The Impact of Older People's Job Program Participation on Physical Vitality and Life Satisfaction

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ABSTRACT

This study analyzed survey data on the status of 1,340 older people in the 2020 Older Job Program at Statistics Korea. We used the Heckman two-stage model. As a result of the study, several significant factors were identified in the participation in older people's job programs. First, women, old age, high earned income, unmarried status, low education level, and high cultural leisure costs are included in the participation in older people's jobs. Second, looking at the effect of job participation on the physical vitality of older people, the participants generally show higher physical vitality. In particular, men, younger age groups, individuals with excellent health status, residents outside of large cities, low earned income, and people who spent more on cultural and leisure activities while paying relatively low medical expenses have an effect. Third, analyzing the life satisfaction of older job participants over the past year revealed that those who participated in leisure activities showed higher satisfaction. In addition, cultural leisure costs were higher, health conditions were excellent, and residents outside of large cities, unmarried people, and people without religion showed higher life satisfaction. This study urges the expansion of opportunities for economic activity for older people, planning and setting job-related programs that meet individual needs, and bridging the job gap between regions. This study expands on previous research to increase understanding of the theory and validate the fact that older adults' work and employment participation has important personal, social, and economic implications. It includes a detailed analysis of the factors that influence older adults' work participation and how it affects their physical health and overall life satisfaction. The findings are expected to help shape policy and modify existing policies to create tailored jobs programs that meet the needs of older adults and address regional inequalities.

Keywords: Elderly Employment, Participation in Elderly Employment, Physical Vitality, Life Satisfaction, Heckman Two-Step Analysis.

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1. INTRODUCTION

The increase in the older people population in the current era may present social, economic, and cultural problems different from before. The employment of older

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people can positively affect the social economy, promote their daily lives, and effectively affect the physical and overall aspects of older people's lives. In addition, the effective use of the unique competencies and various experiences of older people participating in the job will reduce the change in employment suitable for an aging society and the burden of medical expenses for older people. As the employment rate among older people rises, it can significantly lower the costs associated with elderly care and its social functions (Favreault et al., 1999). A substantial increase in senior jobs programs like this could reduce care costs, such as medical expenses, for seniors and the economic burden on society as a whole.

Participation in older jobs is expected to produce significant results in successful aging. Social activities are essential for a healthy and vibrant society, and the participation of older adults in these activities plays a significant role (Rowe & Kahn, 1997). Quality of life, closely related to physical activity, includes life satisfaction, which is crucial for successful aging (Marina et al., 2021). The physical well-being of older individuals has a direct impact on their overall quality of life and one of the factors that measures this can be the use of health care expenses. This study uses healthcare expenses as a proxy variable for physical vitality. by estimating health care expenditures and linking them to physical vitality, and using proxy variables that have not been addressed in existing research on senior workforce participation programs, this study adds credibility to senior workforce programs and predicts a positive impact on the job market for older adults.

Life satisfaction encompasses the interactions of various factors, including individual happiness, social support and participation, and physical health. The data from this study will be used to understand life satisfaction. The ability of the older workforce to increase their social engagement through work, form diverse relationships, and move their bodies has a positive impact on their physical and mental health, even in old age. This study is interested in the quality of life of the older workforce by taking a closer look at older adults' leisure expenditures, such as cultural expenditures, which have been underrepresented in previous studies of older work and life satisfaction. The life satisfaction of elderly job participants is deeply related, and the factors that influence life satisfaction need to be closely analyzed. By treating physical vitality and life satisfaction as separate variables, we can examine the impact of participation in senior jobs from different perspectives.

Accordingly, This will enable a deeper understanding of older job participants and the design of more effective employment policies, which in turn will further improve the quality of life of older people. The current and steadily growing elderly population is bound to increase the economic burden not only on individuals, but also on society and governments. Therefore, finding jobs for the elderly and engaging them in various forms of employment will improve the overall quality of life of elderly individuals through economic stability and the maintenance of their psychological and physical abilities, and will have a positive impact on society as a whole. This research will provide essential information on older worker employment programs and help develop jobs policies that address the gap between older worker employment programs in metropolitan and non-metropolitan areas, where limitations are still found. The research aims to move beyond current existing research and policies to create job opportunities that are more aligned with the specific factors and real-world challenges of older workers. Therefore, the purpose of this study is as follows:

What factors affect the participants of older people's job projects?

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Does participation in older people's job projects influence physical vitality?
Does participation in older people's job projects influence life satisfaction?

2. THEORETICAL BACKGROUND

2.1 Elderly's Job Program Participation

Participation in elderly jobs is essential in promoting older workers' mental and physical health. Older adults can lead their daily lives and habits through economic activities and earn a certain income, if not extensive. It is also expected to increase the physical vitality of older people and overall life satisfaction. In addition, social abandonment and connection can prevent older people from social isolation. Therefore, participation in elderly jobs can be estimated as a factor that can sustain a more fulfilling daily life for older workers than before. In addition, as the economic importance of hiring elderly workers is increasing, it can arouse social interest, and the use of elderly workers is predicted to be an essential factor in maximizing social capital and promoting sustainable economic growth. In addition, elderly jobs are expected to promote consumption activities as they are opportunities to increase individual income. We expect vitality throughout the economy.

Currently, the senior jobs program in South Korea provides a variety of jobs and social activities for seniors to help them live an active and healthy life. There is also plenty of training for managing each demand and finding the right employment. Currently, there are several types of programs, each with different features. Volunteer jobs are jobs where seniors volunteer their time to serve the community. Social service jobs are jobs that support appropriate services, such as public service activities and care for the elderly, and are market-based businesses that allow older adults to work in small shops or specialized vocational businesses. Although the work varies slightly from region to region, there are many relatively easy duties that can be done with training, and eventually, after completing the training, they are dispatched to the demanding organization according to the needs of the demanding organization (Ministry of Health and Welfare).

Each program prioritizes recruitment of basic pensioners and is expected to help improve welfare services and employment for the elderly. In line with the purpose of the senior jobs program, it is expected to help the elderly lead healthy and vibrant lives as active members of society. While the Senior Work Program is a great social service program, the number of jobs is far too low for the growing senior population, especially in Korea. This leads to the unfortunate problem that not all seniors who want to participate are able to do so.

Several studies have examined the impact of elderly job programs on economic status. It was analyzed that older people's job programs increase their participation in economic activities and income (Jeong, 2020). Similarly, it was estimated that steady participation in jobs for older people has a limited effect on preventing the deterioration of economic status (Lee & Hwang, 2019). As a result of a study on the relative poverty rate and poverty gap ratio of elderly people group participating in elderly people jobs and the non-participating elderly group, The rate of relative poverty and the poverty gap ratio showed a slight variation. it was analyzed that the poverty rate mitigation of market-type project groups was significant (Kim, 2022). In addition, when measuring the economic effect of older people's job programs, the double difference (DID) in the social and economic effects of older people's job programs is determined. As a result of the analysis, the experimental group has a

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higher probability of generating earned income than the comparative group, and due to participation in older people's jobs, It was analyzed that the double difference value also showed statistically solid significance (Kang, 2016).

The preceding studies on employment-related jobs for older people are as follows. The continuous employment of older people adds diversity to the labor market and enhances the economy's flexibility. It was analyzed that it partially affected the employment effect of the market-type elderly job program (Seo, 2013). While there are positive comments on the wide application and attempts to employ older people, there is also a sense of disappointment that the employment of older people has remained at the level of formal job creation. Fortunately, it was found that it is possible to accumulate and form social capital for older people if appropriate arrangements are made for their utilization (Jang, 2011). Therefore, participation in older people's jobs is expected to increase employment opportunities and resolve the imbalance in the overall labor market by actively utilizing the older people's workforce.

2.2 Physical Vitality

Physical vitality is highly related to older people's direct quality of life. We want to confirm using health care expenses to measure this in this study. High physical vitality is generally associated with decreased medical expenses, so an individual's health is estimated to be in good condition. The positive results of previous studies are as follows. In a study on reducing medical expenses of older people's job programs, the medical expenses of the elderly people population who participated in the older people's job programs were compared to those who did not participate in the medical expenses (Lim & LEE, 2008).

It was confirmed that older people have the effect of reducing the average annual healthcare expenditure of participants compared to the average annual healthcare expenditure of non-participants in the project (Lee, 2022). In addition, it was analyzed that older people's job programs significantly reduced their healthcare expenditure (Kim & Kang, 2011). Similarly, older people, job programs in low education, men, older people, and groups that are bound to be vulnerable to health

Reducing medical expenses was significant, so it was analyzed that older people's job programs had a more significant positive effect on the group expected to have weak health (Lee et al., 2015). As the older population steadily increases, these preceding studies are meaningful in the aging era and have essential implications directly related to the physical vitality of older people.

2.3 Life Satisfaction

Life satisfaction variables are estimated to affect older people's job program participants significantly. Many elderly Japanese individuals in their 60s and 70s remain healthy and fit, partly because of Japan's universal healthcare network. Culturally, Japanese people are encouraged to maintain a healthy weight and engage in regular training, such as walking or commuting on foot(Yamamoto, 2021). We also studied that when work-life balance (WLB) can occur properly, it has a positive effect on job satisfaction and, at the same time, increases psychological well-being(Johnson, 2021). As such, it is estimated that the overall satisfaction of elderly workers will also play a meaningful role in their participation in elderly jobs.

Farquhar (1995) analyzed that many factors other than health can affect the quality of life of the elderly, including social relationships. As such, various social and service

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policies are needed to enhance social relationships and social cohesion, which are just as important as health in the lives of older people. This study suggests that older people's job programs can have a positive impact.

Other studies are as follows. As participation in older people's jobs positively affects the social and psychological level, the incidental effects of social participation, leisure, and interpersonal relationships appear more significant in the original purpose of the older people's job program. Based on research by (Kim, 2011). Job satisfaction and life satisfaction were also relatively high by participating in jobs for older people (Boo, 2015). It was also analyzed that older people's job and social activity support projects influenced the successful aging of older people and the factors affecting the successful aging of older people (Lee, 2018). The more they participate in the job program for older people, the more they participate in society, which affects their life satisfaction (Son, 2023). Based on previous studies, participation in jobs for older people is expected to increase overall life satisfaction.

Previous research has indicated that physical vitality and life satisfaction are crucial elements for older individuals engaging in work; however, there is a need for concurrent studies. This research aims to enhance the understanding of older job participants by examining physical vitality and life satisfaction as distinct variables. This analysis is vital for creating more effective welfare and employment policies, particularly in the context of an aging population.

3. RESEARCH METHOD

3.1 Participants

This study used the 2020 Elderly Status Survey microdata from the Korean Statistical Information Service to analyze the impact of elderly employment on physical vigor and life satisfaction. The Elderly Status Survey is a dataset refined from original survey data, including corrections of any data entry errors, and was conducted until 2020. From the total of 9920 individuals analyzed, 1340 who participated in elderly employment programs were used in the final analysis, while the remaining 8580 were excluded due to missing data. This means that 1340 (13.5%) of the total sample have participated in senior work.

3.2 Variables

In order to analyze the impact on the physical vitality and life satisfaction of elderly job participants, which is the purpose of this study, independent variables, dependent variables, and control variables were constructed based on the analysis of previous studies, and the treatment of variables is as shown in <Table 1>. The independent variable is participation in elderly work, treated as yes=1 and no=0. The dependent variable, physical vitality, was converted to the natural logarithm of health care expenses. Life satisfaction was used to answer questions about health, the economy, relationships with spouses and children, cultural activities, relationships with friends and community, and life in general.

Control variables were constructed according to personal characteristics. For personal characteristics, gender (male=0, female=1) and marital status (married=1, single=0) were treated as dummy variables, and age was treated as the square of age. Health status was treated as a continuous variable (excellent, healthy, fair=3, poor=2, very poor=1), and residence area (metropolitan area=1, non-metropolitan area=0) was

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treated as a dummy variable. Total number of household members (1, 2, 3 or more) was treated as a dummy variable, and education was treated as a continuous variable (no education to elementary school=1, middle school=2, high school3, university=4). Religion (0=no religion, 1=Confucianism), leisure, and cultural activities in the past year as a continuous variable, excluding TV watching, radio listening, and traveling (1=none, 0=yes).

In other words, an ordered Probit analysis was performed, reflecting Mill's ratio, which is a value that corrects for the selection bias in analyzing the relationship with elderly work participation through Probit analysis in Step 1. On the other hand, the Heckman two-stage model may have convergence problems if the explanatory variables are the same in the first-stage analysis of elderly work participation and the second-stage analysis of physical vitality and life satisfaction. Hence, this study differentiated the variables entered into the model using cultural leisure expenditure in the physical vitality model, earned income in the past year of leisure activities and life satisfaction model, and career duration.

In research, selective factors that affect the decision of older adults to participate in work programs can cause endogeneity problems which can greatly affect the precision and dependability of research findings. These endogeneity issues stem from selection biases that occur while getting older adults into the program, and controlling for these biases is an essential factor in ensuring the study's accuracy. Gender, age, health, place of residence, income, marital status, total household size, education, years of experience, religion, cultural expenditure, and leisure and cultural activities in the past year were used as instrumental variables.

3.3 Research Procedures and Data Analysis

The data analysis methods used in the above study are SPSS and R 4.3.2 programs. The research procedure was analyzed in turn as follows. First, basic and descriptive statistical analyses were conducted to analyze demographic characteristics and key variables. Then, descriptive statistical analyses were conducted. Based on the microdata, we selected 1340 older adults who had ever participated in work, out of a total of 9920, excluding 8580 missing data. Second, we conducted a covariance analysis (VIF) to check the relevance of the variables, which allowed us to accurately estimate the influence of the variables on each other. Third, we conducted a Heckman two-stage analysis to estimate the factors affecting older adults' participation in work and analyzed the factors affecting older adults' participation in work. Fourth, to estimate the factors affecting the physical vitality and life satisfaction of older work participants, we conducted a Heckman two-stage analysis, analyzing the factors affecting the physical vitality and life satisfaction of older work participants in turn.

This study aims to analyze the impact of elderly employment on physical vigor and life satisfaction, using the Heckman two-stage model to address potential self-selection bias that could occur when estimating wage equations. This bias arises when the study only analyzes elderly individuals participating in elderly employment programs, leading to sample selection bias. This means the selected sample might only represent part of the population if it only includes participants from older people's employment programs, potentially distorting the outcomes of an Ordinary Least Squares OLS estimation since the dependent variable distribution may be limited to a truncated sample.

In the first step of the Heckman model, the relationship between the possibility of participating in older people's jobs and other variables is estimated through probit

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analysis. This step is essential in understanding program participation decisions' impact on variables such as leisure activities, physical vitality, and life satisfaction. The second step is determining the effect on physical vitality and life satisfaction only for elderly job participants. This step corrects the selection bias using the inverse Mills ratio calculated in the first step as a control variable. Therefore, care should be taken because ignoring the bias inherent in the selection-based sample may distort the correlation of research results.

Table 1 Variable Construction and Treatment Methods

variable			type	variable processing
Dependent Variable		Physical Vigor (Healthcare Costs)	Continuous	natural logarithm transformation
		Life Satisfaction	Continuous	Average Satisfaction Conversion Health Status, Economic Status Spousal Relationship, Relationship with Children Social, Leisure, and Cultural Activities, Friendships and Community Relationships, Overall Life
Independent Variable		Elderly Employment Participation	Binary	Exists=1, None=0
Control Variable	Personal Characteristics	Gender	Binary	Male=0, Female=1
		Age	Continuous	Ages 65-99
		Age Squared	Binary	Age Squared
		Cultural and Leisure Expenses	Continuous	Natural Log Transformation
		Health	Continuous	Very healthy=5, Healthy=4, Average=3, Unhealthy=2, Very unhealthy=1
		Residential Area	Dummy	Capital region=1, Non-capital region=0
		Labor Income	Continuous	Natural Log Transformation
		Marital Status	Dummy	Married=1, Single=0
		Total Number of Household Members	Continuous	1 person, 2 people, 3 or more people
		Educational Level	Continuous	No education to elementary school=1, Middle school=2, High school=3, University=4
		Religion	Binary	Confucian=1, Non-religious=0
		Cultural and Leisure Activities in the Past Year	Binary	None=1, Exists=0

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4. RESULTS

4.1 Results of Descriptive Statistics

The general characteristics and basic statistics of the study subjects are presented in Table 1. The total sample size of this study is 9,920, of which 1,340 (13.5%) have experience participating in elderly employment programs. Health-related expenditure, indicating physical vitality, was analyzed to be 1.55, while the average life satisfaction score was 3.94. Expenditure on cultural and leisure activities showed an average of 6.12. Regarding gender distribution, there were 3,971 males (40.0%) and 5,949 females (60.0%). The average age was 73.4 years. For marital status, 4,071 (41.0%) were single, and 5,849 (59.0%) were married. Regionally, 2,765 (72.1%) were from the capital region, and 7,155 (27.9%) from non-capital regions, with a higher proportion in non-capital areas.

Health status showed that 4,940 (49.8%) were healthy, and the average income from labor was 1.71. Household sizes were as follows: 3,117 single-person households (31.4%), 5,654 two-person (57.0%), and 1,149 three or more persons (11.7%). For education levels, there were 4,431 (44.7%) at the elementary school level, 2,330 (23.5%) at the middle school level, 2,654 (26.8%) at the high school level, and 505 (5.1%) at the university level. Regarding religion, 4,070 (41.0%) were non-religious, and 5,850 (59.0%) followed Confucianism. Participation in cultural and leisure activities (excluding T.V., radio, and travel) in the past year was 7,848 (79.1%), while 2,072 (20.9%) did not participate.

4.2 Results of Heckman Two-Stage Analysis

This study examined the participants of elderly employment programs using the Heckman two-stage model. The results validated the model's effectiveness, showing a statistically significant lambda (inverse Mill's ratio) of 3.1329 (physical vitality) with a p-value of 0.001. This suggests lower healthcare expenses are associated with increased physical vitality, confirming the model's adequacy and addressing sample selection issues. The correlation index (Rho) for physical vitality was 1.0929, and the standard deviation (sigma) was 2.8667.

In the first stage of the Heckman model, a probit model estimated the effects of participation in elderly employment programs on physical vitality and life satisfaction. The analysis revealed that women are approximately 40% more likely than men to participate in these programs, with a coefficient (coef) of 0.9578 ($p<0.05$), likely due to jobs in these programs better suiting female workers. Age also showed a significant effect, with an older age increasing the likelihood of participation (coef = 0.6986, $p<0.001$).

No significant effects were observed regarding health status, total number of household members, religion, or past year leisure and cultural activities. However, cultural and leisure expenses had a significant impact (coef = -0.7468, $p<0.001$), and residing in the metropolitan area also increased participation likelihood (coef = 0.9181, $p<0.05$).

An analysis of elderly employment participants' labor income characteristics revealed that higher income increases the likelihood of participation (coef = 0.1622, $p<0.001$). Marital status analysis showed that being unmarried, divorced, widowed, or separated also increased participation (coef = -0.1109, $p<0.05$). Educational level

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analysis indicated that individuals with lower educational levels participated more in these programs (coef = -0.1123, p<0.001).

In the second stage of the Heckman model, the analysis of the impact of elderly employment participation on physical vitality and life satisfaction found that women, who generally have higher healthcare expenses, exhibited higher physical vitality than men (coef = 0.246435, p<0.05). Older participants tend to spend more on healthcare, hence lower vitality in younger participants (coef = 1.783170, p<0.001). Healthier participants were found to have higher vitality (coef = -0.178472, p<0.01). Metropolitan residents spend more on healthcare, though those living in non-metropolitan areas are found to have higher vitality (coef = 0.409289, p<0.001).

Labor income also positively correlated with higher healthcare spending (coef = 0.387491, p<0.001). Marital status, household size, and religion did not significantly impact physical vitality. However, life satisfaction was significantly affected, with higher satisfaction associated with a higher probability of being sampled (lambda = 0.08308, p=0.05). The correlation index for life satisfaction was 0.17962, and the standard deviation was 0.46252. Over the past year, leisure activities and cultural expenses significantly impacted life satisfaction (coef = -0.1129055, p<0.01, p<0.05 = 0.2143), suggesting that engaging in these activities and spending on them enhances life satisfaction.

Healthier individuals also showed higher satisfaction (coef = 0.1943635, p<0.001), and those living in non-metropolitan areas reported higher satisfaction (coef = -0.1979445, p<0.001). Unmarried individuals exhibited higher life satisfaction (coef = -0.7661410, p<0.001), and non-religious individuals were found to have higher satisfaction (coef = -0.078883, p<0.01).

Table 2 The physical vitality of participants in elderly people employment program estimated through the Heckman two-stage model

classification	1 step (Selection Mode1)		2 step (Physical Model)	
	β	S.E	β	S.E
Gender	0.9578***	0.4062	0.246435*	0.122049
Age	0.6986***	0.6215	1.783170***	0.382825
Age Squared	-0.4391***	0.4088	-0.011296***	0.002428
Cultural and Leisure Expenses	-0.7468***	0.1681		
Health Status	0.3015	0.2186	-0.178472***	0.061010
Residential Area	0.9181*	0.3934	0.409289***	0.112859
Labor Income	0.1622***	0.5774	0.387491***	0.078930
Marital Status	-0.1109	0.4358	-0.252610.	0.131347
Total Household Members	-0.4095	0.2494	-0.042788	0.071133
Education Level	-0.1123***	0.2351	-0.263288**	0.089450
Religion	0.3327	0.4012	0.044361	0.101251

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Cultural and Leisure Activities in the Past Year	-0.5871	0.4891		
Constant Term	-0.2881***	0.2379	-73.300248***	16.013901
lambda			3.1329***	0.6145
rho			1.0929	
sigma			2.8667	
Obs (censored/uncensored)			9920 (8580/1340)	

Note: *: p<0.05, **: p<0.01, ***: p<0.001

Table 3 The life satisfaction of participants in the elderly employment program estimated through the Heckman two-stage model

classification	1 step (Selection Mode1 2)		2 step (life satisfaction model)	
	β	S.E.	β	S.E.
Cultural and Leisure Expenses	-0.7468***	0.1681	0.0030536*	0.0011937
Gender	0.9578***	0.4062	-0.0258810	0.0301762
Age	0.6986***	0.6215	0.0596172	0.0506623
Age Squared	-0.4391***	0.4088	-0.0004261	0.0003316
Health Status	0.3015	0.2186	0.1943635***	0.0164337
Residential Area	0.9181*	0.3934	-0.1979445***	0.0288746
Labor Income	0.1622***	0.5774		
Marital Status	-0.1109	0.4358	-0.7661410***	0.0316617
Total Household Members	-0.4095	0.2494	-0.0061507	0.0180520
Education Level	-0.1123***	0.2351	0.0293165	0.0184130
Religion	0.3327	0.4012	-0.078883**	0.0296192
Cultural and Leisure Activities in the Past Year	-0.5871	0.4891	-0.1129055**	0.036475
Constant Term	-0.2881***	0.2379	1.7361976	7.9654348
lambda			0.8308*	0.03490
rho			0.17962	
sigma			0.46252	
Obs (censored/uncensored)			9920 (8580/1340)	

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Note: *: p<0.05, **: p<0.01, ***: p<0.001

Table 4 Heckman Phase 1 and Phase 2 Impact Summary Statistical Table

Model summary	Variables Affecting Heckman Phase 2
1 step (selection Model)	Gender, Age, Age Squared, Cultural and Leisure Expenses Residential Area, Labor Income, Education Level
2 step (Physical Model)	Gender, Age, Age Squared, Health Status, Residential Area Labor Income, Education Level
2 step (life satisfaction model)	Cultural and Leisure Expenses, Health Status, Residential Area Marital Status, Religion, Cultural and Leisure Activities in the Past Year

5. CONCLUSIONS AND SUGGESTIONS

5.1 Summary of the study results

As society changes to a super-aged society, there is much interest in the high-quality life of the elderly people population. Accordingly, this study analyzed the jobs of older people. It was estimated that the older people's job program would provide opportunities for social participation through economic activities to revitalize the lives of older people and give satisfaction to the overall part of life. This study analyzed the effects of elderly job participants on physical vitality and life satisfaction using the Survey on Elderly 2020. The academic contribution of this study goes beyond the positive expectations of the existing economic literature on older adult labor: theories that incorporate physical security, such as successful aging, not only help to disaggregate and understand older adult employment, but also influence and benefit older adults' successful aging.

This study supports the theoretical background that shows that senior employment programs are not just economic, but also a factor in maintaining social connections and increasing individual health and satisfaction. Therefore, the concept of “successful aging” as proposed by Rowe & Kahn (1997) has important implications for senior employment, and the study's findings confirm the need for broad, non-discriminatory employment policies that take into account factors such as geography, age, and gender. The probit model and older people's job participation equation were estimated using the Heckman two-stage model as a research method for this analysis. The above analysis shows that participation in older jobs affects their physical vitality and life satisfaction, and the implications for this are as follows.

First, it is necessary to act more actively than before to expand opportunities for active and active economic activities and participation of older workers. In particular, it is time for more customized policies and projects for older people who need economic activities, such as women and older people who are in poor health, have no spouse, and have a low level of education. Second, we need to promote various projects that fit the life cycle of older people. Recognizing the need for customized jobs suitable for the life cycle, we need to ensure that the jobs and social activities of older people meet the preferences and abilities of older people.

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Currently, there is a disadvantage that only the state's work continues regardless of one's values and preferences. Third, it is necessary to narrow the gap between the metropolitan and non-metropolitan areas and develop a job program for older people that fits the characteristics of each region. In particular, the efforts of related organizations are needed so that older people in the non-metropolitan area can obtain much information. As a type of job program for older people, considering the local situation, it supports the need for a policy to optimize their performance (Kang & Kim, 2016). For this, the job policy of older people in the non-metropolitan area must also be revised and improved.

Fourth, it is important to continue to evaluate and analyze senior employment policies that are appropriate for Korean society. This will help to improve the effectiveness of senior employment programs in the long run and develop policies that are essential for older workers. Continued research and attention can lead to the development of policies that can make senior jobs programs better than they are now and have a positive impact on physical vitality and life satisfaction.

This research highlights the need for a broader policy perspective to move away from older work programs that do not take into account the capabilities of older adults in an aging society. Creating senior job programs suitable for an aging society requires continued research and attention to adapt existing senior job programs to take advantage of individual strengths and abilities, reduce inequitable regional disparities, and create jobs that reflect the physical capabilities, abilities, and desires of older workers. As a result, the development of policies that address the shortcomings of existing policies and provide tailored job programs for older workers and society will have a positive impact on the physical vitality and life satisfaction of the older labor market.

5.2 Research Implications

The limitations and suggestions of this study are as follows. First, since this study was analyzed using data from the 2020 Survey on Elderly, there is an essential limit to generalizing the research results to the total elderly population. Datasets represent specific time zones and demographic characteristics, which may not sufficiently capture the diverse experiences and conditions of all elderly individuals from various regions and socioeconomic backgrounds. Therefore, to increase the representativeness and robustness of research results in future studies, a broader and more diverse dataset should be integrated to increase the sense of trust.

In conclusion, the findings of this study should be actively used to formulate and improve policies to maximize the effectiveness of older adult employment. The attention and support of various stakeholders and governments should underpin these efforts. Policymakers should continuously evaluate these older adult employment programs and review them to ensure they are meeting the needs of older adults. They should also interact with successful aging in a way that can positively advance physical vitality and life satisfaction. They need to understand and respond to a rapidly changing aging society to create a broader range of opportunities for vibrant older adult employment.

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