This file has been cleaned of potential threats.

If you confirm that the file is coming from a trusted source, you can send the following SHA-256 hash value to your admin for the original file.

a33fd4e06eb274ebf430d84a6258001eb31d575ff9f5dadd7a38a47286a45335

To view the reconstructed contents, please SCROLL DOWN to next page.

# Factors associated with stress among the elderly in Lat Yai Subdistrict, Mueang District Samut Songkhram Province

Sarayut Chusuton<sup>1</sup>, Wanwimon Mekwimon Kingkaew<sup>2</sup> and Sureewan Siladlao<sup>3\*</sup>

<sup>1-3</sup>Department of Community Public Health, College of Allied Health Sciences, Suan Sunandha Rajabhat University, Bangkok, 10300, Thailand

Email: sarayut.ch@ssru.ac.th, wanwimon.me@ssru.ac.th, and sureewan.si@ssru.ac.th

\*Corresponding author: sureewan.si@ssru.ac.th

### **Abstract**

This cross-sectional study aimed to investigate the factors associated with stress among the elderly in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province. The research utilized stratified random sampling to select 351 people aged 60 years and above. Data were collected using a three-part questionnaire. Examined relationships between various factors and stress levels using Chi-squared analysis and Pearson's correlation coefficient.

Results showed that the majority of participants were female (61.25%), aged between 65 and 75 years (60.40%), married (61.54%), had primary education (66.38%), were unemployed (47.29%), and had an average income of less than 10,000 baht. 61.25% had chronic diseases, 55.84% had caregivers, and 51.85% lived in their own homes, 83.76%. Analysis revealed that 68.40% of participants experienced low levels of stress. It was also found that education level, chronic diseases, having caregivers, the amount of household members, and physical environmental factors were significantly related to stress at a statistical level of 0.05. The results of the research indicated that family members and people around them should take care of the elderly who are stressed. They should also arrange a living environment that is hygienic and safe for the health of the elderly.

Keywords: Elderly, Stress, Personal Factors, Milieu factors

#### 1. Introduction

The most important social structural change in the 21st century is the increase in the elderly population in many countries around the world. In 2022, Thailand will enter a complete aging society, with the elderly population accounting for 20 percent of the total population. It is expected that in 2033, Thailand will enter a super aging society, with the elderly population accounting for 28 percent of the total population (Department of Older Persons, 2021).

Stress is one of the important conditions that occur in the elderly, which is caused by economic and social environmental factors and physical changes in the body. This causes stress in the elderly. Mental problems often arise from a sense of loss, especially related to one's own abilities, acceptance, and respect from people around one's friends or society. In addition, there are also minor problems in each individual, which are different. The results of these problems affect the minds of the elderly, causing stress. Each person must adjust to cope with the stress

they face. If a person can adjust, their body and mind, including their emotional state, will be normal. But if a person cannot adjust, it will result in stress and subsequent mental health problems. Some people may also develop mental illnesses in the elderly (Singhadetwerachail & Thama-apipol, 2019).

Samut Songkhram Province is one of the provinces in Thailand with an increasing elderly population. It was found that the number of elderly people in Samut Songkhram Province is one of the top 10 provinces with the highest elderly population. From the trend of the increasing elderly population, it has led to health risks and problems, especially chronic diseases, which are increasing because the elderly age has a deteriorating nature in terms of body, mind, and society, causing the elderly to be stressed. Therefore, the researcher sees a problem that needs to be studied in terms of factors related to stress among the elderly in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province, in order to use the research results to plan for the development of factors related to stress among the elderly in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province, in the area.

## 1.2 Research Objective

To investigate the factors associate with stress among the elderly in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province

# 2. Methodology

This cross-sectional study aimed to investigate the factors associated with stress among the elderly in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province. The research utilized stratified random sampling to select 351 people who have lived in Lat Yai Subdistrict for at least 1 year, totaling 351 people, aged 60 years and above.

Data was collected using 3 part questionnaire consisting of:

- Part 1: Personal characteristics questionnaire, 10 items
- Part 2: Stress Level Assessment (SPST-20) (Mahatnirunkul et al, 1997) this 20-item
- Part 3: Milieu factors that are related to stress, including physical environment, family relationships, and social relationships, totaling 23 items.

This research determined the content's IOC value between 0.67-1.00, and the Cronbach's alpha coefficient to be 0.77. It involves conducting a statistical analysis of the data. Therefore, we use descriptive statistics to analyze general information and characteristics of the sample. We measure stress levels using methods such as frequency distribution, percentage, mean, and standard deviation and analyze factors related to stress in elderly. Using the Chi-square test and Pearson correlation to find relationships

#### 3. Result

Analysis of personal demographic data among the elderly revealed the following characteristics: 61.25% were female, 60.40% aged between 65 and 75 years, 85.19% were Buddhists, 61.54% were married, 66.38% had the highest education in primary school, 47.29% were unemployed, 61.25% had an average income of less than 10,000 baht, 55.84% had chronic diseases, 51% had caregivers, 76.92%. lived with 1-3 people in the home Showed in Table 1

Table 1 Demographic Characteristics

Variables	Quantity	Percent
Gender		
Male	136	38.75
Female	215	61.25
Age (year)		
Less than 65	96	27.35
65 – 75	212	60.40
More than 75	43	12.25
Religion		
Buddhist	299	85.19
Christ	52	14.81
Marital status		
Married	216	61.54
Single	26	7.41
Divorced	30	8.54
Widowed	79	22.51
Education level		
No	30	8.55
Primary education	233	66.38
secondary education	44	12.54
Vocational Certificate/Higher Vocational Certificate/Associate Degree	28	7.98
Bachelor's degree	16	4.56
Occupation		
Unemployed	166	47.29
Agriculture (rice farming, gardening)	34	9.69
Trade/Personal business	55	15.67
Government Official	6	1.71
General Worker	82	23.36
Employees/Company staff	8	2.28
Income (Thai bath)		
Less than 10,000	215	61.25
10,001 - 20,000	124	35.33
20,001 - 30,000	11	3.13
More than 30,000	1	0.28
Chronic diseases		

Variables	Quantity	Percent
No	155	44.16
Yes	196	55.84
Caregiver		
No	169	48.15
Yes	182	51.85
Amount of household members (people)		
Alone	26	7.41
1 -3	270	76.92
4 - 6	44	12.54
More than 6	11	3.13

Table 2: Number Percentage Interpretation of stress levels of elderly in lat Yai Subdistrict, Muang District, Samut Songkhram Province (n=351)

Interpret of Stress	Score	Quantity	Percent
Normal level	3.68 - 5.00	229	65.30
Moderate level	2.34- 3.67	112	31.80
High level	1.00-2.33	10	2.90
	Total	351	100

Table 2 showed that stress levels of the elderly in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province found that most of the elderly had very low stress levels (65.30%) followed by moderate levels (31.80%) and high levels (2.90%)

Table 3: Personal factors related to stress among elderly in lat Yai Subdistrict, Muang District, Samut Songkhram Province

Personal Factors	$x^2$	p-value
Gender	.006	.940
Age	2.135	.344
Religion	1.968	.161
Marital status	6.464	.167
Education level	26.997	.000*
Occupation	4.654	.589
Income	2.932	.402
Chronic diseases	8.183	.004*
Caregiver	6.043	.014*
Amount of household members	9.908	.019*

<sup>\*</sup> Statistically significant at the 0.05 level

Table 3 showed that educational level, chronic disease, caregiver, and number of household members are significantly associated with stress at a statistical level of .05

Table 4 Milieu factors related to stress among elderly in lat Yai Subdistrict, Muang District, Samut Songkhram

n		
	rovince	

Milieu factors	r	p-value
physical environment	331**	*000
family relationships	-0.16	.761
social relationships	.092	.086

<sup>\*</sup> Statistically significant at the 0.05 level.

Table 4 showed that physical environment and stress in the elderly have a statistically significant negative relationship at the 0.05 level

#### 4. Discussion

The level of education was related to stress of the elderly in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province, consistent with the study of Kulwong S. et al. (2023) research, which found that the level of education was related to work stress with statistical significance at the .05 level. This may be because education causes individuals to have different knowledge and past life experiences. These things affect the lifestyle of the elderly today.

Chronic diseases were associated with stress among the elderly in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province, which is consistent with the results of the study by Sutthirit S et al. (2021). This may be due to the fact that having an underlying disease results in physical deterioration and requiring treatment, which may result in the cost of treatment. These things in turn cause anxiety in the elderly and ultimately lead to stress.

Having a caregiver was related to stress among the elderly in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province, which is consistent with Khaweewong & Duangsong (2019) research, which found that it is also related to stress. This may be because having a caregiver allows them to live a life that is different from living alone for the elderly.

The number of family members was correlated with stress levels among elderly residents in Lat Yai Subdistrict, Mueang District, Samut Songkhram Province. This correlation may be attributed to varying family sizes leading to different family lifestyle patterns. When facing problems or seeking shared approaches to daily living, larger family sizes result in more diverse family relationships. This finding aligns with the research of Cherwanitchakorn S. et al. (2018), which revealed that family relationships had a statistically significant positive correlation with self-esteem. This correlation exists because family relationships, established since childhood with close family members, significantly influence the development of self-worth.

Physical environment had a statistically significant negative relationship with stress (p-value = .000). It can be inferred that if the elderly live in a better environment, they will have less stress. This is consistent with Wongsasun & Boonpearnpol (2017) research, which found that social and community environmental factors affect stress in the elderly. This may be due to the

environment in the community. Currently, nuisance problems occur in many areas. Most of them are caused by environmental pollution, such as dust, noise, bad smell, wastewater, garbage, industry, etc., including activities that are harmful to health. This may cause environmental pollution and affect the health, well-being, and health of the elderly, which causes stress.

## 5. Conclusion

This study identified several factors associated with stress among elderly residents in Lat Yai Subdistrict, including educational attainment, chronic diseases, caregiving responsibilities, household size, and the quality of the physical environment. Although the majority of participants reported low stress levels, the study demonstrated that stress was significantly influenced by both personal and environmental factors. Enhancing living environments, strengthening caregiving systems, and promoting access to education and healthcare can contribute to stress mitigation in this population. These findings emphasize the need for targeted interventions to improve the quality of life and well-being of the elderly. Future research should investigate the long-term impact of these factors on the mental health of this population.

# 6. Acknowledgment

The researcher sincerely thanks Suan Sunandha Rajabhat University for their utmost support of this research and expresses gratitude to all participants.

#### References

- Cherwanitchakorn, S., Shuaytong, P. & Karuhadej P. Associated factors of self-esteem of the elderly in Bangnangli Sub-district, SamutSongkhram Province. Chula Med J 2018, vol. 62(1): pp. 119 33
- Department of Older Persons. (2021). The current aging society and the economy in Thailand. Department of Older Persons (DOP) [online]. Available: https://www.dop.go.th/th/know/15/926
- Khaweewong, D. & Duangsong, R. (2020). Factors Related With Stress of Elderly People in Khon Kaen Municipality, *KKU Journal for Public Health Research*, vol. 13(2), pp. 36-46
- Kulwong, S. et al. (2023). Factors Related to the Stress at Work of Employee of the Provinical Electricity Authority in Samut Songkhram Province, *Safety & Environment review*, vol. 6(1), pp. 30-41.
- Mahatnirunkul, S., Pumpisalchai ,W. & Thapanya, P. (1997). The Construction of Suan Prung Stress Test for Thai Population. Bulletin of Suan Prung, 13(3), 1-20.
- Singhadetwerachai, N. & Thama-apipol, S. (2021). The Study of Stress and stress management by recreational activities among the members of Nong Krathum Elderly Club, Kamphaeng Saen District, Nakhon Pathom, *Rajamangala University of Technology Social Science Journal*, vol. 10(2), pp. 44-51.
- Sutthirit, S. et al. (2021). Stress of caregivers providing care for bedridden elderly, Surat Thani Province, *Region 11 Medical Journal*, vol. 35(2), pp. 1-12.

Wongsasun, A. & Boonpearnpol, N. (2017). Factors Affecting Caused Stress of The Elderly in Bang Phlat District, Bangkok. *The 9<sup>th</sup> Rajamangala University of Technology National* Conference "Creative RMUT and Sustainable Innovation for Thailand 4.0". Nakhon Pathom, Thailand, pp. 1082-1090.