The Quality Of Life Of The Ageing In Phayao Province

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Abstract

The objectives of this study were to investigate the quality of life of the Ageing including their physical fitness, ability to help themselves, depression, and health condition. The subjects were 227 men and 334 women, aged between 60- and 90 years old. Fitness testing consists of five items (Mason, Horvat& Nocera, 2013) including (1) 30-second chair stand; (2) arm curl; (3) 2-minute step; (4) chair sit-and-reach; (5) back scratch. The ability to help themselves and depression was classified based on the Ageing questionnaire, 2015, and the Thai geriatric depression scale (TGDS) by the Ministry of Public Health. The results of the study found that 1) The Ageing both men and women had muscle strength and endurance (30-second chair stand) very low scores but in cardiovascular endurance, (2-minute step) and flexibility (back scratch) both men and women had good scores 2) Most of the Ageing had normal depression score and high score in the ability to help themselves 3) Hypertensive symptoms, vision loss, and dementia are the tried one of health condition issue in the Ageing. It could be concluded that most of the Ageing still have a good quality of life by the assessment of physical fitness, depression, ability to help them self and health condition. But it is necessary to take care and pay attention to their health conditions case by case.

Keywords: Elderly, Physical Fitness, Health Condition.

Introduction

At present Thailand had reached a society of Aging completely (Peek, Im-em& Tangthanaseth, 2015; United Nations, 2015). According to Institute for Population and Social Research, Mahidol University (2006), the Ageing population in the north of Thailand had the highest number compared to other areas of the country (Rugbumrung& et al., 2021). The increase of the Ageing with the declining share in the working force will affect societies and cause economic problems.

Aging is the age with declines in physical function cells and physiological systems begin to deteriorate thus causing worsened physical movement and memory, affecting vital physical activities, social engagement, and quality of life (Brent, 2009; Vaughan& et al. 2012; Mason, Horvat&

Nocera, 2013; Rugbumrung& et al., 2021). As the age increases, physical fitness in various functions will decrease causing movement ability to decrease and possibly lead to other various types of health problems (Shinichi & et al., 2003; Rugbumrung& et al., 2021). For the psychological, about 20 percent of the aged 55 years up face psychological syndrome, such as anxiety. The physical problem is the high expense of health care because of the failure of the body. Besides, the ability to move becomes lower, affecting the mind of the Ageing and everyone around them. (Rugbumrung, 2020)

Due to mental and physical change, most of the Ageing are feeling low because of the ability both of physical and intellectual become lower. Besides, they must face losing their cousins and close friends both of the same age. Some of them worry about their end of life

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and death. Besides, someone who has a descendant who goes out to work or to marry. No one to stay with them until they feel lonely. Someone feels lonely until becoming a depressive illness or emotional instability and the change of nervous and memory become sleepless and bored with food (Yen & Lin, 2018, Lindquist, Ramirez-Zohfeld& Sunkara, 2016: Rugbumrung, 2020). Wongpakaran (2016) and team's research submitted to National Research Council found that the Ageing who stay at the 4 hospitals and those who stay at Old age Home are a depressive illness is around 23 percent.

Physical and mental health both influences affect quality of the life (Thomas&, 2020). The reduction of the ability to perform lifestyle activities and self-management abilities in aging results in a lower quality of life for both the mind and body. Some of the Ageing face stress decreased happiness and the ability to look after themselves and their roles in family and society is reduced. Make it necessary to adjust the body and mind in many ways to balance physical and mental (Rugbumrung& et al., 2021; Peters, 2006). The various changes make the Ageing inevitably change themselves, directly affecting their lifestyle and quality of life.

Studying the quality of life in the Ageing is necessary for an aging society country because aging is effective for quality of life. High quality of life in the Ageing depends on the ability to help themselves, depression (physical and mental), (Hopman-Rock & Westhoff, 2000; Von Faber, Bootsma-van der Van Exel & et al., 2001) sex, (Netuveli& et al., 2006) physical fitness (Mason, Horvat& Nocera, 2013) and health condition (Tongdee, Rongmuang& Nakchatree, 2013).

Even though Thailand is an aging society and there are many studies done on aging.

But there are few studies on the quality of life of the Ageing. The purposes of this study were to study the quality of life of the Ageing including their physical fitness, ability to help themselves, depression, and health condition for use in planning the Ageing health education and promotion due to the local context and will be a guideline for the Ageing health

management to manage with efficiency.

Objectives of the study

To study the quality of life of the Ageing including their physical fitness, ability to help themselves, depression, and health condition

Research Methodology

The research is quantitative survey research. The subjects were 561 aging (227 men and 334 women) aged 60 years and over. The subjects were selected by the purposive sampling selected from Maika Sub-district, Muang District, and Champa Wai Sub-district, Dok Kham Tai District; Phayao Province. The sample size was calculated with Taro Yamane (1967) at a 95% confidence level.

Research Instrument

I) Physical Fitness Assessments

Fitness testing consists of five items (Mason, Horvat& Nocera, 2013) including (1) 30-second chair stand; (2) arm curl; (3) 2-minute step; (4) chair sit-and-reach; (5) back scratch.

2) The Aging questionnaire, 2015 by the Ministry of Public Health

The questionnaire classified health conditions.

3) Thai geriatric depression scale (TGDS) by the Ministry of Public Health.

The instrument Classified the ability to help themselves and the depression.

Data Analysis and Statistics

1) The data were collected focusing on physical fitness, health conditions, ability to help themselves, and depression. Data analysis was conducted using three statistical values: percentage, Mean, and Standard Deviation.

2) Independent t-test was used to compare the mean scores obtained from health behavior between males and females.

Result

Table 1 Subjects' general information, separated by gender

Cananal Information	Sex (n = 561)				
General Information	Meal (227)	Female (334)			

	Number	%	Number	%
Occupation	102	44.9	156	46.7
Non-occupation	125	55.1	178	53.3
Cover	120	52.9	150	44.1
Widow	45	19.8	107	32
Divorced	10	4.41	13	3.9
Single	52	22.9	64	20
Age	Mean 70.56	Mean 70.56 S.D. 7.47		S.D. 71.03
Weight (cm.)	Mean 61.65 S.D. 8.36		Mean 56.74 S.D. 8.64	
Height (kg.)	Mean 164.71	l S.D. 6.83	Mean 156.70	0 S.D. 7.08

The data from table 1 shows the average age of the subjects in this study was 70.56 years old (for men) and 68.05 years old (for women). In men, the average body weight was 61.65 kg and the average height was 164.71 cm.

The average body weight of the women was 56.74 kg and the average height was 156.70 cm. Regarding widowhood, women had a higher ratio than men while men showed a higher score of being unmarried and divorced than women.

Table 2 Comparison of the mean scores of fitness tests between males and females.

Fitness Test	Sex				Independent t-test	
	Men (227)		Woman (334)			
	Mean	S.D.	Mean	S.D.	τ	P
30-second chair stand (second)	11.52	5.23	10.79	4.60	1.00	0.32
30-second arm curl (second)	16.23	7.05	15.83	6.97	1.29	0.28
2-minute step	116.63	7.05	104.41	7.57	0.10	0.92
chair sit-and-reach	3.56	6.79	2.54	6.43	1.32	0.19
back scratch	8.72	4.30	9.08	3.20	1.05	0.29

^{*} significate level .05

From the data from table 2, it is seen that the Ageing both men and women had muscle strength and endurance (30-second chair stand) very low scores, but in cardiovascular endurance (2-minute step) and flexibility (back

scratch) both men and women had good scores; according to Thai Physical Fitness Test for The Aging. No statisticians at .05 in every test item between men and women.

Table 3 Comparison of the mean scores of the depression and the ability to help themselves score between males and females.

Scores	Sex			Independent t-test		
	Men (227)		Woman (334)		4	
	Mean	S.D.	Mean	S.D.	· l	P
ability to help themselves	19.48	1.54	19.35	1.33	1.37	0.14
depression	6.98	5.23	6.53	4.85	1.21	0.17

^{*} significate level .05

The ability to help themselves average score of men (19.48) and women (19.35) is high level (over 12). No statisticians at 0.05 in the ability to help themselves between men and women. It can be explained in most of the Ageing that both men and women can help themselves. Regarding depression average score of men

(6.98) and women (6.53) is the normal level (under 12). No statisticians at 0.05 in the depression between men and women. It can be explained most of the Ageing both men and women have depression score at the level of no concern.

Table 4 The health conditions in males and females.

	Sex					
Health Conditions	Men (227)	Woman (334)			
	Number	%	Number	%		
Hypertension	101	44.5	176	52.7		
Osteoarthritis	55	24.2	57	17.1		
Diabetes	32	14.1	82	24.6		
Gastritis	21	9.3	27	8.1		
Cataract	11	4.9	34	10.2		
Vision loss	78	34.4	115	34.4		
Dementia	74	32.6	112	33.5		
Hearing loss	64	28.2	75	22.6		
Insomnia	41	18.1	82	24.6		
Movement Disorder	46	20.3	50	15		

As shown in Table 4, The health conditions calculated in percentage found in this research of the Ageing men from high percent to low, hypertension (44.5), vision loss (34.8),dementia (32.6),hearing loss (28.2),osteoarthritis (24.2), movement disorder (20.3), insomnia (18.1), diabetes (14.1), gastritis (9.3), cataracts (4.9); for the Ageing women form high percent to low, hypertension (52.7), vision loss (34.4), dementia (33.5), insomnia (24.6), (24.6),hearing loss diabetes (22.6),osteoarthritis (17.1), movement disorder (15), cataracts (10.2), gastritis (8.1).

Discussion and Conclusion

Physical Fitness

The result analysis showed that Ageing had very low scores in the 30-second chair stand. The purpose of this test item is to measure lower extremity strength and endurance, which is necessary for the Ageing daily activities such as walking or up-down stairs (Mason, Horvat& Nocera, 2013) including basic housework (Rikli& Jones, 2013). Even though the score of 2-minute step (cardiovascular endurance) and back scratch (flexibility) both men and women had good scores. But aging is the age with declines in physical function cells and physiological systems begin to deteriorate thus causing worsened physical movement and memory, affecting vital physical activities, social engagement, and quality of life (Brent, 2009; Vaughan& et al. 2012; Mason& et al., 2013; Rugbumrung& et al., 2021). It was necessary to be concerned about the Ageing physical fitness, especially muscle strength and endurance, and the need to promote exercise. It was many pieces of evidence showing that habitual exercise is effective physically and promotes the quality of life of the Aging (Chodzko-Zajko& et al., 2009). Thus, appropriate and various exercise programs such as aerobic exercise, resistance exercise, flexibility, and neuromotor exercise were important to improve The Ageing physical fitness and help them to perform daily activities normally (Mason& et al., 2013; Garber, & et al., 2011).

Depression and The Ability to Help Themselves

The research results show that most aging both men and women had depression average score is the normal level, it can be explained they had more positive thinking than negative thinking. Causes most elderly people don't have depression (Rugbumrung, 2020). thinking or optimism helps prolong active life expectancy by reducing risk factors for death (Maruta& et al., 2000; Rugbumrung& et al., 2021). As the age increases, negative thinking is a result of baggage, cells and physiological systems begin to deteriorate thus causing worsened physical movement and memory (Brent, 2009; Rugbumrung& et al., 2021) and leading the way to depression. Depression is the most common mental illness and has negative effects on the quality of life (Thipprakmas, 2021). Mostly depression in the Ageing will results from health problems (Robinson, Smith & Segal, 2019; Mojtabai & Olfson, 2004; Byers & et al., 2010; Hoover & et al., 2010; Licht-Strunk & et al.,2017; Unützer, J2007; Rugbumrung& et al., 2021). Although most of the Ageing had depression average score is the normal level. That doesn't mean there's no stress. Therefore, it is necessary to be aware of Maninthorn Rugbumrung 1478

the negative thinking of the Ageing, especially the Ageing who live alone (Rugbumrung& et al., 2021). Even though Thai society still has relatives, relatives gradually come to take care, as well as receivers from the residential community, causing the elderly who live alone to not feel alone (Awear, 2003; Rugbumrung& et al., 2021).

Regarding the ability to help themselves, the research results show that most of the Aging can still take good care of themselves. From the result of physical fitness, despite the testing item of muscle strength and endurance test are very low score but they are still having good physical health, allowing to be able to move normally without having to rely on other people. When the age increases, physical fitness in various functions will decrease causing movement ability to decrease and possibly lead to other various types of health problems (Shinichi & et al., 2003; Rugbumrung& et al., 2021). But the research results show that the cardiovascular endurance fitness and flexibility fitness of the Ageing is still at a good level, it may one factor to help the Ageing could do usual daily activities. The ability to help themselves and do daily activities is associated with the level of physical fitness and physical fitness and physical activity are essential factors for the quality of life of the Ageing (Lepsy& et al., 2021).

The health conditions

The finding from this research is showing that most of the Ageing had hypertensive symptoms, vision loss, and dementia. Hypertension is the syndromes resulting from the abnormal function of body systems and syndromes associated with NCDs. They are caused by behavior and daily lifestyle effects from the health behavior from the past like food consumption behavior, exercise, and daily activities (Rugbumrung& et al., 2021). These symptoms are not only caused by aging but are caused by many reasons (Jeeravipoolvarn, 2017; Rugbumrung& et al., 2021). Vision loss and dementia are the two most health problems found in the Ageing and affected living performance (Rugbumrung& et al., 2021). Aging is a major factor in health issues. The protein fibers in the eye lens will have less flexibility when aged which leads to vision loss (Salvi, Akhtar& Currie, 2006; (Rugbumrung&

et al., 2021). Most health condition symptom increases with age. The Ageing who have health issues problems will affect their ability to perform daily activities and have the risk of having depression (Watkinson, 2005; Eichenbaum, 2012; Dennison,2014; Wimo, Winblad & Jonsson, 2010) decreased their quality of life. Therefore, people who are involved in caring for the Aging need to understand that health issues are incurable symptoms. And must have understanding and empathy for the Ageing with health issues symptoms (Rugbumrung& et al., 2021).

It could be concluded that most of the Ageing still have a good quality of life by the assessment of physical fitness, depression, ability to help them self and health condition. But it is necessary to take care and pay attention to their health condition, exercise routine, food consumption, daily activities, and making a role in the community and society; this will help promote the quality of their life.

Reference

- 1. Awear, S. (2003). The study of elderly people living alone: Finding from Kanchanaburi
- 2. Project. Master Thesis in Arts (Population and Social Research). Mahidol University.
- 3. Bangkok (Thailand). Graduate School.
- 4. Brent, C. (2009). Physiology of Aging. Michigan: University of Michigan Medical.
- 5. Byers, A.L., Yaffe, K., Covinsky, K.E.& et al. (2010). ML high occurrence of mood and
- a. anxiety disorders among older adults: The National Comorbidity Survey Replication.
- b. Arch Gen Psychiatry, 67(5), 489-496.
- 6. Chodzko-Zajko, W. J, Proctor, D. N., Fiatarone Singh, M. A.& et al. (2009). Exercise and
- a. Physical activity for older adults. Medicine
 & Science in Sports and Exercise. 41(7),
- b. 1510–1530.
- 7. Dennison, R. (2014). Rethinking dementia. British Journal of Community Nursing, 19(1),5
- 8. Eichenbaum, J. W. (2012). Geriatric vision loss due to cataracts, macular degeneration, and
- a. glaucoma. Mount Sinai Journal of Medicine, 79(2), 276-294.

- 9. Garber, C. E., Blissmer, B., Deschenes, M. R& et al. (2011). Quantity and quality of exercise
- a. for developing and maintaining cardiorespiratory, musculoskeletal, and neuromotor
- b. fitness in apparently healthy adults:
 Guidance for prescribing exercise.
 Medicine and
- c. Science in Sports and Exercise. 43(7), 1334–1359.
- 10. Hoover, D.R., Siegel, M., Lucas, J.& et al. (2010). Depression in the first year of stay for
- a. elderly long-term nursing home residents in the U.S.A. Int Psychogeriatr, 22(7),
- b. 1161-71
- 11. Hopman-Rock, M., Westhoff, M. (2000). The effects of a health educational and exercise
- a. program for older adults with osteoarthritis for the hip or knee. J Rheumatol, 27(8),
- b. 1947-1954.
- 12. Institute for Population and Social Research, Mahidol University. (2006). Population
- a. projections for Thailand. Nakhon Pathom: Institute for Population and Social
- b. Research.
- 13. Jeeravipoolvarn, P. (2017). Osteoarthritis. Department of Medicine Service Journal,
- a. 42(3)
- 14. Lepsy, E., Radwańska, E., Żurek, G.& et al. (2021). Association of physical fitness with
- a. quality of life in community-dwelling older adults aged 80 and over in Poland: a
- b. cross-sectional study. BMC Geriatrics, 21 Article number: 491
- 15. Lindquist, L.A., Ramirez-Zohfeld, V.& Sunkara, P.(2016). Advanced life events (ALEs) that
- a. impede aging-in-place among seniors. Arch Gerontol Geriatr, 64: 90–95
- b. of Gerontology, Series A, 57(9), M557-M562
- 16. Licht-Strunk, E., Van- der Windt, D.A., Van- Marwijk, H.W.& et al. (2017). The prognosis
- a. of depression in older patients in general practice and the community. A systematic
- b. review. Family Practice—an international journal, 24(2), 168-180.

- 17. Maruta, T., Colligan, R., Malinchoc, M.& Offord, K. P. (2000). Optimists versus Pessimists.
- a. Survival Rate Among Medical Patients Over a 30-Year Period. Mayo Clinic
- b. Proceedings, 75(2), 140-143.
- 18. Mason, R. C., Horvat, M.& Nocera, J., N.& Sonthiratana, S. (2013). The Effects of Exercise
- a. on the Physical Fitness of High and Moderate-Low Functioning Older Adult Women.
- b. Journal of Aging Research, Volume 2016, 1-7.
- 19. Mojtabai R, Olfson M. (2004). Major depression in community-dwelling middle-aged and
- a. older adults: prevalence and 2- and 4-year follow-up symptoms. Psychol Med, 34(4),
- b. 623-34.
- 20. Netuveli, G.& Blane, D. (2008). Quality of life in older ages. British Medical Bulletin, 85(1),
- a. 113-126.
- 21. Netuveli, G., Wiggins, R. D., Hildon, .Zoe& et al. (2006). Quality of life at older ages:
- a. evidence from the English longitudinal study of aging. J Epidemiol Community
- b. Health, 60(4), 357–363.
- 22. Peek, C. Im-em, W., Tangthanaseth, R. (2015). The State of Thailand's Population 2015
- a. "Features of Thai Families in the Era of Low Fertility and Longevity". Institute of
- b. Population and Social Research, Mahidol University; the National Economic and
- c. Social Development Board
- 23. Rikli, R. E.& Jones, C. J. (2013). Development and validation of criterion-referenced
- a. clinically relevant fitness standards for maintaining physical independence in later
- b. years. The Gerontologist, 53(2), 255–267.
- 24. Robinson, L., Smith, M., and Segal, J. (2019). Depression in Older Adults: Signs, Symptoms,
- a. Treatment. Help Guide.
- 25. Rugbumrung M. (2020). Learning Management Model to Aging Health Promotion. Doctoral
- a. Dissertation of Education. Graduate School, Chiang Mai University.

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- Rugbumrung, M., Dibyamandala, J., Mangkhang, C.& Kamsiripiman, K. (2021). The Ability
- a. to Help Themselves and Depression of the Ageing. International Journal of Crime,
- b. Law and Social Issues, 7(1), 26-33.
- 27. Rugbumrung, M., Dibyamandala, J., Mangkhang, C.& Kamsiripiman, K. (2021). The Health
- a. Status of the Ageing in Northern Thailand. International Journal of Crime, Law and
- b. Social Issues, 7(1), 34-40.
- 28. Salvi, S. M., Akhtar, S.& Currie, Z. (2006). Ageing changes in the eye. Postgrad Med J,
- a. 82(971), 581–587.
- 29. Shinichi, D., Masaki, M., Yoshinori, N. & Tada, N., Matsuzawa, J., & Sato, S. (2003).
- a. Physical-Fitness Declines in Older Japanese Adults. Journal of Aging & Physical
- b. Activity, 11(1), 112-122.
 Thipprakmas, R. (2021). Prevalence and Factors Associated with Depression in the
- c. Elderly: A Systematic Review. Regional Health Promotion Center 9 Journal. 15(37).
- d. 325-338
- 30. Thomas, K., Nilsson, E., Kristenson, M.& et al. (2020). Associations of Psychosocial Factors
- a. with Multiple Health Behaviors: A Population-Based Study of Middle-Aged Men and
- b. Women. Int J Environ Res Public Health, 17(4): 1239.
- 31. Tongdee, J., Rongmuang, D., & Nakchatree, C. (2013). Health Status and Quality of Life
- a. among the Elderly in the Southern Border Provinces of Thailand. Nursing Journal of
- b. the Ministry of Public Health, 22(3), 88-99.
 - United Nations. (2015). World Population Prospects, the 2015 Revision. Department of
- c. Economic and Social Affairs, Population Division; United Nations: New York
- 32. Unützer, J. (2007). Clinical practice. Late-life depression. N Engl J Med, 357(22), 2269-76.

- 33. Vaughan S., Morris N., Shum D.& et al. (2012). Study protocol: a randomized controlled trial
- a. of the effects of a multi-modal exercise program on cognition and physical
- b. functioning in older women. BMC Geriatrics. 12, article 60,1–11.
- 34. Von Faber, M., Bootsma-van der, W., Van Exel, E., Gussekloo, & et al. (2001). Successful
- a. aging in the oldest old: who can be characterized as successfully aged? Arch Intern
- b. Med, 61(22), 2694-70
- 35. Watkinson, S. (2005). Visual impairment in older people: Thenurse's role. Nursing Standard.
- a. 19(17), 45-52.
- 36. Wimo, A., Winblad, B.& Jonsson, L. (2010). The worldwide societal costs of dementia:
- a. Estimates for 2009.Alzheimers & Dementia, 6(2), 98-103.
- 37. Wongpakaran, N., Wongpakaran, T., Ngamthipwattana, T. (2016). Handbook of Caring for
- a. the Aged: Antidepressant formula. Bangkok: Open World, Co. Ltd.
- 38. Yen, H.Y. & Lin, L. J. (2018). Quality of life in older adults: Benefits from the productive
- engagement in physical activity. Journal of Exercise Science & Fitness, 16 (2): 49-54.