

Effect of Social Support on Elderly Welfare Using Structural Equation Modelling (SEM)

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Abstract

The problems of the elderly population are very complex in terms of social, health and psychological aspects. These problems need to be addressed to improve the welfare of the elderly. The older the elderly, the more problems experienced by the elderly appear. To minimize the problems of the elderly, social support is needed to improve the welfare of the elderly. Aspects of social support needed are religion, health, job opportunities, education and training, social protection and social assistance. This study aimed to determine the effect of social support on the welfare of the elderly. The method used for analysis is Structural Equation Modeling (SEM). The results showed that social support in the form of health factors and social assistance had a positive effect on welfare with a p value of less than 0.05 ($p < 0.05$). Meanwhile, social support such as religious factors, job opportunities, education and social protection did not affect the welfare of the elderly with a p value greater than 0.05 ($p > 0.05$).

Keywords

Social support, Structural Equational Modeling, Elderly, Welfare

1. Introduction

Humans are social creatures who need assistance and interaction with other people. Aging experienced by humans cannot be avoided, this is due to the addition of human age. In the human phase, elderly will be cared for by their children, or live alone without the help of others due to various factors. Social organizations emerge to accommodate elderly people who are not taken care by their children for free through community and government assistance. According to the Indonesia Constitution (1998) the government has a very important task in improving the welfare of the elderly. This is related to health, education, spirituality, social protection, and social assistance. Elderly increased in 2019 was 27.88 percent. The dependency ratio of the elderly in 2019 increased to 15.01 percent while in 2018 it was 14.49 percent. This condition affected on increasing economic burden in meeting the demands of the welfare of the elderly (BPS, 2019).

The elderly has problems that include social, health and psychology due to the aging process. Changes in the elderly population raise new needs that must be met by the government, including physical, psychological, social and economic. The government guarantees the basic needs of people with social welfare problems in the form of social

welfare insurance. The implementation of social welfare includes social rehabilitation, social security, social empowerment; And social protection (UUD, 2009)

Several studies related to the elderly have been widely discussed. Sa'adah (2015) explains that the welfare of the elderly has various aspects, both physiologically and materialistically. Some of the elderly have the burden of living to support their families, while the health of the elderly decreases due to mental fatigue and excessive thoughts (Misnasiarti, 2017). Islamiati (2020) states that marital status and health have a significant effect on the happiness of the elderly. Another aspect that makes the elderly have a better quality of life and feelings of pleasure because they still have marital status (Astuti, 2019). Likewise, a mature spiritual level can create peace of mind and improve the welfare of the elderly (Hidayati, 2018). Social support provided to the elderly community can provide a high level of welfare, so as to provide a better quality of life (Mulyati *et al.*, 2018; Ulfa, 2018).

Better quality of life and health need to be considered to increase the level of happiness. Kurnianto (2015) revealed that the health of the elderly is an important thing to be carried out by the local government, elderly observers, and the community. Pramono *et al.*, (2015) state that implementation to improving the elderly welfare requires a consistent attitude by the local government with direction from the health side. Andesty and Fariani (2018) revealed that social interaction is closely related to the quality of elderly life. Increasing the elderly welfare can be optimized with posyandu programs for the elderly as well as balance exercises for physical exercise (Karahmah and Ilyas, 2017; Kiik *et al.*, 2018). The study above explains that social support in the form of religious dynamics, health, job opportunities, education, social protection, and social assistance is closely related to the welfare of the elderly community. Therefore, this research is emphasized to emphasize the factors that influence the elderly welfare and quality of life to provide solutions for stakeholders in managing the elderly.

1.1 Objectives

This research was conducted in Bambamanurung Village, Topoyo District, Central Mamuju Regency, West Sulawesi Province. The object of this research is the elderly with the inclusion criteria being more than 60 years old and in good health.

2. Literature Review

2.1. Validity and Reliability Test

Validity test is used to measure whether a questionnaire is valid or not. A valid questionnaire is a question that is in the questionnaire able to reveal the subject to be studied and measured by the researcher. If the loading factor > 0.05 , it is said to be valid, with a 95% research confidence level. This reliability test is used to measure the level of consistency of the research instrument. If the Cronbach's alpha value 0.60 then the data is declared reliable.

2.2. Structural Equational Modeling

The Goodness of Fit test uses Absolute Fit Measured, Incremental Fit Measured and Parsimonious Fit Measured. When goodness of fit has not met the cut off value. So, the results are concluded that there is still no match between the input observations and predictions from the model that has been made. Therefore, it is necessary to modify the model that has been made so that the suitability of the model can be achieved. The hypotheses used in this study are:

H0: There is no influence between the variables with the welfare of the elderly

H1: There is an influence between the variables and the welfare of the elderly

By test criteria:

If with a significance level of 5% then,

H0 is accepted if the hypothesis > 0.05 ; H1 is accepted if the hypothesis < 0.05

3. Methods

3.1. Research Variables

The research variables included 6 factors: (1) Religion consisting of religious services, religious level, religious studies; (2) Health includes health services, responsiveness, health care; (3) Job opportunities include additional work, work rights, work opportunities; (4) Education and training includes job training for the elderly, life education for the elderly, creative training for the elderly; (5) Social protection includes basic needs, decent living, self-capacity improvement; And (6) Social assistance includes meeting needs, rapid response facilities, government assistance. The six variables above are exogenous variables, while the seventh variable, namely endogenous variables, is not included in the analysis. The endogenous variable in this case is the welfare of the elderly which consists of life expectancy and productive period.

3.3. Data Collecting

At this stage, data collection is used to determine how social support aspects affected on the welfare of the elderly in Bambamanurung village. Data collection was done by distributing questionnaires to the elderly. The process of carrying out data collection was assisted by the research team to explain the purpose and objectives of the questionnaire and assist the process of answering if there were things that were not understood.

3.2. Data Analysis

Data analysis using Structural Equation Modeling (SEM). Prior to the analysis using SEM, validity and reliability were tested. If the data is declared valid and reliable then proceed with SEM analysis

4. Results and Discussion

4.1 Validity Test

Validity test using Confirmatory Factor Analysis (CFA), can be known by looking at all indicators and is declared valid if the factor loading value of each construct is more than 0.5 ($\lambda > 0.5$) with a significance level of less than 0.05 (Santoso, 2007). The results of the validity test are shown in Table 1.

Table 1. Validity Test Result

Variables	Standardized loading	Critical Value	Exp
Religion			
Religion 1	0.863	0.5	Valid
Religion 2	0.876	0.5	Valid
Religion 3	0.879	0.5	Valid
Health			
Health 1	0.929	0.5	Valid
Health 2	0.872	0.5	Valid
Health 3	0.866	0.5	Valid
Job Opp			
Job Opp 1	0.801	0.5	Valid
Job Opp 2	0.870	0.5	Valid
Job Opp 3	0.860	0.5	Valid
Edu and Training			
Edu and Training 1			
Edu and Training 2	0.620	0.5	Valid
Edu and Training 3	0.837	0.5	Valid
	0.813	0.5	Valid
Social Protection			
Social Protection 1			
Social Protection 2	0.715	0.5	Valid
Social Protection 3	0.750	0.5	Valid
	0.790	0.5	Valid
Social Assistance			
Social Assistance 1			
Social Assistance 2	0.885	0.5	Valid
Social Assistance 3	0.832	0.5	Valid
	0.862	0.5	Valid
Welfare			
Welfare 1	0.862	0.5	Valid
Welfare 2	0.866	0.5	Valid

Based on Table 1, it is known that the indicators of all variables are declared valid, because they have loading factor above 0.5 ($\lambda > 0.5$)

4.2 Reliability Test

Reliability is a measure of the internal consistency of indicators construct that shows the degree to which each indicator indicates a common construct/factor/latent and helps each other in explaining common phenomena (Ferdinand, 2002). The reliability test uses Cronbach's Alpha with a reliability level of 0.6. The results of the reliability test are shown in Table 2.

Table 2. Cronbach's Alpha

Variables	Standardized Loading	Critical Value	Exp
Religion	0.843	0.6	Reliable
Health	0.868	0.6	Reliable
Job Opp	0.797	0.6	Reliable
Edu and Training	0.631	0.6	Reliable
Social Protection	0.608	0.6	Reliable
Social Assistance	0.823	0.6	Reliable
Welfare	0.660	0.6	Reliable

Table 2 above explains that all variables are reliable because the Cronbach's Alpha value in each variable is greater than 0.6

4.3 Structural Equational Modeling

The goodness of fit test uses absolute fit measured, incremental fit measured and parsimonious fit measured. The test results on the index can be seen in Figure 1

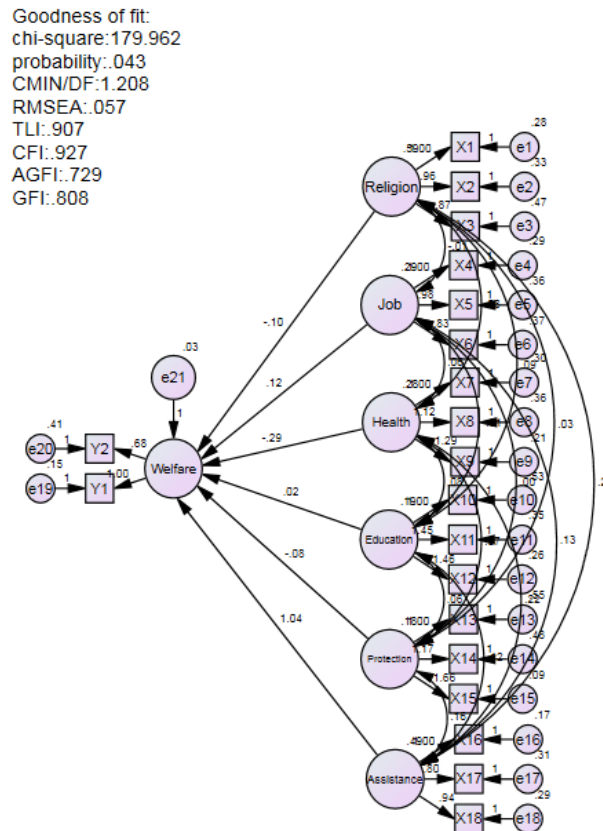


Figure 1. Research Model

Research of previous model *Goodness of fit* can be seen in table 3 below:

Table 3. *Goodness of fit* previous model

<i>Goodness of fit index</i>	Value	<i>Cut off value</i>	Criteria
<i>Likelihood chi square</i>	179.962	Expected low	
<i>Probability</i>	0.43	≥ 0.05	Good fit
<i>Degree of freedom</i>	1.208	≤ 2.00	Good fit
RMSEA	0.57	≤ 0.08	Marginal fit
GFI	0.808	≥ 0.90	Marginal fit
AGFI	0.729	≥ 0.90	Marginal fit
TLI	0.907	≥ 0.90	Good fit
CFI	0.927	≥ 0.90	Good fit

Table 3 shows that goodness of fit has not met the cut off value. These results indicate that there is still no compatibility between the observational input and the model that has been done. Therefore, it is necessary to make modifications to the model so that the suitability of the model can be achieved. The result of the modification can be seen in Figure 2

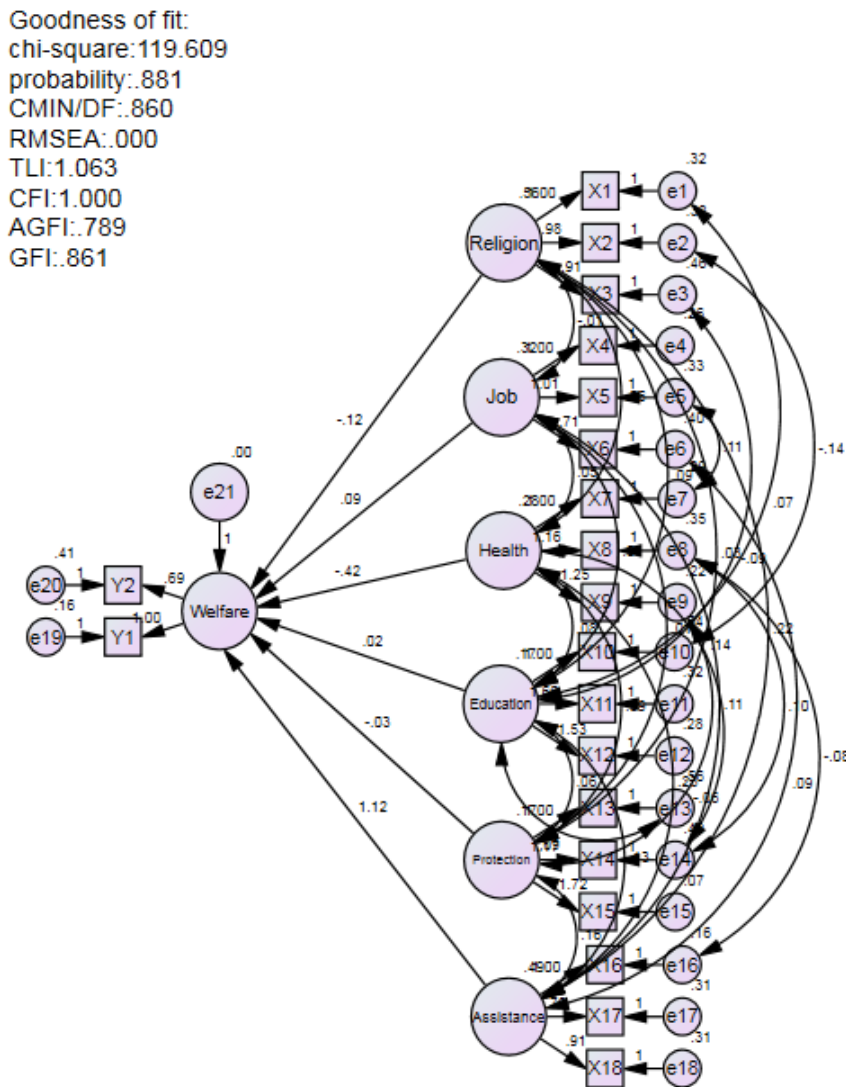


Figure 2. Modified model

Goodness of fit result of modified model can be seen at the table 4 below:

Table 4. Goodness of fit modified model

Goodness of fit index	Value	Cut off value	Criteria
Likelihood chi square	119.609	Expected Low	
Probability	0.881	≥ 0.05	Good fit
Degree of freedom	0.860	≤ 2.00	Good fit
RMSEA	0.000	≤ 0.08	Good fit
GFI	0.861	≥ 0.90	Marginal fit
AGFI	0.789	≥ 0.90	Marginal fit
TLI	1.063	≥ 0.90	Good fit
CFI	1.000	≥ 0.90	Good fit

The results of the goodness of fit calculation on the modified model have mostly met the cut off value. While a small part does not meet the cut off value, namely AGFI and GFI. Ghozali (2006) stated that if most of the goodness of fit has met the cut off value, then the model has met the assumption of goodness of fit. Table 5 shows the estimated results using the Amos application version 24 to see the effect between well-being and other factors.

5.4 Discussion

Table 5. Etimated result using AMOS

Variables effect	Estimate	S.E	CR	P	Exp
Prosperous ←-- Religion	0.1253	0.125	1.001	0.317	Not significant
Prosperous ←-- Job	0.688	0.161	0.550	0.583	Not significant
Prosperous ←-- Health	0.418	0.209	2.001	0.045	significant
Prosperous ←-- Education	0.015	0.205	0.075	0.940	Not significant
Prosperous ←-- Protection	0.026	0.226	0.155	0.909	Not significant
Prosperous ←-- Assistance	1.120	0.237	4.730	****	significant

Based on Table 5, it shows that there is a positive and significant influence between the implementation of elderly welfare with health factors and social assistance. Meanwhile, religious factors, job opportunities, education and training as well as social protection did not affect the elderly welfare. This result is an illustration that it needs attention from both the community and the government to optimize better services for the elderly. Some things that need attention include: (1) religious factors by providing recitation services and religious direction for the elderly; (2) the factor of job opportunities by providing space for the elderly who are still able to work; (3) education and training by providing direction and education and training for the elderly to provide entertainment and activities; (4) social protection factor by increasing public and government awareness of the elderly. As for the social assistance factor, the delivery of assistance appropriately and quickly, in accordance with applicable regulations, affects the welfare of the elderly. Likewise, for health factors by providing quick response services and routine health checks for the elderly.

6. Conclusion

The results of the calculations stated that the questionnaire was valid and reliable so that it met the requirements to be analyzed using SEM. Based on the results of SEM calculations indicate that health factors and social assistance have a positive effect on the welfare of the elderly with a p value of less than 0.05 ($p < 0.05$). The thing that needs to be considered in social assistance is the aspect of delivering social assistance quickly and on target. The health aspect that needs to be considered is the level of service quality in the health services speed and routine. Meanwhile, religious factors, job opportunities, education and social protection have a p value greater than 0.05 ($p > 0.05$), which means that they have no effect on the welfare of the elderly.

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