

*Original article***Quality of Life among Elderly People with Chronic Diseases during the First Wave of COVID-19 in Ubon Ratchthani Province**

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*Received: May 12, 2021;**Accepted: Oct. 13, 2021;**Published: Oct. 29, 2021***Abstract**

This mixed-method study aimed to determine an impact of COVID-19 outbreak on quality of life and services care needs among elderly people with chronic diseases. One hundred and thirty-three elderly people with chronic diseases dwelling in Warinchamrab district, Ubon Ratchathani province were recruited to assess Quality of Life level (QoL) and health service needs. The participants completed a Thai version of the brief form of the WHO quality of life assessment instrument (WHOQOL-BREF-THAI) and the Health Service Care Needs Survey assessed care needs. Fourteenth of them accepted to be participants interviewed about impact of COVID-19 on their quality of life. Content analysis was used to analyze data from in-depth interviews.

The findings revealed that QoL level of participants reported in overall dimension was low, while level of their social domain moderated. Furthermore, overall health services care needs level was moderate and psychological and social level was high. Content analysis of the interview data illustrated that psychological distress comprised of disease severity, losing friends and loneliness, and financial impact to QoL. Moreover, adopted new technology affected a new lifestyle.

The COVID-19 pandemic can influence various aspects of individuals' QoL, as well as their physical and psychological health. Health services care in community are needed to mitigate the negative effects of pandemic and improved the health and QoL of elderly people with chronic diseases. It is recommended that the stress management intervention to reduce psychological impact of COVID-19.

**Keywords:** Quality of life, Services Care, COVID-19, Elderly, Chronic Diseases

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## Introduction

The World Health Organization (WHO) declared the outbreak of a Public Health Emergency of International Concern on 30 January 2020 and COVID-19 outbreak officially an outbreak on 11 March 2020 (WHO, 2019; WHO, 2020). Thailand announced the first confirmed case of COVID on January 12, 2020 (Wu, Chen, & Chan, 2020; WHO, 2020). In early March 2020, the amount of confirmed cases from local transmission was peaks in Thailand, the biggest of which was at the night entertainment places and Thai boxing stadium in Bangkok (WHO, 2020; Suntrongwong et al., 2020). In response of the situation Thai established the Center of COVID-19 Situation Administration (CCSA) as a single command center to ensure a coherent view of the situation and unambiguous communication to the general public about all related matters. (MOPH, 2020). Since the CCSA have official implement multiple disease-controlling and public health policies in response to the COVID-19 situation, such social distancing and stay home (Decshusupa, Assawakosri, Phakham, & Honsawek, 2020).

The incidence of COVID-19 in Thailand decreased dramatically after Thai government prohibited social distancing after the first wave. As of 6 June 2020, a total of 3,412 confirmed cases including 58 death. While the report total number of confirmed cases on June 6, 2020 was 6,663,304 (MoPH, 2020). In Ubon Ratchathani province reported number of confirmed cases was 15 case with no death and 1 case in Warinchamrab district (Ubon Ratchathani Center of COVID-19m 2020). However, people were asked to stay at home as much as possible and not travel out. Elderly people were increasing encouraged to isolate themselves from young people, thereby creating an age distinction in the perceived

consequences of COVID-10 (Shrira, Hoffman, Bonder, & Palgi, 2020). The probable rise in the incidence of serious health complications from COVID-19 among older adults, particularly those with pre-existing conditions (Gorochategi, Munitis, & Santamaria, 2020). The initial empirical data present quality of life in chronic illness can vary with age especially for senior adults. Chronic conditions affected seniors' mobility and consequently their physical and functional status (Lee, Lee, & Mackenzie, 2006; Muszalik Kedziora-Kornatowska, Kornatowski, 2009) emotional balance, and self-esteem decline because of their dependence on others. These in turn, contribute to the reduction in the quality of life for seniors (Franzén, Saveman, Blomqvist, 2007).

Quality of life (QoL) as primary that has been explored in several studies focusing on noncommunicable diseases (Allgahtani, Hassan, Alsaif, & Zrieq, 2021). It has been defined as "a patient's perception of the effect of illness or medical condition on various domains including physical, psychological (Harraldstad et al., 2021). Some of recent empirical data published have reported the clinical symptoms of patients infected with COVID-19 and forecasted the spread of COVID-19 (Chan et al., 2020; Huang et al., 2020). Pandemic of communication disease, such as COVID-19, negative impact in physical, social, and psychological functioning of individuals and societies, and have significant economic consequence (Qui et al., 2020; Yezli & Khan, 2020). Mucci and colleague indicated that negative effects of the COVID-19 pandemic on HRQoL in general population in Morocco revealed (Mucci, Mucci, & Diolaiuti, 2020). Moreover, few studies have demonstrated that patients with chronic health conditions, such as breast cancer, Parkinson's disease and those

awaiting surgery, experienced deteriorated QoL, particularly in physical and psychosocial dimensions (Mucci, Mucci, & Diolaiuti, 2020; Bargon, et.al., 2020; Guo, et.al., 2020).

Furthermore, COVID-19 pandemic is challenge health system across the world. The Covid-19 pandemic has radically changed the management of elderly with chronic diseases. Existing health services delivery will need to be adapted is for any given activity changes in the context of a pandemic (WHO, 2020). Therefore, it is importance to understand the dimensions of physical of various dimension of QoL, including the needs of health services care. The study aimed to determine the impact of COVID-19 outbreak on quality of life and services care needs among elderly people with chronic diseases.

## Method

### 2.1 Design and Participants

The mixed-method study was conducted among elderly people during July 2020 after pandemic of COVID-19 first wave. We conducted quantitative methods two months after declaration of quarantine and the COVID-19 state of emergency in Thailand. Participants composed of 133 patients under the treatment at Bua-wat health promoting hospital in Warin Chamrab District, Ubon Ratchathani Province. Eligible participants were elderly people, at least 60 years old, and diagnosed with more than one common chronic diseases.

The original aims of this study were to track the need of health care in primary level and plan to develop the community-based care for elderly people, then we add question pertaining to COVID-19 to reflect the impact of the onset of the COVID-19 pandemic as is reported in this paper. The researcher plan to collect data via online survey. However, using internet facility is not

appropriated for elderly people. Consequently, we, then collected data on-site at health promoting hospital. The registered nurses provided the place for collecting data based on the government guideline. Research assistants (undergraduate students) helped participants who were unable to read or write to complete the questionnaires.

### 2.2 Procedure and data Collection

Data was recruited by an on-site at one health promoting hospital in Warin Chamrab District, Ubon Ratchathani Province. We conducted descriptive survey about two months after the declaration of quarantine and the COVID-19 state of emergency in Thailand. Data was collected from July- August 2020. Original plan, we plan to collect data via online survey. However, it is not fixed with elderly people. Then we collected data onsite at health promoting hospital. The register nurses provided the place for collecting data based on the government guideline. Research assistants helped participants who were unable to read or write to complete the questionnaires.

### 2.3 Measurement

The first step of this research was participant self-reported questionnaires. We selected validated self-report questionnaires. The following instrument were used:

(1) Sociodemographic characteristics. The researcher developed questionnaire measuring sociodemographic variables comprised; gender, age, marital status, education level and income and chronic diseases.

(2) Health Services Care Needs Survey were assessed using the questionnaires developed by the researcher, consisted of 20 items measure assessing health care services needs in primary care level under 3 domains: physical (10 items),

mental (7 items), and social (3 items). This tool had a reliability score of 0.832.

(3) Patients' QoL was assessed using the Thai version of World Health Organization Quality of Life (WHOQOL-BREF-THAI), a 26 items assessment of physical, psychological, social relationships and environment. This tool had a reliability score of 0.841. The overall score starts from 26-130 points, and it is interpreted into three categories: Poor QoL (26-60 scores), fair QoL (61-95 scores) and Good QoL (96-130 scores).

### ***In-depth interviews***

After analyzed quantitative data, the patients sample recruited in the first phase were interviewed according to willingness and ability to verbally express themselves. The interview was conducted by the researcher and a research assistant (undergraduate students) during the study period. The great majority of those who participants are case-study in Health Gerontology class ( $n = 14$ ). We visit elderly people with chronic diseases at home for health assessment. Then participants answered additional questions about the perceived impact of COVID-19 on their

### **Results**

The demographic characteristics of the respondents are present in Table 1. Most participants were women (62.4 %) than men. The average age was 68.22 (S.D. = 9.84). Married participants account for 98% of the total sample. Majority of them completed primary school (83.5 %). Regarding the

quality of life. The interviews were audio-recorded and transcribed by a research assistant at Sirindhorn College of Public Health, Ubon Ratchathani.

### ***2.3 Data Analysis***

Statistical analysis was conducted using the SPSS 17.0. The frequency, percentage, mean, standard deviation was reported for variable description. Pearson correlation, and stepwise multiple regression analysis was used to determine correlations between predicting variable on QoL. The data from in-depth interview were analyzed by content analysis (Graneheim, & Lundman, 2004; Patton, 2001) by the researcher and research assistant. Content analysis can be used to draw conclusions about the manifest message in a communication by systematic identification of specified communication characteristics. Semi-structured in-depth interview with open-ended questions was suitable for this technique.

### **Ethical Consideration**

The current study was approved by the ethics committee of Sirindhorn College of Public Health, Ubon Ratchathani (Project Number: SCPHI007/2563)

income, 85.0 % of the participants had a monthly income less than 3000 baht per month. The prevalence of chronic disease among elderly people were hypertension (41.4 %), followed by diabetes (30.8 %), and diabetes and hypertension (21.1 %). The duration of illness was between 1-35 years. The average time was  $10 \pm$  years (Table 1).

**Table 1.** Socio-demographic characteristics among older adults (n=133)

| Characteristic                                     | N   | %    |
|----------------------------------------------------|-----|------|
| <b>Gender</b>                                      |     |      |
| Male                                               | 50  | 37.6 |
| Female                                             | 83  | 62.4 |
| <b>Age (years)</b>                                 |     |      |
| 60 - 69                                            | 61  | 45.4 |
| 70 – 79                                            | 48  | 36.1 |
| > 80                                               | 24  | 18.6 |
| Mean = 68.22, S.D. = 9.834, Min = 60, Max = 94     |     |      |
| <b>Marital Status</b>                              |     |      |
| Single                                             | 10  | 7.5  |
| Married                                            | 99  | 74.4 |
| Divorce                                            | 24  | 18.1 |
| <b>Education</b>                                   |     |      |
| Primary School or lower                            | 111 | 83.5 |
| Secondary School or higher                         | 22  | 16.5 |
| <b>Income per month (Bath)</b>                     |     |      |
| < 3000                                             | 113 | 85.0 |
| > 3000                                             | 20  | 15.0 |
| Mean = 1890, S.D. = 3323.37, Min = 0, Max = 30,000 |     |      |
| <b>Present Illness</b>                             |     |      |
| Hypertension                                       | 55  | 41.4 |
| Diabetes                                           | 41  | 30.8 |
| Diabetes and Hypertension                          | 28  | 21.1 |
| Cardiovascular diseases                            | 6   | 4.5  |
| Kidney diseases                                    | 2   | 1.5  |
| Cerebrovascular diseases                           | 1   | 0.8  |

**Table 1.** Socio-demographic characteristics among older adults (n=133) (cont.)

| Characteristic                           | N   | %    |
|------------------------------------------|-----|------|
| <b>Duration of illness</b>               |     |      |
| < 5 years                                | 83  | 23.4 |
| 5-10 years                               | 167 | 47.0 |
| >10 years                                | 105 | 29.6 |
| Mean =10.0, S.D. = 6.43 Min =1, Max = 35 |     |      |

### 3.1 Quality of life of elderly people with chronic diseases

Quality of life of elderly people with chronic diseases were slightly low. The average QoL score of elderly people with chronic diseases was 58.92 (out of 130). From each dimension of QoL, the

environmental category scored the highest, with an average of 17.91 (S.D. = 3.69), followed by the physiological health ( $13.07 \pm 4.16$ ), and the psychological category scored ( $22.85 \pm 3.62$ ), whereas the social relation category scored the lowest with the average of 10.57 (S.D. =2.10) (Table 2).

**Table 2.** Descriptive Statistic of quality of life and services care needs

| Characteristic             | M     | SD    |          |
|----------------------------|-------|-------|----------|
| <b>Quality of Life</b>     |       |       |          |
| Overall                    | 58.92 | 11.65 | Poor     |
| Physical                   | 16.18 | 4.16  | Poor     |
| Psychological              | 13.07 | 3.62  | Poor     |
| Environmental              | 17.91 | 3.69  | Poor     |
| Social                     | 10.57 | 2.10  | Moderate |
| <b>Services Care Needs</b> |       |       |          |
| Overall                    | 56.15 | 15.08 | Moderate |
| Physical                   | 22.58 | 7.19  | Moderate |
| Psychological              | 17.81 | 6.34  | High     |
| Social                     | 8.75  | 2.68  | High     |

### 3.2 Care related to quality of life of elderly people with chronic disease

The average score of services cares needs was 56.15 (out of 80). The psychological needs score  $3(17.81 \pm .634)$  and social domain  $(8.75 \pm 2.68)$  had high needs of services care (Table 2). Moreover, the majority of elderly people worries about

the pandemic of COVID-19 (92.48%), fearing about severity of disease (90.23 %), uncertainty about future (81.95 %) and need counselling for release anxiety (81.95) (Table 3). However, the Spearman rank correlation analysis services care needs were not correlation with quality of life.

**Table 3** Highest ranked ten health service care needs identified a Moderate or High Level (n=133)

| Health Care Needs                                                     | Level of Needs n (%) |            |            |             |
|-----------------------------------------------------------------------|----------------------|------------|------------|-------------|
|                                                                       | No Need              | Low        | Mod        | High        |
| <b>Physical Need Domain</b>                                           |                      |            |            |             |
| Providing services in Community                                       | 15 (11.28)           | 17 (12.28) | 63 (43.37) | 38(28.57)   |
| Elderly care with Thai traditional medicine                           | 14 (10.53)           | 15 (11.28) | 61 (45.86) | 43 (32.33)  |
| Health Check by community health volunteer                            | 10 (7.52)            | 20 (15.04) | 62 (46.62) | 41 (30.83)  |
| Oral health check by dentist                                          | 16 (12.03)           | 23 (17.29) | 59 (44.36) | 35 (26.32)  |
| Providing blood testing at home                                       | 9 (6.77)             | 21 (15.79) | 58 (43.61) | 45 (33.83)  |
| Physical fitness test                                                 | 8 (6.02)             | 19 (14.29) | 65 (48.87) | 41 (30.83)  |
| Given information related to elderly health by physician              | 15 (11.28)           | 22 (16.54) | 45 (33.83) | 51 (38.85)  |
| Given information related to drug used                                | 17 (12.78)           | 18 (13.53) | 55 (41.35) | 43 (32.33)  |
| Given information related to health promotion and diseases prevention | 13 (9.77)            | 23 (17.29) | 48 (36.09) | 49 (36.84)  |
| Providing physical activity Exercise such as Tai-chi                  | 20 (15.04)           | 30 (22.56) | 42 (31.58) | 41 (30.83)  |
| <b>Psychological Need Domain</b>                                      |                      |            |            |             |
| Counselling for releases anxiety                                      | 0 (0.00)             | 8 (12.03)  | 16 (12.03) | 109 (81.95) |
| Felling of sadness                                                    | 0 (0.00)             | 20 (12.04) | 45 (33.83) | 78 (51.95)  |
| Fearing about severity of disease                                     | 0 (0.00)             | 3 (2.26)   | 10 (7.52)  | 120 (90.23) |
| Worries about the pandemic of COVID-19                                | 0 (0.00)             | 5 (3.76)   | 5 (3.76)   | 123 (92.48) |
| Uncertainty about future                                              | 0 (0.00)             | 6 (4.51)   | 18 (13.53) | 109 (81.95) |
| Concern about the worries of those close to you                       | 0 (0.00)             | 12 (9.02)  | 34 (25.56) | 87 (65.41)  |
| Activity to release stress                                            | 2 (1.50)             | 7 (5.26)   | 32 (24.06) | 92 (69.17)  |
| <b>Social Needs</b>                                                   |                      |            |            |             |
| Visit elderly at home by health care staff                            | 13 (9.77)            | 29 (21.08) | 49 (36.84) | 42 (31.58)  |
| Establish elderly volunteer group for services                        | 23 (17.29)           | 21 (15.79) | 46 (34.59) | 43 (32.33)  |
| More activities for elderly                                           | 25 (18.80)           | 26 (19.55) | 39 (29.32) | 43 (32.33)  |

An In-depth interview provided rich data. The content analysis resulted revealed how pandemic of COVID-19 effected quality of life. Two categories, these as present below.

### 1. Psychological distress due to the pandemic of COVID-19

Majority of participants perceived psychological distress affected their quality of life. Under this category, there have been two-sub categories of “fear of diseases severity” and “sad and loneliness”

#### *Fear of diseases severity*

Data analysis indicated that COVID-19 is a severe disease and tiny is known about illness. One of participants said “*I am so worry about pandemic COVID-19, when it finished. I scared, I can be infected when I go outside*” (Participants 1). The participant experience revealed that “*it is a high spreading rate, no specific treat and no vaccine. This disease affected elder with chronic diseases*” (Participants 2). Moreover, one of the participants said “*most COVID-19 patients have severe clinical symptom especially elderly people*” (Participants 7). The participant experience said “*in the first wave, I feared to being exposed to COVID-19. It was difficult to find mask, and alcohol gel to protect ourselves. We could use fabric mask*” (Participants 4).

#### *Lost friends and loneliness*

Data analysis also revealed that the elderly people were sad and loneliness because of falling apart from their family. One participant said “*my son cannot come to visit me in Songkran day. They cannot come to me in Songkran festival*” (Participants 3). From an experience of one participant, she indicated that “*I can’t go to temple in the Buddhist day or provide some food to Buddhist monk as usual as I did*” (Participants 6). Another participant

expressed that “*It just sad because of COVID-19, we can’t travel as the same*” (Participants 9). Another one said “*Based on prevent transmission. We have to keep social distancing and bring food to eat at home. We can’t eat together*” (Participants 8). One of participants experience proposed “*I ate only same food in every morning. Before COVID-19, I go eat breakfast at restaurant. My husband drink back coffee and I eat Vietnamese noodle (Kuai-Jap). Sometime, we met friends and talk. In the present, no idea for breakfast. When diseases finished*”. (Participants 5).

### 2. Financial Needs

A greater part of the discussion in all participant concerned economic challenge. A number of needs of financial support from government to their family. Participants said “*COVID-19 impact to job. My son lost their job and no income*”. We needed financial support to pay their nephew niece school fees. (Participants 10). One elderly said: “*I am requesting that if I can support with some money to enable my nephew to go school, because my nephew is at secondary school. For now, I am not wealthy and no job. I am so crying for my nephew and my son that he lost job*” (Participants 1). Another one said “*Normally, I can sale food at nigh market. After government lockdown, I can’t cook food and sale it. I lost of my job*”. (Participants 14). Moreover, one said “*COVID-19 impacted their lifestyle, they change their lives. We can’t go work as the same that we can do. We have to stay home and safe*” (Participants 11).

### 3. Adopted new technology

Emerging theme revealed from in-depth interview. One of participants said “*during lockdown, my family work at home. It is surprised to used video-communication*”. (Participants 12). Another one said “*I have to learn about new technology, when government want to give us money. I have to*

*asked my nephew to learn how to do and used application.”* (Participants 13). One of participants experience said *“this time TV, line is a new friend who can help me to keep contact with friends and know what happen in the world”* (Participants 4).

## Discussion

This study assessed the QoL among elderly people with chronic diseases and the needs of health services care of elderly people with chronic diseases after the first wave of COVID-19 pandemic. We found that the elderly people reported lower quality of life. This is not consistent with the previous study, most of elderly people with chronic had a moderate level of QOL (Srithanee, 2017; Seangpraw, Ratnasiripong, & Ratanasiripong, 2019). These results are similar with previous study, elderly people with chronic health conditions had poor quality of life than younger people (Samrani, et.al., 2020). One possible for our finding may in line with those elderly people may have trouble dealing with isolation than younger people and may need more support (Shira, et.al., 2020; Ayalon, 2020; Armitage, & Nellums, 2020). It is supported the previous studies indicated that older adults with chronic disease may suffer from various disease that lead to poor control of movement and limit the performance of various activities (Chen & Chen, 2017; 34, 35). Moreover, critical aspect to effect QoL in this study is sad and loneliness, which has a major influence on psychological health. Depression and social relations are primary factors related to QoL (Chen & Chen, 2017).

In this study, services care needs in the psychological domain were found strongly health care needs. Moreover, this group present high needs of psychological domain. The experienced described in an in-depth interview correspond well with this result revealed fear with of COVID-19 severity, sad and loneliness. Our finding is

quite similar with previous study, the psychological distress before and after lockdown in the UK increased from 19 to 27% (Pierce, et.al., 2020). Hawash and college assess the association of COVID-19 pandemic stress with QoL presented moderated level of stress during COVID-19 ( $19.26 \pm 3.27$ ) (Hawash, et.al., 2021). A study conducted in China presented that the unknown fear could trigger mental problems like depression, anxiety, and deviant risk being behaviors such as to tobacco and alcohol consumption (Shigemura, et.al., 2020). Qui and college also confirmed that almost 35 % of subjects exhibited emotional distress (Qui, et.al., 2020). Few studies on psychological distress in general population during COVID-19 pandemic confirmed the population suffers from psychological distress related to COVID-19 pandemic (Lorant, et.al., 2021; Ambelu, et.al., 2021). The interpretations that elderly people have to staying at home, quarantine, alongside city, and lockdown during COVID-19 pandemic. Loss of freedom and uncertainty over disease status created dramatic adverse effect on mental health (Brooks, et.al., 2020). Furthermore, the use of social media in senior are more comfortable in elderly groups. One possible explanation for this finding is that impact on older adults. Most of elderly people include general population likely to get information form social media. The spent time to use application line to read an information and monitor the report number of confirmed COVID-19 cases likely to have psychological distress (Neria & Sullivan, 2011).

However, our study is limited by its small sample size and from one health promoting hospital and may not represent the quality of life among elderly people to the entire population of Thailand. Furthermore, Warinchamrab district has had a relative low morbidity and mortality rate, result may also not be generalized internationally. Moreover,

this study do not allow conclusions to be drawn about the variable associations examined.

In conclusion, the result of the study revealed the negative effects of the COVID-19 pandemic on the various dimension of individuals' QoL both of physical and psychological health. Furthermore, the finding provided baseline evidence and highlight the need of health services care. It is importance for health care staff to proposed and intervention to reduce the psychological

impact of COVID-19 and keep people safe such as free psychological consultations. Moreover, it should be collaborated between health care services and community to provide high-quality, timely crisis-oriented psychological services to elderly in community. However, this study was made in the early onset of the diseases and follow-up studies could be vital in determine the effect of pandemic to QoL and psychosocial distress, especially after the new wave of COVID-19 pandemic.

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