Factors affecting the differential of changes in subjective social status

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Abstract

Background: Although previous studies have been conducted on subjective social status, most studies have focused on the relationship between class identification and health status, medical expenses, or income. Previous studies that analyze subjective social status change are at best limited. In addition, factors influencing changes in the perception of subjective social status have not been reported as yet.

Objectives: The objective of this study was to analyze factors that affect factors that affect changes in the perception of subjective social status that individuals feel. Multinomial logistic regression analysis was performed to analyze the influential factors in subjective social status.

Results: The analysis of relevance to changes involving subjective social classification showed a statistical significance with age, educational level, marital status, health care type, economic activities, subjective health status, disorder, chronic disease, frequency of binge drinking, and smoking.

Conclusions: Nations and communities need psychological, social and cultural support to help people have a positive subjective social class perception, and people need to take a health approach to social class awareness and subjective health promotion. and continuous multidisciplinary research is needed to establish health policies and to produce positive results. [*Ethiop. J. Health Dev.* 2020;34(Special issue-3):60-66]

Key words: Subjective social status, Social status, Status identification, subjective identification, Korean Health Panels

Introduction

'Class' refers to the category of people who enjoy the same or similar scarce value, or people who receive similar social evaluations, and this means differences in political, social, and economic aspects based on each class. The three indicators of class differences are income, expenditure and wealth. Income is a measure of the flow of money over a certain period of time (1). Statistical data involving income distribution are used to understand the gap between income classes macroscopically. Income distribution is the most frequently used indicator because it is very useful and relatively easy to obtain. However, since there is a slight difference between the concepts of theoretical income and actual income, it is interesting to analyze the subjective social class identity of individuals who distinguish themselves from others according to social change (1).

The subjective perception of social status is a kind of consciousness of belonging to a certain class or hierarchy. This is defined by individual position in the hierarchy of society, or attributing a subjective sense of identity to a particular class position (2). Measurement on the basis of job position or production relationship during the formation of a class does not include information on the perception of class position of the individual himself, that is, the subjective social class. However, it is difficult to understand class without it, because a subjective perception of the hierarchy affects behavior, even if it does not match the objective class identification (3,4). Particularly, in the examination of the association with health, subjective perception of social status is a more sensitive and comprehensive indicator than objective socioeconomic status (5). The subjective perception of social status is awareness and judgment of one's position in the social structure. It leads to the practice of lifestyle, attitude and behavior shared by the class or class that an individual belongs to, which is important in that it can be linked to health behavior (6).

In previous studies of the subjective perception of social status, studies on the determinants and coincidence of income class and subjective social status (7,8) and the study of the health and medical expenses according to subjective social status (5,9), were reported. Some studies show that people are considered middle class during active social movements and widespread lifestyle (10), and despite abundant material resources, subjective social status is a relative evaluation and stabilizes partially (11). In addition, in health inequality, research suggests that psychological causation, which is perceived as subjective according to the physical aspect, more strongly determines health than objective social status (12,13).

Most previous studies have focused on health status based on subjective social status, medical expenses, or coincidence of income and class identification. There are very few studies that analyze changes in the perception of subjective social status. In addition, factors influencing changes in subjective social status have yet to be reported. Therefore, the objective of this study was to analyze factors that affect the differential of subjective social status change that individuals feel.

Methods

Subjects: This study used the 2012 and 2013 data from the Korean Health Panel, collected from the Korea Institute for Health and Social Affairs (KIHASA) and the National Health Insurance Service (NHIS). Korean Health Panel calculates the amount of medical expenses for individuals and households to utilize medical services in Korea and to determine the medical expenditure and financial resources, and produces basic data on healthcare

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utilization status, levels of health and health expenditure, and health behavior. This study analyzed the differential of changes in subjective social class perceived of 6,950 adults aged 20 years and above in 2013, based on subjective social class perceived in 2012.

Methods: Korean Health Panel data consists of questionnaires about subjective social status and includes items such as "Let's say the ladder picture represents Korean society. At the top are the wealthiest people, and at the bottom are the poorest people. Where do you think you are on this ladder?", and requires selection from the bottom to the top decile. In this study, a total of 10 deciles were grouped into five levels, and the changes in the class identification quantile in 2013 were analyzed based on the 2012 data.

Data analysis: Data analysis was performed using the chi-square test to determine the association between two categorical variables and the differential changes in subjective social status using SPSS version 25.0. Multinomial logistic regression analysis was performed to analyze the influential factors in subjective social status. We assessed the significance of all tests at p=.05, with a significance level of 95% confidence interval (CI).

Results

Relevance to changes in subjective social status: In the analysis of relevance to changes involving subjective social classification, in the case of 'age', 'Bottom decile decrease' was the most common among those in their 20s (28.2%) and 40s (34.6%), 'Decile group 2 decrease' was the most common among those in their 30s (26.0%) and 50s (32.3%), and 'No change' was the most common among those in their 60s (27.2%).

In the case of 'education level', 'Decile group 2 decrease' was common in 'above college' educational level (35.3%). In the case of 'marital status', 'No change' was the most common in 'etc(divorce, separation, bereavement).'. (34.6). In the case of 'health care type', 'No change' was common in 'medical aid' (60.7%). In the case of 'economic activities', 'Decile group 2 decrease' was common in 'yes' (31.9%). In the case of 'subjective health status', 'Decile group 2 decrease' was common in 'neutral' (28.7%) and 'good' cases (30.9%). In the case of 'disorder', 'Bottom decile decrease' was common in 'positive response' (28.6%). In the case of 'chronic disease', 'Decile group 2 decrease' was common in those responding with a 'yes' (31.4%). In the case of 'frequency of binge drinking', 'Decile group 2 decrease' was the most common in those 'drinking less than once a month' (30.6%) and 'more than once a month' (29.5%). In the case of 'smoking', 'Decile group 2 decrease' was common in both 'yes' (29.5%) and 'no' (28.6%) cases (see Table 1).

Factors affecting differential of changes in subjective social status: For each category, factors affecting changes in subjective social status were different and the results were as follows.

In the 'Bottom decile increase' category, in the case of 'age', those in their 60s were affected more than those in their 20s, 40s and 50s. In the case of 'education level', 'under middle school' affected more than 'above college' (OR=1.662; 95% CI=1.206-2.289). In the case of 'health care type', 'health insurance' affected more than 'medical aid' (OR=1.891; 95% CI=1.198-2.985). In the case of 'economic activities', 'no' affected more than 'yes' (OR=.748; 95% CI=.610-.916). In the case of smoking, 'no' affected more than 'yes' (OR=.765; 95% CI=.598-.979).

In the 'Decile group 2 increase' category, in the case of 'subjective health status', 'good' affected more than 'bad' (OR=.253; 95% CI=.117-.544) or 'neutral' (OR=.615; 95% CI=.428-.885). In the case of 'smoking', 'no' affected more than 'yes' (OR=.555; 95% CI=.338-.910).

In the 'Bottom decile decrease' category, in the case of 'age', those in their 60s were affected more than those in their 20s (OR=.593; 95% CI=.385-.914), and those in their 50s were affected more than those in their 60s (OR=1.256; 95% CI=1.008-1.565). In the case of 'education level', 'above college' affected more than 'under middle school' (OR=.383; 95% CI=.301-.487) or 'high school' (OR=.671; 95% CI=.562-.800). In the case of 'health care type', 'health insurance' affected more than 'medical aid' (OR=3.703; 95% CI=2.321-5.909). In the case of 'economic activities', 'yes' affected more than 'no' (OR=1.588; 95% CI=1.350-1.868).

In the 'Decile group 2 decrease' category, in the case of 'gender', 'female gender' affected more than 'male gender' (OR=.778; 95% CI=.654-.924). In the case of 'age', those in their 60s were affected more than those in their 20s (OR=.409; 95% CI=.265-.632) and 40s (OR=.738; 95% CI=.580-.940). In the case of 'educational level', 'above college' affected more than 'under middle school' (OR=.258; 95% CI=.202-.330) or 'high school' status (OR=.535; 95% CI=.478-.638). In the case of 'marital status', 'married' affected more than 'etc.'. (OR=.576; 95% CI=.429-.772). In the case of 'health care type', 'health insurance' affected more than 'medical aid' (OR=18.736; 95% CI=6.785-25.529). In the case of 'economic activities', 'yes' affected more than 'no' (OR=1.931; 95% CI=1.635-2.280). In the case of 'subjective health status', 'good' affected more than 'bad' (OR=.653; 95% CI=.500-.851).

In the 'Above decile group 3 decrease' category, in the case of 'gender', 'female' affected more than 'male' (OR=.655; 95% CI=.517-.830). In the case of 'age', 'above 60s' affected more than '20s' (OR=.538; 95% CI=.302-.960). In the case of 'educational level', 'above college' affected more than 'under middle school' (OR=.307; 95% CI=.217-.433) or 'high school' (OR=.625; 95% CI=.494-.791). In the case of 'marital status', 'single' affected more than 'married' status .

Table 1: **Relevance to changes in subjective social status**

Type		No change		Bottom decile increase		Decile group 2 increase		Bottom decile decrease		Decile group 2 decrease		≥Decile group 3 decrease		Total		χ^2(p)
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Gender	Male	803	21.2	379	10.0	79	2.1	1,080	28.6	1,107	29.3	331	28.9	3,779	100.0	3.851
	Female	706	22.3	312	9.8	68	2.1	886	27.9	894	28.2	305	9.7	3,171	100.0	
Age	20s	138	25.9	44	8.3	10	1.9	150	28.2	139	26.1	51	9.5	532	100.0	397.193***
	30s	152	15.7	71	7.3	16	1.6	256	26.4	349	36.0	126	13.0	970	100.0	
	40s	308	18.8	99	6.1	23	1.4	566	34.6	492	30.1	147	9.0	1,635	100.0	
	50s	283	18.8	89	5.9	23	1.5	469	31.1	487	32.3	155	10.3	1,506	100.0	
	≥60s	628	27.2	388	16.9	75	3.3	525	22.8	534	23.1	157	6.8	2,307	100.0	
Education level	≤Middle school	519	31.7	322	19.7	57	3.5	347	21.2	296	18.1	97	5.9	1,638	100.0	541.016***
	High school	516	21.9	201	8.5	43	1.8	713	30.3	661	28.1	220	9.3	2,354	100.0	
	≥College	474	16.0	168	5.7	47	1.6	906	30.6	1,044	35.3	319	10.8	2,958	100.0	
Marital status	Etc.	189	34.6	84	15.4	22	4.0	137	25.0	84	15.4	31	5.6	547	100.0	145.163***
	Single	266	19.2	100	7.2	20	1.4	396	28.6	443	32.0	161	11.6	1,386	100.0	
	Married	1,054	21.0	507	10.1	105	2.1	1,433	28.6	1,474	29.4	444	8.8	5,017	100.0	
Health care type	Health insurance	1,407	20.7	663	9.8	139	2.0	1,941	28.6	1,997	29.4	635	9.4	6,782	100.0	200.572***
	Medical aid	102	60.7	28	16.7	8	4.8	25	14.9	4	2.4	1	0.6	168	100.0	
Economic activities	Yes	880	18.6	359	7.6	75	1.6	1,412	29.9	1,507	31.9	493	10.4	4,726	100.0	256.054***
	No	629	28.3	332	14.9	72	3.2	554	24.9	494	22.2	143	6.5	2,224	100.0	
Subjective health status	Bad	202	30.8	98	15.0	8	1.2	163	24.9	125	19.1	59	9.0	655	100.0	95.461***
	Neutral	689	22.3	314	10.1	58	1.9	863	27.9	889	28.7	283	9.1	3,096	100.0	
	Good	618	19.3	279	8.7	81	2.5	940	29.4	987	30.9	294	9.2	3,199	100.0	
Disorder	No	113	34.2	59	17.9	12	3.6	71	21.5	63	19.1	12	3.6	330	100.0	79.287***
	Yes	1,396	21.1	63	9.5	135	2.0	1,895	28.6	1,938	29.3	635	9.5	6,620	100.0	
Chronic disease	No	963	23.8	466	11.5	95	2.3	1,102	27.3	1,088	26.9	330	8.1	4,044	100.0	72.561***
	Yes	546	18.8	225	7.7	52	1.8	864	29.7	913	31.4	306	10.5	2,906	100.0	
Frequency of binge drinking	<Once a month	985	22.7	487	11.2	99	2.3	1,169	27.0	1,198	27.7	392	9.1	4,330	100.0	38.853***
	≥Once a	524	20.0	204	7.8	48	1.8	797	30.4	803	30.6	244	9.3	2,620	100.0	

	month														
Smoking	Yes	398	22.3	151	8.5	25	1.4	508	28.5	526	29.5	175	9.9	1,784	100.0	13.679*
	No	1,111	21.5	540	10.5	122	2.4	1,458	28.2	1,475	28.6	460	8.9	5,166	100.0	
Total		1,509	21.7	691	9.9	147	2.1	1,966	28.3	2,001	28.8	636	9.2	6,950	100.0	

* p<.05, ** p<.01, *** p<.001

Table 2: **Factors affecting changes in subjective social status**

Type		Bottom decile increase		Decile group 2 increase		Bottom decile decrease		Decile group 2 decrease		≥Decile group 3 decrease	
		OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Gender (ref: Female)	Male	1.228	.984-1.534	1.284	.852-1.936	.903	.761-1.071	.778**	.654-.924	.655***	.517-.830
Age (ref: ≥60s)	20s	.518*	.279-.961	.565	.175-1.829	.593*	.385-.914	.409***	.265-.632	.538*	.302-.960
	30s	.875	.546-1.402	.912	.394-2.115	.822	.585-1.156	.763	.546-1.066	.814	.586-1.424
	40s	.640*	.456-.898	.643	.343-1.205	1.161	.915-1.475	.738**	.580-.940	.743	.532-1.039
	50s	.618**	.455-.839	.752	.429-1.321	1.256*	1.008-1.565	1.035	.830-1.291	1.102	.812-1.494
Education level (ref: ≥College)	≤Middle school	1.662**	1.206-2.289	.935	.528-1.656	.383***	.301-.487	.258***	.202-.330	.307***	.217-.433
	High school	1.156	.884-1.510	.806	.501-1.296	.671***	.562-.800	.535***	.4478-.638	.625***	.494-.791
Marital status (ref: Married)	Etc.	.093	.570-1.045	1.151	.673-1.980	.911	.704-1.180	.576***	.429-.772	.665	.436-1.015
	Single	.776	.694-1.630	.655	.283-1515	1.288	.963-1.724	1.306	.978-1.743	1.462*	1.011-2.113
Health care type (ref: Medical aid)	Health insurance	1.891**	1.198-2.985	1.143	.514-2.538	3.703***	2.321-5.909	18.736***	6.785-51.737	25.529**	3.512-85.555
Economic activities (ref: No)	Yes	.748**	.610-.916	.698	.477-1.022	1.588***	1.350-1.868	1.931***	1.635-2.280	2.337***	1.842-2.963
Subjective health status (ref: Good)	Bad	.944	.700-1.273	.253***	.117-.544	.813	.634-1.042	.653**	.500-.851	1.093	.774-1.543
	Neutral	.961	.786-1.174	.615**	.428-.885	.878	.757-1.018	.874	.753-1.014	.951	.776-1.166
Disorder (ref: Yes)	No	1.013	.712-1.440	1.089	.560-2.116	.853	.613-1.186	.884	.624-1.252	.529*	.283-.987
Chronic disease (ref: Yes)	No	.810	.638-1.028	.851	.551-1.314	1.056	.895-1.246	1.045	.885-1.234	.965	.772-1.206
Frequency of binge drinking (ref: ≥Once a month)	<Once a month	1.148	.925-4.423	.942	.633-1.402	.869	.743-1.017	.903	.771-1.057	.997	.805-1.235
Smoking (ref: No)	Yes	.765*	.598-.979	.555**	.338-.910	.877	.730-1.055	.946	.786-1.139	1.089	.844-1.405
		$2LL$=6,325.929, Magelkerke R^2=.144, χ^2(p)=1,032.558***									

* p<.05, ** p<.01, *** p<.001; Reference category of dependent variable: No change

(OR=1.462; 95% CI=1.011-2.113). In the case of 'health care type', 'health insurance' affected more than 'medical aid' (OR=25.529; 95% CI=3.512-85.555). In the case of 'economic activities', 'yes' affected more than 'no' (OR=2.337; 95% CI=1.842-2.963). In the case of 'disorder', 'yes' affected more than 'no' (OR=.529; 95% CI=.283-.987) (see Table 2).

Discussion

The relationship between general characteristics and changes in subjective social status showed a statistical significance with age (p<.001), educational level (p<.001), marital status (p<.001), health care type (p<.001), economic activities (p<.001), subjective health status (p<.001), disorder (p<.001), chronic disease (p<.001), frequency of binge drinking (p<.001) and smoking (p<.05).

The factors affecting changes in subjective social status – age (above 60s more than 20s, 40s and 50s), educational level (under middle school, 1.662), health care type (health insurance, 1.891), and economic activities and smoking (no) – were analyzed as influential factors in 'Bottom decile increase'. Subjective health status (good) and smoking (no) were analyzed as influential factors in 'Decile group 2 increase'. Age (above 60s vs. 20s; 50s vs. above 60s, 1.256), educational level (above college), health care type (health insurance, 3.703) and economic activities (yes, 1.588) were analyzed as influential factors in 'Bottom decile decrease'. Gender (female), age (above 60s vs. 20s and 40s), educational level (above college), marital status (married vs. unmarried, etc.), health care type (health insurance, 18.736-fold), economic activities (yes, 1.931-fold), subjective health status (good vs. bad) were analyzed as influential factors in 'Decile group 2 decrease'. Gender (female), age (Above 60s more than 20s), education level (above college), marital status (single vs. married, 1,462), health care type (health insurance, 25.529), economic activities (yes, 2.337), and disorder (yes) were analyzed as influential factors in 'Above decile group 3 decrease'. These results were partly consistent with previous studies, in which gender, age, income, education level, and life satisfaction were factors influencing subjective social status (14).

According to the results of this study, despite the income derived from economic activities, further economic activities and higher educational level have a strong influence on the decrease in subjective social status. This result seems to be due to the relatively low sense of achievement and self-esteem, and depression, because of comparison with the education and income of others. Also, it can be confirmed that the social environment and factors of a subjective dimension, which the individual feels psychologically, serve as an index of extended social capital (15). Therefore, the policy recommendations are as follows. First, in order to raise the awareness of positive subjective social status, efforts at the individual, community and national are required, including psychological support for changing individual values or attitudes, and cultural support to facilitate cultural literacy, experience and knowledge (16). Second, a healthcare approach is needed for the recognition of individual social hierarchy and the promotion of subjective health. Third, continuous multidisciplinary research is needed to establish health policies and to produce positive results.

Limitations of this study

The limitation of this study was that there were no previous studies investigating the factors influencing subjective social status. Also, various variables were not considered. Nevertheless, it is meaningful to analyze the factors affecting subjective social status by elucidating the underlying changes.

Conclusions

The purpose of this study is to analyze the factors affecting changes in subjective social status using Korean Health Panel data collected from the Korea Institute of Health and Social Affairs and the National Health Insurance Service. 'Bottom decile increase' was influenced by age, education level, health care type, economic activities, and smoking. 'Decile group 2 increase' was influenced by subjective health status and smoking. 'Bottom decile decrease' was influenced by age, education level, health care type, and economic activity. 'Decile group 2 decrease' was influenced by gender, age, education level, marital status, health care type, economic activity, and subjective health status. 'Above decile group 3 decrease' was influenced by gender, age, education level, marital status, health care type, economic activity and disability.

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