Factors Affect Effectiveness of Elderly Life Quality Development in Lampang Province

Prayuth Swadriokul[1] Nunta Bootnoi[2]

Received	Reviewed	Revised	Accepted
10 /05/2562	15/05/2562	1/06/2562	5/7/2562

Abstract

This study tested a model of factors affecting the effectiveness of elderly life quality development in Lampang province using structural equation modeling. Data on the effectiveness of elderly life quality development and its hypothesized antecedents were collected by using questionnaires that were studied from samples of 384 elderly persons in Lampang province. The fit indices showed that the proposed model had a good fit (χ2 =86.223, df =73, p =.138, χ2/df =1.181, GFI =.974, and RMSEA =.022). Support family and local government support had direct effects on the effectiveness of elderly life quality development, with significant path coefficients of.41 and.38, respectively. Community and social support, government support, and local government support showed indirect effects on the effectiveness of elderly life quality development with path coefficients of 0.19, 0.54, and 0.13, respectively. The research results can be used to set the guidelines for public and private sector elderly life quality development by adding support from the government, local government, family, and community and society for efficiency, effectiveness, and comprehensive coverage of all the elderly.

Keywords. Effectiveness, Quality of life, Elderly

[1] Institute of Public Administration and Governance, Shinawatra University, Thailand.
Email: prayuth.s@siu.ac.th

[2] Faculty of Management Sciences, Lampang Rajabhat University, Lampang Province 52100, Thailand
Email: nunta2015@icloud.com

Introduction

The United Nations (UN) has defined "Elderly" as the population of both males and females aged 60 and over (60+), while The World Health Organization (WHO) has not definitions. The reason is that countries around the world have a difference of the elderly definitions. They may define by age, social, culture, and functional markers, such as in the developed countries has defined the elderly from aged 65 years or above, or some countries may be defined the elderly along with a retirement age (aged 50 or 60 or 65 years), or defined along with a physical condition, by elderly women were in the range of 45-55 years old and the elderly men were in the range of 5575 years old. For Thailand, it has defined “elderly” according to the Act on the Elderly, B.E. 2546 (2003 A.D.) meant that a person over the age of sixty years and had Thai nationality (DOP, 2003). The elderly is a growing group of people in every country, including Thailand. This is because public health and medical advancement help people live longer. The Elderly is the age that has a problem with the deterioration of the body, which is natural as the age increases including the presence of chronic disease, which usually occurs in the elderly such as diabetes and high blood pressure from lack of movement and exercise, health problems, income decrease or no income, and mental health problems because it is the age of separation loss. Therefore, it is the age that requires specific care, different from other ages, so that the elderly can take care of themselves with enough age, and good health, both physically and mentally, to reduce the problems of the elderly, families, and society (Kraipiboon, 2015). Currently, the number of elderly people increases continuously in both Thailand and around the world. Many countries are aware of the importance of this and their efforts are being made to ensure that all people are aware and well-equipped to care for the elderly as well as care for the population in other age groups. In Thailand, it has entered the elderly society in the year 2004-2005. The elderly population was aged 60+ accounting for 10.2-10.4% of the total population in Thailand and expected that to enter the complete elderly society of 2024-2025 (DOP, 2016) which is from a population aspect situation. The government, private sector, and all sectors of society have to set policies and actions to support the aging society of Thailand to be an effective and comprehensive target for all elderly people that it will help the elderly be able to develop good quality of life with dignity, and their life

stability. The elderly life quality development is to improve the well-being of the elderly to have good condition in physics, emotion, society, and environment to meet the various needs of the elderly to fit and adequate for life living (Department of Health, Ministry of Public Health, 2013) such as (1) Physical aspects: The elderly want a healthy body, need hygienic food, and they also want to have close caretakers (Glamrat, 2011; Pheangpoosop & Chanprasert (2012); Campbell, Converse & Rodgers (1976). (2) Mind aspects: the elderly wants to know new various something, feel themselves be worth accept and respect for the family and society (Prasartkul & Vapattanawong (2010). (3) Social aspects: the elderly wants to be one of the family, community, and society around them. In addition, they also want to live together with the community, have activities together with the community, and reduce dependency on others (ONEC, 2015; Ratanaubon, 2011). (4) Economic aspects: financial status and stable income of the elderly who do not rely on their descendants or even their spouses and create self-esteem of the elderly. If there is the promotion of career or vocational training appropriate for the elderly, they will have the opportunity to work at age appropriately. It can reduce the budget to support the elderly in the future (NESDB, 2016; Delamottee & Takezawa, 1984).

Research Objectives

For the above reasons, the researcher is interested to study in the effectiveness of the elderly life quality development which is a part of the performance evaluation of the elderly life quality development policies. In addition, it is also to study the support factors from the agencies and all sectors as related that affect the elderly life quality development. This study was collected data from the elderly in Lampang Province where is in the upper north region, which a population of 518,609 and 80,004 of whom were elderly (Lampang Province, 2559). The information obtained from this research can be used as a common guideline for sectors of public, private, and society of the elderly life quality development to support the elderly society of Thailand that is efficiency, effectiveness, and comprehensive coverage of all the elderly.

Research Methodology

The population in this research comprised elderly persons in Lampang Province, Thailand. The size of the samples was determined by the Stevens' criterion (Stevens, 1996) which determined that the sample size for the linear structure relationship analysis should be at least 20 units per observed variable. In this research, 17 observed variables were defined. The minimum sample required for this criterion was 340 persons. The participants of this research were elderly persons of 384 (> 340). The research instrument was a questionnaire with a reliability of.95. Data analysis used descriptive statistics and inferential statistics. The data were analyzed by using descriptive statistics and structural equation modeling (SEM). The goodness of fit of the model to the data was assessed using $\chi 2$ statistics and fit indices as suggested by Kline (2005) that is the chi-square probability level (p-value) more than.05. Value of the Relative Chi-square ($\chi 2/df$) is considered satisfactory when < 3 in large samples (N > 200), < 2.5 in medium-sized samples (100 < N < 200), and < 2 in small samples (N<100) (Arbuckle and Wothke, 1999; Byrne, 2001). Value of the Goodness of Fit Index (GFI), like multiple r-squared, theoretically ranges from 0 (poor fit) to 1 (perfect fit), considered satisfactory when >.90 (Schumacker and Lomax (2004); Kline, 2005). A value for the Root Mean Square Error of Approximation (RMSEA) of less than.05 would indicate a “close fit” and a value of.08 or less would indicate a “reasonable fit” (Brown and Cudek, 1992; Kline, 2005) Using structural equation modeling in inferential statistics analysis to test the consistency of the model that consisted of five latent variables was: (1) Government support (GOS): It included 3 observed variables as government welfare for elderly (WDE), infrastructural and public transport for elderly (IPT), and development of lifelong education and learning for elderly (LDE). (2) Local government support (LGS): It included 4 observed variables as services development for the elderly (SDE), education and training promotion for the elderly (ETE), facilities development for the elderly (FDE), and preparation for the elderly society (PES). (3) Community and society support (CSS): It included 3 observed variables elderly health promotion (EHP), elderly income promotion (EIP), and local wisdom promotion (LWP). (4) Support from family (SFF): It included 4 observed variables as physical and mental health of the elderly (PME), good relationship in the family (GRF), elderly household economy (EHE), and elderly household facilities

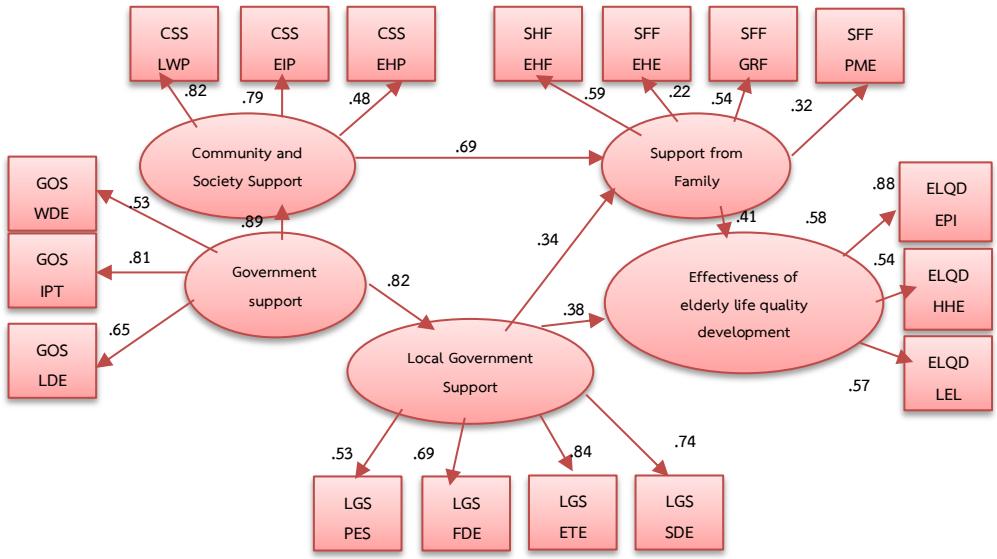
(EHF). (5) Effectiveness of elderly life quality development (ELQD): It included 3 observed variables as employment promotion and income security (EPI), health and hygiene of the elderly (HHE), and lifelong education and learning (LEL)

Research Results

The majority of participants were female, aged between 60-65 years old with a married status. They were educated elementary or equivalent and had public welfare benefits that were provided to the elderly. There are 3 members in the household with monthly income between 10,000-15,000 Baht, and their career in agriculture. Analyzed the structural equation modeling found that the developed model was consistent with empirical data after adjusting the model with the statistics were as follows: Chi-square (χ^2) was 86.223, degrees of freedom (df) was 73, Chi-square probability level (p-value) was.138, Chi-square relative (χ^2/df) was 1.181, Goodness of fit index (GFI) was.974, and Root means a square error of approximation (RMSEA) was.022 as appearing in Table 1 and Fig. 1.

Table 1 The data model-fit evaluation criteria with the empirical data of the model developed

Evaluating the Data-Model Fit	Criteria	Statistics from Analysis result
1. Chi-square probability level (p value)	$P > 0.05$	0.138
2. Relative Chi-square (χ^2/df)	< 2	1.181
3. Goodness of Fit Index (GFI)	> 0.90	0.974
4. Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.022



Chi-square = 86.223, df =73, p =.138

CMIN/DF = 1.181, GFI =.974, AGFI =.946, RMSEA =.022

Fig. 1 Shows statistics of the consistency of causal relationship model to the empirical data.

Table 2 Composition of predictive relationships

Path	Effect type	Standardized coefficient (R2)	*SE*	*t*
GOS LGS →	Direct	.824***	.070	9.862
GOS LGS →	Direct	.889**	.096	10.782
GOS LGS →	Direct	.341*	.052	2.416
GOS LGS →	Direct	.690**	.052	3.536
GOS LGS →	Direct	.412**	.395	2.645
GOS LGS →	Direct	.382**	.113	3.176

**p <.05, **p <.01*

From Fig.1 and Table 2: Analysis of the effect of all the variables is summarized as follows:

1. GOS had direct effects on LGS, with a significant path coefficient of.82
2. GOS had direct effects on CSS, with a significant path coefficient of.89

3. LGS had direct effects on SFF, with a significant path coefficient of.34

4. CSS had direct effects on SFF, with a significant path coefficient of.69

5. SFF and LGS had direct effects on ELQD, with significant path coefficients of.41 and.38, respectively.

6. CSS had indirect effects on ELQD through SFF (CSS⟶SFF⟶ELQD), with a significant path coefficient of.28 (.69×.41).

7. LGS had indirect effects on ELQD through SFF (LGS⟶SFF⟶ELQD), with a significant path coefficient of.14 (.34×.41).

8. GOS had indirect effects on SFF in 2 ways: (1) GOS⟶CSS⟶SFF, with a significant path coefficient of.61 (.89×.69). (2) GOS⟶LGS⟶SFF, with a significant path coefficient of.28 (from.82×.34). Therefore, GOS had total effects on FAS, with a significant path coefficient of.89 (.61+.28).

9. GOS had indirect effects on ELQD through 3 ways: (1) GOS⟶LGS⟶ELQD, with a significant path coefficient of.31 (.82×.38); (2) GOS⟶LGS⟶SFF⟶ELQD, with a significant path coefficient of.11 (.82×.34×.41); (3) GOS⟶CSS⟶SFF⟶ELQD, with a significant path coefficient of.25 (.89×.69×.41). Therefore, GOS had total effects on ELQD with a significant path coefficient of.67 (.31+.11+.25).

The research result of the factors affecting the effectiveness of elderly life quality development in Lampang province founded that GOS, CSS, LGS, and SFF had total effects on ELQD, with significant path coefficients of.67,.28,.52, and.41, respectively. The prediction coefficient (standardized regression coefficient) of the effectiveness of elderly life quality development was.58 (R2=.58) which indicated that the support factor variables used in the model consisted of government support (GOS), local government support (LGS), community and social support (CSS), and family support (SFF) which could explain the variability of the effectiveness of elderly life quality development (ELQD) of 58%.

Research Discussion

The research results concluded that the support factors of four aspects including government support (GOS), local government support (LGS), community and social

support (CSS), and support from family (SFF) had effects on the effectiveness of elderly life quality development (ELQD) by both directly and indirectly. This may be because:

1. The Thai government has set policies and policies integration for the elderly through various agencies relevant in both the central and the local levels. There is the development of the welfare system for the elderly in various aspects. Moreover, there is a promotion for the family and the private sector encouraging to play an increasingly important role in elderly care (DOP, 2003; NESDB, 2016), which is in line with the research of Soonthorndhada (2009) who found that if the government pushed the employment policy of the elderly and the career opportunities of the elderly it would result in income stability and help to support the life quality of the elderly to be self-reliant with dignity and can reduce dependence on household workers.

2. The local government's support is to care for the elderly because the local government has a responsibility for the welfare and development of the quality of life of children, the elderly, and the underprivileged. It has a responsibility for promoting the participation of people in the area, which shows their role in developing the quality of life of the elderly in the development of the service for the elderly, enhancing education and vocational training for the elderly, developing facilities for the elderly, and the preparation for the elderly society, which includes direct action and indirect action form central government policies. The local government is central and regional interconnections on elderly care services with high dependency and long-term care. It is in line with the idea of Choonharas (2007) who said that the local government has an important role in improving the quality of life for the elderly as they are closest to the people. This makes it possible to perceive the problems of older people differently from the central government as creating a new perspective on the development of the elderly as well as promoting health and preventing illness among the elderly with various health promotion activities for the elderly and their families.

3. The community and social support have a role in the care and development of the quality of life for the elderly that makes the elderly happy in their lives because the community and society around the elderly have influences on the elderly. It will make elderly have their own appearance to feel part of society and can adapt through all the situations that come through the life of the elderly, which is in line with the study

of Siripittayulkit (2010) who found that social support is a contributing factor for diabetes people to adjust their long-term care plans.

4. The support from family for the elderly is essential which families must understand and be aware of the importance of the elderly and have proper knowledge of care and treatment of the elderly for their well-being elderly and family members. According to the study of Sinsuphun (2014) found that family relationships and quality of life are positively correlated. Families with good relationships would support the good mental health of the elderly and that is also a way to improve the quality of life of the elderly. It is in line with Malatham et al. (2009) who found that support from family was positively correlated with the satisfaction of the elderly.

Conclusion and Recommendations

The research results founded that the support from government support, local government support, community, and social support, and support from family are related to the effectiveness of elderly life quality development. So, the government, the private sector, and all sectors of society have to set policies and actions to support the aging society of Thailand for an effective and comprehensive target for all elderly, who help the elderly, can develop for a good quality of life, dignity, and stability of life as follows:

1) The definition of the paradigm and action for the entering to the elderly society in all sectors to be effective and achieve the objectives must be defined as a public policy and national agenda.

2) The National Elderly Plan No. 2 (2002-2021) and The National Economic and Social Development Plan and the 20-year National Strategy (1960-2022) must be a map that will determine the major direction of the elderly of the country. It consists of government policy on the elderly, budget allocation, human rights focus, and collateral savings before entering the elderly age which increases the potential of the elderly fund in the development of equality to support elderly society with quality.

3) The government has to set policies and supervise the operation of all agencies, organizations, and all sectors related to the implementation of the Elderly Act 2003 to ensure efficiency and achieve the objectives.

4) All related agencies must develop a strategy for organizing a public environment that everyone can access and use Accessibility for All Act (AAA) which is to promote and improve the quality of life for all to access and utilize the public environment in a convenient, safe, thorough, fair, modern, and equal manner.

5) Adjust the concept of paradigm "Welfare" that encourages and persuades the elderly to rely on themselves and live a life of dignity and respect for human rights and coexistence in a peaceful society.

6) Integration in collaboration, knowledge, and resources between agencies and organizations for the development of older people has resulted more successfully in aging missions.

7) The government agency must adjust its role from worker to coordinator or facilitator, support resource allocation, facilitate the local community to implement the social welfare system for the elderly to be following the social welfare policy and principles, and to monitor and evaluate the above-mentioned performance.

8) Welfare must be following the needs of the elderly and local wisdom. The public sector, the people, and the elderly; must participate in the cooperation, participation, flexibility, sustainability, and budget integration and funding sources to implement the activities under social welfare.

9) Implementation of the project network characteristics, learning activities, and the provision of elderly resources which has resulted in creativity with efficiency and effectiveness implementation at the national level, regional level, as well as entered the aging society internationally.

10) Implementation of projects and activities for the elderly to achieve their goals. The community leaders must see the importance, commitment, strength, and sacrifice.

11) Preparing for integration into the elderly society must consider the whole system of the country because the elderly is involved in all sectors including government, private sector, civil society, and so the people of all ages. Thus, this should be defined as a national agenda.

References

Arbuckle, J. L., and Wothke, W. (1999). *AMOS 4.0 user's guide*. Chicago: Small Waters.

Brown, M., and Cudek, R. (1992). *Alternative ways of assessing model* fit. In K.A. Bollen, J. S. Ling (Eds.)., Testing structural equation models. Beverly Hill, CA: Sage.

Byrne, B. M. (2001). *Structural equation modeling with AMOS basic concept, application, and programming*. New Jersey: Lawrence Erlbaum Associate, Inc.

Campbell, A., Converse, P.E. and Rodgers W.L. (1976). *The Quality of American life*. New York: Russel Sage Foundation.

Choonharas, S. (2007). *Potential of the local government and the development of the quality of life for the elderly*. [Online]http://www.thaitgri.org. Searched on September 10, 2019. [in Thai]

Delamottee, Y. and Takezawa, S. (1984). *Quality of Working Life in International Perspective.* Geneva: International Labour Office.

DOP: Department of Older Persons, Ministry of Social Development and Human Security. (2016). *The situation of the Thai elderly 2016.* [Online]http://www.dop.go.th/th/know/2. Searched on September 10, 2019. [in Thai].

DOP: Department of Older Persons, Ministry of Social Development and Human Security. (2003). *The Act on the Elderly, B.E. 2546 (2003 A.D.).* [Online]http://www.dop.go.th/th/laws/2. Searched on September 10, 2019. [in Thai]

Glamrat, K. (2011). *Factors related to health behavior of the elderly in the western region*. Bangkok, Thailand: Silpakorn University.

Kline, R. B. (2005). *Principle and Practice of Structural Equation Modeling*. New York: The Guilford Press.

Kraipiboon, P. (2015). *Old person*. [Online]http://http://haamor.com. Searched on September 10, 2019. [in Thai]

Malatham, P. & et al. (2009). "Relationship between family support and force support from friends and the satisfaction of the lives of rural elders". *Journal of Ramathibodi Hospital*, 3 (5): September - December. [in Thai]

NESDB: Office of the National Economic and Social Development Board. (2016). *Third Quarter of Thai Social Year 2013*. Year 13 No. 4, December 2016. [in Thai]

ONEC: Office of Education Council. (2009). *National Education Plan 2009-2019.* [Online]http://www.onec.go.th. Searched on September 10, 2019. [in Thai]

Pheangpoosop, N & Chanprasert, T. (2012). *Synthesis of research on the relationship between mental and social characteristics related to the quality of life of the elderly in Thailand.* Bangkok, Thailand: Institute for Behavioral Science, Srinakharinwirot University. [in Thai]

Prasartkul, P. & Vapattanawong, P (2010). *Definition of the elderly with the next life. Nakhon Pathom, Thailand: print and demographic of Institute for Population and Social Research*, Mahidol University. [in Thai]

Ratanaubon, A. (2011). *The study and life-long learning of Thai elderly. Foundation for Thai Elderly Research and Development Institute (MSIS)*, Institute for Health Systems Research (HSRI), on. [Online]http://kb.hsri.or.th. Searched on September 30, 2016. [in Thai]

Schumacker, R. E., and Lomax, R. G. (2004). *A Beginner's Guide to Structural Equation Modeling*, (2nd Ed.). New Jersey: Lawrence Erlbaum Associates, Inc.

Sinsuphun, C (2014). *Relationships between family relationships and quality of life of the elderly in Chaodeaw, Nong Hong District, Buriram province*. Buriram, Thailand: Health promotion hospital, Nong Hong District, Buriram province. [in Thai]

Siripittayulkit, A. (2010). "Social support: a key factor in the care of people with diabetes". *Journal of Ramathibodi Hospital,* 16(2), 309-323. [in Thai]

Soonthorndhada, K. (2009). *Social Security and Health Care Financing for Older Persons: The Challenges of Aging Society in Thailand, in Older person in Southeast Asia: An emerging. Asset edited by Evi Nurvidya Arifin and Aris Ananta*. Institute of Southeast Asian Studies. Singapore: ISEAS Publishing. [in Thai]

Stevens, J. (1996). *Applied Multivariate Statistics for the Social Sciences*. 3rd edition. Mahwah, N.J.: Lawrence Erlbaum Associate, Inc.

WHO: The World Health Organization. (2017). *Definition of an older or elderly person.* [Online]http://www.who.int/healthinfo/survey/ageingdefnolder/. Searched on September 10, 2019.