THE RELATIONSHIP BETWEEN PERCEIVED HEALTH STATUS, ACTIVITY OF DAILY LIVING, COPING STRATEGIES, RELIGIOSITY, AND STRESS IN THE ELDERLY AT A PUBLIC NURSING HOME IN YOGYAKARTA, INDONESIA

Brune Indah Yulitasari[1, *], Anchaleeporn Amatayakul[2], Sirikul Karuncharerernpanit[3]

[1] Kasetsart University, Bangkok 10900, Thailand
[2] Boromarajonani College of Nursing Nopparat Vajira, Bangkok 10230, Thailand
[3] Boromarajonani College of Chakriraj, Ratchaburi 70110, Thailand

ABSTRACT:

Background: The elderly are vulnerable to the impact of stress. Elderly people who are staying in a nursing homes may have many stressors. The study examined relationships between perceived health status, activity of daily living, coping strategies, religiosity, and stress in elderly staying in public nursing homes in Yogyakarta, Indonesia.

Methods: A cross-sectional study was conducted in July-September 2014.One hundred and seventy eight elderly were recruited by purposive sampling. The participants were completed a questionnaire by face-to-face interview.

Results: The study revealed that the median age of participants was 73 years old. The numbers of participants were female (65.73%) and male (34.26%). Most of the marital status for the participants was widowed (72.47%). The participants' educational levels were not educated (40.44%), primary school (30.33%), secondary school (16.85%), and high school (12.35%). This study showed that perceived health status, and coping strategies had a significant negative relationship to stress (r= -.352, p<.01, r= -.209, p<.01, respectively), while activity of daily living showed a significantly positive relationship to stress (r= .244, p<.05). However, religiosity was not related to stress.

Conclusions: The study suggested that the elderly people who have higher perceived health status, higher social support, higher coping strategies, and independence in activity of daily living were more likely to have lower stress. Other factors which were not included in this study should be taken into consideration for further study related to stress in elderly staying in a public nursing home.

Keywords: Public nursing home, Health status, Activity of daily living, Elderly, Indonesia

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INTRODUCTION

The population of the elderly has been growing at a faster rate than the total population in most of the world regions [1]. The World Health Organization (WHO) [2] reported that between 2000 and 2050, the proportion of the world's elderly population will increase from 605 million to 2 billion (11%-22%).

* *Correspondence to: Brune Indah Yulitasari*
E-mail: bruneindah_yulitasari@yahoo.com

The elderly who have chronic diseases could have caused that affect long-term disability and dependency [3, 4]. Moreover, depending and relying on others, the elderly are vulnerable to the impact of stress [5]. Similarly, suffering from chronic illnesses and disability can cause stress in the elderly [6, 7].

Stress in the elderly who staying in a nursing home was higher than those in private households and study found that 48% of the elderly suffered from stress [1]. Stress may be a major impact for

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mental health problems [8]. Stress could have been responsible for increasing the risk of developing depression in the elderly [9, 10] and a main cause of suicide [11].

Some previous studies found that there was an inconsistent finding to examine the stress of the elderly in nursing home. Therefore, this study was conducted.

The purpose of this study was to examine the relationship between perceived health status, activity of daily living, coping strategies, religiosity, and stress in the elderly at a public nursing home in Yogyakarta, Indonesia.

METHODS

Design

A cross-sectional design with descriptive correlation approach was used.

Sample

The participants in this study were elderly who are staying in public nursing homes in Yogyakarta, Indonesia. The total participants in the present study were 178 elderly. The elderly were selected with inclusion criteria, elderly who: (1) 60 years old and above; (2) staying in a public nursing home; (3) have Co morbidities; (4) were able to understand and answer the questions; (5) Mini Mental State Examination (MMSE) score $\geq$ 24; (6) agree to participate. This study was conducted in July-September 2014.

Research instruments

Perceived health status of the elderly was measured by question that asked to the people to rate their health on a scale ranging very good to very bad. Regarding the health status, the elderly were asked to rate their current health status from 1 to 5 scale.

Coping of the elderly was measured by Lazarus and Folkman [12] by the Ways of Coping Questionnaire. It comprised of 66 questions with 8 subscales (confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving, and positive reappraisal). The Cronbach's alpha reliability coefficient in the current study was 0.93.

Thai Activity of Daily Living scale (Thai ADL Scale) that was developed by Vorapun Senanarong [13]. This questionnaire consisted of 13 items (6 basic ADLs and 7 instrumental ADLs). The Cronbach's alpha reliability coefficient in the current study was 0.88.

Religiosity was measured by the Duke University Religion Index (DUREL) [14]. DUREL consists of 5 items measured religious activity. The Cronbach's alpha reliability coefficient in the current study was 0.83.

Perceived Stress Scale (PSS) that developed by Sheldon Cohen [15]. PSS derived from the Lazarus and Folkman theory [16-18]. The Cronbach's alpha reliability coefficient in the study was 0.73.

Ethical review consideration

Approval to conduct the study was granted by the Ethics Review Boards Committee for Research Involving Human Research Subject, with code ERB No. 39/2014 Boromarajonani College of Nursing Nopparat Vajira.

Data collection

After receiving permission from the Ethics Review Board Committee for Research Involving Human Research Subjects, Boromarajonani College of Nursing Nopparat Vajira the researcher met the participants. The researcher asked the potential participants for their willingness to participate in the study, explained clearly about the study, and examined their cognitive function as a part of the criteria to recruit samples by the researcher. To be certain about samples Co morbidities, the researcher asked the nurse to identify the samples' data in the medical record. Each sample was informed about the purposes of the study and given the opportunity to ask questions about the study when samples were not clear. The samples then signed an informed consent form. Data was collected through an interview following all items in the questionnaire from July to September, 2014. Each interview took 60 minutes.

RESULTS

The result from 178 respondents revealed that 65.73% were female. Regarding the level of education, the study showed that 40.44 % of the respondent not educated. Regarding marital status, 72.47% of respondents were widowed. Perceived health status of the elderly showed that 51.69% rated their health status as good health, 43.26% rated their health status as moderate, and 5.05% rated their health status as bad.

As shown in Table 2, perceived health status and coping strategies were significantly negative association with stress. Moreover, Activities of daily living was a significantly positive association with stress. Meanwhile, religiosity was not associated with stress.

DISCUSSION AND CONCLUSION

The relationship between perceived health status, activity of daily living, coping strategies,

Table 1 Socio-demographic data the elderly in public nursing home (n=178)

Variables	Participants	
	Number	%
Age (years)		
60-70	57	32.03
71-80	86	48.31
81-90	35	19.66
Gender		
Male	61	34.26
Female	117	65.74
Level of education		
Not educated	72	40.44
Primary school	54	30.33
Secondary school	30	16.85
High school	22	12.35
Marital status		
Single	26	14.60
Married	23	13.00
Widowed	129	72.47

Table 2 Relationship between perceived health status, social support, coping strategies, activity of daily living, religiosity, and stress in elderly staying in a public nursing home

Independent variables	Stress	
	r	p
Perceived health status	-.352	<0.001
Coping strategies	-.209	<0.001
Activity of daily living	.244	<0.001
Organizational religious activity	-.130	>0.005
Non-organizational religious activity (NORA)	-.085	>0.005
Intrinsic religiosity (IR)	.015	>0.005

religiosity, and stress in elderly staying in public nursing homes are explained in the following discussion.

Regarding the relationship between perceived health status of elderly and stress, a negative relationship between perceived health status and stress was found. The result indicated that the elderly who perceived their current health status as good experienced less stress than the elderly who perceived health status not good. This study was consistent with other studies of perceived health status as a factor associated with stress [19, 20].

The finding of this study showed that coping strategies had a negative correlation to stress. This result indicated that elderly people who often use coping strategies had less stress. Coping denotes efforts pursued by the elderly to prevent, diminish, or tolerate stressful circumstances. It was consistent with other studies that coping strategies was associated with stress [21-24]. This study indicated to health care professionals working with the elderly in public nursing homes to be attentive to the manifestation of coping strategies as a sign of possible stress to be further investigated and use psychological interventions aiming to reduce the use of self-controlling strategies.

This study found that activities of daily living were related to stress in elderly. The finding indicated that the elderly people who were dependent in activities of daily living were more likely to have stress. Nowadays, the elderly were at risk of disability in the activities of daily living [25]. The result from the current study was consistent with other studies [1, 26-31]. However, this study was different from another study that activity of daily living was not associated with stress [32].

Religiosity has been shown to be an important aspect of health among individuals of advanced age. Furthermore, studies of religiosity have found that the elderly with poor religiosity had more stress than the elderly with good religiosity [34-36]. Therefore, the result was surprising because this study revealed that religiosity was not a significant association with elderly in a public nursing home. This result was similar to another study that religion was not associated with stress [33].

In conclusion, the findings of this descriptive correlation study demonstrated that some of the factors associated with stress in the elderly were perceived health status, activity of daily living,

coping strategies, and religiosity

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