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

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Abstract

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. Therefore, it is important to investigate the relationships between the nurse’s workplace stressors and the coping strategies used. 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. 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. 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.

Keyword: workplace stressor, coping strategy, public hospital nurses
Background and significance of the problem

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. It was 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). Nurses’ workplace stressors might have impact on decrease job satisfaction which also might lead to increase turnover rate and reduce nursing care quality on patients in a hospital (Sveinsdóttir, Biering, & Ramel, 2006).

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; 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.

Objectives

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.
Operational definition

*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.

Framework of the study

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; 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](image-url)
Research methodology

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 ($\alpha$) at .05 and the power of .80 ($1 - \beta$). The researchers used the lowest effect size ($\gamma$) .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 (33 nurses, including nurses in adult, pediatric, and obstetric/gynecologic units), (2) Surgical Integrated In-Patient Care Unit (38 nurses, including nurses in adult, pediatric, and obstetric/gynecologic units), and (3) Critical Care Unit (55 nurses, including nurses in 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. In order to help the researcher in the randomization process, a free-online randomization website (www.randomizer.org) was applied.

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. The Nursing Stress Scale (NSS) developed by Gray-Toft and Anderson (1981) was also used. It measures the frequency of nurse’s workplace stressors. Validity of the NSS was determined by correlating the total score from the NSS with measures of trait anxiety, job satisfaction, and nursing turnover hypothesized to be related to stress. Factor loadings for the items of the NSS ranged from .34 to .86 and were quite consistently distributed among seven factors (Gray-Toft & Anderson). 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. The Brief COPE was found to have good construct validity (Cooper, Katona, Livingston, 2008). 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. An additional focus group interview guide consisted of two open-ended questions was added to elicit in-depth responses.
of workplace stressors and its coping strategies. Four subjects were conveniently selected as representatives from each group of unit to participate in focus group interview.

This study was conducted with the intention of protecting the human rights of all subjects. The subjects were assured that data would be kept confidential. The primary researcher provided one week for the subjects to complete all the questionnaires. Data collection was conducted during December 2009 to January 2010.

Descriptive statistics was performed to analyze the subjects’ demographic characteristics. Pearson product moment correlation \( r \) and Spearman’s correlation \( \rho \) were used to analyze the correlations between subscales of nurses’ workplace stressors and coping strategies. The level of significance \( p<.05 \) for a two-tailed test was considered statistically significant.

**Results**

There were 126 nurses who involved in this study. 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. 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).

Most of the subjects’ (70.6%) total workplace stressor score was in low category (M=61.69, SD=14.12, min-max=33-132). 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 1 lists all correlations.

The additional focus group interview revealed that workload was the common workplace stressor. Coping strategies used stated by the interviewees were active coping (as reflected on several statements: “I will do”, “I work as possible as I can”, “We discuss it together”, “We complete them together”, “I made a commitment”, and “I talk to him/her”), instrumental support (as reflected on a statement: “I ask to other nurses”), emotional support (as reflected on a statement: “I express my feeling” and “I express it”), acceptance (as reflected on a statement: “I accept it”), humor (as reflected on a statement: “he makes some jokes”), and self distraction (as reflected on statement: “We go to drink ice cream”).
Table 1

**Correlation Matrix between Subscales for Workplace Stressors and Coping Strategies**

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* p<.05, **p<.01

† Non-parametric test was used
Discussions

The low level of total workplace stressors in this study reflected the little occurrence of nurses’ workplace stressors in the settings. 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. Probably in the last 5 years or after Jauhari’s study, nurses’ workload was decrease in the hospital. Therefore, 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.

Death/dying was the most often cited workplace stressor followed by workload. However, this finding is similar to the previous study in Japan (Lambert et al., 2004). Both hospitals were tertiary hospitals and many critical and dying patients were referred to these hospitals resulted in increasing death/dying issues. However, based on focus group interview, all of nurse representatives described their workload as the highest source of stress in their workplace. As workload was the second top of workplace stressors, they might prefer to discuss this issue considered to have potential for improvement through nursing management whereas death/dying related issues have less potential due to natural occurrence.

In this study, religion coping was the most commonly used. 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). 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 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.

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.

Recommendations

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.

Acknowledgement

The researchers are grateful to the nurses in two public hospitals in Medan, Indonesia for the participation in this study, and to the Higher Education Department of Indonesia, the University of Sumatera Utara, and the Graduate School of Prince of Songkla University for financial support for this research.
References


