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# A Regional Comparative Study on Impact of Social Welfare Service Use on Mental Health Among Elderly Men in The Yeongnam and Honam<sup>1</sup>

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## Abstract

**Purpose:** The purpose of this study was to explore the factors affecting mental health in the use of social welfare services by male elderly, and to provide basic data that are helpful for integrated mental health promotion programs suitable for each region by comparing and analyzing the Yeongnam-Honam. **Results:** As a result of the analysis, when comparing the two regions, annual income, age, and physical health were found to be the influencing factors among the personal characteristics of male elderly in the Yeongnam, and caring services were found to be the influencing factors of social welfare services. Among the personal characteristics of male elderly in Honam, annual income, age, and physical health were found to be the influencing factors, and caring services were found to be the influencing factors of social welfare services. **Conclusion:** Based on the results of the study, three implications are presented as follows. First, it suggests that mandatory checkups are required not only for the physical health of male elderly, but also for the mental health. Second, the necessity of social welfare service policies that link health and welfare is presented. Third, the necessity of specialized mental health and welfare services by region is presented.

**Keywords :** Yeongnam-Honam, Male Elderly men, Social Welfare Services, Mental Health, Regional Comparison

**JEL Classification Code :** I13, I31, I38

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## 1. Introduction

Korea's aging population is unusual. According to Statistics on the Elderly (2022), the number of people aged 65 or older is 9,010,8,000 in 2022, accounting for 17.5% of the total population, exceeding 30% of the total population by 2035, and exceeding 40% by 2050. In this aging phenomenon, the health problem of the elderly is considered to be an important issue that is indispensable.

According to the Health Insurance Statistics of the National Health Insurance Corporation and the Health Insurance Review and Assessment Service (2022), the per capita medical expenditure on national health insurance premiums for the elderly in Korea increased by 10.6% year-on-year to 41.3829 trillion won in 2021 and 45.7647 trillion won in 2022, showing a sharp increase in medical expenditure for the elderly. In addition, the expenditure on long-term care insurance benefits, which is the last bastion of health and care for the elderly in Korean society, has also reported a steady increase from 6.55% in 2017 to 12.27% in 2022, confirming the seriousness of the elderly health problem. Studies dealing with the health problems of the elderly have shown that studies focusing on changes in the quality of life and satisfaction of life in relation to the health status of the elderly (Jang & Kim, 2023; Wang, 2022; Yang et al., 2020) have been actively conducted, and studies on the quality of life and mental health influencing factors of the elderly (Jang, 2023; Lee, 2023; Kim, 2023; Kim & Jung, 2022). This can emphasize the importance of mental health for the elderly and the fact that mental health occupies not a few areas in the health area of the elderly. According to the Ministry of Health and Welfare (2021)'s Survey on the Elderly, 7 out of 10 Koreans are not prepared for retirement, and the elderly have the highest relative poverty rate among OECD member countries. What is noteworthy in this report is that the poverty rate of male elderly is higher than that of female elderly, and concerns about the mental health problems of male elderly people, which are relatively economically difficult, are followed by research cases of (Kim, 2023; Kim, 2023), who revealed that poverty and health are highly correlated. Until now, studies on the mental health of the elderly have been mainly conducted to suggest policy directions (Yoon, 2022; Han & Jeon, 2022; Lim & Lee, 2022; Kim et al., 2023), and studies on specific influencing factors of mental health of the elderly (Jeong et al., 2023; Kwon & Heo, 2022; Kim et al., 2022; Jeong et al., 2022). However, since most of these preceding studies were conducted on female elderly, it can be seen that there is a need for mental health studies only targeting male elderly. In the case of Korea, which has a local autonomy system, there is a possibility that there is discrimination in welfare services for the elderly in each region. As shown in the study of (Park & Lee, 2023; Kim, 2022) considering that

Yeongnam and Honam regions are the regions with the greatest comparative use politically and socially, there may be differences in the mental health of male elderly in both regions, and there is a need for research on mutual regional development through regional comparative analysis. In particular, based on the research results of (Kwon & Jang, 2022; Park, 2023), which have different health effects depending on the social welfare services of the elderly, it can be assumed that there may be discrimination in the mental health of the elderly who use social welfare services. Therefore, this study was conducted with the aim of presenting basic data for preparing mental health promotion programs for the elderly in each region by comparing and analyzing the factors influencing the use of social welfare services by male elderly people in Yeongnam and Honam regions.

## 2. Theoretical Background

### 2.1. Social Welfare Services for Elderly Men

#### 2.1.1. Male Old Man

It is noteworthy that the period when the first baby boomers generation (1955-1963) entered the elderly (65 years of age or older) generation has already begun. In particular, it is presumed that the male elderly played a leading role in socioeconomic participation in the period when Korea's economic development was most active (1980s to 2000s) according to the traditional way of thinking emphasizing the role of men's social participation. According to the Ministry of Gender Equality and Family (2022), men's healthy life expectancy in 2019 was 71.3 years, which is 3.4 years shorter than women's healthy life expectancy of 74.7. This can be the basis for the presumption that men are more likely to be vulnerable to physical and mental health than women, confirming the need for health-related research only targeting the elderly men. Entering the 2000s, our society seems to be experiencing a period of rapid value-based confusion about the gender roles of men and women. The Ministry of Health and Welfare (2011)'s "Study on Resolving Gender Role Conflicts in Korean Men" shows the gender role conflict and the excessive burden of male elderly performing gender roles. In this report, it was emphasized that male elderly people may have the potential to lead to mental dysfunctions such as depression, stress, and low self-esteem due to gender role conflict. These findings show that male elderly can negatively affect mental health due to economic responsibility and the role of the head of household, indicating the seriousness of mental health problems targeting male elderly after retirement. Nevertheless, it is difficult to find studies only targeting male elderly when

looking at studies related to mental health for the elderly. This can confirm the necessity of mental health research according to the recognition of the importance of the community environment and the application of various social services provided in the community for the male elderly.

### 2.1.2. Social Welfare Services

According to Article 3, No. 4 of the Framework Act on Social Security, social welfare services are a system that supports normal social life by providing counseling, rehabilitation, job introduction and guidance, and the use of social welfare facilities to the people in need of help from the state, local governments, and the private sector. Social welfare services are a system to protect people from various social risks and to support a normal life. In the case of the elderly, social welfare services for the elderly are essential public services provided to the elderly because they are elderly, they are more likely to suffer from economic difficulties and loss of health after retirement, and are more likely to be in various vulnerable situations. Social welfare services for the elderly are services that provide food, clothing, shelter, and shelter as a service that solves the needs of daily life and mental and physical problems of the elderly, and may include facility services that provide care for the entire life, and home care services such as visiting care and day care. In addition, leisure welfare services such as welfare centers and senior citizens centered on the leisure of the elderly are one of the social welfare services of the elderly. The provision of social welfare services for the elderly provides physical disease prevention, physical strength promotion (health services), income security, and social activities, and has a positive impact on the daily life of the elderly, and many studies have proven that it is an important factor that positively affects psychological satisfaction and mental health (Kim et al., 2019; Lee & Kwak, 2022).

### 2.2. Mental Health

The American Mental Hygiene Commission (NCMH) emphasized that "mental health means not just a state of not being mentally ill, but a satisfactory human relationship and the ability to maintain it." The World Health Organization (WHO) included "mental health" as an element that defines a healthy state along with physical and social health, and the scope of mental health includes all problems related to emotional relationships and behavior in human relationships, home, work, and social life. This shows that mental health includes not only the personal environment but also the social environment, indicating that mental health is likely to play an important role in social adaptation. In 2016, the Ministry of Health and Welfare's epidemiological survey on

mental illness conditions showed that the lifetime induction rate of mental disorders in Korea was 25.4%. This means that one in four adults has experienced mental illness, meaning that mental health problems do not appear in special people, but are a health area that anyone can experience. (Koenig & Blazer, 2003) say that the most common negative state among the elderly's mental health factors is depression, confirming that depression accounts for a large proportion of mental health areas. In fact, according to the Health Insurance Review and Assessment Service's (Depression and Anxiety Disorder Treatment Status) in 2022, 159,845 patients in their 60s experienced depression in 2021, accounting for 18.5% of all depressive patients, showing the seriousness of depression in the elderly. In particular, it is confirmed that the depression of the elderly is expanding to the level of disease, not just a phenomenon level, showing the seriousness of depression and mental health diseases in the elderly in an aging society.

### 2.3. Comparison of Regions in Yeongnam and Honam

The dictionary meaning of "Region" is defined as "a certain range of land divided into a certain area, or a certain spatial area that divides the entire society into a certain area." (Jeon & Moon, 2016) have emphasized that each community can show differences in the level of social, economic and cultural infrastructure construction, such as financial status, service size and quality level, access to cultural facilities, and population distribution and social environment. Since these local environments contain human relationships and society, it can be seen that they affect human life not only at the physical level but also at the social level. It can be seen that there are not a few regional comparative studies in Korea comparing the Yeongnam and Honam regions. According to the thesis search system of the Korea Education and Research Information Service (2018), among the studies comparing the Yeongnam and Honam regions, 322 master's and doctoral research papers are available, and 498 academic journal studies are available. In addition, 177 cases were searched for all regional comparative research papers including the metropolitan area. In addition, it can be seen that regional comparative studies targeting Yeongnam and Honam are relatively active in the Moonlight Alliance research, the connection of the Yeongnam and Honam railway, economic development in the southern region, and rural research. Looking at such previous studies, it can be said that the traditional and representative research target area among various regional comparison targets is a study comparing Yeongnam and Honam. On the other hand, in a study on the needs and use of social welfare services by the elderly (Kang, 2017; Lee, 2021; Hwang & Baek, 2020), it can be seen that the region

is related to the demand and use of social welfare services for the elderly. However, in the comparative study of social welfare services by region, it can be confirmed that comparative studies on social welfare services in the Yeongnam and Honam region are relatively insufficient, confirming the necessity of comparative studies on social welfare services in the Yeongnam and Honam region.

## 2.4. Major Prior Research

The preceding studies in this study will be divided into male elderly studies, social welfare service studies, mental health studies, and comparative studies in the Yeongnam and Honam regions in terms of factors influencing mental health. Among the male elderly's studies, (Jeong, 2022) study reported that men who became single households due to graduation or separation among male elderly single households re-entered the labor scene after retirement to earn the cost of living for both houses, and practical difficulties such as child support and housework were high. (Park & Ko, 2019) reported that male elderly people living alone were more difficult to solve food, clothing and shelter alone than female elderly people, were very passive in using welfare centers in local communities, and were more vulnerable to loneliness and depression. It was reported that mental health problems such as loneliness and depression of male elderly people can lead to suicidal thoughts (Lee et al., 2022; Jeong & Kim, 2013; Cho, 2013; Seok, 2014;) Combining these preceding studies, it can be summarized that male elderly people have a strong responsibility for economic activities for their families, and are not actively participating in social welfare services even in situations where it is difficult to solve food, clothing and shelter alone, and more than anything else, they are very likely to be exposed to mental diseases such as depression. Among the studies on social welfare services of the elderly, (Oh, 2019) reported that the more social welfare services used by the elderly, the higher their life satisfaction. A study by (Kang, 2018; Lee & Hwang, 2019) also reported that the more social and job participation of the elderly, the higher their life satisfaction. When these preceding studies are summarized, it can be summarized that the elderly's social participation, jobs for the elderly, and social welfare services have a great positive effect on the elderly's life satisfaction and mental health. Among the preceding studies related to mental health, (Lee, 2009) analyzed the causal relationship of factors affecting the mental health of the elderly, focusing on social capital, and reported that social capital has a large impact on the mental health of the elderly. In particular, the absence of cohabitation with a spouse is the biggest key factor in the loneliness of the elderly and social role loss, which has a large negative impact on social and psychological mental health. (Lee & Park, 2020) analyzed

the impact on the mental health of the elderly by dividing it into residential environmental characteristics, emphasizing that the physical environment is a prerequisite for at least dominating the standard of living in terms of space, and reported that a safe residential environment and spatial perspective have a significant positive impact on mental health. Combining previous studies such as Io, it is possible to confirm the importance of family, environment and social welfare services in the mental health of the elderly. Among the preceding studies related to the comparison of the Yeongnam-Honam regions, (Ji, 2015) presented a problem with the political bias of different environments as a result of a comparative analysis of the political environments in the Yeongnam-Honam region. (Kwon, 2015) emphasized that the current regional economy is a result of economic and political regional disagreements or conflicts between the Yeongnam-Honam regions. (Kim et al., 2013) suggested the necessity of expanding the Yeongnam-Honam exchanges because the main focus is friendly and exchange visits through sports and cultural events about once a year, while presenting regional exchange events in which the private sector and the government participate jointly. (Seo, 2009) also suggested cooperation between private companies and non-profit organizations for win-win and development, rather than exchanges taking place due to political conflicts and confrontation perceptions in the Yeongnam-Honam region. This shows the need for research on exchange methods between the Yeongnam-Honam region.

Summarizing these preceding studies, it can be seen that the southern region has the commonalities and characteristics of the southern region and the necessity of expanding exchanges based on the similarities of the two regions is confirmed and the most representative regional comparative research areas in Korea are Yeongnam and Honam.

## 3. Research Method

### 3.1. Analysis Data and Research Subject

The analysis data of this study is the "Korea Welfare Panel" of the Korea Institute for Health and Social Affairs (2022), and this data targets samples with national representativeness including Jeju Island, and the survey has been conducted every year since 2006. The comparison targets between regions in this study were compared with Yeongnam and Honam regions. Among them, Yeongnam was selected as Daegu and Gyeongbuk, and Honam was selected as Gwangju, Jeonnam, Jeonbuk, and Jeju. The subjects of this study were 868 male elderly people in Yeongnam and Honam, 355 in Yeongnam and 513 in Honam. When comparing two groups in Yeongnam and Honam, the

following efforts were made to secure homogeneity between the groups. In order to match the demographic characteristics of the study participants uniformly, participants were selected at the same rate in Yeongnam and Honam regions at the time of sampling. The basic characteristics of the study subjects, such as age, gender, education level, and economic status, were matched as similarly as possible. In the research design stage, a research plan was established and proceeded by considering the differences between Yeongnam and Honam as much as possible. The validity and reliability of the survey items used in this study were already verified in the 17th Korean Social Welfare Panel Survey. The Social Welfare Panel Survey uses standardized survey tools to measure various aspects of the use of social welfare services. These survey items verify the validity and reliability compared to previous studies and provide revised results. Therefore, the survey items used in this study have the validity and reliability that have already been verified in the Social Welfare Panel Survey, and this can increase the reliability of the research results.

### 3.2. Research Flow Chart and Research Questions

The independent variables of this study were selected as the personal characteristics and the use of welfare services of the male elderly in Yeongnam and Honam, and the dependent variable was selected as the mental health of the male elderly in Yeongnam and Honam (see Figure 1).

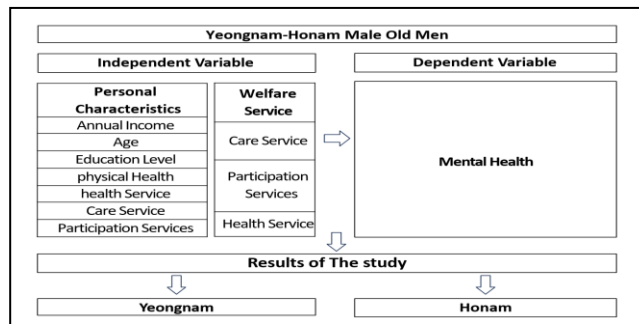


Figure 1: Research Flow Chart

The research questions of this study are as follows.

Question 1: Will the use of welfare services and personal characteristics of male elderly in Yeong and Honam affect the mental health of male elderly in Yeognam and Honam?

Question 2: Will there be a difference between regions in the personal characteristics of male elderly people in Yeongnam and Honam and the effect?

### 3.3. Key Variables and Analysis Methods

#### 3.3.1. Personal Characteristics

Personal characteristics were divided into 7 areas. The

age was divided into four stages and consisted of 65 to 70 years old and 71 to 75 years old and 2, 76 to 80 years old, 3 to 81 years old and 4 years old or older. The education level was divided into 5 stages and consisted of unschooled 1, elementary school graduation 2, middle school graduation 3, high school graduation 4, and university (college) graduates or higher. The annual income was divided into 5 stages and consisted of 10 million won or less, 10 million won to 20 million won, and 30 million won, 30 million won to 40 million won or more, and 40 million won or more. The household type was divided into three stages and consisted of 1 single mother and rich, 2 grandchildren and boys and girls, and 3 others. The marriage type was divided into 4 stages and consisted of 1 spouse, 2 bereavement, 3 divorce and separation, and 4 unmarried, which were treated as dummy variables again with 0 spouse and 1 spouse. Physical health was divided into 5 stages and consisted of very healthy 1, healthy 2, normal 3, unhealthy 4 unhealthy 5, and reverse-coded on a 5-point Likert scale, meaning that the higher the score, the better the physical health. The analysis method of personal characteristics was measured using descriptive statistics using frequency and percentage, and the effect on mental health was verified through regression analysis.

#### 3.3.2. Social Welfare Services

The use of social welfare services was divided into a total of 9 areas. The use of social welfare services was divided into two stages and composed of 1 for use and 2 for not using. The reuse of social welfare services was divided into two stages and composed of 1 for use and 0 for not using. As sub-factors of social welfare services, health services include medical expenses, free meals for the elderly, meals or side dishes, and delivery services, and care services include household support services (cleaning, washing, meal preparation, safety support services), home care, nursing, bath services, mobile convenience services (companied to hospitals), and day and night protection services. Participatory services consisted of the elderly job program and social participation services (Korean language class, daily song, outing, self-help group). The higher the score, the more frequently the social welfare services are used, and the number of times social welfare services are measured using frequency and percentage, and the effect on mental health is verified through regression analysis.

#### 3.3.3. Mental Health

Mental health was divided into 11 areas. It consisted of 1 'no appetite', 2 'relatively well', 3 'quite depressed', 4 'everything feels difficult', 5 'sleeping difficult', 6 'loneliness', 7 'living without complaints', 8 'feeling like people are treating me cold', 9 'sad heart', 10 'feeling like people hate me', 11 'I don't dare to do something'. Among them, 9



questions were reverse-coded and processed excluding 2 'relatively well' and 7 'living with no complaints'. Each question was composed of a 4-point scale, and the higher the score, the higher the depression and poor mental health. The 11 questions were summed to form a continuous variable between depression and mental health, and Cronbach's  $\alpha$  was .880.

## 4. Analysis Results

### 4.1. Personal Characteristics of Study Subjects

The personal characteristics of the subjects of this study are presented in Table 1 (see Table 1).

**Table 1:** Personal characteristics of research subjects

Contents		Yeongnam(n=355)		Honam(n=513)	
		Frequency	Percent	Frequency	Percent
Annual Income	Less than 9.99 Million Won	17	4.8	35	6.8
	10 Million~19.99 Million Won	96	27.2	155	30.2
	20 Million ~29.99 Million Won	76	21.5	103	20.1
	30 Million~39.99 Million Won	68	19.3	75	14.6
Age	More Than 40 Million Won	96	27.2	145	28.3
	65-70 Years Old	73	20.6	110	21.4
	71-75 Years Old	60	16.9	98	19.1
	76-80 Years Old	72	20.3	106	20.7
	Over 80 Years Old	150	42.3	199	38.8
Education Level	Uneducated	19	5.4	44	8.6
	Elementary School Graduate	122	34.4	173	33.7
	Middle School Graduate	77	21.7	111	21.6
	High School Graduate	100	28.2	126	24.6
	University (Including Professional)	37	10.4	59	11.5
Type of Marriage	Spouse	302	85.3	423	83.4
	Bereavement	28	7.9	39	7.7
	Divorce/Separation	16	4.5	38	7.5
	Single	8	2.3	7	1.4
Furniture Type	a single-person house hold	50	14.1	78	15.2
	Grandchildren's Family	1	.3	1	.2
	Etc	304	85.6	434	84.6
Physical Health	Very Poor Health	18	5.1	21	4.1
	Not Healthy	139	39.2	178	34.7
	Commonly	99	27.9	210	40.9
	Healthy	90	25.4	100	19.5
	Very Healthy	9	2.5	4	.8
Health Service	0 Times	26	7.9	25	5.3
	1 Times	300	91.2	443	93.1
	2 Times	3	.9	8	1.7
Care Service	0 Times	270	82.1	434	91.2
	1 Times	44	13.4	31	6.5
	2 Times	13	4.0	8	1.7
Participation Services	0 Times	286	86.9	383	80.5
	1 Times	43	13.1	91	19.1
	2 Times	.	.	2	.4

355 male elderly people in Yeongnam and 513 male elderly people in Honam were analyzed. Looking at the individual characteristics, the annual income was the highest in the Yeongnam region and Honam region at 27.2% and 30.2% of 10 million won to 1.99 million won, while the age of 80 or older was the highest at 42.3% and 38.8%.

In terms of education level, elementary school graduates were the highest at 34.4% in the Yeongnam region and 33.9% in the Honam region, and the marital status was 85.3% in the Yeongnam region and 83.4% in the Honam region, and male elderly people in the Yeongnam region.

As for the health status, both male elderly people in the Yeongnam region and Honam region were not healthy at 39.2% and 34.7%. Looking at the analysis of the ratio of male elderly in Yeongnam and male elderly in Honam regarding the use of social welfare services, 1 use of health services was the highest at 91.2% and 93.1%, respectively, and 0 use of care services was the highest at 82.1% and 91.2%. Participatory services were also surveyed with frequency distribution of 86.9% and 80.5% of 0 use.

#### 4.2. Technical Statistics Analysis

In the Yeongnam region, the average of annual income was 3.37 (SD 1.27), which was higher than the median of 3, and the average of age was 2.84 (SD 1.18), which was higher than the median of 2.5. The average education level was 3.04 (SD 1.12), and the average of physical health was 2.81 (SD .95), which was lower than the median of 3. The average of health services was .93 (SD .28), which was lower than the median of 1, and the average of care services was .23 (SD .54), which was lower than the median of 1.5, and the participatory service was .13 (SD .33), which was lower than the median of 1.

Mental health is distributed higher than the median of 2.5, with an average of 3.67 (SD .52), so mental health can be considered to be good.

In the Honam region, the average of annual income was 3.27 (SD 1.33), which was higher than the median of 3, and the average of age was 2.77 (SD 1.17), which was higher than the median of 2.5. The average education level was 2.97 (SD 1.17), and the average of physical health was 2.78 (SD .83), which was lower than the median of 3. The average of health services was .96 (SD .26), which was

#### 4.3. Correlation Analysis

As for the variables affecting mental health, which is the outcome variable in the Yeongnam region, annual income ( $r=.21$ ) and physical health ( $r=.35$ ) were found to have a positive correlation, and age ( $r=-.12$ ) and care service ( $r=-.29$ ) were found to have a negative correlation.

lower than the median of 1, and the average of care services was .12 (SD .41), which was lower than the median of 1.5, and the participatory service was .20 (SD .41), which was lower than the median of 1.5. Mental health is distributed higher than the median of 2.5 with an average of 3.77 (SD .49), and the mental health of male elderly in Honam can be considered to be on the good side. Table 2 shows the technical statistics for each major variable in this study (see Table 2).

**Table 2:** Descriptive Statistics by Major Variables

Contents	Minimum Value	Maximum Value	Yeongnam (n=355)		Honam (n=513)	
			Average	Standard Deviation	Average	Standard Deviation
Annual Income	1	5	3.37	1.27	3.27	1.33
Age	1	4	2.84	1.18	2.77	1.17
Education Level	1	5	3.04	1.12	2.97	1.17
physical Health	1	5	2.81	.95	2.78	.83
Health Service	0	2	.93	.28	.96	.26
Care Service	0	3	.23	.54	.12	.41
Participation Services	0	2	.13	.33	.20	.41
Mental Health	15 (1)	44 (4)	40.02 (3.67)	4.87 (.52)	40.78 (3.77)	4.48 (.49)

As for the variables affecting mental health, which is the outcome variable of the Honam region, annual income ( $r=.35$ ) and physical health ( $r=.39$ ), and age ( $r=-.27$ ) and care service ( $r=-.18$ ) were found to have a negative correlation. Table 3 shows the results of the correlation analysis between Yeongnam and Honam (see Table 3).

**Table 3:** Correlation Analysis

Region	Contents	Annual Income	Age	Education Level	Physical Health	Health Service	Care Service	Participation Services	Mental Health
Yeongnam	Annual Income	1							
	Age	-.384***	1						
	Education Level	.256***	-.247***	1					
	Physical Health	.173**	-.226***	.231***	1				
	Health Service	-.240***	.227***	-.106	-.002	1			
	Care Service	-.206***	.209***	-.086	-.249***	.006	1		
	Participation Services	-.109*	.152**	-.101	.016	.094	-.049	1	
	Mental Health	.208***	-.116*	.074	.354***	.082	-.294***	.089	1
Honam	Annual Income	1							
	Participation Services	-.489***	1						
	Education Level	.318***	-.273***	1					
	Participation Services	.325***	-.311***	.234***	1				
	Health Service	-.119**	.163***	-.109*	-.083	1			
	Care Service	-.146**	.142**	-.106*	-.209***	.096*	1		
	Participation Services	-.160***	.291***	-.144**	-.042	.067	-.088	1	
	Mental Health	.345***	-.270***	.083	.387***	-.074	-.181***	.012	1

Note: p<0.05, \*\* p<0.01, \*\*\* p<0.00

#### 4.4. Regression Analysis

Table 4 shows the comparison of mental health (see Table 4).

**Table 4:** Comparison of Mental Health in Yeongnam-Honam Region

Contents	Region	N	Average	Standard Deviation	t	Probability of Significance
Mental Health	Yeongnam	308	40.02	4.87	-2.246*	.025
	Honam	480	40.78	4.48		

Note: \*p<0.05, \*\*p<0.01

There was a difference in mental health ( $t=-2.246$ ,  $p<.05$ ) between the male elderly in the Yeongnam region ( $M=40.02$   $SD=4.87$ ) and the male elderly in the Honam region ( $M=40.78$   $SD=4.48$ ). In other words, it shows that the

mental health of the male elderly in the Honam region is higher than that of the male elderly in the Yeongnam region.

As a result of the analysis, as a result of comparing the male elderly in Yeongnam and the male elderly in Honam, marital status and household type were not significant, so they were excluded from the analysis. Regression analysis was conducted by inputting individual characteristics and the use of social welfare services, which are independent variables, to find out the effect on the mental health of male elderly people in Yeongnam and Honam. In the first stage, personal characteristics (annual income, age, education level, health status), and in the second stage, personal characteristics were controlled and the use of social welfare services was introduced to examine the effect on mental health through hierarchical regression analysis. The results of the analysis of the impact on mental health are shown in Table 5 below (see Table 5).



**Table 5:** Mental Health Impact Analysis

Contents	Yeongnam			Honam		
	Non-Standard Coefficient	Standard Coefficient	t	Non-standard Coefficient	Standard Coefficient	t
	B	beta		B	beta	
Constant	37.341		12.486***	33.525		13.796***
Annual Income	.419	.112	1.716†	.576	.165	2.957**
Age	-.239	-.055	-.868	-.502	-.122	-2.312*
Education Level	.029	.007	.119	-.296	-.076	-1.699†
Physical Health	1.465	.287	4.997***	1.681	.287	6.307***
Health Service	1.743	.104	1.818†	-.110	-.007	-.152
Care Service	-1.735	-.175	-2.954**	-1.061	-.091	-2.111**
Participation Services	.784	.057	1.008	.857	.078	1.755†
R <sup>2</sup>	.224			.258		
F	5.923***			11.529***		

Note: †p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

The R<sup>2</sup>, which is an explanatory power for the impact of personal characteristics and the use of social welfare services on mental health of elderly males in the Yeongnam region, was 22.4%. Among personal characteristics, annual income (B=.419, p<.10) and health status (B=1.465, p<.000) affected mental health, and as for social welfare services, health services (B=1.743, p<.10) and care services (B=-1.735, p<.01) affected mental health. In other words, the higher the annual income of elderly males in the Yeongnam region, the better the health status, and the more health services provided by social welfare services, the higher the mental health. On the other hand, it was found that the more care services received, the lower the mental health. In the influence analysis, it was found that health status, social welfare service care service, annual income, and social welfare service health service affect mental health in order. The explanatory power R<sup>2</sup> for the effect of personal characteristics and the use of social welfare services on mental health of elderly males in Honam region was 25.8%. Among personal characteristics, annual income (B=.576, p<.01), age (B=-.502, p<.05), education level (B=-.296 p<.10), and health status (B=1.681 p<.001) affected mental health, and in social welfare services, caring services (B=-1.061, p<.01) and participating services (B=.857, p<.10) affected mental health.

In other words, the higher the annual income of elderly males in Honam region, the lower the age and education level, the better the health status, and the more services participating in social welfare services, the higher the mental health. On the other hand, it was found that the more care services received, the lower the mental health. In the

influence analysis, it was found that health status, annual income and age, caring services of social welfare services, participating services, and education level affected mental health in that order.

## 5. Conclusions and Implications

This study explored the factors affecting mental health by the use of social welfare services by male elderly, and conducted a study with the aim of presenting basic data on mental health promotion program policies by region by comparing Yeongnam and Honam regions. The analysis data used the 17th Korean Welfare Panel of the Korea Institute for Health and Social Affairs (2022), and the independent variables were personal characteristics (year income, age, education level, religious status, health status) and social welfare services (health services, participatory services, care services), and the dependent variables were selected as the mental health of male elderly, and the Yeongnam and Honam regions were compared and analyzed. Based on the research results, discussions and implications are presented by dividing the Yeongnam and Honam regions.

First, it can be summarized that the higher the annual income, the better the health status, the more health services provided by social welfare services, and the higher the number of care services, the higher the mental health, and the lower the mental health. In particular, attention is paid to the research results that show that the lower the annual income or the more care services received, the lower the mental health. These findings are similar to those of (Han &

Seo, 2022) study that social support is difficult to participate in due to the physical health and income of the elderly, and the lower the social support, the worse the mental health of the elderly. On the other hand (Park, 2013), reported that male elderly people feel lonely and affect their mental health as they undergo changes in social life, such as reduced interpersonal relationships due to retirement and lost economic ability, and hand over the head of the household to their children. In this respect, in the case of Yeongnam region, it suggests the necessity of a job and income security policy to resolve economic difficulties for male elderly after retirement, and a social welfare service and health service policy linked to health and welfare.

According to the results of the study, it was found that the more male elderly people in Yeongnam and Honam regions use care services, the lower their mental health level. This suggests that the mental health problems of male elderly people in need of care may be overlooked in the current service system. Active intervention and practical measures are needed. First of all, it is necessary to raise awareness of the mental health problems of male elderly people in need of care and emphasize the need for intervention. Mental health problems should not be ignored and need to respond early through appropriate intervention. Providing Individualized Services: When providing care services, individualized services should be provided in consideration of the mental health status of male elderly people. Depending on the mental health condition, psychological support or a therapeutic approach may be necessary, so cooperation with experts is necessary.

Integrating mental health programs into care services can enhance mental health and prevent problems. This can include mental health education, group therapy, emotional support, and more. It is also necessary to raise awareness of the mental health problems of male elderly people in their families and community members, and to strengthen their role in caring for and supporting them. By actively utilizing community resources, various mental health support services can be provided to male elderly people. The government and social institutions should increase their investment in care services and mental health services, and develop policies and support programs for them. In addition, social stigma on mental health problems should be resolved through change of perception and public education at the social level. Through such active intervention and practical measures, it is possible to prevent and improve the mental health problems of male elderly in need of care, and to support the elderly to live a healthier and higher quality of life after retirement.

Second, a study of male elderly people in Honam showed that mental health was higher in religious cases, better health status, and more participating services in social welfare services than in non-religious cases. Among them,

the higher the year's income, the higher the mental health, the same result in the Yeongnam region and Honam region. In particular, it is noteworthy that the older the age, the lower the mental health, and the more social welfare services participated, the higher the mental health. These findings are similar to those of (Kwon & Jang, 2022; Lee et al., 2017; Yoo, 2017), who found that mental health can be linked to socio-economic factors such as poverty, educational background, social relations, income, and job status. They are found to be similar to those of (Goh & Park, 2019; Oh, 2019), who reported that male elderly people living alone are more difficult to solve food, clothing, and housing alone than female elderly people, are very passive in using local welfare centers, and are vulnerable to loneliness and depression due to lack of information on welfare centers. Therefore, it can be seen that the Honam area also suggests the necessity of a job and income guarantee policy for economic problems after retirement of male elderly. In addition, referring to the research results that the more participation in social welfare services, the more positive influence on mental health, the Honam area suggests the need for regional-specific policies to expand the use of welfare centers and welfare facilities for male elderly. From the results of this study, it was found that there is a difference between Yeongnam and Honam in the factors affecting the mental health of elderly men. Therefore, it is possible to structurally discuss how the regional specificity of the Yeongnam and Honam regions affects the mental health of the elderly.

To this end, the following social, cultural, and economic contexts can be comprehensively considered. In a social context, the formation and characteristics of social support networks in Yeongnam and Honam regions can be different. Differences in community solidarity or family structure can affect the level of social support of male elderly people in Yeongnam and Honam.

In addition, there may be differences between regions in social activities or degrees of participation within the region, and the degree of social network formation of the elderly.

As a cultural context, the Yeongnam and Honam regions each have their own cultures and traditions. Accordingly, values, beliefs, and cultural characteristics that affect the mental health of the elderly may also differ. Religious beliefs, customs, events, and festivals may differ depending on regional characteristics, and these cultural factors may affect the mental health of the elderly. For economic context, the economic situation in Yeongnam and Honam regions can be different. Income levels, employment conditions, and social security systems between regions can affect the elderly's economic stability and social participation. Economic factors can also affect the living environment of the elderly. Housing conditions, access to surrounding facilities and services, etc. can affect the quality of life and

mental health of the elderly.

By comprehensively considering these social, cultural, and economic contexts, it is possible to understand various factors affecting the mental health of elderly males in the Yeongnam and Honam regions and explain the gaps between regions. Through this structural approach, it will be possible to suggest a more effective direction for policy establishment or the development of individual support programs. This study can find originality and significance in that it is the first study to compare mental health influencing factors by region of Yeong and Honam for male elderly. However, there may be limitations in generalizing the research results in that this study compared only Yeongnam and Honam regions and analyzed only independent variables (income, age, religion, welfare services, etc.) of mental health influencing factors. Therefore, future studies suggest that studies in the mental health area targeting the male elderly be conducted nationwide. In addition, when this study is summarized, it is suggested that further research is needed on whether to include not only the physical health area but also a number of mental health areas in health checkups for the elderly regularly conducted by the National Health Insurance Corporation.

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