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Workplace Stressors and Coping Strategies Among Public Hospital Nurses in Medan, Indonesia

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Background: Nursing is considered as a stressful job when compared with other jobs. Prolonged stress without effective coping strategies affects not only nurses' occupational life but also their nursing competencies. Medan is the biggest city in Sumatera Island of Indonesia. Two tertiary public hospital nurses in this city hold the responsibility in providing excellent care to their patients.
Objective: To investigate the relationships between the nurse's workplace stressors and the coping strategies used.
Method: The descriptive correlational study was conducted to examine the relationships between workplace stressors and the coping strategies used in nurses of two public hospitals in Medan. The sample size of 126 nurses was drawn from selected in-patient units. Data were collected by using self-report questionnaires and focus group interview. The majority of subjects experienced low workplace stressors, where death/dying was the most commonly reported workplace stressor followed by workload. Religion was the most commonly used coping strategy.
Result: Significant correlations were found between subscales of workplace stressors and coping strategies. Most of subjects used emotion-focused and dysfunctional coping strategies rather than problem-focused coping strategies.
Conclusion: The nurse administrators in the hospitals need to advocate their in order to use problem-focused coping strategies more frequent than emotion-focused and dysfunctional coping strategies when dealing with workplace stressors.

Keywords: workplace stressor, coping strategy, public hospital nurses

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Introduction

Nursing is considered as a stressful job when compared with other jobs (Chan, Lai, Ko, & Boey, 2000), as demonstrated in the following studies conducted in Indonesia. A survey conducted in four provinces showed that about half (50.9%) of public and private hospital nurses experienced workplace stress (Rachmawati, 2007). It was also found that more than half (60%) of a public hospital nurses experienced high level of workplace stress (Shaulim, 2008). Another study in in-patient units of a public hospital found that workload was the most commonly reported nurse's workplace stressor (Ilmi, 2003).

Prolonged stresses without effective coping strategies affect not only nurses' occupational life, but also their nursing competencies (Lee, Chen, & Lin, 2005). Coping strategies can be classified as problem-focused and emotion-focused strategies (Lazarus & Folkman, 1984). In the previous studies, it was reported that nurses used mostly problem-focused coping rather than emotion-focused coping strategies (Chang et al., 2006; Healy & McKay, 2000; Tyson & Pongruengphant, 2004; Welbourne et al., 2007; Xianyu & Lambert, 2006).

There are two tertiary public hospitals in Medan which are responsible for providing health service to people of North Sumatera, and its neighboring provinces. Workplace stressors in these two hospitals are considered to be relatively higher than the other hospitals. Moreover, Jauhari (2005) found that more than 80% of nurses in one public hospital in Medan performed non-nursing tasks that resulted in increase in their workload. Besides the nurse's workplace stressors, it is also important to investigate the nurse's coping strategies in dealing with the stressors. Therefore, this study was proposed to examine workplace stressors, coping strategies, and the relationships between workplace stressors and coping strategies among public hospital nurses in Medan, Indonesia.

The objectives of this study were to: (1) identify the most frequently reported workplace stressor by nurses, (2) identify the most frequently used coping strategy by nurses, and (3) examine the relationships between workplace stressors and coping strategies among public hospital nurses in Medan, Indonesia.

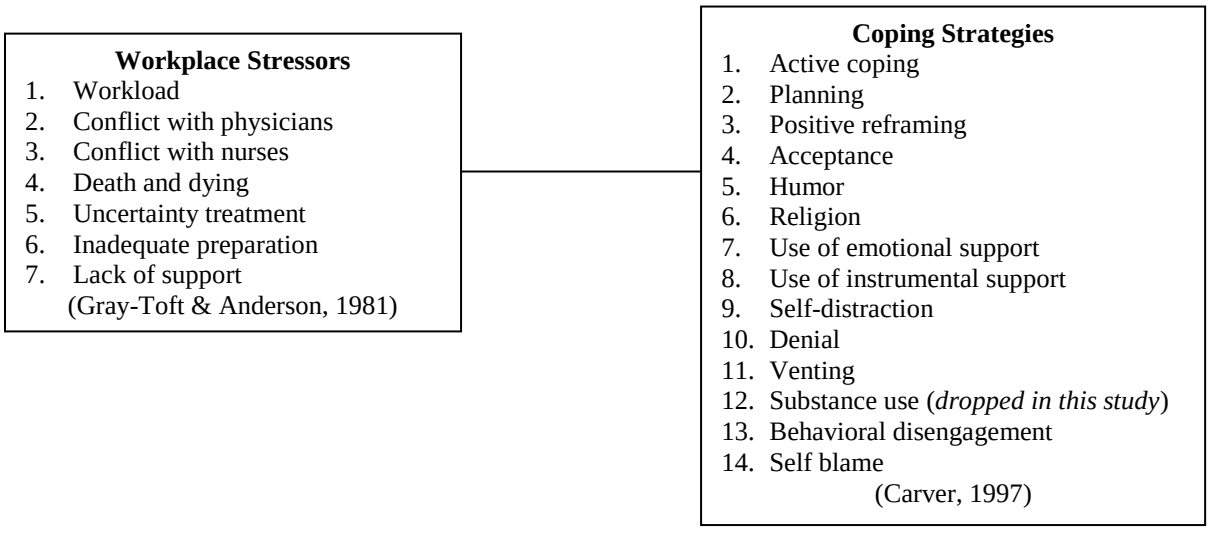
Workplace stressors referred to the frequency of stressful situations experienced by nurses in in-patient units of a public hospital. They were measured by using the "Nursing Stress Scale" developed by Gray-Toft and Anderson (1981). This scale consisted of seven

subscales including workload, conflict with physicians, conflict with other nurses, death/dying, uncertainty about treatment, inadequate preparation and lack of support.

Coping strategies referred to the ways of dealing with workplace stressors by the public hospital nurses. The "Brief COPE" questionnaire developed by Carver (1997) was used. It consisted of 13 ways of coping, reflected on active coping, planning, positive reframing, acceptance, humor, religion, use of emotional support, use of instrumental support, self-distraction, denial, venting, behavioral disengagement, and self-blame strategies.

The conceptual framework in this study was constructed based on previous literature. The variable of workplace stressors was derived from the study of Gray-Toft and Anderson (1981), while coping strategies was derived from the study of Carver (1997). Originally, Carver described 14 groups of coping strategies. However, one of them was dropped in this study due to cultural inappropriateness. Based on a literature review, there were significant relationships between nurse's workplace stressors and coping strategies (Cai, Li, & Zang, 2008; Lambert et al., 2007; Tyson, Pongruengphant, & Aggarwal, 2002; Xianyu & Lambert, 2006). The relationships between study variables are presented in Figure 1. It was hypothesized that there were significant relationships between nurse's workplace stressors and coping strategies.

Figure 1. Framework of the study



Methods

This was a descriptive correlational study. A stratified random sampling technique was used. The populations of this study were nurses who work in two public hospitals in Medan, Indonesia. Power analysis was used to determine the number of samples needed in this study using the accepted minimum level of significance (α) at .05 and the power of .80

(1 – β). The researchers used the lowest effect size (γ) .25 based on the study of Li and Lambert (2008), yielding a number of 126 (Polit & Beck, 2008).

The researchers stratified the population and proportionate randomly selected subjects from the following 3 units: (1) Medical Integrated In-Patient Care Unit (adult, pediatric, and obstetric/gynecologic units), (2) Surgical Integrated In-Patient Care Unit (adult, pediatric, and obstetric/gynecologic units), and (3) Critical Care Unit (Intensive Care Unit, Cardio-Vascular Care Unit, and Stroke Unit). Nurses who have a minimum 12 months of nursing experience and have experience of working in their current position for at least 6 months were included.

An instrument package consisting of 3 parts was used in this study. They were: (1) The "Demographic Data Questionnaire", (2) The "Nursing Stress Scale", and (3) The "Brief COPE". The Demographic Data Questionnaire was constructed by the researcher. It includes the information regarding the name of the unit, age, gender, religion, ethnic, marital status, number of people in the household, type of nursing education, current position, years of experience in nursing, years of experience in the current area of work, and the likelihood of leaving nursing profession within the next 12 months. The Nursing Stress Scale (NSS) developed by Gray-Toft and Anderson (1981) was also used. It measures the frequency of nurse's workplace stressors. Originally, this instrument consisted of 34 items but 1 item, "Breakdown of computer", was excluded because it was considered not relevant to the context of the study settings. The Brief COPE measured a person's coping strategies (Carver, 1997) was also used. Back translation, cultural applicability validation, and reliability test were performed for both the NSS and the Brief COPE. The Cronbach's alpha coefficients of the NSS and the Brief COPE in a pilot sample (n = 30) were .94 and .80, respectively and in the actual data (n = 126) were .93 and .86, respectively.

This study was conducted with the intention of protecting the human rights of all subjects. Ethical research requirements were met for both hospitals and the researchers' university. Each subject had freedom to ask for the explanation of the study or to withdraw from this study at any time without any consequences. The primary researcher provided one week for the subjects to complete all the questionnaires. The subjects were assured that data would be kept confidential. Data collection was conducted during December 2009 to January 2010.

Descriptive statistics was performed to analyze the subjects' demographic characteristics. Most subscales of workplace stressors and coping strategies in this study were normally distributed, thus Pearson product moment correlation (*r*) was used to analyze the

correlations between them. However, the total scores of workplace stressors, three of workplace stressor's subscales: workload, uncertainty about treatment, and conflict with other nurses, and also one of coping strategy subscale: religion were not normally distributed. Thus, for these subscales, Spearman's correlation (ρ) was applied. The level of significance $p < .05$ for a two-tailed test was considered statistically significant.

Results

The average age of the subjects was 37 years (SD=8.02) and most of them (92.1%) were female. The majority of the subjects' ethnic was Batak (71.4%), and more than half of them (62.7%) were Christians. Most of the subjects (66.7%) had certificate in nursing diploma. The majority of the subjects (84.9%) were married and the average number of people live together with the subjects was 4 (SD=1.52). Almost all of the subjects (96%) were staff nurses and the rest of them (4%) were clinical instructors. The average year of subjects' experience in nursing was 13 years (SD=7.27) and the average of their experience in current area of work was 7 years (SD = 4.91). Nearly all subjects (98.4%) did not intend to leave their nursing profession within the next 12 months.

Table 1 shows that most of the subjects' (70.6%) total workplace stressor score was in low category (M=61.69, SD=14.12, min-max=33-132). Table 2 shows that death/dying was the most frequently reported workplace stressor (M=2.07, SD=0.57, min-max=1-4) and religion was the most frequently used coping strategy (M=3.51, SD=0.61, min-max=1-4). One hundred and twenty five significant correlations (positive and negative) were found. Table 3 lists all correlations.

Table 1 Minimum to Maximum Score, Frequency, and Percentage of Subjects' Total Workplace Stressors' Level (N = 126)

Item	Min-Max	Frequency	Percentage
Workplace stressors (M = 61.69, SD = 14.12)			
Low	33-66	89	70.6
Moderate	67-99	34	27
High	100-132	3	2.4

Table 2 Mean, Standard Deviation, and Level of Subjects' Workplace Stressors and Coping Strategies (N = 126)

Item	M	SD	Level
Workplace stressors	1.32	0.51	Low
Workload	1.96	0.63	Low
Uncertainty about treatment	1.91	0.58	Low
Conflict with other nurses	1.65	0.52	Low
Conflict with physicians	1.89	0.53	Low
Inadequate preparation	1.67	0.59	Low
Lack of support	1.69	0.57	Low
Death/dying	2.07	0.57	Moderate
Coping strategies			
Self distraction	2.29	0.69	Moderate
Active coping	3.00	0.72	Moderate
Denial	1.87	0.61	Low
Use of emotional support	2.27	0.69	Moderate
Use of instrumental support	2.86	0.67	Moderate
Behavioral disengagement	1.69	0.65	Low
Venting	2.41	0.65	Moderate
Positive reframing	2.94	0.67	Moderate
Planning	2.89	0.68	Moderate
Humor	1.89	0.64	Low
Acceptance	2.66	0.71	Moderate
Religion	3.51	0.66	High
Self-blame	2.23	0.71	Moderate

Discussions

The low level of total workplace stressors in this study reflected the little occurrence of nurses' workplace stressors in the settings. This finding was inconsistent with previous study in a public hospital nurses in Indonesia that found more than half (60%) of them experienced high level of workplace stress (Shaulim, 2008). Despite the previous study finding that more than 80% of nurses in a public hospital in Medan performed non-nursing task that increase their workload (Jauhari, 2005), nurses in this study confirmed the low level of total workplace stressors. The low level of total workplace stressors was resulted from the low level of all workplace stressor subscales including workload, but in exception of death/dying which was in the moderate level.

Appraisal of the stressors, perception of the stressors, and the level of distress as a result of the stressors are the factors contributing to the level of daily stressors experienced by individuals (Werner & Frost, 2000). The fact that there was no high level of workplace stressor subscales might be due to the fact that the nurses appraised and perceived those stressors would be stressful events for somewhat degree of occurrence. Another fact is that nearly all of the nurses did not intend to leave their nursing profession within the next twelve months confirmed that the low level of nurses' workplace stressors convincingly existed.

Death/dying was the most often cited workplace stressor followed by workload. This finding is quite surprising, because previous studies in Thailand, South Korea, and Hawaii reported that workload was the primary workplace stressor followed by death/dying (Lambert et al., 2004). However, this finding is similar to the previous study in Japan (Lambert et al.). This finding suggests that nurses identified the emotional issues regarding patient's death/dying to be more overwhelming than their workload. This finding may correlate with the subject's years of experience in nursing that was more than 10 years in average, so they might become accustomed with their workload. In addition, both hospitals were tertiary hospitals and many critical and dying patients were referred to these hospitals resulted in increasing death/dying issues. Additional analysis also found that there were significant differences between the length of experience in nursing and death/dying, and between the length of experience in nursing and workload.

In this study, religion coping was the most commonly used. This finding was different from the previous studies in China that found planning was the most commonly used coping strategy (Li & Lambert, 2008). However, this study finding was consistent with a study on Swedish nurses who worked with terminally ill and dying cancer patients. They found that religiosity can have a protective function that facilitates coping, as the nurses used God as an object to turn to and to obtain shelter (Ekedahl & Wengstrom, 2009). Religious approach to cope with workplace stressors was used by nurses might be explained by the fact that Indonesian government gives freedom for all citizens to follow their religious practices whether they are Muslims or Christians. In fact, both hospitals facilitated their nurses to practice their religious beliefs, as evident by providing prayer room for the Muslims, and worship place for the Christians. Ekedahl and Wengstrom also found that the most frequent religious coping strategy in their study was different forms of prayer. They also concluded that religious coping dominated by fundamental trust that prayer is used as a coping strategy and that may support the nurse.

The positive correlations among all the workplace stressors were similar to the study of Li and Lambert (2008). It is suggested that as the nurses are confronted with one type of stressor, the possibility of getting challenge from other workplace stressors increases. This also proves that public hospital nurses dealt with numerous workplace stressors.

The fact that positive correlations were found between workload and emotion-focused coping strategies (i.e. use of emotional support and humor), and workload and dysfunctional coping strategies (i.e. venting and self-blame) are surprising. The findings were inconsistent with previous study which found that workload positively correlated with planning which is a problem-focused coping strategy (Li & Lambert, 2008). Based on focus group interview, all of nurses reported workload as a common problem in their daily work. As most of them had a relatively long period of working hours, they might be habituated with the workload and preferred to use emotion-focused coping and dysfunctional coping strategies instead of using problem-focused coping strategies. Moreover, in the focus group interview, it was found that all nurses agreed that humor in the workplace was an effective coping strategy. The frequent used of emotion-focused coping strategies will not change the person–environment relationship, but they will change its meaning and the emotional reaction (Lazarus, 1991). It might help explain why the nurses in this setting appraised their total workplace stressors as low. However, the frequent use of emotion-focused coping strategies are generally associated with poor mental health and well-being outcomes, but the frequent use of problem-focused coping strategies are associated with good mental health and well-being outcomes (Lim, Bogossian, & Ahern, 2010). Therefore, the nurses should use more frequent of problem-focused coping than emotion-focused coping when dealing with workplace stressors.

In this study, many coping strategies were found to be positively correlated with each other. The findings are similar to previous studies (Lambert et al., 2004; Li & Lambert, 2008). The correlations suggested that nurses used a variety of coping strategies in order to deal with numerous workplace stressors. However, it is not surprising that behavioral disengagement and planning were found to be negatively correlated, because those coping strategies are working in opposite way.

Conclusions

This study provides additional evidence to the literature relating to stress and coping in the nursing profession. The study samples were Indonesian nurses. They experienced low workplace stressors. Death/dying was the most commonly reported workplace stressor

followed by workload. Religion was the most commonly used coping strategy. In addition, significant correlations were found between subscales of workplace stressors and coping strategies. Most of them used emotion-focused and dysfunctional coping strategies rather than problem-focused coping strategies.

The findings of this study provide several implications and recommendations to nursing administration and nursing research. The nursing administrators in both hospitals should consider death/dying and workload as major stressors and find strategies to manage nurse's workload and facilitate the comfortable workplace for nurses while dealing with patient's death/dying. The nursing administrators also need to encourage their staff nurses to use more problem-focused coping strategies than emotion-focused and dysfunctional coping. Further investigation to develop and implement methods to help nurses cope with workplace stressors is recommended as well.

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