

# Situational analysis on capacity building among caregivers for the elderly: a case study in Ubon Ratchathani

Khwanprapat Chanbunlawat, Yuttachai Chaiyasit\* and Pensri Jitchan

Department of Adult and Gerontological Nursing, Faculty of Nursing, Ubon Ratchathani Rajabhat University, Ubon Ratchathani 34000, Thailand

## ABSTRACT

**\*Corresponding author:**  
Yuttachai Chaiyasit  
yuttachai.c@ubru.ac.th

**Received:** 4 August 2020  
**Revised:** 23 November 2020  
**Accepted:** 28 December 2020  
**Published:** 26 May 2021

**Citation:**  
Chanbunlawat, K., Chaiyasit, Y., and Jitchan, P. (2021). Situational analysis on capacity building among caregivers for the elderly: a case study in Ubon Ratchathani. *Science, Engineering and Health Studies*, 15, 21050005.

Information on the situational analysis on capacity building among caregivers for the elderly has not been clearly explored. Therefore, a mixed method research, concurrent parallel design, was applied to this study. The participants were 384 caregivers and 20 key informants (caregivers) for elderly persons living in Ubon Ratchathani province, Thailand, in which the data were collected from August to December 2019. The research instruments included two questionnaires of the personal characteristics and situation of the elderly's caregivers, as well as the capacity in caring of the elderly's caregiver, and semi-structured questions. Both descriptive statistics and content analysis were used for data analysis. The research results revealed that the majority of the caregivers were female with a mean age of 49.42 years old, and had knowledge, skills and experience to care for elderly persons and had assistants. The duration of an individual being a caregiver was 11.64 years, and the amount of time of care was 13.02 h/day. Hypertension and diabetes mellitus were the common illnesses of the caregivers and the common physical health problems were back pain/waist pain/leg pain and fatigue. The overall score of the capacity in caring of the elderly's caregiver was at the highest level. There were three ways for building the capacity in caring among caregivers for the elderly comprising promoting the knowledge of the caregivers, supporting from the government, and being employed as the elderly's caregivers. The results of the study could be used for developing the capacity of the elderly's caregivers and long-term care for the elderly people and their caregivers.

**Keywords:** situational analysis; caregivers; elderly; capacity building; Ubon Ratchathani

## 1. INTRODUCTION

Population aging has been recognized as a global phenomenon. In 2019, the number of elderly persons aged 65 years or over worldwide totaled 703 million (9.1%). The largest number of the world's elderly population was in East and Southeast Asia (260 million), followed by Europe and North America (200 million). Moreover, it is

projected that the global number of elderly persons will reach over 1.5 billion in the next three decades. In Thailand, there were 8,638,000 elderly persons in 2019 (12.4%), and this number will reach 13,797,000 in 2030 (19.6%) (United Nations, 2019).

The impact of population aging is also enormous and multifaceted on socio-economic and healthcare systems (Chatterji et al., 2015), which is a result from aging

degradation, chronic illness, disability, dependency, the need of healthcare services, and social support (Jaul and Barron, 2017). Globally, the old-age dependency ratio in 2019 was 15.9, and this will increase to 20.5 in 2030. Likewise in Thailand, this ratio will increase from 12.4 to 19.4 in 2019 and 2030 respectively (United Nations, 2019). Additionally, Srithamrongsawat and Bundhamcharoen (2010) found that the capacity of caring for the elderly by family members had decreased because of the increasing number of nuclear families, family members working in a city center, and the rate of married women working outside the home. Moreover, it was found that the rate of old-age dependency was 13%, and elderly persons living alone had increased from 6% in 2002 to 9% in 2014.

Elderly persons, who could not help themselves, require support from others particularly their family members. However, there were limitations in caring of the elderly in the community including the constraint of caregivers, temporary care, lack of capacity in caring among the elderly, lack of management in the community lack of standard care, lack of goal setting in rehabilitation, lack of a monitoring system, and separate care system (Srithamrongsawat and Bundhamcharoen, 2010). Therefore, developing a care system for the elderly would require holistic care to improve comprehensive and continual care, particularly long-term care in the community.

In Thailand, family members have been considered as key persons to take care of their elderly. They have to respond to the needs of the elderly, which include physiological, psychological and spiritual needs. Furthermore, it was found that 83.5% of elderly persons required care of 10 h per week from their family members whereas 17% required care of over 10 hours per week (Fast, 2015). Caregivers had to take care of the elderly six-24 h/day (Prachuablarp et al., 2014; Promarat, 2016). Therefore, caregivers have performed the crucial roles to promote better outcomes for elderly persons with regard to physical health, mental health, and quality of life (Fast, 2015).

According to the study of Promwa (2018), caregivers required knowledge to promote the capacity in caring among the elderly including know-how about hypertension care, vital signs, nutrition, exercise, activities of daily living, safety environment, and communication skills. Ratanasuwan and Opasanan (2018) also found that the important issues among the elderly's caregivers were insufficient knowledge of diseases and care, lack of skills in cleaning the body, and specific skills for caring for elderly persons. Furthermore, Phalasuek and Thanomchayathawatch (2017) reported that elderly persons need assistance from their family caregivers with regard to nutrition, interpersonal relationship, payment, and activities. Moreover, family members perform the role in caring for the elderly; for instance, food consumption, drug management, hygiene care, accidental prevention, time management, and family participation. Likewise, there are five stages of care for elderly persons: (1) finding cooperation, (2) the needs for assessment, (3) management, (4) development of the potency of care, and (5) evaluation of care. These stages indicated that elderly persons required holistic care (physical, psychosocial and spiritual) from their caregivers. However, recent research results have been presented that caregivers have trouble with caring for their elderly with regard to knowledge, skills, and experience (Promwa, 2018; Ratanasuwan and Opasanan, 2018; Phalasuek and Thanomchayathawatch, 2017). The concept of holistic care recognizes a person as a whole

including physiological, psychological, social, and spiritual aspects (Zamanzadeh et al., 2015). Therefore, holistic capacity building among caregivers is important in responding to the needs of their elderly to improve better quality of life.

Ubon Ratchathani is located in Northeastern Thailand and ranked the fifth largest province of the country. The total population in 2016 was 1,862,965 persons with 244,132 elderly persons (13.1%). This infers that Ubon Ratchathani is an aging society. Additionally, there were 9,563 cases of disabled elderly, 249 cases of elderly persons living alone, 3,539 cases of the needs for assistance in activities of daily living, and 16,841 cases of bedridden (National Statistical Office, Ubon Ratchathani, 2020). Therefore, the situational analysis on capacity building among caregivers of the elderly should be explored to promote the capacity among caregivers and quality of life of the elderly.

## 2. MATERIALS AND METHODS

Mixed method research, concurrent parallel design, was used in the study (Creswell, 2002). The population composed of 226,848 caregivers of elderly persons living in Ubon Ratchathani province, Thailand (Official Statistics Registration Systems, 2018), and the samples were calculated by using the Krejcie and Morgan formula (Krejcie and Morgan, 1970), which consisted of 384 cases. Multistage cluster random sampling was used for the sample selection. Four research settings were applied, depending on the regional health office of Ubon Ratchathani province (Table 1). The inclusion criteria comprised (1) being the caregivers for the elderly people, (2) residing or not residing in the same house of the elderly people, (3) partial or whole care, (4) living in Ubon Ratchathani, (5) being able to communicate and having consciousness, and (6) willing to participate in this study.

There were three components of the research instruments. Firstly personal characteristics of the caregivers and the elderly, and the situation of the elderly care, i.e., gender, age, religion, education, marital status, relationship, occupation, salary, care experience, care period, present illness, activities of daily living, and health problems. The Barthel index of activities of daily living (Barthel ADL) was applied for assessing the ADL of the elderly. There were 10 domains, consisting of feeding, transfer, grooming, toilet use, bathing, mobility, stairs, dressing, bowel and bladder. The scoring ranged from 0-100 points for each item (0-20 = totally dependent; 25-45 = very dependent; 50-70 = partially dependent; 75-95 = minimally dependent; 100 = independent). Secondly, the questionnaire of the capacity of elderly's caregiver was developed by the researchers. It was a five-point Likert scale with four dimensions with 20 items composed of physical, psychological, social and spiritual management (1.00-2.00 = low level; 2.01-3.00 = moderate level; 3.01-4.00 = high level; 4.01-5.00 = highest level). Lastly, semi-structured questions were developed by the researchers to explore the ways to develop the capacity of the elderly's caregivers. The Barthel ADL was tested for reliability, which was 0.83. The questionnaire of the capacity of the elderly's caregiver was tested for the content validity by three experts for the item-objective congruence index, which was 1.00. The questionnaire was also tested for reliability, which was 0.88.

This research was approved by the Ethics Committee of the Ubon Ratchathani Provincial Health Office (EC number

SSJ.UB 2562-028). The participants were invited by registered nurses working at a primary healthcare unit based on the inclusion criteria. Then, the participants obtained information about the study objectives and processes, as well as the advantages and risks of the study. They enrolled in the study after completing a consent form, and able to withdraw from the study at any time. After this, the participants took 15-30 min to answer the questions. For those who could not understand the questions, a researcher was available to explain further as needed. After completing the interviews, two focus groups with 10 key informants per group were selected by purposive sampling for semi-structured interviews, which were conducted at

Trakan Phuet Phon and Phibun Mangsahan taking 1.5-2 h/group.

Descriptive statistics, frequency, percentage, mean, and standard deviation were used for the quantitative data analysis. Content analysis was used for the seven steps of the qualitative data analysis of Colaizzi (1978) consisting of carefully reading the interview records, extracting important and meaningful statements, encoding recurring and meaningful content, collecting encoded views, noting detailed and exhaustive descriptions, distinguishing similar views and subliminate theme concepts, and returning the findings to the participants to verify any ambiguous information.

**Table 1.** Population and samples based on the regions

Region	District	Total aging population (cases)	Total samples size (cases)
1	Ubon Ratchathani	13,902	83
2	Trakan Phuet Phon	17,770	106
3	Phibun Mangsahan	15,833	95
4	Det Udom	16,800	100
<b>Overall</b>		<b>64,305</b>	<b>384</b>

### 3. RESULTS

#### 3.1 Socio-economic and demographic profile of the population under study

Socio-economic and demographic characteristics of caregivers are presented in Table 2. Table 3 presents the socio-economic and demographic characteristics of the elderly.

#### 3.2 Capacity of the elderly's caregivers

The overall score for the capacity of the elderly's caregiver was at the highest level ( $\bar{x} = 4.28 \pm 0.63$ ). Similarly, the scoring of all dimensions was at the highest level and listed from the highest to lowest score: spiritual management, physical management, psychological management, and social management (Table 4).

#### 3.3 Ways to develop the capacity of the elderly's caregivers

Three ways for developing the capacity of the elderly's caregivers were proposed as follows:

##### 3.3.1 Promoting knowledge, skills and experience of care

Participants explained that promoting knowledge, skills and experience for caregivers were important keys to improve the care capacity for the elderly including transferring, elimination management, nutrition care, pressure sore management, exercise, rehabilitation, sleep and rest management, emotional management, memory training, and caring for the elderly with medical devices, knowledge, skills, and experience. This could be improved by training, self-learning from the internet, observation, and practice. Some participants stated the following:

"It is very important. I have been trained in elderly care. It has led me to have skills, i.e., rehabilitation, changing pampers, and pressure sore care." (FF0108)

"I have improved my knowledge, skills, and experience by learning by myself... watching YouTube, the Internet, and observation." (FF0208)

"At first, I was not familiar with dressing wounds. I felt disgusted and afraid of the discharge and bleeding. I practiced many times and released my feelings. Now, I am familiar with it. I have gained more experience and skills." (FF0107)

##### 3.3.2 Supporting from the government

Participants indicated that supporting from the government was important to promote the capacity in caring for elderly persons including funding, instrumental support, community care services for the elderly, a caregiver/personal assistant, and home visits. Some participants stated the following:

"We need help from the government." (FF0202)

"We suggest that a healthcare team should visit elderly people at home for health assessment and mental support." (FF0101, FF0106, FF0108, and FF0109)

"We need funding support; the instruments for caring, i.e., pampers, soap, clothes, bed, walker, portable toilet, and shelter." (FF0202 and FM0205)

"We need the community elderly service centers." (FF0207)

##### 3.3.3 Being employed as an elderly's caregiver

Participants described that being employed was very crucial for improving the capacity of care since caregivers could bring money to spend for their daily living and caring for elderly persons. One participant stated:

"Working is very important to gain money for buying food, daily living payment, and caring for our parent (elderly person)." (FF0110)

**Table 2.** Socio-economic and demographic characteristics of caregivers (N = 384)

Variables	Male (%)	Female (%)
Gender	55 (14.30)	329 (85.70)
Age (years) mean±S.D. 49.42±11.74	51.25±13.75	49.11±11.36
Religion		
Buddhist	55 (14.30)	329 (85.70)
Educational level		
None	0 (0)	5 (1.30)
Primary	26 (6.77)	183 (47.66)
Secondary	20 (5.21)	124 (32.29)
Diploma	2 (0.52)	11 (2.86)
≥University	7 (1.82)	6 (1.56)
Marital status		
Single	17 (4.43)	38 (9.90)
Married	35 (9.11)	250 (65.10)
Divorced	3 (0.78)	41 (10.68)
Relationship		
Spouse	19 (4.95)	63 (16.41)
Son/Daughter	25 (6.51)	202 (52.60)
Grandchild	5 (1.30)	31 (8.07)
Others	6 (1.56)	33 (8.59)
Occupation		
None	3 (0.78)	21 (5.47)
Farmer	27 (7.03)	220 (57.29)
Laborer	22 (5.73)	58 (15.10)
Merchant	2 (0.52)	17 (4.43)
Retired	0 (0)	1 (0.26)
Others	1 (0.26)	12 (3.13)
Salary (Thai baht/month) median (min-max)	3,000 (0-35,000)	
Sufficient payment		
Sufficiency/savings	2 (0.52)	21 (5.47)
Sufficiency/no savings	16 (4.17)	111 (28.91)
Insufficient/no debt	17 (4.43)	55 (14.32)
Insufficient/had debt	20 (5.21)	142 (36.98)
Having knowledge, skills, and experience in caring for the elderly		
Yes	27 (7.03)	169 (44.01)
No	28 (7.29)	188 (48.96)
Duration of being a caregiver (years) mean±S.D. 11.64±8.70	10±7.04	11.83±8.96
Having a care assistant		
Yes	43 (11.20)	222 (57.81)
No	12 (3.13)	107 (27.86)
Timing of care (hour/day) mean±S.D. 13.02±8.01	10.59±7.46	13.43±8.05
Chronic illness		
Hypertension	6 (2.49)	83 (34.44)
Diabetes mellitus	6 (2.49)	54 (22.41)
Dyslipidemia	2 (0.83)	41 (17.01)
Heart disease	0 (0)	8 (3.32)
Cerebrovascular disease	3 (1.24)	2 (0.83)
Gout	0	7 (2.90)
Others		29 (12.03)
Health problems		
Back/waist/leg pain	28 (6.81)	156 (37.96)
Fatigue	17 (4.14)	85 (20.68)
Stress	7 (1.70)	48 (11.68)
Sleeplessness	9 (2.19)	47 (11.44)
Anorexia	0 (0)	14 (3.41)

**Table 3.** Socio-economic and demographic characteristics of elderly (N = 384)

Variables	Male (%)	Female (%)
Gender	173 (45.10)	211 (54.90)
Age (years) mean ± S.D. 74.33±9.01	73.14±9.12	75.32±8.82
Religion		
Buddhist	173 (45.10)	211 (54.90)

**Table 3.** (continued)

Variables	Male (%)	Female (%)
Educational level		
None	6 (1.56)	23 (5.99)
Primary	152 (39.58)	185 (48.18)
Secondary	15 (3.91)	3 (0.78)
Marital status		
Single	4 (1.04)	12 (3.13)
Married	126 (32.81)	76 (19.79)
Divorced	43 (11.20)	123 (32.03)
Occupation		
None	81 (21.09)	139 (36.20)
Farmer	71 (18.49)	64 (16.67)
Laborer	12 (3.13)	7 (1.82)
Merchant	3 (0.78)	1 (0.26)
Retired	4 (1.04)	0 (0)
Others	2 (0.52)	0 (0)
Salary (Thai baht/month) median (min-max)	1,000 (600-20,600)	
Activities of daily living		
Totally dependent	6 (1.56)	11 (2.86)
Very dependent	9 (2.34)	9 (2.34)
Partially dependent	14 (3.65)	20 (5.21)
Minimally dependent	50 (13.02)	82 (21.35)
Independent	94 (24.48)	89 (23.18)
Chronic illness		
Hypertension	81 (16.50)	93 (18.94)
Diabetes mellitus	44 (8.96)	54 (11.00)
Dyslipidemia	32 (6.52)	30 (6.11)
Gout	21 (4.28)	11 (2.24)
Heart disease	11 (2.24)	11 (2.24)
Cerebrovascular disease	14 (2.85)	7 (1.43)
Dementia	9 (1.83)	9 (1.83)
Others	64 (13.13)	
Health problems		
Fall	25 (1.77)	33 (2.33)
Osteoporosis	16 (1.13)	23 (1.63)
Osteoarthritis	48 (3.39)	89 (6.29)
Malaise	89 (6.29)	120 (8.49)
Back/waist/leg pain	100 (7.07)	130 (9.19)
Sleeplessness	34 (2.40)	55 (3.89)
Memory loss	28 (1.98)	29 (2.05)
Depression	5 (0.35)	12 (0.85)
Pneumonia	6 (0.42)	5 (0.35)
Vision loss	67 (4.74)	80 (5.66)
Hearing loss	37 (2.62)	38 (2.69)
Fatigue	52 (3.68)	64 (4.53)
Anorexia	17 (1.20)	30 (2.12)
Constipation	36 (2.55)	50 (3.54)
Urinary incontinence	10 (0.71)	33 (2.33)
Fecal incontinence	10 (0.71)	33 (2.33)
Others	10 (0.71)	

**Table 4.** Capacity of the elderly's caregivers (N = 384)

Variables	Female ( $\bar{x} \pm S.D.$ )	Male ( $\bar{x} \pm S.D.$ )	Total ( $\bar{x} \pm S.D.$ )	Interpreta- tion
Physical management	4.17±0.74	4.38±0.62	4.35±0.64	Highest
1. Able to clean the body of and dress for the elderly.	4.07±0.90	4.40±0.88	4.35±0.89	Highest
2. Able to help eliminate the management for the elderly.	4.00±1.01	4.09±1.08	4.08±1.07	Highest
3. Able to prepare hygienic food three times a day for the elderly.	4.02±1.15	4.48±0.79	4.42±0.86	Highest
4. Able to assess health problems and take the elderly to hospital for early treatment.	4.31±0.98	4.42±0.86	4.40±0.88	Highest
5. Able to prepare and give medicine to the elderly.	4.22±1.05	4.57±0.82	4.52±0.86	Highest
6. Able to take the elderly for a medical follow-up.	4.60±0.83	4.63±0.79	4.63±0.80	Highest
7. Able to transfer the elderly.	4.25±0.93	4.31±0.97	4.30±0.97	Highest
8. Able to promote exercise or provide rehabilitation for the elderly.	3.89±1.18	4.05±1.06	4.03±1.08	Highest
9. Able to keep the house clean and prevent accidents for the elderly.	4.27±0.83	4.48±0.81	4.45±0.82	Highest
10. Able to promote sleep and rest for the elderly.	4.09±1.02	4.39±0.92	4.34±0.94	Highest



**Table 4.** (continued)

Variables	Female ( $\bar{x} \pm S.D.$ )	Male ( $\bar{x} \pm S.D.$ )	Total ( $\bar{x} \pm S.D.$ )	Interpreta- tion
Psychological management	4.07 $\pm$ 0.80	4.25 $\pm$ 0.71	4.22 $\pm$ 0.72	Highest
11. Able to encourage and counsel the elderly.	4.33 $\pm$ 0.86	4.48 $\pm$ 0.80	4.34 $\pm$ 0.94	Highest
12. Able to respond to the needs of the elderly.	4.18 $\pm$ 0.96	4.33 $\pm$ 0.84	4.31 $\pm$ 0.86	Highest
13. Able to manage the feelings and emotions of the elderly.	3.98 $\pm$ 0.89	4.17 $\pm$ 0.92	4.14 $\pm$ 0.91	Highest
14. Able to find information in caring for the elderly.	3.87 $\pm$ 1.17	4.14 $\pm$ 1.02	4.10 $\pm$ 1.05	Highest
15. Able to assist the elderly to do activities or hobbies.	3.96 $\pm$ 1.12	4.11 $\pm$ 0.98	4.09 $\pm$ 1.00	Highest
Social management	4.05 $\pm$ 0.85	4.22 $\pm$ 0.77	4.19 $\pm$ 0.78	Highest
16. Able to communicate with the healthcare providers.	4.11 $\pm$ 1.13	4.41 $\pm$ 0.95	4.36 $\pm$ 0.98	Highest
17. Able to assist the elderly for asset management, health insurance or legal management.	4.11 $\pm$ 1.12	4.16 $\pm$ 1.04	4.16 $\pm$ 1.06	Highest
18. Able to mediate the conflict of family members.	3.85 $\pm$ 0.99	4.15 $\pm$ 0.96	4.11 $\pm$ 0.97	Highest
19. Able to help elderly persons to participate in social activities.	4.98 $\pm$ 1.18	4.05 $\pm$ 1.11	4.04 $\pm$ 1.12	Highest
20. Able to support the instruments and money for the daily living of the elderly.	4.22 $\pm$ 0.98	4.32 $\pm$ 0.95	4.30 $\pm$ 0.96	Highest
Spiritual management	4.20 $\pm$ 0.87	4.40 $\pm$ 0.71	4.37 $\pm$ 0.74	Highest
21. Able to promote the sense of they are not lonely and have security with love and generosity.	4.31 $\pm$ 0.92	4.51 $\pm$ 0.77	4.48 $\pm$ 0.79	Highest
22. Able to promote the elderly to perform religious and spiritual practices, i.e., pray, make merit, etc.	4.27 $\pm$ 1.03	4.33 $\pm$ 1.04	4.32 $\pm$ 1.04	Highest
23. Able to promote the self-esteem for the elderly.	4.15 $\pm$ 1.01	4.38 $\pm$ 0.82	4.35 $\pm$ 0.85	Highest
24. Able to promote the meaning and purpose of life for the elderly.	4.05 $\pm$ 1.01	4.37 $\pm$ 0.83	4.33 $\pm$ 0.86	Highest
<b>Overall</b>	<b>4.12 <math>\pm</math> 0.74</b>	<b>4.31<math>\pm</math>0.60</b>	<b>4.28<math>\pm</math>0.63</b>	<b>Highest</b>

## 4. DISCUSSION

### 4.1 Demographic profile of the participants

The majority of caregivers were son/daughters, Buddhists, and they were married, which was congruent with previous studies (Longphasuk et al., 2018; Panyathorn, 2014; Prachuablarb et al., 2014; Promwa, 2018; Sareeso et al., 2017; Sriprayoon, 2019). The reason for this could be explained by the fact that all participants were Buddhists. Religious beliefs and the culture of Thai-north eastern in Ubon Ratchathani province are integrated into the way of life particularly among younger people to foster, respect and look after their parents and family members (Longphasuk et al., 2018; Muenhor and Poonpol, 2016; Sareeso et al., 2017). Most of the participants graduated from primary school and worked as farmers. The median salary was 3,000 Thai baht/month, which were insufficient and they were in debt. These findings were congruent with previous studies that most caregivers were educated at the primary level and were farmers (Kunyodying et al., 2015; Robrujen, 2016). The median salary was lower than 5,000 Thai baht/month (Robrujen, 2016), which was insufficient and they were in debt (Panyathorn, 2014). The issue should be concerned by the government. The duration of being a caregiver was 11.64 years and the timing of care was 13.02 h/day. The results were congruent with previous studies that the duration of care ranged from six months to 10 years (Longphasuk et al., 2018; Muenhor and Poonpol, 2016; Prachuablarb et al., 2014; Promarat, 2016; Ratanasuwana and Opasanan, 2018), and the timing of care ranged from 6 to 24 h/day (Prachuablarb et al., 2014; Promarat, 2016). The results illustrated that most time consuming by caregivers is spent for providing care for their elderly. Participants had a care assistant, which was congruent with the previous study (Promarat, 2016). The common chronic illnesses of caregivers were hypertension and diabetes mellitus. This could be explained by the fact that the participants were in late adulthood with a mean age of 49.42 years. Typically, they were diagnosed with

hypertension and diabetes mellitus (Buford, 2016; Chentli et al., 2015). The common health problems of caring for elderly persons were back/waist/leg pain and fatigue because caregivers had to respond to the needs of the elderly for approximately 13 h/day, and some did not have care assistants (31.1%). The issues should be concerned by health care team for screening, treatment, rehabilitation and continuous monitoring of health problems of the caregivers.

Most of the elderly were female with a mean age of 74.33 years, which was consistent with the statistics of the Thai population. It was found that there are more females than males with a mean age of 75.3 years. Moreover, most of the participants graduated with a primary education and were married, which was consistent with a previous study (Aramwiroj et al., 2011). Furthermore, the median salary was 1,000 Thai baht. This could be explained by the fact that most participants were unemployed, and the main daily living payment was received from their caregivers and subsistence welfare for the aged (Panyapong et al., 2017). The issues should be concerned by the Ministry of Labor and the government to allocate funding and job training for the elderly. In addition, most participants were diagnosed with hypertension and diabetes mellitus and the common health problems of the elderly persons were back pain/waist pain and fatigue which was congruent with the previous study (Panyathorn, 2014). The issues should be concerned by the health care team for screening, treatment, rehabilitation and continuous monitoring of health problems of the elderly. Most participants were also independent, which was congruent previous study (Sareeso et al., 2017). It means that most of the elderly are able to help themselves. Therefore, caregivers and community should promote and maintain the capacity and the activities for the elderly.

### 4.2 Capacity of the elderly's caregivers

The overall score of the capacity of the elderly's caregiver was at the highest level. Half of the participants acquired

knowledge, skills, and experience for caring for elderly persons, and most of participants already had experience in caring for elderly persons. Moreover, the duration of being a caregiver was 11.64 years; thus, this period of time would be sufficient to improve the caregiver's learning skills and experience in caring for the elderly. The studies conducted by Muenhor and Poonpol (2016) and Robrujen (2016) found that caregivers have the necessary knowledge to perform their role in caring for elderly persons. The results were consistent with other studies (Panyathorn, 2014; Phalasuek and Thanomchayathawatch, 2017; Robrujen, 2017; Ratanasuwan and Opasanan, 2018).

However, there are some issues that need to be supported for the caregivers, for instances, the eliminating management and exercise or provide rehabilitation for the elderly. These capacities require knowledge, skills, and experiences. Therefore, caregivers perceived their capacity at the lowest score, which conformed with the previous studies (Panyathorn, 2014; Promwa, 2018). Assisting elderly persons to perform activities or hobbies and social participation are the concerning issues that need to be promoted. The reason for this could be explained by the fact that most of the caregivers were at working age (mean 49.10 years). Most of their time was spent for working from 8.00 a.m. to 5.00 p.m. Therefore, caregivers perceived their capacity at the lowest score, which was congruent with the previous studies (Panyathorn, 2014; Ratanasuwan and Opasanan, 2018).

#### 4.3 Ways to develop the capacity of the elderly's caregivers

The researchers found that there were three ways to develop the capacity of the elderly's caregivers: promoting knowledge, skills and experiences of care, supporting from the government, and being employed as the elderly's caregivers.

Participants indicated that promoting knowledge, skills and experiences of care were important keys in caring for the elderly by training, self-learning, and practice consisting of transfer, elimination management, nutrition care, pressure sore management, exercise, rehabilitation, sleep and rest management, emotional management, memory training, and caring for elderly persons with medical devices. Phalasuek and Thanomchayathawatch (2017) found that developing the capacity of the elderly's caregiver requires learning about the skills in caring for elderly persons to respond to the real needs and problems. Moreover, the learning issues from healthcare professionals and practicing skills by themselves include nutritional management, hygiene care, environmental management and accidental prevention, communication with elderly persons, and stress management. Promwa (2018) also acknowledged that there were six important dimensions required for the elderly care, which are knowledge about the measurement of hypertension and vital signs, food and nutrition care, promoting exercise, performing activity daily living, managing secure environment, and persuasive communication.

Participants reflected that the support from the government was an important guide to promote the capacity of the elderly's caregivers by including funding support, instrumental support, community elderly service centers support, personal assistant caregiver support, and home visits by healthcare professionals. This result was consistent with the study of Muenhor and Poonpol (2016), who found

that support by the government is related to performing the roles of caregivers. Additionally, Robrujen (2016) stated that healthcare support by caregivers is related to the healthcare behavior of the elderly. Panyathorn (2014) also noted that support from healthcare professionals and the government is important for promoting the capacity of care among caregivers during normal daily living and illness.

Participants perceived that working was an important key to gain money in spending for both their daily living and caring for elderly persons. This result conformed with the study of Muenhor and Poonpol (2016), which found that sufficient funds are related to performing the role as caregivers. Robrujen (2016) also mentioned that caregivers' income is related to the healthcare behavior for the elderly by the caregivers.

## 5. CONCLUSION

The study findings indicated the situational analysis on capacity building among caregivers for the elderly that could be used for developing a care plan for elderly persons. Moreover, the capacity of the elderly's caregivers was at the highest level. Therefore, healthcare providers should continuously promote, maintain, and monitor the capacity of the elderly's caregivers. However, eliminating management, promoting exercise or providing rehabilitation, performing activities or hobbies, and promoting social participation should be promoted for the elderly because of the lowest score of the capacity. In addition, three ways for promoting the capacity of the elderly's caregivers were improving the knowledge of the caregivers, providing support by the government, and giving support for the caregivers' occupation. The related organizations such as the government, the Ministry of Public Health, community, and Ministry of Labor should cooperate to develop the long-term care services for the elderly and the caregivers.

## ACKNOWLEDGMENT

This study was funded from the National Research Council of Thailand. The authors would like to express our gratitude to all the participants, as well as the staff from the four research settings for their cooperation and assistance.

## REFERENCES

- Aramwiroj, M., Chaikoolvatana, A., Suwanapet, N., and Chanani, Y. (2011). The self-adjustment and social supports of elderly in municipality, Ubon Ratchathani. *Srinagarind Medical Journal*, 26(3), 196-206. (in Thai)
- Buford, T. W. (2016). Hypertension and aging. *Ageing Research Reviews*, 26, 96-111.
- Chatterji, S., Byles, J., Cutler, D., Seeman, T., and Verdes, E. (2015). Health, functioning and disability in older adults—current status and future implications. *The Lancet*, 385(9967), 563-575.
- Chentli, F., Azzoug, S., and Mahgoun, S. (2015). Diabetes mellitus in elderly. *Indian Journal of Endocrinology and Metabolism*, 19(6), 744-752.
- Colaizzi, P. F. (1978). Psychological research as the phenomenologist views it. In *Existential-phenomenological alternatives for psychology*. (Vale, R., and King, M. eds.), pp. 48-71. New York: Oxford University Press.



- Creswell, J. W. (2002). *Research design: qualitative, quantitative, and mixed methods Approaches*, 2<sup>nd</sup>, Thousand Oaks: SAGE publications.
- Fast, J. (2015). Caregiving for older adults with disability: present costs, future challenges. In *IRPP Study*, 58. Montreal: Institute for Research on Public Policy.
- Jaul, E., and Barron, J. (2017). Age-related diseases and clinical and public health Implications for the 85 years old and over population. *Frontiers in Public Health*, 5, 335.
- Kunyodying, T., Pothiban, L., and Khampolsiri, T. (2015). Dependency of the elderly with stroke, caregiver burden, social support, and quality of life among older caregivers. *Nursing Journal*, 42, 107-117. (in Thai)
- Krejcie, R. V., and Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Longphasuk, N., Monkong, S., and Sirapo-ngam, Y. (2018). Health conditions and self-care activities of older caregivers caring for bedridden older adults. *Thai Journal of Nursing Council*, 33(2), 97-109. (in Thai)
- Muenhor, C., and Poonpol, S. (2016). Factors associated with the caregivers, role in caring for the elderly in Nakhon Phanom province. *Nakhon Phanom University Journal*, 6(1), 79-86. (in Thai)
- National Statistical Office, Ubon Ratchathani. (2020). *Mind map (Social center information "Agine")*. [Online URL: [http://ubon.nso.go.th/index.php?option=com\\_content&view=article&id=356:222&catid=81:2011-10-11-07-2104&Itemid=233](http://ubon.nso.go.th/index.php?option=com_content&view=article&id=356:222&catid=81:2011-10-11-07-2104&Itemid=233)] accessed on July 10, 2020. (in Thai)
- Official statistics registration systems. (2018). *Population and housing statistics-by age group*. [Online URL: [http://stat.dopa.go.th/stat/statnew/upstat\\_age.php](http://stat.dopa.go.th/stat/statnew/upstat_age.php)] accessed on July 10, 2020. (in Thai)
- Panyapong, S., Chaisri, A., Doungmala, T., Khumchaiyaphum, W., and Prungchaiyaphum, W. (2017). Formal of social welfare elderly in Chaiyaphum province. *Journal of MCU Peace Studies*, 5(3), 1-16. (in Thai)
- Panyathorn, K. (2014). Family caregiving of the elderly in Nongtaguy village, Muang district Udonthani province. *Journal of Nursing and Health Care*. 32(4), 33-39. (in Thai)
- Phalasuek, R., and Thanomchayathawatch, B. (2017). A family model for older people care. *The Southern College Network Journal of Nursing and Public Health*. 4(3), 135-150. (in Thai)
- Prachuablarp, C., Wirojratana, V., Jitramontree, N., and Viriyavejaku, A. (2014). The relationships between mutuality, predictability and caregiver role strain in older persons with Parkinson's disease. *Journal of the Royal Thai Army Nurses*, 15(3), 235-245. (in Thai)
- Promarat, S. (2016). Factors affecting burden of caregivers for the elderly bed-bound in Banhong district, Lamphun. *Lanna Public Health Journal*. 12(1), 57-64. (in Thai)
- Promwa, N. (2018). The development of an elderly care competency model for caregivers at Tambon Pamamuong, Aumphur Muaengtak, Tak province. *Journal of Nursing and Health Sciences*, 12(3), 71-82. (in Thai)
- Ratanasuwan, W., and Opasanan, P. (2018). Development of the capacity building model for caregivers of dependency elderly persons in the community. *Journal of Nursing and Education*. 11(4), 156-174. (in Thai)
- Robrujen, S. (2016). Predictors of health care behaviors for the elderly among caregivers in Warinchamrap district, Ubonratchathani province. *Nursing Public Health and Educational Journal*, 17(2), 71-84. (in Thai)
- Robrujen, S. (2017). Development of the elderly care model for elderly caregivers, Warinchamrab district, Ubon Ratchathani province. *Princess of Naradhiwas University Journal*, 9(3), 57-69. (in Thai)
- Sareeso, P., Praisoon, P., Thohinung, U., Umsrewaing, W., and Fongrat, N. (2017). The situation, health problems and care needs of older persons with chronic illness: Chiangrai municipality. *Journal of Nursing Science & Health*, 40(2), 85-95. (in Thai)
- Sriprayoon, K. (2019). Factors associated to dependent care behaviors among caregiver of the long-term care for older adults program, Anghong province. *Journal of Health Education*, 42(2), 44-51. (in Thai)
- Srithamrongsawat, S., and Bundhamcharoen, K. (2010). *Synthesis of long-term care system of the elderly in Thailand*. Bangkok: TQP company., pp. 29-42. (in Thai)
- United Nations. (2019). *World population ageing 2019 highlights*. [Online URL: <https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf>] accessed on July 9, 2020.
- Zamanzadeh, V., Jasemi, M., Valizadeh, L., Keogh, B., and Taleghani, F. (2015). Effective factors in providing holistic care: a qualitative study. *Indian Journal of Palliative Care*, 21(2), 214-224.