A total of 106 respondents participated in this study. The mean age for psychiatric nursing staff was  $31.45 \pm 5.3$  whereas the mean age for casualty nursing staff was  $28.62 \pm 5.36$ . There was a statistically significant difference in age between the two groups with the psychiatry nursing staff being significantly older than the casualty nursing staff. Other demographic data showed insignificant difference between the two groups (Table 1). Stress level among the nursing staff in both disciplines was shown in Table 2. There were no significant differences in stress levels between the two groups.

The most commonly used coping style among the nursing staff in both groups was task coping and the least was social diversion. There were no significant differences in terms of coping styles between the groups (Table 3).

Table 1: Demographic data: comparison between psychiatry and casualty nursing staff

Demographic data	Patients n = 106 (100%)			
	Psychiatric Nursing Staff (n = 53)	Casualty Nursing Staff (n = 53)	Test statistic	p value
Age (Mean ± SD)	31.45±8.53	28.62±5.36	t = 2.046	<b>p = 0.04</b>
Duration of working (Mean ± SD)	1.55±0.99	1.32±0.67	t = 1.375	p = 0.172
Sex				
Male	32 (47.8%)	35 (52.2%)	X <sup>2</sup> = 0.365	p = 0.546
Female	21 (53.8%)	18 (46.2%)		
Ethnic groups				
Malays	44 (47.8%)	48 (52.2%)	X <sup>2</sup> = 1.317	p = 0.251
Non-Malays	9 (64.3%)	5 (35.7%)		
Marital status				
Single	22 (50%)	22 (50%)	X <sup>2</sup> = 0.00	p = 0.578
Married	31 (50%)	31 (50%)		

p<0.05

Table 2: Mean stress level: comparison between psychiatry and casualty nursing staff

Stress Arousal Checklist (SACL)	Mean score	t test	p value
<b>Stress</b>			
Psychiatry	6.53±3.18	t = 0.893	p = 0.372
Casualty	6.02±2.67		
<b>Arousal</b>			
Psychiatry	8.60±1.70	t = -1.82	p = 0.072
Casualty	9.19±1.61		

p<0.05

Relationship between stress and coping styles were demonstrated in Table 4. Stress showed significant weak correlations with task coping and emotion coping. For stress dimension, there was a statistically significant weak negative correlation with task coping. However, a statistically significant weak positive correlation was found with emotion coping. In other words, the higher the stress

level, signified lesser use of task coping but the more use of emotion coping.

A reverse was seen for the arousal dimension. There was a statistically significant weak positive correlation with task coping suggesting more use of task coping in a higher level of arousal. There was a statistically significant weak negative correlation with emotion coping suggesting the higher the arousal, the lesser use of emotion coping.

## DISCUSSION

In keeping with previous studies, both psychiatry and emergency medicine nursing staff reported similar stress in the two different disciplines of nursing (Kilfedder et al. 2001; Wang & Patten2001; Watson et al. 2009). Many factors such as individual, work and organisational factors have been identified to contribute to nursing stress (McVickar 2003). A complex interaction exists between these multiple factors.

Table 3: Coping styles: comparison between psychiatry and casualty nursing staff

Coping Styles	Mean score	t Test	p value
<b>Task</b>			
Psychiatry 53	55.36±9.85	-1.216	p = 0.227
Casualty 49	57.73±9.87		
<b>Emotion:</b>			
Psychiatry 53	40.70±9.41	-0.587	p = 0.559
Casualty 49	41.84±10.19		
<b>Avoidance:</b>			
Psychiatry 53	39.42±8.79	0.813	p = 0.418
Casualty 49	37.82±11.02		
<b>Distraction:</b>			
Psychiatry 53	22.81±5.27	-2.28	p = 0.820
Casualty 49	23.12±8.10		
<b>Social Diversion:</b>			
Psychiatry 53	15.92±3.59	-0.856	p = 0.394
Casualty 49	16.63±4.73		

p<0.05

Table 4: Relationship between stress and coping styles

Coping styles	Stress	Arousal
Task	r = - 0.313 p = <b>0.001</b>	r = 0.271 p = <b>0.003</b>
Emotion	r = 0.292 p = <b>0.001</b>	r = - 0.251 p = <b>0.005</b>
Avoidance	r = -0.148 p = 0.069	r = 0.107 p = 0.142
Distraction	r = - 0.128 p = 0.101	r = 0.068 p = 0.250
Social diversion	r = - 0.176 p = 0.038	r = 0.112 p = 0.130

p<0.05

This study examined the relationship between stress and coping styles, a factor that can be intervened to help reducing stress level among nursing staff. The most commonly used coping style among the nursing staff in both groups was task coping whereas social diversion is the least used. It is unclear why the nursing group chooses task coping and not other

coping styles. Coping styles are said to be influenced by both the genetic and environmental factors (Busjahn et al. 1999). It has been suggested that different stressful situations may override individual's preference of choice of coping styles (Endler & Parker 1990). For instance, work-related problem commonly lead to task coping whereas health-related problem leads to more emotion-focus coping (Yang et al. 2001). This may explain the choice of task coping among the nursing staff.

In relation to the two dimensions of stress, this study found significant weak negative correlation between stress dimension and task coping but positive correlation between emotion coping and stress dimension. In other words, the higher the stress level, the lesser use of task coping but more use of emotion coping. Possibly, in a highly stressful situation, it is easier for an individual to respond emotionally in order to reduce stress as compared to cognitively restructuring the problems to alter the stressful situation. Thus, in a highly

stressful situations, emotion coping is more commonly used compared to task coping. Therefore, it is understandable that nurses working in stressful environment would be using more of emotion coping compared to task coping.

Interestingly, the finding is vice-versa with arousal dimension. There was a weak negative correlation between emotion coping and arousal, but a positive correlation with task coping. The higher level of arousal, the more use of task coping but lesser use of emotion coping. This was difficult to explain. Possibly, coping style was not the primary factor in determining stress in this situation but other factors in the individual, environment or organization play more roles.

Why is work stress among the nursing staff important? It has been shown that stress related to work as well as from outside source, contributed to anxiety and depressive disorders among health staff (Weinberg & Creed 2000). A Canadian National Population Health Survey found significant association between work stress and major depression (Wang & Patten 2001).

Being an important constituent the medical team, nursing staff need to be physically and mentally fit. In certain situations, they are exposed more to the daily stress compared to other members of the medical team. For instance, psychiatric nursing staffs are usually the first liner to handle aggressive patients before doctors arrive. They need to be physically and mentally stable to cope with daily work stress. Listening to patients' emotional problem can also be mentally exhausting thus the need to be mentally fit themselves. Nursing staff that are not mentally healthy, may be more vulnerable to develop counter-transference when handling patients' emotional and psychodynamic issues.

Mental health of the nursing staff depends on the level and source of stress

they experienced as well as their ways of coping (Pryjmachuk & Richards 2007). Adaptive coping styles will help the nurses coping better with their daily stress. Various studies in Malaysia have found avoidance coping to be associated more with poor mental health (Chong 2000).

While this study does not help in our understanding of choices of coping styles among the nursing staff, the importance of stress and coping styles among the nursing staff cannot be underestimated.

Nevertheless, this study has its own limitations. Firstly, the cross-sectional design allows relationship between variables to be identified at one point in time only. Secondly, the sample population may not represent the nursing population in Malaysia due to the small sample size and limited to two hospitals in Klang Valley only. Finally, other confounders such as life-event, social support and personality were not controlled thus may give important impact on the findings. Future studies may need to improve on the method to allow a better interpretation of findings to facilitate better understanding and allow better intervention in terms of stress among the nursing staff and their choices of coping styles.

## CONCLUSION

In terms of stress level, there was no significant difference found between the psychiatry and the casualty nursing groups. Task coping was the most commonly used coping styles among the nursing staff in this study. Significant relationship was found between stress and task and emotion coping styles. Stress among nurses needs to be given more serious consideration and proper intervention. Regular stress management program which include effective coping styles should be introduced in the workplace to minimize the problem.

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