

HOLISTIC APPROACH MODEL FOR THE SUCCESSFULL PREPARATION FOR OLD AGE

Saksit Pornrattanaseekul
Chulalongkorn University, Thailand
yenwang33033@hotmail.com

Abstract:

This paper provides thesis reviews and a conceptual framework for viewing aging society as composed of four dimensions: Physical Health, Mental Health, Social Health, and Personal Financial Health. Physical and Personal Financial Health are a combination of subjective and objective indicators, but Mental and Social Health have only subjective indicators. In each health dimension there are many indicators, each indicator is closely related and it could number of other indicators in both positive and negative way so Holistic Approach should suit in successful aging. People who are aging prepare to physical, mental, social, and personal financial health. They try to make their life appropriate before and after retirement in order to have a good quality of life with happiness under sustainable sufficiency economy.

Keywords: quality of aging, successful aging, healthy aging

1. INTRODUCTION

The future of the world will be coming to the aging society then it will be called “Absolute Aging Society”. Definition of Aging Society by WHO (2491) “A nation that has more aging than 10 percent of its whole population it is called the nation of aging society. However, aging population more than 20 percent of the whole population is called “Absolute Aging Society”. The report says that Thai age people are expected to be 14.4 million or just about 20 percent of the whole population between years 2000 to 2030. Thailand will be facing an absolute aging society that will be dependent population both on budget in healthy system and general expenditure. The Thai population who will be near retirement or aging will be preparing for a qualified retirement that will use a long period time for preparing which will depend on individual satisfaction levels and different culture, tradition and attitude.

1.1. Objective of Research

Study of Health Holistic Evaluation System is to develop and built indicators in Physical, Mental, Social, and Personal Financial Health to be for applied in The New Holistic Health Evaluation.

1.2. Research questions

Indicators in Physical, Mental, Social, and Personal Financial Health are related in Holistic Health Approach or not, and How.

1.3. Scope of research

Study in Holistic Health of Physical, Mental, Social, and Personal Financial Health for developing the Holistic Health Model and Evaluation System in Thailand.

2. LITERATURE REVIEW

The normal aging can be separated into usual aging and successful aging. (Liffiton, 2012 ,Kim, 2012) Usual aging is determined to non-pathological age – related cognitive and physical ability. While Liffiton and Kim’s research is focused on healthy aging and covers more than successful aging, Successful aging is just focused on cognitive and physical functions. Healthy aging is a holistic approach in multiple dimensions; Physical, Mental, Social, and Personal Financial Health.

This thesis will present and explain a new model for preparing for aging in the future. The model has four dimensions; each dimension has both subjective and objective indicators. This thesis will focus on physical, mental, social, and personal financial dimensions. The literature about the approach to prepare for survival at old age raised a variety at research question such as: why should we prepare for aging? When should we prepare for aging? Who should start to prepare? And how should we prepare? It is important to make preparation for old age when individual is young. Preparing for old age is necessary for everyone, because everyone goes through the process of aging. Healthy aging has mainly been described in four dimensions. Before analyzing in four dimensions (both processes and methods). It is necessary to know why people should prepare. This question is significant due to the increasing share of the elderly in the Thai population, with this trend inevitably continuing. The vast majority of the elderly population is unhealthy and has limited physical and mental function. This is a result of a lack of preparation by each individual and limited government support. Recently, however, the government has been investing more money into government hospitals, helping those who are not prepared for aging. If the elderly population continues to rise, there will be less funds available for the government to spend on caring for the elderly due to a decline in the Thai working population. Therefore, it is vital for individuals to prepare for aging by themselves. When should we start preparing for aging? People with high economic and social status prepare for a shorter time compared to others with lower status. Consequently, if someone retires at an early age, they will have had less time to prepare. Who should be preparing? This question holds great importance as everyone faces the process of aging who prepares early; they will be more comfortable in the future. What should we do to prepare? To answer this question it is necessary to observe four dimensions: physical health, mental health, social health, and personal financial health. How should we prepare?

This question looks at the optimal method to prepare. How much money should we be saving for retirement? This question observes the situation of monetary expectations after retirement.

1) Aging and physical health; provided in preparation of physical health preventions and prophylactics in disease and degeneration of body that focus in individual behavior and aging process. Physical health contains two components that components are the measures of prevention for retirement.

a) The first component is the objective indicators such as:

i) Physical Fitness Score (Physical Fitness includes Cardiorespiratory Fitness, Body Composition, Flexibility, Muscular Strength, Muscular Endurance) Physical fitness is the ability to do daily function in each age group. In this research will show study of some components related to either general human health or sport human health, by U.S. Center for Disease Control and Prevention (1999) defines that components are related with health. American college of sports medicine (2000) defines test scores of physical health: Cardiorespiratory Fitness that related with the ability to exercise all the muscles of the body to check the cardiovascular system, the flexibility tests the flexible all body and movement of joints, and Muscular Strength tests the strength of muscle, Muscular endurance tests the ability in duration of muscular. Physical activity is a modifiable low risk factor for cardiovascular diseases and a variety of other chronic diseases including diabetes mellitus, cancer, obesity, hypertension, osteoporosis, osteoarthritis, sex hormone deficits and Alzheimer's disease. Increased levels of activity and fitness were found to have reductions in relative risk of death (Health benefits of physical activity: the evidence; Darren E.R.) However, an increase in energy expenditure from physical activity of 1,000 kcal per week was associated with a mortality benefit of about 20%. The effect of regular physical activity can reduce the risk and helps in preventing of several chronic diseases such as cardiovascular, diabetes, cancer, hypertension, obesity, depression, osteoporosis and dyslipidemia and increases activity of life and the best life expectancy.

ii) Assessment of nutrition status (body mass index, waist to hip circumferences, abdominal circumference). Body mass index (WHO, 1998) is a good indicator in measure about the nutrition status. Skinfold thickness measures by caliper. Body composition assessment measures in fat mass and fat free mass that below:

$$BW \text{ (kg)} = \text{Fat (kg)} + \text{Fat Free Mass (kg)}$$

$$\text{Fat Mass (FMSF)} = (\%FMSF * WT) / 100$$

$$\text{Lean Body Mass (LBM)} = WT - \text{FMSF}$$

$$\%LBM = (LBM * 100) / (WT)$$

Waist to hip circumferences measures fat mass in abdominal area evaluate between Abdominal or Waist Circumference - AC and Hip Circumference – HC below:

$$\text{Waist Hip Ratio} = AC / HC$$

b) The second component is the subjective indicators that evaluate feeling of total physical health and function such as ability of activity or roles functional (functionality), mobility or fitness, pain or discomfort, self-care ability (physical independence), general physical health (general health perception), physical functioning, self-feeding ability, energy or vitality, ability of sleeping or rest and required lifestyle change. (Quality of Well-being Scale (QWB)1970, McMaster Health Index (McM) 1976, Sickness Impact Profile (SIP) 1976, Health Insurance Experiment Survey (HIE) 1979, Nottingham Health Profile (NHP) 1981, Quality of life Index (QLI) 1981, Functional Status Questionnaire (FSQ) 1986, Dartmouth Function Charts (COOP) 1987, European Quality of Life Index (EOROQOL) 1990, Duke Health Profile (DUKE) 1990, MOS Functioning and Well-Being Profile (FWBP) 1992, Short Form Health Survey – 36 (SF-36) 1992, World Health Organization Quality of Life (WHOQOL-BREF) 1996, EuroQol Instrument (EQI) 1999, World Health Organization Disability Assessment Schedule (WHODAS) 1999, The EuroQoL-6D (ED - 6D) (The EuroQol Group, 1999)).

2) Aging and mental health; Aging should also effect the mental dimension. Mental health in a well-being is containing two components: The first component is negative emotional status (depression, stress, dissatisfaction and agitation) and the second component is positive emotional status (happiness, cheerfulness and vitality). However in this research, mental health contains three indicators: emotional status, mental health and stress level. The first indicator is Emotional

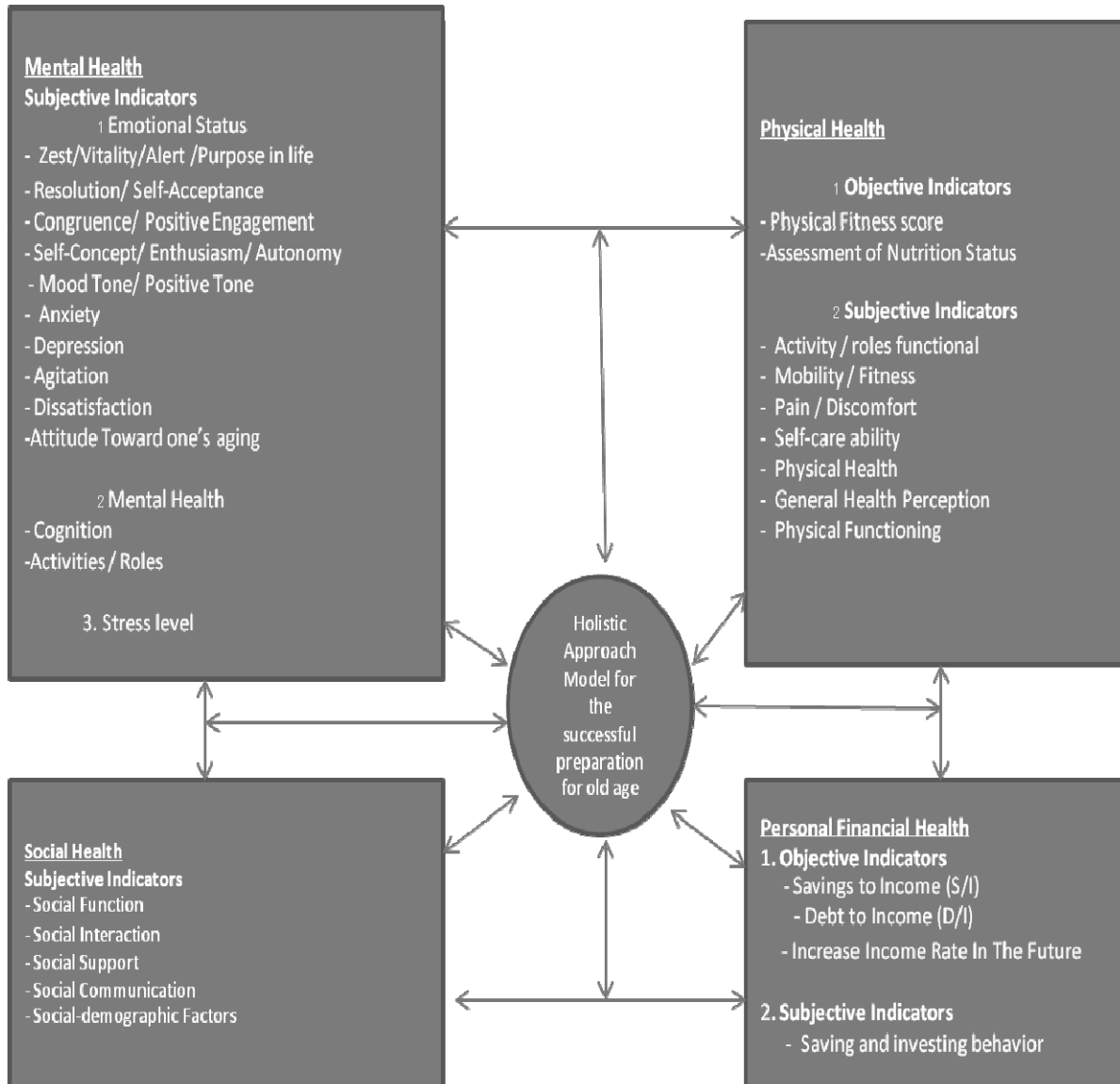
Status that important in a life that has purpose in life (zest, vitality and alert), Self-Acceptance (Resolution), congruence (positive engagement), self-concept (enthusiasm, autonomy), mood tone (positive tone), anxiety, depression, agitation, dissatisfaction and attitude toward one's aging. The second indicator is mental health which is composed of cognition and activities (roles) of cognition. The last indicator is stress levels. (The Life Satisfaction Index (The LSI) (B.L. Neugarten, R.J. Havighurst, 1961), The Bradburn Affect Balance Scale (ABS) (Norman M. Bradburn, 1965), Single-item Health Measures (SHM) (Various authors, circa 1965 onward), The Philadelphia Geriatric Center Morale Scale (PMS) (M. Powell Lawton, 1972), The General Well-Being Schedule (GWB) (Harold J. Dupuy, 1977), The Satisfaction with Life Scale (SWLS) (E. Diener, 1985), The Positive and Negative Affect Scale (PANAS) (D. Watson, L.A. Clark and A. Tellegen, 1988), The World Health Organization 5-item well-being Index (WHO-5-WBI) (P. Bech, 1998), The Ryff's Scales of Psychological well-being (RSP) (C.D. Ryff, 1989, revised 1995)).

- 3) Aging and social health; Chambers W. (1976) defines social health, as social relationships and environment which are available from the beginning of life and learning response of the environment such as family, health and social development stages. Kohn and Rosman (1972) define social health as the relationship between individuals with conditions affecting both physical and mental. The social dimension is the good relations with each member of the family, community, society. Important factors in this dimension are generosity, justice, peace and culture. The subjective indicators of social Health include Social Engagement or Social Function or Social Activities/ Role, Social Interaction, Social Support and Social Communication. The elements of society on the individual are composed of Socio-demographic factors such as: Age, Gender, Education and Social Factors such as: Occupation, Married status, Number of children. (Hyo Jung Lee, 2013) (QWB 1970, McM 1976, SIP 1976, QLI 1981, NHP 1981, FSQ 1987, CP 1987, DUKE 1990, SF36 1992, WHO QOL 1996, WHO DASII 1999).
- 4) Aging and personal financial health; Personal finance is the most important dimension in the present and the future because the situation and the advanced medical technology prolong the life of population. Normally life expectancy will be increases, the current life expectancy of females is 77 years and for males, 70 years. Therefore after retirement all people will have 10 – 20 more years of life and with no income. Target of personal financial health will be considered then under abilities level and possibility of each individual. Consider in how much of monetary for individual life style after retirement or pre-retirement, type of individual life style is suitable with each economic and the current abilities 'source of income is able to support and capital for type of individual life style, target personal financial after retirement and target in the other dimension. (Louis Cheng, 2009) Selected investment under Modern Portfolio Theory of Markowitz, Asset allocation invested management in assessment is an important to reduce risk of investment. Asset allocation separate suitable in each age group. Individual age group should invest in what type of asset allocation and in suitable proportion. Investment management should depend on individual expected profile rate and acceptable risk level.

Holistic Approach Concept is a new knowledge in patient care to balance between caring by medical term and caring by themselves for integrating an understanding of both science and art. It is an initiative to build a new medical paradigm. Allow for the integration and coordination of knowledge to create a new development process, including adopts systematical practices. A structured process and a comprehensive medical is covered by physical science, mental science, social science, and personal financial. Individual knowledge management (Knowledge Management) is also good quality of life, happiness, financial stability and economic self-sufficiency.

3. CONCEPTUAL FRAMEWORK

Picture 1: Conceptual framework of the research



Under Sufficiency economy philosophy

4. METHODOLOGY

4.1. Research Method

The study of Holistic Health Evaluation research with several steps, which are detailed below:

First Step to study Holistic Health Assessment System. Research question: How do the health assessment systems currently look like? By review literature in health Journal and related research from 2004–2013 in Holistic Health Evaluation or Assessment for preparing quality aging. Data collection: Science Direct, PubMed, Scopus. Data analysis: Gather information on various secondary data base to analyze and synthesize the evaluation system of holistic health in the assessment and evaluation.

Second Step The development of the conceptual research Information on the indicators in the assessment system and holistic health assessment on each dimension of health in Thailand and other countries, as well as developing a research framework is the new Conceptual Framework. Conceptual framework for new research on holistic health assessment (Innovative Holistic Health Evaluation Model) is the first step in development. They are composed in four dimensions such as physical, mental, social, personal financial health.

Third Step the analysis and synthesis of information on the development and holistic health assessment indicators consists of three steps. The important step in processing of data in the following sections is developed and built indicators of holistic health evaluation. By research question: Physical, Mental, Social, Personal Financial Health indices are associated with holistic health or not, and how.

1. Explore by interviews with experts on each dimension. Health indicators, including physical, mental, social, and personal finance. Utilizing methodology in Qualitative Research on each dimension in-depth interviews research with experts. Processing information in the following each dimension to develop and build indicators of holistic health.
 - 1.1. Sampling design: Determined with various experts (Expert and Opinions) in different fields: such as experts in the physical health field, including doctors, nurses, sports science, experts in the field of mental health, including psychologists, experts in the field of social health including sociologists, and experts in the field of financial including personal financial planners. Number of interviews experts in various fields of 10 people (samples).
 - 1.2. Instrument design: In depth Interview by Interview guide.
 - 1.3. Data collection: To store the information in a face to face interview consisting of observation.
 - 1.4. Data analysis: Analysis of the interviews in each indicator, including the indicator of physical health, mental health, social and personal financial health.

2. Processing information in the following sections to develop and build indicators of holistic health. Survey in prospective of the users of holistic health assessment (End Users: Financial Planner) quantitative research in questionnaire.
 - 2.1. Sampling design: The population in this study is the population of Bangkok Thailand, with a range of age between 21-80 years old. The exact population is known then used to determine the sample size in this case of known population 95% confidence level and alpha error 0.05. The minimum of sample size is 399 people, and in this research study of 600 people. Thai sample population in rang of age between '21–30 year':100 samples, '31–40 year':100 samples, '41–50 year':100 samples, '51–60 year':100 samples, '61–70 year':100 samples, and '71–80 year':100 samples total of 600 samples.
 - 2.2. Instrument design: Questionnaire that tested content validity by experts and reliability by internal consistency follow Cronbach's alpha coefficient.
 - 2.3. Data collection: The questionnaire collected information from sampling data.
 - 2.4. Data analysis: Analysis of Financial Planner queries in each rang of age. By using SPSS in data storage and processing. Analyze the connections or relationships between the data in Correlational research.

3. Tested the accuracy and validity of the indicators in the assessment (Manual Base).
 - 3.1. Sampling design: Recruited 30 people separated both males and females were government officials. Using purposive sampling testing process indicators in the evaluation (Manual Base) by the sampling in the physical health indicators, the objective indicators such as Physical Fitness Score and Assessment of Nutrition Status and then tested the subjective indicators in physical, mental, social, personal financial health in Health Assessment Paper.
 - 3.2. Instrument design: By Holistic Health Evaluation: Manual Base that tested content validity by experts and reliability by internal consistency follow Cronbach's alpha coefficient.
 - 3.3. Data collection: Collected data from a test of the physical in the scorecards were the objective indicators, include a physical fitness test (Physical Fitness score) and assessment of nutritional status (Assessment of Nutrition Status) to enter into a holistic health evaluation. The subjective indicators in physical, mental, social, and personal financial can test in Holistic Health Assessment (Innovative Holistic Health Evaluation: Manual Base).
 - 3.4. Data analysis: To evaluate and assess the accuracy of holistic health assessment. Used to test the accuracy of the content (Content Validity) and to test the reliability of the evaluation. (Reliability) and analyze the connections or relationships between the data.

Fourth step: Development of new model in the Innovative Holistic Health Evaluation for preparing in aging, system design and system testing. (Developing and building to a holistic health computer program). This step develops and creates a holistic health in the computer program. The research consists of the following steps.

1. Developmental Research: Prototype Technology Computer Program. (Software)
2. To test the accuracy and validity of the computer program.
3. Testing holistic health technology evaluation. Divided into two phases
 - Testing computer program: To test the validity of the functionality.
 - Testing computer program by external personnel to test the accuracy and validity of the indicators in the program.

Fifth step: Test Innovative holistic health technology evaluations (computer program) in the adoption and distribution of technology (Technology Acceptance Model for commercialization).

5. CONCLUSION

A conceptual framework is a conceptual model of a set of relationships among multidimensions: physical, mental, social, personal financial health that has many indicators for assessment or evaluation in each dimension. This research is a study in indicators for preparing in successful old age so many indicators are very important for evaluation that each dimensions are influenced and interconnected in the life. This thesis might extend their successful aging strategy with suitable partners. The holistic approach provides stimulating ideas as to how people prepare their future retirement plan for happiness and quality of life after retirement. The process of adaptation to change and prepare for the future that is necessary for successful old age. This research contributes to the Thai population by software, therefore, the population can use the software for regularly assessment by themselves to prepare each dimension for the future.

REFERENCE LISTS

1. American college of sports medicine. (2000). *Guidelines for exercise testing and prescription*
2. (6th Ed.) Baltimore: William & Wilkins.
3. Bradburn N.M. (1969). *The structure of psychological well-being*. Chicago: Aldine.
4. Brassens S. (2012). *Don't look back in anger! Responsiveness to missed chances in successful and non-successful aging*. Science 336, pp. 612–614
5. Centers for Disease Control and Prevention. (1999). *CDC surveillance update*. Atlanta, GA: Centers for Disease Control and Prevention.
6. Chambers L.W., C.H. Goldsmith, C.H., Macpherson A.S., & McAuley R.G. (1976). *Development and Application of an Index of Social Function*. Health Services Research.
7. Darren Noy (2011). *Thailand's Sufficiency Economy: Origins and Comparisons with Other Systems of Religious Economics*. Social Compass December 2011 58: pp. 593-610.
8. EuroQOL Group. (1990) *EuroQOL- a new facility for the measurement of health-related quality of life*. Health Policy. 16: pp. 199 – 208.
9. Haug M.R. (1977). *Measurement in social stratification*. Annul. Rev. Social. 3: pp.51–77
10. John E., & Ware, J., *SF-36 Health Survey Update*.
11. Kim Sangkyu, & Welsh D. A., (2012). *Association of healthy aging with parental longevity*. AGE (2013) 35: pp. 1975 – 1982.
12. Lee Hyo Jung. (2013). *Social Relationship and Dental Care Service Utilization among Older Adults*. Journal of Aging and Health, 2013, Vol.25 (2), pp.191-220.
13. Liffiton. J.A., & Horton S. (2012). *Successful aging: how does physical influence engagement with life?* European Review Aging Physical Activity 9: pp. 103 – 108.
14. Louis Cheng, Yan L.T., & Hing W.Y. (2009). *Financial Planning and Wealth Management. An international perspective*. Singapore: McGraw-Hill.
15. Kohn Martin & Rosman Bernice (1972). *A social competence scale and symptom checklist for the preschool child: Factor dimension, their cross-instrument generality and longitudinal persistence*. Developmental Psychology, 1972, Vol.6 (3), pp.430-444.
16. McDowell I. (2010). *Measures of self-perceived well-being*. Journal Psychosomatic Res. 69(1): pp.69-79.
17. Neugarten B.L., & Havighurst R.J. (1961). *The measurement of life satisfaction*. Journal Gerontology.16: pp. 134 – 143.

18. Ryff C.D. (1989). *Beyond Ponce de Leon and life satisfaction: new directions in quest of successful aging*. Internal Journal Behavior Dev 12: pp. 35 – 55.
19. Ware J.E., & Snow K.K. (1993). *SF-36 Health Survey Manual and Interpretation Guide*. Boston, MA: New England. Med Care, Health Inst.
20. World Health Organization. (2491). Switzerland: WHO Publication.