

The Casual Factors Model Development Enhancing The Quality Of Life Of Elderly Participating In Dancesport

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<p>KEY WORDS: Developments, Models That Enhancing, The Quality of Life, Elderly</p>	<p>ABSTRACT This research aims to find out the relationship. Develop a causal factor model and find ways to promote the quality of life of the elderly who participate in dance sports activities. Using a Mixed Methods Research Methodology. To collect questionnaires from a group of 400 elderly people and conduct group interviews with eight dance sports experts, by analyzing descriptive statistics such as frequency, percentage, mean, standard deviation, and distribution coefficient, quantitative analysis was performed with path analysis and qualitative analysis with content analysis. The research results found that more than the causal factors affecting the quality of life of the elderly who participate in dance sports activities are statistically significant at the.05 level, divided into direct and indirect effects. Arranged by Path Coefficients: Secondary Education, Social Welfare, Psychological Satisfaction, Environmental Satisfaction, Social Satisfaction, Single Status, Primary School, Townhouse, bachelor's degree, Warm Relationship, Occupation, Single House, Condominium, Health/Congenital Disease. Lonely Relationship, Physical Health Satisfaction, Age, Gender, Marital Status, Income, and Health Care System, respectively. Most experts agree on quantitative analysis. They suggest organizing additional activities like dancing contests, costume contests, and singing competitions to encourage and motivate the elderly to enhance their dancing skills. It's Motivating. Pride leads to a good quality of life. Use the model obtained from the study results to create policy plans or strategies for government organizations such as the Ministry of Social Development and Human Security. The Sports Authority of Thailand, sports organizations, the Health Promotion Foundation, and the private sector, such as hospitals, nursing homes, and comprehensive care centers for the elderly, we have used dance sports activities as a tool to promote the elderly to have a better quality of life.</p>
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1. Introduction

According to the United Nations definition, any country with more than 10% of the population aged 60 years and older or more than 7% of the population aged 65 years and older is considered to have entered an aging society and will be an aged society when the proportion of the population aged 60 years and older increases to 20% and the population aged 65 years and older. Increase by 14% (Ahmed, Berhane, & Fekade, 2024)

Thailand has Asia's third-highest senior population, after only Japan and South Korea. Thailand has an average senior population of 12 million. Thailand is projected to become a fully aging society in 2021 (with more than 20% of the population aged 60 and more) and a super-aging society in 2031 (with more than 28% of the population aged 60 and up) (Aldakhil, 2024)

This circumstance has repercussions for the nation's economic development. Socially and economically, specifically with regard to the economic repercussions resulting from the escalation in the geriatric population. Consequently, labor inputs have decreased, and the proportion of individuals of working age has further decreased. Consequently, the elderly dependency ratio rose to 27.7 individuals per 100

laborers of working age in 2020. When the elderly lack or have a diminished income, they incur greater investment and savings burdens, whereas those of working age bear greater expenses. Consequently, investments and earnings are diminished. As measured by national income or productivity, the elderly population is becoming a greater proportion (Berner, Ortíz-Llorens, Fries, Nanchahal, & Jain, 2024). Consequently, there is a decline in the gross national product (GNP), or national income. Due to the government's need to expand public health expenditures, fiscal growth has led to increased budget expenditures, a decline in average per capita income, and a reduction in productivity. Medication As the demand for social services for the elderly increases, so must the budget allocated for assisting the elderly who are neglected or in need. In the interim, the quota for revenue is declining. The collection of income tax is reduced due to the increased percentage of elderly individuals lacking income.

Social repercussions include physical health issues, as the elderly frequently experience declining physical well-being and are generally unhealthy, necessitating the expenditure on healthcare and the employment of caregivers. Consequently, the lack of income leads to a surge in expenditures, thereby impeding the ability of the elderly to sustain themselves in the absence of premeditated savings accumulation for retirement purposes. It is therefore essential to make preparations for the maturation of the population. A comprehensive strategy encompassing savings, investments, and consumption is imperative for ensuring preparedness for the elderly. As they approach old age, they will likely be unable to work and face financial insecurity. Consequently, it is critical to establish a framework for savings accumulation or investment planning to guarantee the availability of funds or income during the elderly years or to enable the utilization of accumulated savings at the end of one's life. Referring to the issue of neglect towards the elderly. As the number of elderly individuals rises, more individuals of working age will have to work and shoulder a larger share of the responsibility for geriatric care. It can occasionally result in cold treatment or neglect of the elderly. Psychological difficulties. As of the age of retirement Lethargy affects seniors who are unemployed. They may experience diminished mood or depression; therefore, they require the care and attention of another person (Carracedo, Puertas, & Marti, 2021).

These socioeconomic effects negatively impact the well-being and quality of life of the elderly. Consequently, the health care system is an intricately linked matter, and the annual escalation of the social security system is commensurate with the substantial expenditures that circulate within the system. In addition to economic and employment conditions, a transparent distribution of the nation's health and social resources is essential.

Rhythmic dance is thus an appropriate form of physical activity for the elderly due to its sport-like nature that avoids excessive exertion. Additionally, dance is a discipline in which music is an essential component. Senior citizens are able to sway to the music. For amusement, music will assist in lulling the mind to sleep. It contributes to the direct and indirect reduction of tension and provides social opportunities for the elderly (Egeler et al., 2024). Develop connections, converse, and trade ideas with individuals of the same age. Enhances one's self-assurance Mitigate tension Additionally; one can cultivate positive objectives and attitudes in their life (Chen et al., 2024).

As a result, the researcher is intrigued by the development of a causal factor model that enhances the quality of life for elderly individuals engaged in rhythmic sports. This model aims to identify the recurring patterns that impact the quality of life of elderly participants in rhythmic sports. The findings of this research will serve as a guide for initiatives to improve the physical, mental, social, and environmental well-being of the elderly, thereby influencing societal and economic progress.

For the aforementioned reasons, the researcher came up with the idea to study various factors that cause the improvement of the quality of life of elderly participating in dance sport in order to bring about reasons to promote the quality of life of the elderly. Therefore, it is necessary to rely on principles. A variety of concepts, theories, and methods are combined to promote certain factors for effectively promoting the quality of life in the elderly (Carracedo et al., 2021).

This study examines the various factors influencing the quality of life among elderly individuals engaged in rhythmic sports activities, including gender, age, marital status, education, career, health, income, welfare, housing, family relationships, community roles, healthcare, and personal satisfaction. Gender differences show women generally experience lower health-related quality of life, while age and marital status also play key roles, with married individuals and those in their 40s to 60s often reporting higher life quality (Kougious, Lung, Humburg, Delbaere, & van Schooten, 2024). Education improves income and health outcomes, contributing to better societal involvement. Career paths,

particularly for retirees, and income levels significantly affect well-being, while chronic health conditions like hypertension and diabetes lower life quality. Welfare systems, safe housing, strong family ties, and active community participation enhance both mental and physical health. Access to healthcare (Eidi, Mirzaie Taklimi, Taheri-Ezbarami, Faraji-Nesfechi, & Kazemnejad Leili, 2024), environmental factors, and satisfaction with physical, psychological, and social aspects of life further determine the overall quality of life for seniors, highlighting the importance of supportive environments and services.

All sixteen of the aforementioned causal factors contribute to the enhancement of the quality of life for senior citizens who engage in rhythmic sports. The researcher utilized path analysis techniques to analyze data and incorporated sixteen causal factors into a causal relationship model that serves as a hypothesis model to enhance the quality of life for senior adults engaged in rhythmic sports activities. This is an example of a multifactor study.

1.2 Research objectives

The objectives of this research are as follows:

1.2.1 To study and find out the relationship of causal factors that promote the quality of life of the elderly who participate in dance sports activities. Both directly and indirectly from various causal factors, including gender, age level, Marital status, education level, occupation, health/comorbidities Income, welfare, housing, family relationships, community roles, health care systems, physical health satisfaction, Psychological satisfaction, social satisfaction and environmental satisfaction.

1.2.2 To develop a causal factor model that promotes the quality of life of older adults participating in dance sports activities.

1.2.3 To find ways to promote the quality of life of the elderly who participate in dance sports activities.

Conceptual framework

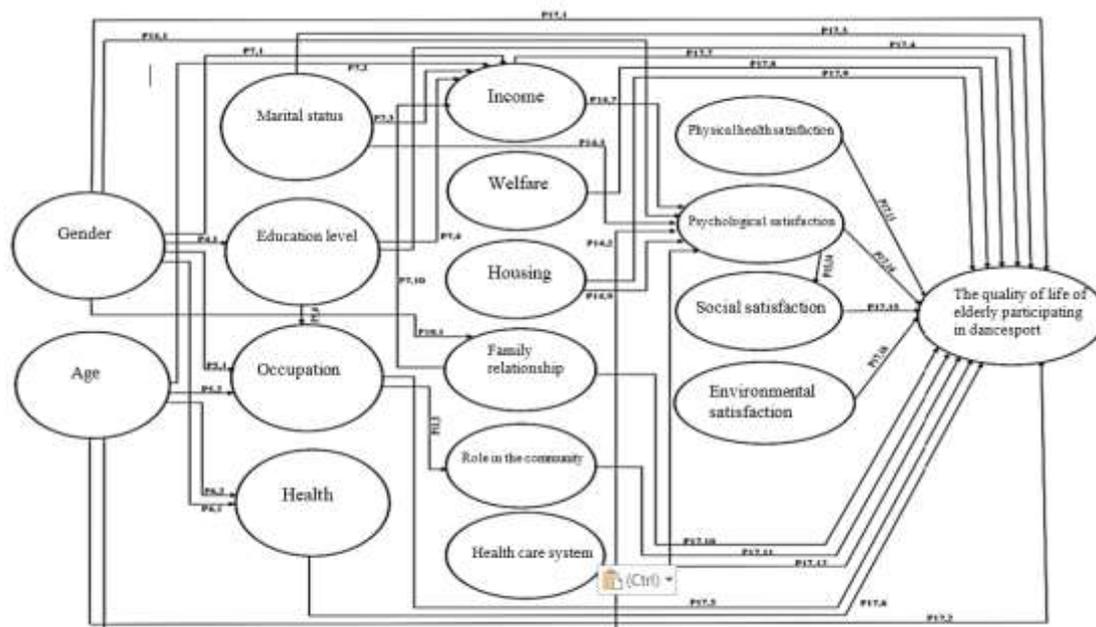


Figure 1: Hypothetical model

2. Literature Review

Definition of quality of life

Quality of life (Berner et al., 2024) means human subsistence at an appropriate level according to the basic necessities in a particular society. At a certain time, the quality of life of a citizen is good, meaning that the family or community has met all the basic necessities (JPT) criteria (Eidi et al., 2024).

Quality of life pertains to the extent of physical and mental gratification, contentment, and well-being in one's existence. Individuals' mental, social, emotional, and lifestyle aspects of society are coordinated through their perception of mental, social, and physical relationships. environmental conditions Presently, the study of quality of life can be divided into two distinct facets: subjective and objective, in accordance with an individual's culture, values, and life objectives, as well as the concrete and abstract means to achieve that person's ideal of well-being. Subjective research is research that utilizes tangible, observable, quantifiable, or observable data. Four elements comprise subjective education: environmental health, physical health, psychological health, and social health. The sensation of euphoria is devoid of any discomfort (Hsu et al., 2024; Li, Hong, Cui, & Li, 2024; Lin et al., 2019; Ren et al., 2024; Selvi Sarigul, Urek, & Ugurluoglu, 2024). Capacity as perceived to manage physical discomfort recognizing the capacity to bear everyday existence and sleep consciousness Perception of the positive emotions an individual harbors toward themselves. Self-perception of image Consciousness regarding one's self-esteem Recognizing one's own self-assurance Cognitive awareness encompasses memory, concentration, decision-making, and the capacity to acquire personal narratives. Recognizing one's interpersonal connection with another individual Appreciation for the assistance received from members of society Acknowledgement for the contributions made by members of society as well. The conviction that one is not confined in their existence provides a sense of safety and security. Consciousness of being in a pollution-free physical environment. The use of convenient modes of conveyance provides financial advantages (Giambra et al., 2024). In that era, societal norms dictated that the quality of life could also be influenced by the cultivation and modification of one's actions in a suitable manner.

Quality of life, as defined by the World Health Organization in *Quality of Life* (1998), pertains to the contentment of the elderly with the fundamental aspects of life that constitute the most significant aspect of an individual. They are adept at adjusting to the environment and society in which they reside, as well as confronting a variety of challenges in a suitable manner, which includes realizing their full potential. Physical, mental, level of independence, social relationships, environment, and personal beliefs are the six components of the concept.

Quality of life is defined as living in society in a joyful and suitable manner. Avoid imposing yourself on others. Avoid causing disruptions in society. Joyful living provides fulfillment in the physical, emotional, and spiritual senses. Psychosocial equilibrium with the surroundings Society's values has the capacity to both resolve issues and pursue desired outcomes in a manner consistent with the available tools and resources.

Quality of life encompasses both physical and mental well-being, as well as the capacity to participate in a wide range of activities in accordance with the body's functions and roles. They possess sound mental and emotional health, enabling them to effectively integrate into society.

As defined by the World Health Organization, quality of life pertains to the perception of one's existence within a given cultural and value system. As per the World Health Organization (1997), satisfaction and the perception of one's physical, mental, emotional, and emotional well-being are thus considered. The impact of an individual's social milieu and surroundings on their societal functioning. As a result, the status of quality of life holds significant value for the geriatric population. Seniors who have a high quality of life are thus those who are able to enjoy robust and fulfilling final years of life.

2.2 The concept of quality of life abroad

The notion of quality of life (Giambra et al., 2024) is a widely recognized and applied concept that is regarded as a metric for assessing a nation's development objectives and indicators. Consequently, the notion of sustainable social development is intricately connected to the concept of enhancing the quality of life. The notion of sustainable development and quality of life standards is favored by developed nations. The selection process exclusively considers critical metrics. As an illustration, the framework of indicators in the United Kingdom within Europe comprises a mere 25 indicators and 15 elements, whereas numerous countries, particularly in Asia, opt for quality-of-life standards that encompass numerous indicators and are measured independently of sustainable development (Anto Juliet Mary & Ramesh, 2021; Asensio-Pérez et al., 2017). The advisory committee opted to examine the notion of quality of life across all continents, with a specific focus on Europe and England. Canada represents the Americas, New Zealand represents Australia, and Malaysia and the Philippines represent Asia. The

following are the indicators succinctly illustrating the quality of life in each country, as presented by the researcher:

2.3 Thailand's Quality of Life Concept

Thai scholar Rapeepan Khamhom (1997), in which he opined on quality of life and urged members of Thai society to prioritize social welfare work, stated the following: An article by Dr. Puay Ngpakorn entitled from the mother's womb to the foot of the sediment provides definitions for fourteen indicators. We will elaborate on three categories, each containing sixteen indicators. Dr. Puay Ngpakorn offers an outlook on the overall well-being of individuals, commencing with their gestation period and extending to an appropriately conventional lifestyle. Emphasizing the equality of individuals who will receive state-funded social services.

The acceptance of the quality-of-life concept in Thai society can be attributed to the ongoing development and implementation of quality-of-life instruments. Reports are generated during periodic assessments of Thailand's quality of life indicators, thereby providing a comprehensive evaluation of the nation's progress across all domains. Consequently, this metric for assessing quality of life is constrained in that, while it can be employed to quantify the extent and gravity of the issue at hand, it fails to reveal the progression of a particular demographic. The Advisory Board wishes to identify pertinent quality of life indicators for standardization. Indicators and criteria for assessing infant development Youth and disadvantaged individuals as follows, individuals with disabilities and the elderly: Basic Necessities Index : Department of Community Development

1. Indicators of well-being family
2. Well-being scorecard
3. People Progress Index
4. Human Security Index
5. The target audience index of the Ministry of Public Health

Quality of life indicators

Quality of life indicators are divided into 2 levels:

1. Surveys, analyses, and synthesis of secondary data collected from relevant agencies, including but not limited to public health, education, life and property safety, labor, environment, utilities, and the economy, are utilized to derive macro-level objective indicators (Cavalcanti, Oliveira, & de Oliveira Santini, 2022; Cetin, Cebeci, Eray, Coskun, & Gozkaya, 2021; Lahey et al., 2012). Material indicators of the Thai people's quality of life will be these data, in part due to the provisions of the Constitution and the actions of the government.
2. At the individual level, five dimensions apply subjective indicators of quality of life.
 - 1) Workplace quality of life
 - 2) Family existence quality
 - 3) Health, quality of life, and stress
 - 4) Environmental existence quality
 - 5) The standard of living as defined in the 2007 Constitution of the Kingdom of Thailand

The examination of the quality of life for individuals in Thailand constitutes the quality-of-life study. This entails the utilization of both subjective and objective indicators, sourced from secondary data collected from relevant agencies (Amankwah-Amoah, Khan, Wood, & Knight, 2021; Elisabeth, Ewa, & Christine, 2011; Fu, Luan, Wu, Zhu, & Pang, 2021).

- 1) The concept of "quality of work life" pertains to an individual's contentment and enjoyment derived from their present occupation or profession. There are numerous facets to work satisfaction, including job security. Income from employment and occupational safety. Relationships with coworkers or individuals pertinent to the workplace the necessity of continuing that effort indefinitely.
- 2) The concept of family quality of life pertains to the assessment of the welfare of family members based on their interpersonal exchanges, including collaborative problem-solving sessions. Providing assistance to a family member who is incapacitated or unwell and assisting in the management of household finances Attending significant events as a family and similar activities.
- 3) The concept of quality of life in relation to health and stress encompasses the manifestation of physical and mental symptoms that indicate an individual's physical well-being, specifically illness, as

well as psychological stress, which is defined as anxiety an individual experiences as a result of specific events or circumstances.

4) Environmental quality of life encompasses both physical and mental well-being in relation to the impact of diverse forms of contamination in the vicinity of one's residence.

5) The concept of quality of life encompasses not only contentment with the services provided by the government regarding public health, transportation, education, and transportation, but also satisfaction with the affordability of consumer goods and current utility bills (National Institute of Development Administration Research, 2010).

Quality of Life Measurement Instruments

The World Health Organization (WHO) is an instrument for quantifying quality of life that originated from the subjective evaluation of the term quality of life, which is a profoundly engrained cultural concept and conceptual framework. This is because respondents' perceptions of quality of life are central to the definition of QOL. Its purpose is not to provide precise measurements of symptoms, conditions, or diseases; instead, it assesses the impact of the disease and treatment on an individual's quality of life. It is an indicator derived from the one hundred quality of life indicators compiled by the World Health Organization. A single question was chosen from each of the twenty-four categories and merged with two queries pertaining to overall health and quality of life. The working group then translated into Thai a concise set of World Health Organization quality of life indicators. The WHOQOL-BREF instrument's language was refined and evaluated by language specialists prior to a test of language comprehension involving individuals from various cultural backgrounds. The confidence value of the Cronbach's alpha coefficient was 0.8406 and the accuracy value was 0.6515, in comparison to the WHOQOL-100 Thai version that is recognized officially by the WHO. The WHOQOL-BREF-THAI instrument for measuring quality of life comprises two distinct categories of inquiries: Subjective self-report and perceived objective (Selvi Sarigul et al., 2024; Starzer et al., 2024).

1. The physical domain encompasses an individual's perception of their physical state, including their well-being, which has an impact on their day-to-day existence. The sensation of euphoria is devoid of any discomfort. Capacity as perceived to manage physical discomfort Consciousness of fortitude in every day acknowledgement of autonomy that is not reliant on external forces. Awareness of one's motor capabilities an appreciation for the execution of an individual's daily activities. Appreciation of labor capability the belief that they do not require additional medical interventions or medications, among other things.

2. The psychological domain pertains to an individual's perception of their own mental state, including the perception of positive emotions they possess towards themselves. Self-perception of image Consciousness regarding one's self-esteem Recognizing one's own self-assurance Cognitive awareness encompasses memory, concentration, decision-making, and story-learning aptitude. Capacity as perceived to manage sorrow or anxiety. Consciousness of one's personal convictions that have an impact on one's way of life, including one's understanding of spiritual beliefs. Religion imparts purpose to existence and bolsters one's way of life through the incorporation of additional beliefs that are beneficial. It produces the outcome of surmounting challenges, and so forth.

3. Social relationships refer to an individual's perception of their interpersonal connections. Appreciation for the assistance received from members of society Acknowledgement for the contributions made by members of society as well. Perceptions of sexual arousal and sexual intercourse are encompassed.

4. The perception of the environment influences the environment itself. For instance, acknowledging that they are safe and secure in life and do not feel confined. They are conscious of living in a physical environment that is free from pollution. The use of convenient modes of conveyance provides financial advantages. The provision of health and social work facilities, the perception of having access to recreational and skill-development opportunities, the availability of facilities for practicing skills or acquiring new knowledge, and other relevant factors. (Mental Health Department, 2002).

3. Methodology

Scope of research

Population: The study participants were individuals aged 60 and above who regularly engaged in dance activities.

Samples:

Based on Abraham, Ali, Andangsari, and Hartanti (2020) formula for sample size calculation, a total of 246 participants is required for a 95% confidence level with a 5% error margin. This aligns with the findings of Griffiths, Terluin, Trigg, Schuller, and Bjorner (2022) , as referenced in the work of Kc, Sharma, Ginn, and Reed (2021). To enhance the robustness of the research, the researcher aims to collect data from 400 individuals.

The sample will be distributed across five regions, with provinces selected randomly in each region:

1. **Region 1:** Bangkok Dance Club and Rayong Dance Club
2. **Region 2:** Phetchaburi Dance Club and Prachuap Khiri Khan Provincial Dance Club
3. **Region 3:** Nakhon Ratchasima Rhythm Club and Maha Sarakham Dance Club
4. **Region 4:** Krabi Dance Club
5. **Region 5:** Chiang Mai Dance Club

A total of eight clubs will be included in the study using simple random sampling for participant selection.

Variables Studied: Independent Variables: These include gender, age, marital status, education level, occupation, basic health and comorbidities, income, welfare, housing, family relationships, community roles, and the healthcare system. Additionally, physical needs, psychological satisfaction, social satisfaction, and environmental satisfaction were considered.

Dependent Variable: The quality of life of older adults participating in dance sports activities.

Study Content: The demographic characteristics of the elderly, including gender, age, marital status, education, occupation, and health/comorbidities. Guidelines for enhancing the quality of life for elderly individuals engaged in dance sports activities. Factors influencing the promotion of quality of life among elderly dance participants. A model of causal factors that contribute to improving the quality of life for elderly individuals involved in dance sports activities.

Timeline: The study spans from November 2021 to November 2023.

Research instruments

A three-part questionnaire with the following information serves as the study's instrument.

Part 1: General respondent information, including age and gender, occupation, marital status, level of education, and medical or health history. The inquiries consist of both multiple-choice and typed responses.

Part 2: Questionnaire regarding the elderly's quality of life prior to engaging in rhythmic sports. The specifications of the 26 queries, which are based on a five-point scale

4. Result

To ensure that the presentation is succinct and straightforward. As a result, the researcher has established the following definitions for the symbols that denote variables and statistics in Table 1:

Table 1 Symbol requirements for variables and statistics

Symbol	Meaning
X1	gender
X2	age
X3	Single status
X4	Marital status
X5	Primary Education
X6	secondary education
X7	Bachelor's degree
X8	occupation
X9	Health/Comorbidities
X10	income
X11	social welfare

Symbol	Meaning
X12	Detached House
X13	Townhouse
X14	condominium
X15	Warm Relationships
X16	Lonely relationships
X17	A role in the community
X18	Healthcare system
X19	Physical health satisfaction
X20	Psychological satisfaction
X21	Social satisfaction
X22	Environmental satisfaction
X23	quality of life of elderly participating in dance sport
(\bar{X})	mean
S.D.	Standard deviation
r_{xy}	Correlation coefficient between variables X and Y
R	Multiple Correlation Coefficient
R^2	Generalized Squared Multiple Correlation Coefficient of a full-fledged model.
R^2_m	Generalized Squared Multiple Correlation Coefficient of hypothetical or reimagined models.
Q	Statistical values used to measure model consistency
W	Chi-square values used to test the statistical significance of model consistency
P_{jk}	The path coefficient has a relative direction from variable k to variable j.
CV	Distribution coefficient
Z_y	Standard score of the early variable
$Z_{x1} + Z_{x2} + \dots + Z_{xp}$	Standard score of dependent variables
β	Standardized Regression Coefficient (Beta Weight)

The study indicates that most elderly participants were female (64.7%) and predominantly in the early elderly age group (60–69 years, 73.3%). Middle-aged seniors (70–79 years) made up 26.7%. A majority were married (71.9%), while 19.8% were widowed or divorced. Regarding education, most held a bachelor's degree (41.1%) or secondary education (38.7%). Common health issues included hypertension (17.5%) and diabetes (16%). Income levels were mostly low, with 32.4% earning under 10,000 baht and 30.8% earning between 10,000–30,000 baht. Most participants did not receive social welfare (74.8%), and the majority had warm family relationships (87.9%). Additionally, 19.6% had a role in the community, and the majority accessed healthcare through government official benefits (30.3%) or the 30-baht health insurance program (25.8%).

The data reveals that the elderly in the sample had an average age of 66.5 years, with the youngest being 60 and the oldest 79. The average monthly income was 31,113.26 baht, with a wide range from 3,000 to 500,000 baht. Gender distribution had an average score of 0.6472 (out of 1.00). For marital status, single participants had an average score of 0.72, while married participants scored 0.08. Regarding education, elementary school had a score of 0.41, secondary school 0.39, and bachelor's degree 0.15.

The study also measured career, comorbidities, social welfare, housing, and family relationships. The highest scores were observed in condominium ownership (0.43), community role (0.80), and healthcare system access (0.80). Satisfaction levels were generally high, with physical health scoring 3.86 out of 4.86, psychological satisfaction 3.97 out of 5.00, and social satisfaction 4.09 out of 5.00. The overall quality of life for elderly participants in dance sport activities was notably high, with a score of 4.65 out of 5.00.

When analyzing the distribution coefficients, 15 variables exhibited a distribution higher than 50%. These variables included gender, single status, marital status, education (primary, secondary, bachelor's degree), occupation, health/comorbidities, income, social welfare, housing types (detached house,

townhouse, condominium), warm relationships, and access to the healthcare system. The coefficients ranged from 50 to 775, indicating a significant variance in distribution. Conversely, other variables showed lower distribution coefficients, such as age, lonely relationships, role in the community, and satisfaction levels (physical health, psychological, social, environmental), as well as quality of life for the elderly in dance sports. Their coefficients ranged between 6.031 and 49.625, indicating more uniform distribution across these aspects.

Analysis results Direct results Indirect effect, sum, and correlation coefficient (rxy) of seniors participating in dance sports activities. In presenting the results of direct analysis, Sums, indirect effects, and correlation coefficients We present a summary of the correlation coefficient. Path coefficients, or direct and indirect results and sums, are shown in the following table.

Table 2. Correlation coefficient (rxy) between all studied variables

factor	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20	X21	X22	X23
X1	*																						
X2	-083	*																					
X3	-045		*																				
X4	035			*																			
X5					197*	048																	
X6	016	280*	013	-072		*																	
X7	082	351*		-058			*																
X8	124*		135*	151*		155*		*															
X9	-044	4.24*		-037		148*	288*		*														
X10	-058		124*	029	196*			149*		*													
X11		079	084		-030	048	083*		076		*												
X12	-004		-029	109*	102*	-067	-068	-050	054	008	-041	*											
X13	-021	192*		-047		-171*	164*		118*		-252*		*										
X14	032		047	035	216*			013	-088	240*				*									
X15	023	057		225*	-0.28	042	-082		113*	-055	-073	-029	063	-052	*								
X16			258*	-047	171*	-072		058		081	025	039		114*		*							
X17	075	189*	020	-057		159*	140*	-021	042		041	-031	160*		-041	-027	*						
X18		026	050	-053	053	-076	018		-061		590*	043	187*			038	-048	*					
X19	-080		265*	-014	107*	084				051	014	-029	-065	028		150*	035	096	*				
X20	-045	-037	138*	-033	111*	043		088		018	-041	-028		124*		053	084	-035	400*	*			
X21		012	127*		-032	063	025	-010	-025	-091	113*	010	-022	-029		080	080	-048	366*	383*	*		
X22		-051	094*	051	143*	-013		091		092	-016	-015		137*	-070	074	-041	-020	364*	380*	347*	*	
X23	-093	175*	138*		-037	165*	027		-020		262*	-084	133*		-090	-029	101*	135*	277*	393*	420*	370*	*

*P<.05

*P<.05

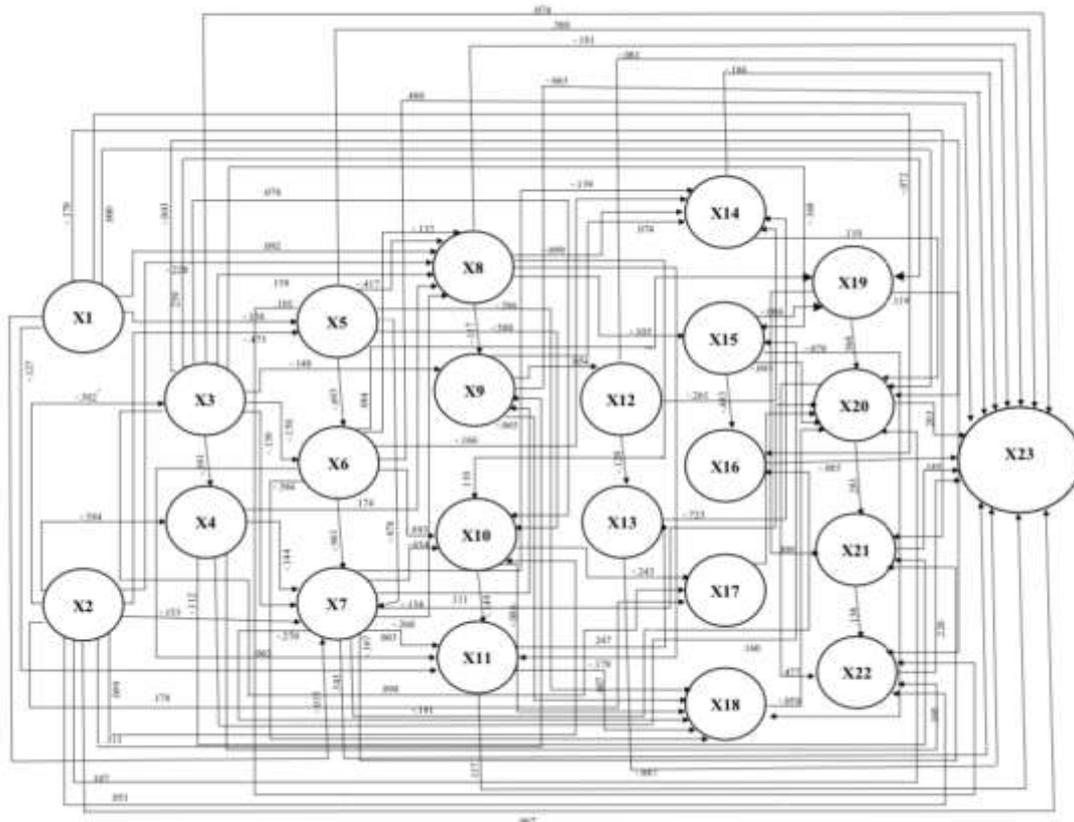
When looking at pairs, statistically significant correlated factors at the.05 level appear as follows:

1. Gender is related to an Primary Education, bachelor's degree occupation, lonely relationships Social satisfaction Environmental satisfaction and quality of life of the elderly participating in dance sports.
2. Age is related to single status, marital status, primary education, a bachelor's degree, a role in the community, Psychological satisfaction Social satisfaction and quality of life of elderly participants in dance sport
3. Single status is related to secondary education, Health/Comorbidities, income, A role in the community, Physical health satisfaction and Quality of life of elderly participating in dance sport.
4. Marital status is related to bachelor's degree, occupation, Warm Relationships, Lonely relationships, Environmental satisfaction and Quality of life of elderly participating in dance sport.
5. Primary Education is related to secondary education, bachelor's degree, occupation social welfare and Quality of life of elderly participating in dance sport.
6. secondary education is related to bachelor's degree, occupation, social welfare, condominium, Healthcare system, Physical health satisfaction and Quality of life of elderly participating in dance sport.
7. Bachelor's degree is related to Health/Comorbidities, income, social welfare, condominium, lonely relationships, Healthcare system, social satisfaction and Quality of life of elderly participating in dance sport.
8. occupation is related to condominium, Warm Relationships and Quality of life of elderly participating in dance sport.

9. Health/Comorbidities is related to Detached House, condominium, Healthcare system and Quality of life of elderly participating in dance sport.
10. income is related to social welfare, A role in the community, Healthcare system and Quality of life of elderly participating in dance sport.
11. social welfare is related to Townhouse, Healthcare system and Quality of life of elderly participating in dance sport.
12. Detached House is related to condominium and Quality of life of elderly participating in dance sport.
13. Townhouse is related to condominium and Quality of life of elderly participating in dance sport.
14. condominium is related to Quality of life of elderly participating in dance sport.
15. Warm Relationships is related to lonely relationships, Healthcare system, Physical health satisfaction, psychological satisfaction, social satisfaction and Quality of life of elderly participating in dance sport.
16. Lonely relationships are related to Quality of life of elderly participating in dance sport.
17. A role in the community is related to Quality of life of elderly participating in dance sport.
18. Healthcare system is related to Quality of life of elderly participating in dance sport.
19. Physical health satisfaction is related to psychological satisfaction, Social satisfaction and Environmental satisfaction.
20. Psychological satisfaction is related to psychological satisfaction and Quality of life of elderly participating in dance sport.
21. Social satisfaction is related to Quality of life of elderly participating in dance sport.
22. Environmental satisfaction is related to Quality of life of elderly participating in dance sport.

In presenting the results of direct analysis, Indirect and aggregate effects We present a summary of the correlation coefficient. Path coefficient or direct result Indirect and total effects are shown in the following figure.

Figure 2: Reinterpretation of causal factors promoting the quality of life of the elderly participating in dance sports.



When examining the factors that have the greatest overall impact, the following key sequences emerge:

1. **Secondary Education:** Total impact 0.497 (direct: 0.480, indirect: 0.017); direct effect is statistically insignificant.
2. **Social Welfare:** Total impact 0.277 (direct: 0.117, indirect: 0.160); affects quality of life directly and through townhouses.
3. **Psychological Satisfaction:** Total impact 0.255 (direct: 0.203, indirect: 0.052); influences quality of life directly and through social satisfaction.
4. **Environmental Satisfaction:** Total impact 0.226; only direct effect, statistically insignificant.
5. **Social Satisfaction:** Total impact 0.216 (direct: 0.185, indirect: 0.031); affects quality of life directly and through environmental satisfaction.
6. **Single Status:** Total impact 0.084 (direct: 0.074, indirect: 0.010); affects quality of life directly and through the healthcare system.
7. **Primary Education:** Total impact 0.084 (direct: 0.074, indirect: 0.010); affects quality of life directly and through physical health satisfaction.
8. **Townhouse:** Total impact -0.096 (direct: -0.009, indirect: -0.087); affects quality of life directly and through health conditions.
9. **Bachelor's Degree:** Total impact -0.098 (direct: -0.441, indirect: 0.343); affects quality of life directly and through career.
10. **Warm Relationships:** Total impact -0.568; only an indirect effect through lonely relationships.
11. **Occupation:** Total impact -0.361 (direct: -0.181, indirect: -0.180); affects quality of life directly and through townhouses.
12. **Detached House:** Total impact -0.288 (direct: -0.081, indirect: -0.207); affects quality of life directly and through townhouses.
13. **Condominiums:** Total impact -0.164 (direct: -0.186, indirect: 0.022); affects quality of life directly and through psychological satisfaction.
14. **Health/Comorbidities:** Total impact -0.090 (direct: -0.063, indirect: -0.027); affects quality of life directly and through detached houses.
15. **Lonely Relationships:** Total impact -0.085; only direct effect, statistically insignificant.
16. **Physical Health Satisfaction:** Total impact 0.074; only indirect effect through psychological satisfaction.
17. **Age:** Total impact -0.065 (direct: -0.067, indirect: -0.132); affects quality of life directly and through psychological satisfaction.
18. **Gender:** Total impact -0.052; only indirect effect.
19. **Marital Status:** Total impact -0.049; only indirect effect.
20. **Income:** Total impact -0.017; only indirect effect through social welfare.
21. **Healthcare System:** Total impact -0.012; only indirect effect through psychological satisfaction.
22. **Community Role:** Total impact 0.000; no significant direct or indirect effect.

5. Conclusion

This research aimed to develop a causal factor model that improves the quality of life for elderly individuals participating in dance sports. The study examined both direct and indirect influences of various factors, such as gender, age, marital status, education, occupation, health conditions, income, housing, family relationships, community roles, healthcare access, and satisfaction in physical, psychological, social, and environmental aspects. The research sample consisted of elderly participants, mostly female (64.7%) and aged 60–69 years (73.3%). Key findings revealed that most had warm family relationships (87.9%) but lacked community involvement (80.4%). Significant factors influencing quality of life included income, social welfare, and healthcare access. Secondary education Primary education and undergraduate education (.480), (.380), and (.343), respectively, were the most common contributors to the quality of life of the elderly participating in dance sports. In addition, all three levels of education were directly and indirectly affected by gender, age level, and marital status.

1. Environmental satisfaction, psychological satisfaction, and social satisfaction (.226), (.203), and (.185), respectively, are the factors that contribute to the promotion of the quality of life of the elderly participating in dance sports. Second, it shows that satisfaction theory affects the quality of life of elderly people participating in dance sports. In addition, satisfaction in all three aspects is directly

and indirectly caused by gender and age level. These factors include marital status, education, social welfare, housing, family relationships, and the healthcare system.

2. Condominium (-.186) is a variable that contributes to the promotion of the quality of life of the elderly participating in dance sports. It shows that condominium housing affects the quality of life of the elderly participating in dance sports. In addition, condominium-type housing. Obtain the direct and indirect consequences of undergraduate education. Secondary education, occupation, health/comorbidities, single-family housing, and townhouse housing

The study identified key factors impacting the quality of life for elderly participants in dance sports. The top factors are:

1. **Secondary Education:** Total impact of 0.497, with a significant direct effect on quality of life.
2. **Social Welfare:** Total impact of 0.277, both directly and indirectly affecting quality of life through housing (townhouses).
3. **Psychological Satisfaction:** Total impact of 0.255, directly influencing quality of life and indirectly through social satisfaction.
4. **Environmental Satisfaction:** Total direct effect of 0.226, with no indirect impact.
5. **Social Satisfaction:** Total impact of 0.216, directly affecting quality of life and indirectly through environmental satisfaction.

Other factors like occupation, housing, warm relationships, and health conditions had negative effects. Gender, age, and income had minor indirect impacts, while a community role had no significant influence.

6. Reference

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