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The Effect of Family Social Support, Physical Health, and Religiosity on the Quality of Life and Happiness of the Elderly in Tabanan Regency

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Abstract: This research aimed to explore the impact of family social support, physical health, and religiosity on the quality of life and happiness among elderly individuals in Tabanan Regency. Employing both quantitative and qualitative approaches, primary and secondary data were collected using a questionnaire as the main instrument. Structural Equation Modeling (SEM) was utilised in order to test the research hypotheses. The study utilised a non-probability sampling method employing accidental sampling to gather data from a cohort of 203 elderly individuals aged 60 years and older residing in Tabanan Regency. The independent variables were family social support, physical health, and religiosity, with quality of life serving as the mediating variable, and happiness as the dependent variable. Descriptive statistical techniques and differential analysis were applied to examine the relationships among these variables. The results revealed that family social

support significantly influenced the quality of life and happiness of the elderly. Physical health also positively contributed to both quality of life and happiness. While religiosity has a significant relationship with the quality of life and happiness of the elderly, its impact is less pronounced compared to the other factors. The scientific novelty of this research stems from its integrated approach in analysing multidimensional factors - family social support, physical health, and religiosity - and their collective impact, thereby offering fresh perspectives on the mediating role of quality of life. Practically, the study offers valuable information for policymakers and practitioners to develop targeted interventions that enhance elderly well-being. The use of SEM further provides a robust methodological framework for future research.

Keywords: family social support, physical health, religiosity, quality of life, happiness, elderly, population, Tabanan.

Introduction

The Organisation for Economic Cooperation and Development (OECD) suggests using the "Better Life Index" system as an indicator of happiness (OECD, 2020). The Happiness Index measures life satisfaction, affect, and meaning of life (eudaimonia). Given the contemporary context of population ageing, there is a compelling need to prioritize the happiness of older adults. As their demographic proportion expands within society, so too does their potential impact on overall societal happiness. Therefore, it will be challenging to understand national happiness if older adults are unhappy (Abdel-Khalek, 2024).

Happiness considers how individuals consider various aspects of life and can be defined as a subjective expression of personal well-being consisting of evaluating one's emotional state and life satisfaction (Luchesi et al., 2018). Every human being has life needs that must be correctly fulfilled, as does the elderly (Alagheband et al. 2023). Essential elements for promoting the well-being of older individuals encompass access to nutritious diets, regular health assessments, suitable housing ensuring safety and tranquility, as well as fulfilling social needs through interaction, shared experiences, and guidance towards an improved quality of life (Al-Shaer et al., 2024). The elderly population requires these needs to live independently. Humans strive to fulfil the needs of a decent life, both physically and material. Life satisfaction, usually called happiness, arises from fulfilling needs or expectations. Pleasant satisfaction will arise when specific individual needs and expectations are met; thus, happiness is typically associated with achieving well-being (Asiri et al., 2023).

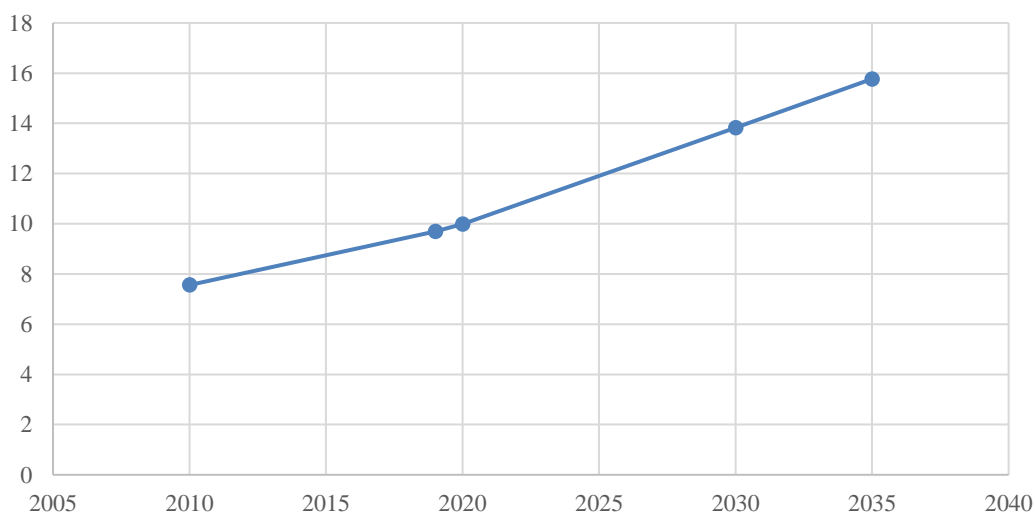
From year to year, Indonesia's population has experienced changes in structure, composition and development. The proportion of the young population or under 15 has become smaller, although the number is still increasing. The increase in life expectancy indirectly increases the number of older people, and there is a tendency for it to be faster. Elderly or old age is a concluding period in a person's life span, when a person has moved away from an earlier, more enjoyable period or away from a time full of benefits (Boylan et al., 2023; López-Ruiz et al., 2021). Society currently views the elderly as less productive, less attractive, less energetic, forgetful, and perhaps less valuable than those still in their prime.

For this reason, in national development, the government has achieved positive results in various fields, namely economic progress, environmental improvement. It advances science and technology, especially in the medical field or medical science, to improve population health and increase human life expectancy. As a result, the number of older people increases and tends to increase faster, often called the Elderly Boom.

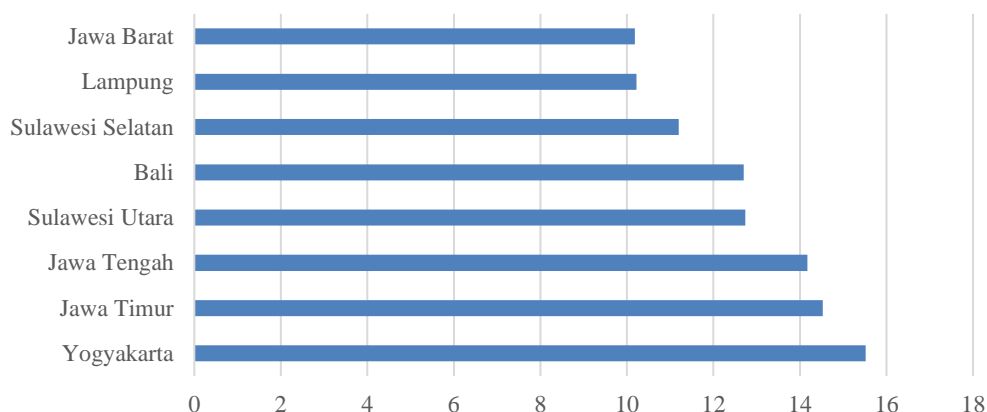
The government's programme for the welfare of the elderly, one of which is the Assistance for Social Rehabilitation of the Elderly (ATENSI-LU) programme in 2022, namely implementing comprehensive multifunctional services and providing assistance for the elderly in 41 UPT Ministry of Social Affairs. In addition, the activation of Posyandu Lansia began to be implemented simultaneously throughout Indonesia, and the Outstanding Posyandu Lansia was awarded. Subsequently, the tagline concept "Solasi" (Friend of the Elderly Indonesia) was introduced at the Elderly Integrated Health Post (Posyandu Lansia) to foster closer bonds between the younger generation and the elderly. According to the Bureau of Communication and Community Services of the Indonesian Ministry of Health, in 2022, Indonesia is entering the ageing population period, where an increase follows an increase in life expectancy in the number of elderly people. Indonesia experienced an increase in the number of elderly people from 18 million people (7.56 %) in 2010 to 25.9 million people (9.7 %) in 2019 and is expected to continue to increase where in 2035 to 48.2 million people (15.77 %).

Figure 1

Projections of the Elderly Population 2010-2035 (in Percent) in Indonesia



The decreasing number of births causes the ageing population in Indonesia while life expectancy is increasing. The increasing growth in life expectancy impacts the number of elderly people each year. Ageing of the age structure has become a significant topic of public debate as it concerns future economic growth. Figure 1.2 shows eight provinces that are entering the ageing population in Indonesia.

Figure 2*8 Largest Aging Population Provinces in Indonesia in 2022 (in Percent)*

Bali Province is one of the eight provinces that experience an ageing population in Indonesia. The ageing population in Bali Province in 2022 is in the fourth highest position at 12.7 %. An ageing population will present various challenges, both social and economic, as elderly individuals, no longer actively employed, are frequently viewed as dependent on their families, impacting financial dynamics and social structures.

Table 1*Percentage of Elderly Population by Regency/City in Bali Province*

Regency/City	Year				
	2016	2017	2018	2019	2020
Jembrana	10,74	10,99	11,26	11,55	11,87
Tabanan	15,12	15,43	15,77	16,14	16,53
Badung	8,24	8,45	8,68	8,93	9,19
Gianyar	12,00	12,28	12,58	12,91	13,26
Klungkung	15,19	15,50	15,85	16,22	16,62
Bangli	13,53	13,82	14,15	14,50	14,87
Karangasem	13,63	13,93	14,26	14,61	14,99
Buleleng	11,48	11,74	12,03	12,34	12,67
Kota Denpasar	5,06	5,20	5,36	5,52	5,70
Total	10,49	10,71	10,96	11,22	11,51

Table 1 shows that the highest percentage of elderly people are in the Klungkung and Tabanan districts. The percentage of elderly people in Klungkung Regency is 16.62 %, while in Tabanan Regency, the percentage is 16.53 %. In addition to Tabanan Regency being one of the regencies with the second highest percentage of elderly people in Bali, there has been a significant increase in the percentage of elderly people from year to year; it was noted that from 2016 to 2020, it consistently increased from 15.12% in 2016 to 16.53% in 2020.

Tabanan Regency is the fourth largest regency of the nine regencies/cities in Bali, with an area of 839.33 km² or 14.89 % of the total area of Bali Province consisting of highland and lowland areas. Tabanan Regency has ten sub-districts divided into 133 villages. Based on the topographic conditions in Tabanan Regency, the northern region of Tabanan is an upland area. Meanwhile, the southern region of Tabanan is a coastal area. These topographical conditions affect the temperature of each sub-district, which will affect the level of rainfall and soil fertility conditions. Each sub-district in Tabanan Regency has different agricultural potential according to the climate and weather conditions. Jatiluwih Village, Penebel Sub-district, has potential in the agricultural sector with food crop agriculture in the form of brown rice, and it is a leading tourist destination in Tabanan Regency. The Pupuan sub-district boasts valuable commodities, including robusta coffee, renowned for its export quality and competitiveness in the international market. Furthermore, Baturiti is celebrated for its fertile soil conducive to cultivating a wide variety of vegetables, fruits, and flowers. Candikuning Village also has potential as a strawberry-producing area, and Antapan Village has a guitar flower nursery. Tabanan Regency is known for its identity as a granary because agricultural products in the form of rice and rice are superior commodities in Tabanan Regency and has the most extensive rice field area in Bali Province; Tabanan Regency ranks first in the production of rice and rice compared to other districts in Bali Province, according to data from the Central Statistics Agency (BPS) of Bali Province in 2021, rice production in 2021 in Tabanan Regency is 169.56 tonnes. Tabanan Regency is one of the agricultural producing areas in Bali; this shows that many people in Tabanan Regency still work in agriculture. In addition, Tabanan Regency is an area thick with customs, which causes Tabanan Regency to still have local wisdom.

Indonesia is currently experiencing the phenomenon of rapid urbanisation, the biggest trigger being development in the industrial sector (Chen et al., 2023; Delbari et al., 2023). Urbanisation will impact socio-cultural problems in rural areas. The overall percentage of the urban population in Indonesia in 2010 and 2015 increased from 49.8% in 2010 to 53.3% in 2015. In 2015, the urban population percentage in Bali Province grew by 5.3%, surpassing the national average for Indonesia. Population mobility in an area certainly has hopes and goals to achieve a more decent standard of living. The same condition occurs in Tabanan Regency. For the last five years, the population growth rate has been concentrated in Tabanan City and Kediri. This condition is partly due to the productive age population moving to urban areas to improve their living standards. This condition causes the old-structured population to remain in the countryside by working in the agricultural sector. Without realising it, these conditions will result in changes in values that are not good for the elderly. Urbanisation increases the number of older people living alone, without children or grandchildren to care for them (Eatamadi & Napier, 2023). Rampant urbanisation in Bali Province will cause new social problems, namely the occurrence of cases of elderly neglect.

Case data from LBH (Legal Aid Institute) Apik Bali in 2022, the cases of neglect of the elderly are the third largest cases in Bali Province, namely 47 cases; this shows that with the increasing life expectancy of the elderly raises new social problems related to the increasing percentage of the elderly in Bali (Faraji et al., 2023). The quality of life is a subjective evaluation of individual abilities influenced by physical, mental, and social potential, where a person can convey overall well-being and includes aspects such as happiness and satisfaction with life as a whole. A high quality of life for elderly individuals refers to their optimal condition to experience old age meaningfully, happily, and purposefully (Sutikno, 2011). The quality of life has six dimensions: physical health, psychological well-being, level of independence, social relationships, environment, and spirituality. The WHO has shortened the dimensions of quality of life into four domains: physical health, psychological well-being, social relationships, and the environment. Marznaki et al. (2024) developed a measurement

tool for the quality of life of the elderly in Indonesia and found three additional dimensions from the previous four dimensions. The seven dimensions are physical, psychological, independence, self-empowerment, environment, social and spiritual relationships. Family support plays a crucial role in enhancing the quality of life and happiness of the elderly (Fatima et al., 2023; Izzo et al., 2022).

Strong support from the family will make the elderly feel happier. Bali Province has a cultural system of residence arrangements for the elderly; traditionally, the community prioritises the elderly living with the most minor son (Foong et al., 2023). If the elder's children are married, the youngest son is expected to bring his parents to live together under one roof and share one kitchen. However, it is not uncommon for the elderly to have family problems that interfere with their happiness (Gan et al., 2023; Hou & Huang, 2023). Support from the family dramatically determines the quality of life and happiness of the elderly because a family with a quiet home makes the elderly feel comfortable (Ichwan et al., 2021; Kennedy & Adriani, 2023). Researches concerning the influence of family support in South America found that family is a source of hope for the elderly, even more, important than the elderly community they have, and family support is a source of happiness for the elderly. Strong family support will bring happiness to the elderly, while weak family support or family rejection will cause unhappiness. Family support includes four dimensions: instrumental, informational, appreciation, and emotional. Family support provided by spouses, children, and grandchildren significantly contributes to the happiness of the elderly (Taufik et al., 2024).

Social support or social resources are necessary to lead a happy and healthy life. Bali Province has an activity specifically for the elderly called "Community-Based Elderly Movement". This activity aims to empower the elderly according to the expertise of each elderly person. In Tabanan Regency, there is also a socialisation of improving the quality of life of the elderly with the existence of an elderly posyandu. The services provided by Posyandu lansia through its programmes and cadres aim to improve the quality of life of older people who are more vulnerable to disease in areas that have Posyandu lansia; its cadres will oversee the health of the elderly in the area on an individual and detailed basis. Typically, a card or booklet will be utilized to document the health status and lifestyle of the elderly. With the existence of Posyandu Lansia, the quality of life of senior citizens is expected to continue to improve. Older individuals who reside in isolation and away from others tend to experience greater loneliness and are more prone to reporting feelings of sadness, hopelessness, and worthlessness compared to those living with companions. Moreover, older individuals who reside by themselves tend to have poor health; they experience severe psychological distress and limitations in activities of daily living (AKS) compared to the elderly who live with family or others around them.

As the age increases, a person is vulnerable to health problems. Everyone desires a contented old age, yet aspirations are not always realized. In reality, numerous elderly individuals experience depression, stress, and illness (Khuzaimah et al., 2023). The most common diseases in the elderly are non-communicable diseases such as hypertension, dental problems, joint diseases, oral problems, diabetes mellitus, heart disease and stroke, and infectious diseases such as ARI, diarrhoea, and pneumonia. The number of people with dementia tends to increase along with the increase in non-communicable disease cases. Bali Province, one area with an ageing population, is certainly not free from health problems. Supas Bali Province 2015 shows the health condition of the elderly in Bali Province. The percentage of male elderly health is 47.09 %. This means that 47.09 % of elderly men are healthy while the remaining 52.91 % are experiencing health problems.

Meanwhile, the percentage of elderly women's health is 49.39 %. This means that 49.39 % of elderly women are in a healthy condition while the remaining 50.61 % are in a condition of experiencing health problems. This observation indicates that the health status of elderly women exhibits a relatively higher level of well-being compared to elderly men.

This situation will influence the elderly's reliance on assistance from others or the need for long-term care. Elderly physical health correlates with happiness (Taufik et al., 2024). Healthy elderly people can carry out various physical and social activities and consume the food they need and want. In contrast, the sick elderly have various activity limitations, difficulty in consuming food, and experience various suffering. This condition will reduce happiness because the sick elderly tend to feel uncomfortable. A person's meaningful life encourages him to do positive things, such as maintaining a healthy body, playing a role in society, and coping with life's pressures.

Participation in religious activities such as prayer strongly influences happiness. In addition, various other activities such as meerkat (cleansing at a holy water centre) are believed by the elderly to be able to cleanse themselves (scale and niskala) and will bring happiness. High expectations from religion will bring positive attitudes to those who believe in it. Usually, the elderly face essential issues related to physical health and the death of spouses and friends of the same age. This raises awareness of the reality of death. Additionally, engaging in communal religious activities brings happiness to older individuals. The elderly have the opportunity to understand their religion, and its practice can bring happiness. In addition, participation in community service is closely related to life satisfaction for the elderly; the elderly who are involved in community service volunteer activities have better physical health than those who are not involved.

Research Problem

Several research gaps are evident in the study of elderly health and happiness in Bali Province. Firstly, there is a lack of detailed analysis on gender-specific health disparities despite data showing slightly better health outcomes for elderly women. The relationship between non-communicable diseases and mental health issues such as depression and stress lacks comprehensive understanding, warranting further investigation (Khuzaimah et al., 2023). Additionally, while community involvement is linked to better health and life satisfaction, specific benefits and underlying mechanisms are not well-documented. There is a lack of comparative regional studies that could identify and highlight best practices in elderly care. Current data, based on snapshots from specific years, underscores the need for longitudinal studies to track long-term health and happiness (Taufik et al., 2024). Lastly, the roles of diet, nutrition, and the interplay of physical and social activities in elderly health require more in-depth exploration. Addressing these gaps will contribute to a comprehensive understanding and enable more targeted interventions aimed at enhancing elderly well-being in Bali.

Despite the recognition of various factors affecting elderly health and happiness, there is a lack of detailed understanding of gender-specific health disparities, the interplay between non-communicable diseases and mental health, the effectiveness of religious and cultural practices, the impact of community involvement, and the role of diet and nutrition in the elderly population of Bali Province. Additionally, there is a need for longitudinal studies and regional comparisons to develop evidence-based interventions. How can targeted interventions be designed to improve the physical and mental well-being of the elderly in Bali, considering these multifaceted factors?

Main Research Problem

What are the key determinants of health and happiness among the elderly population in Bali Province, and how do physical health, religious participation, and community involvement influence their overall well-being?

Research Focus

The specific area that were investigated in this study included:

1. The prevalence and impact of non-communicable and communicable diseases on the elderly in Bali Province.
2. Gender differences in health conditions among the elderly and the factors contributing to these differences.
3. The relationship between physical health and happiness in the elderly population.
4. The role of religious participation in enhancing the happiness and well-being of elderly individuals.
5. The influence of community involvement and volunteer activities on the physical health and life satisfaction of the elderly.

Research Aim and Questions

Research Questions:

1. What is the effect of family social support, physical health, and religiosity on the quality of life of the elderly in Tabanan Regency?
2. What is the effect of family social support, physical health, religiosity, and quality of life on the happiness of the elderly in Tabanan Regency?
3. Is there an indirect effect of family social support, physical health, and religiosity on happiness through the quality of life of the elderly in Tabanan Regency?

Research Aims:

1. Analyse the effect of family social support, physical health, and religiosity on the quality of life of the elderly in Tabanan Regency.
2. Analyse the effect of family social support, physical health, religiosity, and quality of life on the happiness of the elderly in Tabanan Regency.
3. Analyse the indirect effect of family social support, physical health, and religiosity on happiness through the quality of life of the elderly in Tabanan Regency.

Research Methods

The location of this research was in Tabanan Regency, chosen because it had the second highest percentage of the agricultural work sector. This research focused on family social support,

physical health, religiosity, quality of life, and happiness of the elderly in Tabanan Regency. The exogenous variables in this study were family social support (X1), physical health (X2), and religiosity (X3). The mediating variable was the quality of life (Y1), and the endogenous variable was happiness (Y2). Both quantitative and qualitative data were collected to ensure relevance to the research problems.

The population in this study included elderly individuals aged 60 years and over with identity cards (KTP) in Tabanan Regency, totaling 98,087 people (BPS Tabanan Regency, 2023). The sampling technique employed was the non-probability sampling with accidental sampling, where any elderly person who happened to meet the researcher and met the criteria was included as a sample. Using the Slovin formula with a critical value of e at 7 percent, the sample size determined is 203 elderly individuals. Data collection was carried out using a questionnaire with a Likert scale of 1 to 5.

For data analysis, the Partial Least Square (PLS) approach was used. PLS is a component-based or variant-based Structural Equation Modeling (SEM) equation model, ideal for complex models with multiple variables. This methodology helped understanding the relationships between family social support, physical health, religiosity, quality of life, and happiness among the elderly in Tabanan Regency.

General Background

This research was conducted in Tabanan Regency, chosen due to its significant agricultural sector and substantial elderly population. The study focused on examining the relationships between family social support, physical health, religiosity, quality of life, and happiness among the elderly. The exogenous variables were family social support (X1), physical health (X2), and religiosity (X3). The quality of life (Y1) served as the mediating variable, and happiness (Y2) was the endogenous variable. Both quantitative and qualitative data were utilised to effectively address the research problem.

Sample

The population for this study consisted of elderly individuals aged 60 years and above, holding identity cards (KTP) in Tabanan Regency, totaling 98,087 people. Using a non-probability sampling technique, specifically accidental sampling, a sample size of 203 elderly individuals was determined based on the Slovin formula with a margin of error (e) of 7%. This approach involved selecting participants who were conveniently available and meet the study's criteria.

Instrument and Procedures

The data collection was performed using a structured questionnaire designed with a Likert scale ranging from 1 to 5. The questionnaire was administered directly to the participants in order to capture information on family social support, physical health, religiosity, quality of life, and happiness. The data collection process aimed to ensure the relevance and accuracy of the data concerning the research questions. Primary data were gathered through direct interaction with the participants, while the secondary data were obtained from existing records and reports relevant to the study.

Data Analysis

The data collected were analysed using the Partial Least Square (PLS) approach, a component-based or variance-based Structural Equation Modeling (SEM) technique. This method was suitable for examining complex relationships between multiple variables and helps in identifying the direct and indirect effects of the exogenous variables on the endogenous variable through the mediating variable. The PLS approach enabled the assessment of the measurement model (validity and reliability of the instruments) and the structural model (the relationships between the variables).

Results

The results of the research instrument validity test in Table 2 show that all statement indicators in the variables of family social support, physical health, religiosity, quality of life and elderly happiness have a Pearson correlation value greater than 0.30, so all indicators are declared valid.

Table 2

Instrument Validity Test Results

Variables	Indicator	Pearson Correlation	Information
Family Social Support (X1)	X1.1	0.949	Valid
	X1.2	0.951	Valid
	X1.3	0.935	Valid
	X1.4	0.886	Valid
Physical Health (X2)	X2.1	0.961	Valid
	X2.2	0.972	Valid
	X2.3	0.935	Valid
Religiosity (X3)	X3.1	0.894	Valid
	X3.2	0.936	Valid
	X3.3	0.942	Valid
	X3.4	0.962	Valid
	X3.5	0.956	Valid
Quality of Life (Y1)	Y1.1	0.900	Valid
	Y1.2	0.883	Valid
	Y1.3	0.909	Valid
	Y1.4	0,520	Valid
Elderly Happiness (Y2)	Y2.1	0.870	Valid
	Y2.2	0.883	Valid
	Y2.3	0.421	Valid

Source: Data processed.

Table 3

Instrument Reliability Test Results

No	Variable	Nilai Cronbach Alpha	Information
1	Family Social Support (X1)	0,945	Reliable
2	Physical Health (X2)	0,951	Reliable

No	Variable	Nilai Cronbach Alpha	Information
3	Religiosity (X3)	0,965	Reliable
4	Quality of Life (Y1)	0,815	Reliable
5	Elderly Happiness (Y2)	0,687	Reliable

Source: Data processed.

Table 3 shows that each Cronbach alpha value on each instrument is more significant than 0.6, so all variables are suitable for use as measuring instruments on the questionnaire instrument in this study.

Table 4

AVE Convergent Validity Test Results

Variable	Average Variance Extracted (AVE)
Family Social Support (X1)	0,870
Physical Health (X2)	0,829
Religiosity (X3)	0,825
Quality of Life (Y1)	0,834
Elderly Happiness (Y2)	0,847

Source: Data processed.

Based on Table 4, it can be seen that all convergent validity AVE values are more significant than 0.7, so it can be stated that the data in the study are valid.

Table 5

Discriminant Validity Test

Variable	Family Social Support (X1)	Physical Health (X2)	Religiosity (X3)	Quality of Life (Y1)	Elderly Happiness (Y2)
Family Social Support (X1)	0,933				
Physical Health (X2)	0,893	0,920			
Religiosity (X3)	0,891	0,904	0,913		
Quality of Life (Y1)	0,899	0,880	0,885	0,910	
Elderly Happiness (Y2)	0,899	0,887	0,900	0,891	0,903

Source: Data processed.

Table 5 demonstrates that the square root of Average Variance Extracted (AVE) values (0.933, 0.920, 0.913, 0.910, 0.903) is higher than the correlations between each construct. This suggests that the model exhibits adequate discriminant validity.

Table 6

The Result of Cronbach's Alpha & Composite Reliability

Variable	Cronbach's Alpha	Composite Reliability
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Family Social Support (X1)	0,945	0,964
Physical Health (X2)	0,951	0,936
Religiosity (X3)	0,965	0,959
Quality of Life (Y1)	0,815	0,953
Elderly Happiness (Y2)	0,687	0,943

Source: Data processed.

Based on Table 6, it can be seen that all Cronbach's alpha and Composite reliability values on each variable are greater than 0.70, so it can be stated that the data in the study are reliable..

Table 7

R-square

Variable	R Square	R Square Adjusted
Quality of Life (Y1)	0,855	0,853
Elderly Happiness (Y2)	0,865	0,863

Source: Data processed.

Based on Table 7, the R-squares value for the quality of life variable (Y1) is 0.855, which indicates a strong influence. The R-square value for the elderly happiness variable (Y2) is 0.865, which indicates that it has a strong influence.

$$Q^2 = 1 - (1 - R^2_1) (1 - R^2_2)$$

$$Q^2 = 1 - (1 - 0,855) (1 - 0,865)$$

$$Q^2 = 1 - (0,145) (0,135)$$

$$Q^2 = 1 - 0,019$$

$$Q^2 = 0,981$$

Based on the above calculations, the Q-Square value of 0.981 is more than 0 and close to 1, so it can be concluded that the model has a predictive relevance value or a decent model is said to have a relevant predictive value of 98.1 %. This shows that the variation in the elderly happiness variable (Y2) can be explained by variations in social support (X1), physical health (X2), religiosity (X3) and quality of life (Y1), while other variables outside the model explain the remaining 2 percent.

Table 8

Path Coefficients (Mean, STDEV, T-Statistics, P-Values)

Variable	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
X1 - Y1	0,293	0,291	0,120	2,429	0,016
X2 - Y1	0,264	0,262	0,112	2,352	0,019
X3 - Y1	0,401	0,404	0,120	3,340	0,001
X1 - Y2	0,252	0,273	0,086	2,943	0,003
X2 - Y2	0,162	0,154	0,082	1,978	0,049
X3 - Y2	0,175	0,167	0,082	2,130	0,034
Y1 - Y2	0,378	0,375	0,088	4,311	0,000

Source: Data processed.

Based on Table 8, it shows that the variable relationship of the level of social support (X1) to quality of life (Y1), physical health (X2) to quality of life (Y1), religiosity (X3) to quality of life (Y1), social support (X1) to elderly happiness (Y2), physical health (X2) to elderly happiness (Y2), religiosity (X3) on elderly happiness (Y2), and quality of life (Y1) on elderly happiness (Y2) are positive and significant by comparing the t-count value which is greater than the t-table of 1.65 and by comparing the P-values which are smaller than alpha 0.05.

Table 9

Indirect Effects (Mean, STDEV, T-Statistics, P-Values)

Variable	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
X1 → Y1 → Y2	0,111	0,108	0,048	2,283	0,023
X2 → Y1 → Y2	0,100	0,098	0,049	2,048	0,041
X3 → Y1 → Y2	0,152	0,153	0,064	2,380	0,018

Source: Data processed.

Table 9 shows an indirect relationship between social support, physical health, and religiosity on elderly happiness through the quality of life variable with a t-count value more significant than the t-table of 1.65 with a p-value smaller than 0.05. This means that the quality of life variable can mediate the effect of social support, physical health, and religiosity on elderly happiness.

Discussion

The analysis results in this study indicated that family social support had a positive and significant effect on the quality of life of the elderly in Tabanan Regency. Increasing family support correlates with an improvement in the quality of life among elderly individuals. The family social support variable consists of four indicators: emotional support or appreciation, real or instrumental support, information support, and friendship support. Social support is one factor affecting the quality of life. Strong family support will make the elderly feel they have a quality life, while weak family support or family rejection will cause the elderly's life lonely and destroyed.

The analysis results in this study indicated that family physical health positively and significantly affected the quality of life of the elderly in Tabanan Regency. This means that if physical health increases, the quality of life of the elderly will also increase. The physical health variable consisted of three indicators: ownership of health insurance, not having infectious diseases, and feelings (You & Kwon, 2023; Yousefi Afrashteh et al., 2023). Based on the data collected on the elderly's perceptions of their physical health, the average score for the Physical Health variable falls within a favorable category. This suggests that the elderly generally enjoy a healthy state due to having health insurance and being free from infectious diseases, although occasionally they experience discomfort such as headaches, leg pain, or lower back pain (Yahya et al., 2024; Yaovi, 2021). The elderly in Tabanan Regency feel that having health insurance is very important to ensure the health of the elderly. The health condition of the elderly positively influenced the quality of life of the elderly. Bali Province, one area with an aging population, is indeed inseparable from health problems. Elderly people with healthy body conditions can carry out various physical and social activities and consume the food they need and want (Lim & Jung, 2024; Mahmoud & Oyinlola, 2023).

Meanwhile, elderly people who are sick will have various activity limitations, difficulty in consuming food, and experience various suffering. This condition will diminish the quality of life of

the elderly as those who are ill tend to experience discomfort. Research by Uche et al. (2021) examined health variables found that health has the most impact on life.

The analysis results in this study indicated that religiosity had a positive and significant effect on the quality of life of the elderly in Tabanan Regency. This means that if the religiosity of the elderly increases, the quality of life of the elderly will also increase (Manrique et al., 2022; Marliana et al., 2021). The religiosity variable consisted of five indicators: religious belief, religious practice, religious feeling, religious knowledge, and religious effect (Ukeachusim et al., 2024; Veenhoven, 2024). Based on the results of data collection regarding the elderly's perception of the religiosity variable, the average value of the religiosity variable of the elderly is in a suitable category; this means that the elderly understand religious teachings such as believing in the existence of God and have made offerings to God regularly.

The analysis results in this study indicated that family social support had a positive and significant effect on the happiness of the elderly in Tabanan Regency. This means that if social support increases, the happiness felt by the elderly will increase. Elderly people who are trusted, understood, and cared for by their families will feel happy in their old age because the elderly feel that someone understands them and helps them live their old age. In addition, the social environment also affects happiness. One type of social support is from friends or neighbours of the elderly. If the elderly get support from their neighbours or friends, they will feel happy because they have colleagues with whom they can exchange ideas.

The analysis results in this study indicated that physical health positively and significantly affected the happiness of the elderly in Tabanan Regency. This means that if the health of the elderly increases, the happiness of the elderly will also increase. Elderly people in Tabanan Regency have health problems. This can be seen in some elderly people who have difficulty carrying out their daily activities, such as walking and eating, and some elderly people who are only bedridden. This is undoubtedly caused by the elderly's old age, which causes them to experience a decrease in movement ability (Maximiano-Barreto et al., 2024).

The analysis results in this study showed that religiosity had a positive and significant effect on the happiness of the elderly in Tabanan Regency. This means that if the religiosity of the elderly increases, the happiness of the elderly will also increase. Elderly people in Tabanan Regency are involved in religious activities such as *ngayah* in the temple to participate in praying in the temple. The religious activities carried out by the elderly certainly greatly support the happiness of the elderly because these activities make the elderly feel calm. Some elderly people in Tabanan Regency also have difficulty joining religious activities due to their health conditions, which do not allow them to participate.

The analysis results in this study indicated that quality of life positively and significantly affected the happiness of the elderly in Tabanan Regency. This shows that if the quality of life of the elderly increases, the happiness of the elderly will also increase. Elderly people in Tabanan Regency who live with their families and are thoroughly cared for by their families tend to feel comfortable and happy. However, in Tabanan Regency, some elderly people are less happy even though they are cared for by their families due to health conditions that interfere with their quality of life. Marznaki et al. (2024) stated that one of the reinforcements to achieve the quality of life and happiness of the elderly is the support of the family in providing care for the elderly. López-Ruiz et al. (2021) asserts that quality of life exerts a positive and significant influence on happiness. His survey conducted in Spain indicates that individuals who report the highest quality of life, especially in key dimensions,

predominantly describe their lives as happy. Family social support, physical health, and religiosity indirectly affect elderly happiness through the quality of life of the elderly in Tabanan Regency. The quality of life of the elderly is primarily determined by family support. If the elderly get full support from their social family, they elderly will feel more comfortable because someone is taking care of them (Moussa et al., 2023; Salehi et al., 2023; Sukmawati & Husna, 2023). This will support their quality of life so that their happiness will increase. Physical health also influences happiness through the quality of life of the elderly in Tabanan Regency. Elderly people who have a healthy body condition will cause the elderly to be able to take care of themselves and be able to carry out activities that support their quality of life and well-being (Tariq et al., 2023; Taufik et al., 2024; Uche et al., 2021). The religiosity carried out by the elderly in Tabanan Regency through religious activities and meetings greatly supports the peace and comfort of the elderly's life and causes them elderly to feel happy.

The limitation of this study is that it used a small sample area, which was only in one district, so the results and conclusions of this study cannot be generalised to all elderly people in Bali Province and even throughout Indonesia. The object of this research only focused on family social support, physical health, religiosity, quality of life and happiness.

Conclusions and Implications

Based on the results of the research that has been conducted, it can be concluded that family support, physical health, and religiosity have a positive and significant effect on the quality of life of the elderly in Tabanan Regency. This means that elderly people with support from their families, healthy conditions, and a good level of religiosity will feel a higher quality of life. Family support, physical health, religiosity, and quality of life positively and significantly affect the happiness of the elderly in Tabanan Regency. This implies that families who consistently support the elderly, maintain their health, foster strong religiosity, and ensure a high quality of life, contribute to the happiness of the elderly. Family support, physical health, and religiosity indirectly affect happiness through the quality of life of the elderly in Tabanan Regency. This means that elderly people with a good quality of life driven by family support, healthy conditions, and a good level of religiosity will trigger happiness for them.

Based on the findings, it is suggested that the respondents' least perceived statement relates to the elderly maintaining positive relationships with those around them. If elderly individuals find themselves with less close relationships, one possible intervention could involve guidance and assistance in emotional regulation. Not only by the elderly, it is necessary for the family to guide how to regulate emotions so that social relationships can be built by the elderly with people around them so that they can minimise and improve so that they can build positive communication with the surrounding environment so that they can foster a good network with people around them. The lowest perception of the elderly related to physical health variables is related to indicators of feelings that sometimes feel the recurrence of old diseases such as leg, waist, and headaches caused by just catching a cold. Elderly people should do activities supporting their health, such as starting light exercise at home, such as yoga. Elderly people should immediately check their health if they feel sick, even if they are only mildly ill, because even the slightest pain indicates that the body is not in good condition. That the pain felt can be prevented as early as possible with treatment. The elderly reported their inability to participate in religious activities, citing challenges in accessing facilities that support religious ceremonies due to age-related limitations and forgetfulness. The elderly have

limitations in remembering how to make facilities that support religious ceremonial activities by asking their children or sons-in-law to help them.

Suggestions for Future Research

Future research should investigate several critical areas to expand upon the findings of this study concerning the elderly population in Tabanan Regency. Firstly, a longitudinal study could be undertaken to assess the enduring impacts of family support, physical health, and religiosity on the quality of life and happiness among the elderly. This approach would provide deeper insights into how these factors interact over time and their cumulative impact on the well-being of the elderly.

Additionally, future studies could investigate the role of social relationships more comprehensively. Given that the lowest perception of respondents was regarding their relationships with others, research could focus on interventions aimed at improving social connectivity and emotional regulation among the elderly. Exploring the effectiveness of various social and community programs in enhancing the social well-being of the elderly could offer practical solutions to improve their overall quality of life.

Another area worth exploring is the integration of technology to support the health and religious practices of the elderly. With the advancement of digital health tools and platforms, future research could evaluate the feasibility and impact of using technology to monitor health conditions, provide virtual religious services, and facilitate social interactions among the elderly. This could help address issues related to physical health management and participation in religious activities.

Furthermore, investigating the specific cultural factors influencing the elderly's perception of religiosity and its impact on happiness could provide valuable insights. Since religiosity significantly affects happiness, understanding the cultural context and variations in religious practices among the elderly in different regions could help tailor interventions more effectively.

Finally, a comparative study between rural and urban elderly populations within Bali or other regions could elucidate distinct challenges and potential solutions relevant to varying geographical settings. This would help in designing targeted policies and programs to support the elderly more effectively across diverse environments.

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Conflict of Interest

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