베이비붐세대의 소득과 상대적 여가박탈감의 관계에서 건강불평등의 조절효과

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The moderating effect of health inequality in the relationship between income and relative leisure deprivation among baby boomers

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Abstract

The intention of this study was to contribute basic data for establishing a welfare system in Korea that can minimize social problems caused by income disparity, specifically health inequality and perceptions of deprivation of leisure opportunities. To this end, a total of 512 study participants recruited through an online research company completed a 28-item question consisting of demographic variables as well as income, health inequality, and RLD; the survey took place during the month of October 2021. For data processing, frequency analysis and descriptive statistical analysis were performed using SPSS 27.0 and AMOS 25.0, and confirmatory factor analysis, reliability analysis, correlation analysis, and Model 1 of Process Macro 3.4 were used as well. The conclusions drawn from this are as follows. First, income had a negative effect on RLD such that higher incomes were associated with less sense of leisure deprivation, and the opposite was true for lower incomes. Second, health inequality moderated the relationship between income and RLD. Relative leisure deprivation decreased as income increased in the middle and high health inequality groups, but income had no effect in the group with low health inequality. Therefore, attention at the national level is required to improve both income and health disparities among the less fortunate in Korea, which will in turn improve the sense of relative leisure deprivation. Governments need to bridge the relative lack of leisure by establishing institutions that can more evenly distribute resources and health-related benefits to the underprivileged, and by supporting better incomes and leisure opportunities.

Key words : baby boomers, income, health inequality, relative leisure deprivation, welfare

Ⅰ. Introduction

Humans everywhere want to live happy lives, and health is essential to a happy life; a state of health is a basic right of all human beings regardless of race, region, or socioeconomic level(Green, 1992). Health occurs not only in the absence of disease but also in combination with society and the environment, and if basic rights to health are not guaranteed, it negatively affects not only individual happiness but also community development and national competitiveness(Kwon, Lee, & Bae, 2015). The World Health Organization(2009) highlighted the need to respond to health inequality to improve national health worldwide from the viewpoint of emphasizing social value in addition to the importance of health. Health inequality refers to differences in care according to socioeconomic status and can contribute to polarized health outcomes(Choi & Kim, 2018). Social inequalities such as those related to resources, opportunities, and health negatively affect life satisfaction and quality of life(Shin, 2016).

In data from the Korea Institute for Health and Social Affairs, 67.7% of 600 adults aged 20 or older reported differences in health levels between social classes and regions; in particular, 47.9% answered that health inequality was at a very serious level (Kim, Chae, Choi, Kim, Kim, & Park, 2016). This confirmation of health inequality can be seen as evidence that socioeconomic inequality in Korea is deepening. Residents in areas of low socioeconomic level have poorer health than do people who do not live in these areas(Berkman, Ichiro, & Glymour, 2000; Han, Janmant, Kohins, & Green, 2012). In contrast, it is known that people with higher incomes on average have better health outcomes(Adler, Boyce, Chesney, Cohen, Folkman, Kahn, & Syme, 1994; Marmot, 2002).

Yngwe, Fritzell, Burstrom, and Lundberg(2005) also found that people in high income brackets have a low risk of developing diseases. In addition to the material resources provided by income, income affects health through the relative position or rank given to individuals(Wilkinson, Fritzell, Burstrom, & Lundberg, 2005). High income earners enjoy high status, prestige, and financial security in society, whereas people with low incomes are more likely to experience stress, frustration, and deprivation from dissatisfaction with social comparison McEwen & Seeman(1999) and Wilkinson(1996) is, the level of income affects the level of health, and as income inequality increases, health inequality such as deterioration of health and health problems increases(Wilkinson & Pickett, 2006). As such, the income gap aggravates health inequality and opportunities for leisure participation as well.

Townsend(1979) describes deprivation as a broad multidimensional concept closely linked to poverty that from material, social, and cultural perspectives encompasses a lack of adequate physical standards, services, and leisure. According to Festinger(1954) social comparison theory, people generally regard people who are similar to themselves as reference or comparison objects and are motivated to compare their abilities and opinions with those of these reference others. Meanwhile, under the theory of relative deprivation, relative deprivation is conceptualized as the gap between expectations and reality, and people experience relative deprivation when they think that others have more than they do and when they perceive

discrepancies between what they want and what they actually have(Crosby, 1976). Thus, negative social comparisons under social comparison theory lead to relative deprivation(Walker & Pettigrew, 1984; Walker & Smith, 2002).

Based on this research, Hwang and Kim(2020) conceptualized relative leisure deprivation (RLD) from the perspective of inequality in leisure participation opportunities among multidimensional deprivation factors. RLD refers to a subjective emotional state in which individuals perceive inequalities in overall leisure resources, and researchers in Korean society reported that Koreans engage in different leisure behaviors depending on their socioeconomic status(Kwak & Hong, 2017). Individuals of higher socioeconomic status enjoyed more self-development leisure activities such as travel and education, whereas participants of lower socioeconomic status engaged primarily in passive leisure activities such as watching TV or just resting(Min, 2002). In short, people with high incomes can satisfy their desire for leisure, whereas individuals with low incomes face restricted leisure opportunities(Cho, 2016).

In a recent study, Hwang, Lee, and Kim (2021) found that people living in lower-income rural areas felt greater RLD than did urban residents, which highlighted a need to increase access to leisure opportunities for people with low incomes. Whelan, Layte, and Maître(2004) also found persistent deprivation to be low among people who were relatively wealthy and gradually increasing deprivation among poorer individuals who continued to experience poverty, confirming through country-specific figures that the lower the income, the higher the deprivation.

In Korea, the baby boomers(born 1955–1963) spent their childhoods living in poverty amid the aftermath and the traces of the Korean War, which had ended on June 25, 1950; despite the difficult economic situation, this generation completed higher education amid excessive competition for entrance exams(Jang & Kang, 2015). In addition, this generation overcame the International Monetary Fund financial crisis and played a major role in Korea's economic growth while living work-oriented lives and now have high desires to enjoy leisure away from competition(Kim & Kim 2021). Furthermore, compared with the older generations, Korea's baby boomers have not only higher education backgrounds but also stronger characteristics as consumers in economic terms(Hwang, 2017). However, despite their early advantages, this generation began retiring around 2018 and began entering old age around 2020, and now face different realities from the past when they were the mainstays of Korea's economic growth. The circumstances of this cohort led to the question of whether a group of individuals who have retired and no longer have steadily increasing incomes or their youthful health have experienced health inequalities or RLD as they have aged.

In particular, Korea's population is aging at the fastest rate among OECD member countries, and problems are emerging such as increasing elderly poverty rates, elder abuse, and needs for support for the elderly(Kim, Kim, & Yoon, 2020). As this population has retired and exited the workforce, the income gap between households has widened, and the inequality is in danger of deepening and fixing.

Therefore, attention at the government and societal levels is required to reduce the ongoing inequality between Korean generations.

The purpose of this study is to find out what kind of moderating effect health inequality has on the relationship between the income and relative leisure deprivation of the baby boomer generation. Ultimately, we expect this study to expand understanding and consideration of health inequality and RLD in the context of aging, a currently major social issue in Korean society. Our aim is to contribute basic data for establishing a new welfare state where all citizens can enjoy health and leisure benefits fairly.

Ⅱ. Method

1. Participants and sampling

This study selected Korean baby boomers as the population, and conducted preliminary and main surveys. According to the sample size criteria of Hill(1998), if the population exceeds about 5,000, the sample size is set to be about 400 or more regardless of the size of the population. The baby boom generation (1955-1963) population of Korea is about 7.12 million(2022). The preliminary survey was conducted using the self-evaluation method for 100 baby boomers, centered on local public health centers. The appropriateness of the measurement items was checked by considering the validity, clarity, and expected time of the measurement items. The main survey was requested by the survey agency to conduct the main survey by the purpose sampling method according to gender,

age, and size of residence. For one month in October 2020, a mobile survey was commissioned by Render Research (www.reneest.co.kr), a specialized research institute. Survey Company (Lende Research) and the researcher signed a contract through a Personally Identifiable Information Collection and Usage agreement and security maintenance pledge and requested a survey. Due to COVID-19, a face-to-face survey was not possible at the time of the survey. Therefore, it was collected through a non-face-to-face online survey. The research area was nationwide, and the research subjects were baby boomers (born between 1955 and 1963) who received consent to use personal

Table 1. Demographic characteristics

Variable	Category	n	%
Gender	Male	226	44.1
	Female	286	55.9
Age(M±SD)		1959±2.59	
Marital status	Single	24	4.7
	Married	431	84.2
	Widowed/divorced	57	11.1
Place of residence	Big city	215	42.0
	Mid-sized city	187	36.5
	Small town	110	21.5
Educational background	Middle school graduate or lower	118	23.1
	High school graduate	247	48.2
	Junior college or higher	147	28.7
Occupational status	Employed	293	71.1
	Unemployed	119	28.9
Monthly household income (KRW)	Below 2 million won	75	14.7
	2-2.99 million won	78	15.2
	3-3.99 million won	157	30.7
	4-4.99 million won	136	26.6
	5 million won or above	66	12.8
Maine Leisure Activities	Cultural arts	40	9.6
	Sports activities	160	38.4
	Tourism(travel)	47	11.3
	Hobby Activities	63	15.1
	relaxation	58	13.9
	Social and other activities	49	11.8
Total		512	100

information before the survey and signed a contract to participate in the survey. The contract stipulated that the collected information would be transferred to a database and supplemented for three years, and then disposed of with care to prevent personal information from being leaked. A survey of 550 people was conducted, and a total of 512 copies were used for the final analysis, excluding the data that responded insincerely. Table 1 shows the demographic characteristics of 512 study respondents.

2. Validity and reliability of the measurement tool

We used a questionnaire as the measurement tool to achieve the purpose of the study. To confirm the effectiveness of the questionnaire for our study purposes, an expert panel composed of two physical education professors and three leisure doctors examined the questions for their validity and reliability, and we modified the questions for the final questionnaire based on their feedback. The survey questions asked about gender, age, marital status, residential area, education background, occupation status, monthly household income, main leisure activity, health inequality, and RLD (Table 2).

First, for health inequality, we used a two-item scale developed by Kim(2018) that asked about perception of fairness and perception

Table 2. Confirmatory factor analysis

	x^2/df	GFI	CFI	TLI	RMSEA
Standard	≤.30	≥.9	≥.9	≥.9	≤.10
Modified model	422.34/124	.912	.923	.904	.069

of seriousness; the items were rated on 5-point Likert scales where 1 = strongly disagree and 5 = strongly agree. For RLD, we used Hwang et al.'s (2021) Relative Leisure Deprivation Scale (RLD-S)(Hwang et al., 2021). Specifically, emotional leisure deprivation was measured with 18 items loaded onto 4 factors, and sample items include the following: "I am not provided with leisure information compared with other people," "Where I live, there is not enough leisure space compared with other areas," "I am dissatisfied because I do not have enough leisure time compared with other people," and "I'm angry because I don't have enough leisure time compared with other people."

We verified the relationships between the latent variables and the measurement items through confirmatory factor analysis. We checked model fit using CMIN/DF, RMSEA, and GFI as the absolute fit indices and CFI, and TLI as incremental fit indices, and Table 3 presents the values for these indices. We calculated Cronbach's α to verify the reliability of the measurement tool and found that the credibility of health inequality was .622 and Cronbach's α was .838; both indicated high reliability.

3. Data processing method

We used SPSS 25.0 and AMOS 25.0 to examine the moderating effect of health inequality in the relationship between income and RLD. We performed frequency analysis and descriptive statistical analysis to find out the general characteristics of the subjects and calculate the means and standard deviations of the variables. We used Hayes's(2018) model 1 in SPSS Process Macro 3.4 to verify the

moderating effect of health inequality. The significance level for the statistic was set to .05

Ⅲ. Result

1. Correlation

Prior to analyzing the moderating effect of health inequality in the relationship between income and relative deprivation of leisure, we performed correlation analysis between variables (Table 3). As a result of the analysis, it was found that there was a positive and negative correlation ($p < .01$) of $-.115 \sim .249$. In addition, we confirmed no multicollinearity because no correlation coefficient reached or exceeded .8.

Table 3. Correlation analysis results

Variable	1	2	3
1. Income	1		
2. Health inequaltiy	−.051	1	
3. Relative leisure deprivation	−.115**	.249**	1

**$p < .01$

2. The moderating effect of health inequality in the relationship between income and RLD

Table 4 shows our results from running model 1 of Process Macro 3.4 specifying 5,000 bootstrapping samples at a 95% confidence interval. Income had a negative effect on RLD, health inequality had a positive effect, and the effect of the interaction term (income × health inequality) was significant. Additionally, the increase in R^2 caused by the interaction between income and health inequality was .026 ($p < .001$), which was statistically significant. In short, we verified the moderating effect of

Table 4. Effects of independent variables on relative leisure deprivation

Path	β	S.E.	$t(p)$
Constant	2.972	.020	146.618***
Income	−.042	.016	−2.706**
Health inequality	.130	.030	4.287***
Income × Health inequality	−.085	.023	−3.741***
R^2 increase due to interaction	R^2−change		$F(p)$
	.026		13.991***

*** $p < .001$

health inequality in the relationship between income and RLD.

Table 5 shows the conditional effects of the influence of the independent variable, income, on the dependent variable, RLD, according to the specific value of the moderator variable, health inequality. Figure 1 graphically displays the statistically significant results for the conditioning effects presented in the table.

We examined health inequality by classifying it into the ranges of M−1SD, M(.000), and M+1SD, and the simple slope between income and RLD had a significant conditional effect in the M(.000) and M+1SD areas; the effect was not significant at M−1SD. In other words, at M(.000) and M+1SD, income had a statistically significant negative effect on RLD, but it did not at M−1SD: RLD significantly decreased as income increased in the middle and upper groups of health inequality. In

Table 5. Conditional effects due to the relationship between income and relative leisure deprivation

Health inequality	Effect	S.E.	$t(p)$	LLCI*	ULCI**
M−1SD (−.668)	.015	.020	.727	−.025	.054
M(.000)	−.042	.016	−2.706**	−.073	−.012
M+1SD (.668)	−.099	.023	−4.251***	−.145	−.053

* Low Limit Confidence Interval of 95%
** Upper Limit Confidence Interval of 95%
Dependent Variable: Relative Leisure Deprivation
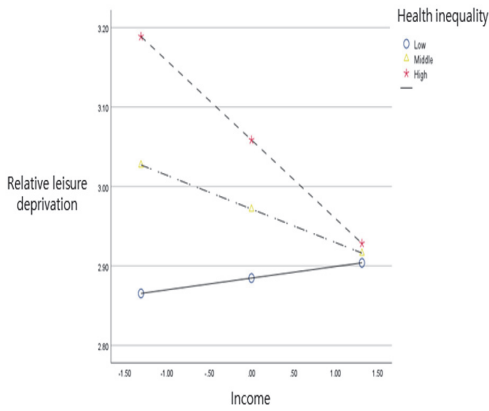
** $p < .01$, *** $p < .001$

Figure 1. Moderating effect of Health inequality in the relationship between income and relative leisure deprivation

contrast, in the case of the lower group, health inequality was not statistically significant, but RLD increased as income increased.

Table 6 shows the significance area according to the Johnson–Neyman method, a floodlight analysis, for the entire range of the adjustment variable. This is an analysis method to determine in which area a control effect is significant according to the value of the control variable. The effect of income on RLD was partially significant for health inequality values ranging from −.139 to 1.457. That is, in this range, the effect of health inequality on RLD gradually increased as income increased.

Ⅳ. Discussion

The purpose of this study was to provide basic data for establishing a welfare system in

Table 6. Areas of control based on health inequality in relation to income and relative leisure deprivation

Health inequality	Effect	S.E.	t	p	LLCI*	ULCI**
−1.943	.123	.045	2.755	.006	.035	.212
−1.773	.109	.041	2.645	.008	.028	.190
−1.603	.094	.037	2.510	.012	.021	.168
−1.433	.080	.034	2.342	.020	.013	.147
−1.263	.065	.031	2.130	.034	.005	.126
−1.156	.056	.029	1.965	.050	.000	.113
−1.093	.051	.027	1.856	.064	−.003	.105
−.923	.036	.024	1.497	.135	−.011	.084
−.753	.022	.026	1.02	.308	−.020	.064
−.583	.007	.019	.391	.696	−.030	.045
−.413	−.007	.017	−.415	.678	−.041	.026
−.243	−.022	.016	−1.364	.173	−.053	.010
−.139	−.031	.016	−1.965	.050	−.061	.000
−.073	−.036	.016	−2.330	.020	−.067	−.006
.097	−.051	.016	−3.140	.002	−.082	−.019
.267	−.065	.018	−3.701	.000	−.100	−.031
.437	−.080	.020	−4.035	.000	−.118	−.041
.607	−.094	.022	−4.212	.000	−.138	−.050
.777	−.109	.025	−4.296	.000	−.158	−.059
.947	−.123	.028	−4.328	.000	−.179	−.067
1.117	−.138	.032	−4.332	.000	−.200	−.075
1.287	−.152	.035	−4.321	.000	−.221	−.083
1.457	−.167	.039	−4.303	.000	−.243	−.091

* Low Limit Confidence Interval of 95%
** Upper Limit Confidence Interval of 95%

Korea that can minimize social problems caused by income disparity by investigating the moderating effect of health inequality in the relationship between income and RLD. We discuss our results as follows.

First, we found an inverse relationship between income and RLD: Higher income was associated with lower RLD, which was consistent with earlier conclusions that persons with higher incomes enjoy higher status and financial stability, but those with lower incomes are more likely to experience deprivation due to complaints about social comparisons(Festinger, 1954). Crosby(1976) described relative deprivation as the feeling of a discrepancy between what a person wants and what they actually have, and Townsend(1984) suggested deprivation as a multidimensional concept classified as material or social. Based on this, Hwang et al.(2021) conceptualized relative leisure deprivation from the perspective of inequality in leisure participation opportunities, introducing studies related to RLD in Korean society. Amid this broader relative deprivation, we focus on the lack of leisure resources and unequal opportunities for leisure participation.

Kondo et al.(2009) established that relative income and class status act as indicators of relative deprivation, such that persons with high or stable income have lower relative deprivation, and vice versa. In turn, when income is stable and sufficient, the lack of financial restrictions makes available more diverse leisure activities. Of course, there are leisure activities that entail few if any financial restrictions such as walking, jogging, or planting flowers. However, other activities such as golf, skiing, and horseback riding require a certain amount of expenditure, and participation is limited among individuals with low incomes.

According to Na(2021), the top 10% of people in Korea own 45% of the total national wealth, and 8 out of 10 Koreans perceive that Korean society is unfair, emphasizing that polarization of income can deepen inequality and relative deprivation, and the income gap that exists in Korean society causes social inequality and relative leisure deprivation. Given the findings here that higher incomes can reduce RLD, government support for leisure activities among persons with low or fixed incomes such as Korea's aging and elderly baby boomers would be beneficial.

Second, in general, income is closely related to health conditions(Subramanian, Belli, & Kawachi, 2002; Subramanian & Kawachi, 2004), on average, those with higher incomes have better health outcomes, whereas those with lower incomes have poorer health(Marnot, 2002). These earlier findings reflect the association between income and health inequalities, and in this study, health inequality moderated the relationship between income and RLD. Specifically, RLD decreased significantly as income increased in the middle and high health inequality groups, although it was statistically insignificant in the low health inequality group. In other words, RLD is sensitive to income in places where there is health inequality, whereas opportunities and resources might be more equally distributed where there is less health inequality.

In summary, we confirmed with this study that health inequality is an important moderator variable in the relationship between income and RLD. In particular, in places with high health

inequality, RLD decreased as income increased but was not affected by income in places with low health inequality. Therefore, government support is required to minimize the sense of relative deprivation of leisure in places where there is health inequality. In general, the baby boomer generation after retirement experiences sharply reduced incomes from work that can be replaced with pensions and accumulated wealth, but not everyone has such resources, and problems arise with inadequate pensions and a lack of any other source of income. Therefore, it is necessary to make efforts at the national level to secure financial stability through various welfare systems such as job creation for the elderly and increases in elderly benefits and pensions. In addition, the government should aim to reduce health inequality in Korean society, expanding benefits coverage to ensure that everyone has fair access to health-related welfare programs and medical services.

V. Conclusion

This study intends to contribute basic data for establishing a welfare system in Korea that can minimize unequal social problems caused by income disparity. For that study purpose, we administered a 28-item survey to a group of Korean baby boomers (born 1955-1963) to collect demographic information (e.g., age and income) as well as their scores on scales of health inequality and relative leisure deprivation. Following our analyses, we confirmed a moderating effect of health inequality in the relationship between income and relative leisure deprivation.

Specifically, first, income had a negative effect on RLD, and second, health inequality moderated this relationship: Relative leisure deprivation decreased as income increased in the middle and high health inequality groups. In contrast, however, income did not affect RLD in the group with low health inequality. Therefore, attention at the national level is required to closely examine and support the unstable financial status of persons with lower incomes, including the elderly after retirement. In addition, support for leisure opportunities and their health-related benefits should be more evenly distributed without discrimination across the country to include the underprivileged and people living in deprived areas. A healthy life through participation in leisure activities will become a driving force for the development of local communities and further national growth.

This study has a limitation in that it was conducted with a relatively small sample (about 500 respondents). In addition, there is a limitation that we could not accurately assess the influence of income on relative leisure deprivation by income range. Therefore, in future follow-up studies, it is necessary to study the flow of RLD increase and decrease according to income level by sampling more samples; this will allow for defining the criteria for allocating resources accordingly to best meet human needs. In addition, given the characteristics of the baby boom generation, we predict gender differences in income, health inequality, and relative deprivation of leisure, and we look forward to a gender-based comparative analysis of these relationships. In addition, support for these findings is needed from various research approaches such as in-depth interviews, observations, and intervention studies.

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