[Special Contributions]

The Influence of Subjective Social Status on Self-Rated Health: Evidence from China

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Abstract: Subjective Social Status (SSS) inevitably affects the self-rated health of individuals and/or societal groups. Based on the evidence from China, this paper aims to 1) assess the influence of Objective Social Status and Subjective Social Status on differences in self-rated health in China; 2) to examine the correlations between Subjective Social Status and perceived health. The data from the Chinese General Social Survey (CGSS) 2010 are selected to achieve the two aims with SSS measured by Subjective Family Economic Status (SFES, using the Likert scale) and Subjective Social Class (SSC, using the MacArthur scale), and Health Status measured by a continuous ill score calculated by the standard logarithmic normal distribution index conversion of self-rated health. Advanced statistical modeling using the nested multiple robust regression model and interaction analysis is used to deal with heteroscedasticity from the CGSS data. It is found that: 1) lower SSS is associated with poor health status and SSS is a more comprehensive predictor of health status; 2) aging has more apparent influences on the health of lower SSS groups; 3) lower SSS groups have received higher health returns from their educational attainment than higher SSS groups though they tend to be in poorer health status; 4) once have a chronic disease, the health of lower SFES groups will suffer more deterioration than higher ones.

Keywords: China; Subjective Social Status; ill score; interaction analysis

Notes on the contributors: PAN Zequan is currently chair of the Department of Sociology and deputy dean of the School of Public Administration in Central South University, Hunan province, China. His research focuses on such areas as theory and method of sociology, public health, social psychology and behavior, social development, social policy and community governance, social organization and social work, and among others. The other three contributors, LI Tingyu, LIN Tingting and WU Junjie are students with MA or BA degrees at Central South University with their academic interest in grassroots social governance, social psychology, social survey and sociology of deviance and crime, etc.

1 Introduction

There is considerable empirical evidence that correlations exist between social status and a wide range of health outcomes, even though researchers are still debating on causal directions (Adler & Ostrove 1999). In addition to the objective measures of social status (i. e., income, occupation, education), there are increasing researches that are focused on the link between Subjective Social Status (SSS) and health status. The interest in SSS stems from two resources (Singh-Manoux et al. 2005). One is the evidence showing that SSS is a more comprehensive measure of social status because it includes both socioeconomic factors and the consciousness of the subjects about their social positions. The other is that perception of place in the social hierarchy can be a mediator between income inequality and population health by neuroendocrine mechanisms. The MacArthur scale of Subjective Social Status was introduced by Adler et al. (2000) to capture individuals' perceived social status. Individuals were required to rate their social positions on the rung of a visual ladder concerning money, education, and occupation.

As for the measurement of self-rated health, many points should be paid attention to, although self-rated health has many advantages compared with other various measures. As an ordinal variable, there are four types of assignment methods for self-rated health currently. The first method is to dichotomize it into "healthy" and "unhealthy". It is simple but has two shortcomings. One of them is that this dichotomization artificially reduces health information. For example, if someone's health status improved from "very unhealthy" to "unhealthy", and the health of others remains the same, the health of the whole would improve actually, but the dichotomization would fail to reflect the specific changes in health. The other is that there has no consistent standard for the "neutral" were "healthy" or "unhealthy". The second method is to calculate an overall health index by assignment. The third method is to construct an ordinal Probit model by treating self-rated health as an ordinal variable. In addition, joining the situational variables makes the Probit model become the Hopit model (Liu 2008). Index conversion is the fourth method which assumes that there is a continuous but unobservable latent variable that is conforming to the logarithmic normal distribution behind ordinal self-rated health. This is because most people tend to have a preferential estimate about their health status (it is also the truth) and the lognormal distribution allows self-rated health to be a skewed distribution. Five grades of the actual score are calculated by dividing the standard logarithmic normal range into five parts according to the proportion of the five grades in the total samples, then the normal distribution table is checked and converted (Hu 2005; Wagstaff & Van Doorslaer 1994; Zhou 2013).

There is extensive evidence-based research on the associations between SSS and health in the last decade. Abundant evidence can be found from different countries (Guarnizo-Herreno et al. 2013; Kopp et al. 2005; Operario et al. 2004), different age groups (Brennan & Singh 2012; Chen et al. 2012; Demakakos et al. 2008; Fujiwara et al. 2014; Goldman et al. 2006; Ha et al. 2013; Hamilton et al. 2014; Jarrin et al. 2014; Tsakos et al. 2011), different ethnics (Cooper et al. 2010; Euteneuer et al. 2012; Ostrove et al. 2000), different clinical samples (Allison et al. 2013; Michail & Birchwood 2013; Moskowitz et al. 2013; Shanmugasegaram et al. 2013), and other different samples, such as immigrants (Leu et al. 2008; Nicklett & Burgard 2009; Sanchon-Macias et al. 2013) and pregnant women (Reitzel et al. 2007). All of these researches and evidence support that

lower SSS is correlated with several health indicators and disease hazards, such as lower self-rated health, diabetes, mortality, depressive symptoms, impaired sleep quality, higher substance use, poor healthcare, food insecurity and respiratory, cardiovascular, or oral illness. In addition, many of the findings demonstrate that SSS might be a better indicator of social status for relations between SSS and health persist after controlling of Objective Social Status (OSS) (missed the detailed reference here 2000; Demakakos et al. 2008; Ghaed & Gallo 2007; Ostrove et al. 2000; Singh-Manoux et al. 2005; Wright & Steptoe 2005). Furthermore, social comparisons with people in the immediate social setting, such as community and workplace, may exert more enormous impact on one's self-perception than more abstract comparisons with individuals in the whole country (Cundiff et al. 2013; Euteneuer et al. 2012; Ghaed & Gallo 2007).

Even though all researches and evidence indicate that SSS inevitably affects the self-rated health of individuals or groups, the evidence is lacking for the Chinese who amount to about one-fifth of the world population. This paper is then aimed to fill this knowledge gap to add further researches and evidence on whether this conclusion can be drawn to Chinese residents, and whether the influence of SSS on self-rated health is affected by other factors. In consequence, the purpose of this paper is to: a) assess the extent to which OSS and SSS explain differences in self-rated health in China; b) examine whether there are interactions in the correlations between SSS and perceived health.

2 Data and Methods

2.1 Data

Data used in this research are from the Chinese General Social Survey (CGSS) in 2010. By multi-stage stratified probability sampling design and residents of the geographic mapping sampling, CGSS 2010 samples 480 residents' communities/villages and covers all the provinces/autonomous regions/municipalities on the mainland, which is similar to the General Social Survey in the United States (adding a reference to the US survey). The 2010 data wave is the most recent one involving comprehensive questions about an individual's socioeconomic status and health status, including a total of 11,785 respondents. So CGSS 2010 is an ideal data source for our research objectives.

However, not all the cases are used in this study for only a part of the respondents are further sampled to answer the health module, and the inevitable missing data resulted in the final sample size of 3,786.

2.2 Variable definition

2.2.1 Dependent variable: ill score

self-rated health	Freq.	Percent (%)	Ill score
Very unhealthy	150	3.96	8.13
Unhealthy	539	14.24	3.43
Neutral	906	23.93	1.69

续表

self-rated health	Freq.	Percent (%)	Ill score
Healthy	1, 251	33. 04	0. 81
Very healthy	940	24. 83	0. 32
Total	3, 786	100. 00	

Table 1: Ill score assignment

Based on the various advantages of self-rated health in the literature review, ill score, which is the index conversion of self-rated health, is used as the measure of individuals' health status. self-rated health is a five-level variable coded as 1 = "very unhealthy", 2 = "unhealthy", 3 = "neutral", 4 = "healthy", and 5 = "very healthy". According to the index conversion method stated by Wagstaff et al. (1994), a continuous ill score is calculated (Table 1) where a higher ill score indicates poorer health status.

2.2.2 Key independent variable: Subjective Social Status

There are two Subjective Social Status variables. One is "Subjective Family Economic Status in local (SFES)" which is coded as 1 = "Much lower than average level"; 2 = "Lower than average level"; 3 = "Average level"; 4 = "Higher than average level"; 5 = "Much higher than average level", and the other is "Subjective Social Class (SSC)" which is coded as 10 levels with 1 = "At the bottom of the society", and 10 = "At the top of the society".

2.2.3 Control variables

Demographic variables are gender (1 = "male"; 0 = "female"), age (17-96), and region (1 = "city"; 0 = "rural area"). Age square is not considered because there is no inverted u-shaped curve relationship found in this research. Considering the obvious differences in the social welfare and security between the urban population and rural population due to urban-rural dualism in China affecting health status, the region is adopted as a control variable.

Objective Social Status variables include "education year" and "household annual income". Numerous studies have shown that education and income affect health status and both of them are important indices of social-economic status, so they are considered to be control variables. We would like to emphasize that there are two main reasons for using household annual income instead of personal income to measure income. One is that too many personal income values are missing, and the other is that the diet and lifestyle of a family would affect family members' nutrition and health status. Furthermore, in a Chinese family, once a family member is ill, other family members would take out all money to help him out, so not just rely on his wealth.

Health relative variables are "Exercise frequency" (1 = "Never"; 2 = "Several times or less a year"; 3 = "Several times a month"; 4 = "Several times a week"; 5 = "Everyday"), "Smoking frequency" (the code was the same as Exercise frequency), "Drinking frequency" (the code was the same as Exercise frequency) and "chronic disease" (1 = "yes"; 0 = "no").

Descriptive statistics for all variables, such as their means and standard deviations, are summarized in Table 2.

Type	Variable	Mean	Std. Dev.	Min/Freq.	Max/ Percent
Independent variable	Ill score	1. 562392	1. 66844	0. 3149	8. 1319
Demographic variable	Male	0. 4857369	0. 4998625	0	1
	Age	47. 1701	15. 60267	17	96
	Region	0. 5982567	0. 4903153	0	1
Objective social status variable	Education year	8. 695457	4. 590147	0	19
	Ln(household annual income)	10. 73677	2. 322799	0	16. 1181
Health relative variable	Exercise frequency	2. 311675	1. 588451	1	5
		Never		1, 994	52. 67
		Several times or less a year		367	9. 69
		Several times amonth		302	7. 98
		Several times a week		497	13. 13
		Everyday		626	16. 53
	Smoking	2. 174326	1. 789958	1	5
		Never		2, 623	69. 28
		Severaltimes or less a year		22	0. 58
		Several times a month		25	0. 66
		Several times a week		90	2. 38
		Everyday		1, 026	27. 10
	Drinking	1. 919704	1. 3595	1	5
		Never		2, 346	61. 97
		Several times or less a year		381	10. 06
		Several times a month		409	10. 80
		Several times a week		317	8. 37
		Everyday		333	8. 80
	Chronic	0. 3483888	0. 4765228	0	1
Subjective Social Status variable	Subjective Family Economic Status in local (SFES)	2. 619387	0. 771099	1	5
		Much lower than average level		292	7. 71
		Lower thanaverage level		1, 230	32. 49
		Average level		1, 905	50. 32
		Higher than average level		345	9. 11
		Much higher than average level		14	0. 37
	Subjective Social Class (SSC)	4. 048072	1. 670733	1	10
		Bottom level		350	9. 24
				2380	10. 04
		3		606	16. 01
		4		717	18. 94
		5		1, 179	31. 14
		6		363	9. 59
		7		110	2. 91
		8		57	1. 51
		9		9	0. 24
		Toplevel		15	0. 40

Table 2: Descriptive statistics of covariates (without weighting, n= 3, 786)

2.3 Statistical methods

Advanced statistical modeling using nested multiple robust regression model and interaction analysis is used to assess the relationship between SSS and health status. Robust regression is adopted to deal with the high-level heteroscedasticity in the primary regression model because the significant value of the White Test was less than 0.05. Besides, the robust regression model is weighted due to urban residents are more likely to be sampled during the design of the sampling frame.

3 Results

3.1 Descriptive analysis

Table 1 shows that over half of the respondents rated themselves as healthy (33.04%) or very healthy (24.83%), 23.93 percent of them kept neutral, 14.24 percent of them rated themselves as unhealthy, and only 3.96 percent rated themselves as very unhealthy. According to the frequency distribution of self-rated health, the maximum value of an ill score is 8.13, the minimum is 0.31, and the average value of an ill score is 1.56 (Table 2).

As seen in Table 2, 48.57% of the respondents are male, the average age of them is 47.17, their average education year is close to 8.70 years as well as 59.83% of them are urban residents. As for health relative variables, both exercise and smoking frequency show a polarization pattern. More than 50% of the respondents have never exercised, in contrast, almost 30% of them exercise several times a week or every day. There is a similar pattern in smoking frequency, with non-smokers and everyday smokers taking the percentage of 69.28% and 27.10%, respectively. Most of the respondents (61.97%) have never consumed alcohol while 8.80% of them drink every day. Nearly one-third of the respondents (34.84%) have chronic diseases. When it comes to Subjective Social Status variables, both SFES and SSC are a positively skewed distribution. Over 50% of the respondents consider their SFES as an average level while the percentages of much lower than average level and much higher than average level are 7.71% and 0.37%, respectively. For SSC, analogously, most respondents (31.14%) rate themselves in the fifth level while the percentages of respondents in the bottom level and the top-level were 9.24% and 0.04%, respectively.

3.2 The impact of control variables

Control variables include demographic variables, Objective Social Status variables, and health relative variables. Subjective Social Status variables and interaction variables are successively included in the model. Table 3 shows that all of the p-values associated with the F test are less than 0.001. Besides, the inclusion of new variables increases the adjusted R-square of the model, which indicates that the inclusion of new variables has improved the explanatory power of each model. There are only demographic variables, including gender, age, and region, in Model 1. All of them had a significant effect on the ill score. In the case of controlling other variables, men ($b=-0.289$, $p<0.001$) has lower ill score or are more healthy than women, and city residents ($b=-0.287$, $p<0.001$) have lower ill score or are more healthy than rural residents. Besides, ill score increases

with the rise of age ($b=0.032$, $p<0.001$).

With education year and household annual income controlled (the natural logarithm) in Model 2, the region variable is no longer significant. Both education year ($b=-0.043$, $p<0.001$) and household annual income ($b=-0.045$, $p<0.05$) have significantly negative relation with the ill score. It demonstrates that individuals who have received more education or own more household annual income are more healthy than those who has not.

In Model 3, four health relative variables are controlled. All health relative variables, except smoking frequencies, significantly affect the ill score. However, in this model, gender is no longer significant, either. Both exercise frequency ($b=-0.062$, $p<0.001$) and drinking frequency ($b=-0.124$, $p<0.001$) are negatively correlated with the ill score. That is to say, frequent exercise or drinking lead to high self-rated health, while responders who have chronic diseases are inclined to report poorer health or higher ill score ($b=1.480$, $p<0.001$).

3.3 The impact of subjective socioeconomic status

Subjective socioeconomic status, SFES, and SSC are included in Model 4. The significant correlation in Model 3 persists, except for household annual income, but the coefficients of age, education years, exercise frequency, drinking frequency, and chronic disease are reduced to varying degrees. It demonstrates that subjective socioeconomic status variables can explain the influence of those variables to some extent. Both SFES ($b=-0.272$, $p<0.001$) and SSC ($b=-0.081$, $p<0.001$) have significantly negative correlation with ill score. In other words, both of them are positively correlated with health status where higher subjective socioeconomic status implies a lower ill score or better self-rated health status.

3.4 The impact of interaction variables

Interaction variables are constructed to explore whether the influence of Subjective Social Status on self-rated health is affected by age, education year, exercise frequency, drinking frequency, or chronic disease. Results of these analyses appear in Models 5 to 14 and Figures 1 to 5. The interaction of Subjective Social Class (SSC) and variables above is not shown by graphing because it is similar to the interaction of Subjective Family Economic Status (SFES) and variables above. Meanwhile, SSC is divided into 10 levels making it too complicated to recognize the correlation between variables.

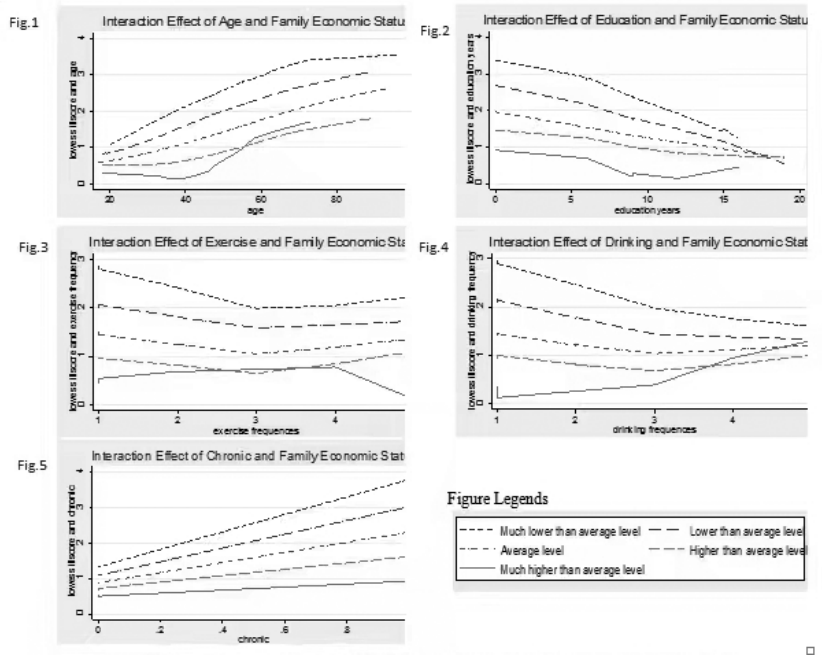
From Model 5, it is clear that the interaction of age and SFES is negatively correlated with the ill score at the 0.05 significance level ($b=-0.005$, $p<0.05$). This indicates that once SFES enhances a level, the influence of one-year-old growth on ill score will decrease by 0.05 units. In other words, aging has a more apparent effect on the health status of lower SFES groups. Figure 1 shows this trend obviously that the lines of lower SFES groups are steeper than higher ones.

Model 7 and Figure 2 suggest that lower SFES groups tend to be in poorer health than higher ones until college education, but they have received higher health returns to their educational attainment than higher ones ($b=0.025$, $p<0.01$). Exercise frequency and SFES do not have a significant interaction effect on the ill score. In Model 11, the interaction of drinking frequency and SFES is positively correlated with the ill score at the 0.001 significance level ($b=0.091$, $p<0.001$).

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Male	−0.289***	−0.224***	0.012	−0.028	−0.023	−0.027
	(0.057)	(0.059)	(0.073)	(0.071)	(0.070)	(0.070)
Age	0.032***	0.027***	0.011***	0.013***	0.030***	0.027***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.006)	(0.008)
City	−0.287***	−0.097	−0.052	−0.077	−0.074	−0.079
	(0.059)	(0.066)	(0.059)	(0.057)	(0.057)	(0.057)
Education year		−0.043***	−0.026***	−0.015*	−0.015*	−0.015*
		(0.008)	(0.007)	(0.007)	(0.007)	(0.007)
Ln(household annual income)		−0.045***	−0.022*	0.000	0.001	0.001
		(0.013)	(0.011)	(0.011)	(0.011)	(0.011)
Exercise frequency			−0.062***	−0.047**	−0.047**	−0.048**
			(0.017)	(0.016)	(0.016)	(0.016)
Smoking frequency			0.013	0.007	0.007	0.007
			(0.017)	(0.017)	(0.016)	(0.017)
Drinking frequency			−0.124***	−0.105***	−0.104***	−0.105***
			(0.022)	(0.021)	(0.021)	(0.021)
Chronic disease			1.480***	1.395***	1.393***	1.394***
			(0.073)	(0.070)	(0.070)	(0.070)
SFES				−0.272***	−0.262***	−0.012
				(0.041)	(0.041)	(0.118)
SSC				−0.081***	0.113*	−0.079***
				(0.018)	(0.053)	(0.018)
Age* SFES					−0.005*	
					(0.003)	
Age* SSC						−0.004***
						(0.001)
Education year* SFES						
Education year* SSC						
Exercises frequency* SFES						
Exercise frequency* SSC						
Drinking frequency* SFES						
Drinking frequency* SSC						
Chronic disease* SFES						
Chronic disease* SSC						
_cons	0.368***	1.327***	1.355***	2.006***	1.161***	1.295***
	(0.098)	(0.193)	(0.171)	(0.189)	(0.296)	(0.383)
N	3786	3786	3786	3786	3786	3786
Adjusted R^2	0.103	0.117	0.279	0.307	0.309	0.311

Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14
−0. 025	−0. 032	−0. 030	−0. 029	−0. 030	−0. 031	−0. 035	−0. 033
(0. 070)	(0. 070)	(0. 071)	(0. 071)	(0. 071)	(0. 071)	(0. 070)	(0. 070)
0. 013***	0. 013***	0. 013***	0. 013***	0. 013***	0. 013***	0. 013***	0. 013***
(0. 002)	(0. 002)	(0. 002)	(0. 002)	(0. 002)	(0. 002)	(0. 002)	(0. 002)
−0. 081	−0. 075	−0. 082	−0. 079	−0. 075	−0. 076	−0. 070	−0. 067
(0. 057)	(0. 057)	(0. 058)	(0. 057)	(0. 057)	(0. 057)	(0. 057)	(0. 057)
−0. 081**	−0. 065**	−0. 015*	−0. 015*	−0. 014*	−0. 015*	−0. 015*	−0. 015*
(0. 026)	(0. 020)	(0. 007)	(0. 007)	(0. 007)	(0. 007)	(0. 007)	(0. 007)
0. 001	0. 001	0. 000	0. 000	−0. 000	−0. 000	0. 001	0. 001
(0. 011)	(0. 011)	(0. 011)	(0. 011)	(0. 011)	(0. 011)	(0. 011)	(0. 011)
−0. 047**	−0. 047**	−0. 157*	−0. 112*	−0. 048**	−0. 048**	−0. 046**	−0. 046**
(0. 016)	(0. 016)	(0. 074)	(0. 051)	(0. 016)	(0. 016)	(0. 016)	(0. 016)
0. 009	0. 010	0. 007	0. 008	0. 007	0. 008	0. 009	0. 010
(0. 016)	(0. 016)	(0. 017)	(0. 017)	(0. 017)	(0. 017)	(0. 016)	(0. 016)
−0. 106***	−0. 105***	−0. 106***	−0. 106***	−0. 349***	−0. 208***	−0. 104***	−0. 104***
(0. 021)	(0. 021)	(0. 021)	(0. 021)	(0. 065)	(0. 053)	(0. 021)	(0. 021)
1. 391***	1. 388***	1. 392***	1. 392***	1. 390***	1. 393***	2. 722***	2. 175***
(0. 070)	(0. 070)	(0. 070)	(0. 070)	(0. 070)	(0. 070)	(0. 252)	(0. 196)
−0. 483***	−0. 267***	−0. 364***	−0. 269***	−0. 454***	−0. 272***	−0. 080*	−0. 260***
(0. 091)	(0. 041)	(0. 069)	(0. 041)	(0. 070)	(0. 041)	(0. 036)	(0. 041)
−0. 078***	−0. 180***	−0. 080***	−0. 116***	−0. 078***	−0. 128***	−0. 076***	−0. 011
(0. 018)	(0. 045)	(0. 018)	(0. 034)	(0. 018)	(0. 032)	(0. 018)	(0. 017)
0. 025**							
(0. 009)							
	0. 012**						
	(0. 004)						
		0. 041					
		(0. 025)					
			0. 016				
			(0. 011)				
				0. 091***			
				(0. 022)			
					0. 025*		
					(0. 011)		
						−0. 520***	
						(0. 090)	
							−0. 199***
							(0. 042)
2. 531***	2. 378***	2. 240***	2. 138***	2. 482***	2. 200***	1. 428***	1. 645***
(0. 298)	(0. 248)	(0. 251)	(0. 222)	(0. 249)	(0. 222)	(0. 171)	(0. 174)
3786	3786	3786	3786	3786	3786	3786	3786
0. 310	0. 310	0. 308	0. 308	0. 311	0. 308	0. 320	0. 316

Table 3: Robust regression results of control variables, SSS and interaction variables



Figures: The interaction of Subjective Family Economic Status(SFES)and variables

According to Figure 4, it is obvious that the ill score of people whose SFES are much higher than average level augment with the frequency of drink. The ill score of other people, nevertheless, has a slight fall until they drink several times a month. That is to say, drinking several times a month is good for the health of most people apart from people whose SFES are much higher than average level.

Model 13 and Figure 5 demonstrate that there exists an interaction between chronic disease and SFES, which has a significant negative correlation with the ill score at the 0.001 significance level ($b=-0.520$, $p<0.001$). Once they have a chronic disease, the health of lower SFES groups would suffer more deterioration than higher ones.

4 Findings and Discussion

Drawing on nationally representative data from the Chinese General Social Survey 2010, this research examines the correlation between Subjective Social Status and self-rated health in China using an advanced statistical nested multiple robust regression model and interaction analysis. The measurement of health status references the methods of Wagstaff et al. (1994) who put forward to calculate the continuous ill score by standard logarithmic normal distribution index conversion of self-rated health. It is a new attempt of this method applied to the study of the relationship between Subjective Social Status (SSS) and health. In addition, this paper analyzes the impact of SSS on health not only on the whole but also the differences between age, education year, exercise frequency, drinking frequency, and chronic disease, which will provide important empirical research resources for the national health-related policies in China. Indicators of the F test, multi-collinearity test, and D. W test suggest that the estimation of these models is robust and effective. Through the scientific quantitative analysis, the results of the empirical analysis can demonstrate the effects of Subjective Social Status on Chinese

residents' health status. The findings can be summarized as follows.

First, lower Subjective Social Status (SSS), which is measured by "Subjective Family Economic Status in local (SFES)" and "Subjective Social Class (SSC)", is associated with poor health status measured by ill score. Furthermore, the results show that subjective socioeconomic status variables reduce the coefficients of some variables to varying degrees demonstrating that Subjective Social Status is a better or more comprehensive predictor of health status. The research confirms the conclusion of Cundiff et al. (2013) that SSS might be a better indicator of social status for relations between SSS and health persist after controlling for Objective Social Status (OSS) applied to China. Second, age has a more apparent effect on the health status of lower SSS groups. Third, lower SSS groups have received higher health returns to their educational attainment than higher ones though they tend to be in poorer health than higher ones. Fourth, once they have a chronic disease, the health of lower SFES groups will suffer more deterioration than higher ones.

As evidence-based decision-making or rising social differentiation in Chinese society, social stratification theory is significantly applicable and has important theoretical and practical value. The results of this study are also worth thinking further that in the process of promoting the national health level, the government should pay more attention to social stratification, in particular, the role of Subjective Social Status, and guarantee the health of the residents from different social classes through various policy. In addition, data from a cross-sectional survey in China might not represent the entire socioeconomic spectrum in other countries, and future research should extend prospective research on SSS and health considering dynamic aspects of SSS, and this research is part of the endeavor to add evidence from China.

References

Adler, N. E., Epel, E. S., Castellazzo, G. & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy white women. *Health Psychology*, 19(6), 586.

Adler, N. E. & Ostrove, J. M. (1999). Socioeconomic status and health: What we know and what we don't. *Annals of the New York Academy of Science*s, 896(1), 3-15.

Allison, G., Harrop, C. & Ellett, L. (2013). Perception of peer group rank of individuals with early psychosis. *British Journal of Clinical Psychology*, 52(1), 1-11.

Brennan, D. S. & Singh, K. A. (2012). Compliance with dietary guidelines in grocery purchasing among older adults by chewing ability and socio-economic status. *Gerodontology*, 29(4), 265-271.

Chen, B., Covinsky, K. E., Cenzer, I. S., Adler, N. & Williams, B. A. (2012). Subjective social status and functional decline in older adults. *Journal of General Internal Medicine*, 27(6), 693-699.

Cooper, D. C., Milic, M. S., Mills, P. J., Bardwell, W. A., Ziegler, M. G. & Dimsdale, J. E. (2010). Endothelial function: The impact of objective and subjective socioeconomic status on flow-mediated dilation. *Annals of Behavioral Medicine*, 39(3), 222-231.

Cundiff, J. M., Smith, T. W., Uchino, B. N. & Berg, C. A. (2013). Subjective social status: Construct validity and associations with psychosocial vulnerability and self-rated health. *International Journal of Behavioral Medicine*, 20(1), 148-158.

Demakakos, P., Nazroo, J., Breeze, E. & Marmot, M. (2008). Socioeconomic status and health: The role of subjective social status. *Social Science & Medicine*, 67(2), 330-340.

Euteneuer, F., Mills, P. J., Rief, W., Ziegler, M. G. & Dimsdale, J. E. (2012). Subjective social status predicts invivo

responsiveness of β-adrenergic receptors. *Health Psychology*, 31(4), 525.

Fujiwara, T., Kondo, K., Shirai, K., Suzuki, K. & Kawachi, I. (2014). Associations of childhood socioeconomic status and adulthood height with functional limitations among Japanese older people: Results from the JAGES 2010 project. *Journals of Gerontology Series: Biomedical Sciences and Medical Sciences*, 69(7), 852-859.

Ghaed, S. G. & Gallo, L. C. (2007). Subjective social status, objective socioeconomic status, and cardiovascular risk in women. *Health Psychology*, 26(6), 668.

Goldman, N., Cornman, J. C. & CHANG Ming-Cheng. (2006). Measuring subjective social status: A case study of older Taiwanese. *Journal of Cross-cultural Gerontology*, 21(1), 71-89.

Guarnizo-Herreño, C. C., Watt, R. G., Pikhart, H., Sheiham, A. & Tsakos, G. (2013). Socioeconomic inequalities in oral health in different European welfare state regimes. *Jepidemiol Community Health*, 67(9), 728-735.

Ha, Y., Choi, E., Seo, Y. & Kim, T. G. (2013). Relationships among subjective social status, weight perception, weight control behaviors, and weight status in adolescents: Findings from the 2009 Korean youth risk behaviors web-based survey. *Journal of School Health*, 83(4), 273-280.

Hamilton, H. A., van der Maas, M., Boak, A. & Mann, R. E. (2014). Subjective social status, immigrant generation, and cannabis and alcohol use among adolescents. *Journal of Youth and Adolescence*, 43(7), 1163-1175.

HU, L. L. (2005). An empirical study on the income-related health inequality in China. *Chin. J. Health Policy*, 12, 58-62.

Jarrin, D. C., McGrath, J. J. & Quon, E. C. (2014). Objective and subjective socioeconomic gradients exist for sleep in children and adolescents. *Health Psychology*, 33(3), 301.

Kopp, M. S., Skrabski, Á., Kawachi, I. & Adler, N. E. (2005). Low socioeconomic status of the opposite sex is a risk for middle aged mortality. *Journal of Epidemiology & Community Health*, 59(8), 675-678.

Leu, J., Yen, I. H., Gansky, S. A., Walton, E., Adler, N. E. & Takeuchi, D. T. (2008). The association between subjective social status and mental health among Asian immigrants: Investigating the influence of ageon immigration. *Social Science & Medicine*, 66(5), 1152-1164.

LIU Guangbin. (2008). An empirical study on income related health inequalities in China. *Chinese Journal of Health Policy*, 3, 58-62.

Michail, M. & Birchwood, M. (2013). Social anxiety disorder and shame cognitions in psychosis. *Psychological Medicine*, 43 (1), 133-142.

Moskowitz, D., Lyles, C. R., Karter, A. J., Adler, N., Moffet, H. H. & Schillinger, D. (2013). Patient reported interpersonal processes of care and perceived social position: The diabetes study of northern California (DISTANCE). *Patient Education and Counseling*, 90(3), 392-398.

Nicklett, E. J. & Burgard, S. A. (2009). Downward social mobility and major depressive episodes among Latino and Asian-American immigrants to the United States. *American Journal of Epidemiology*, 170(6), 793-801.

Operario, D., Adler, N. E. & Williams, D. R. (2004). Subjective social status: Reliability and predictive utility for global health. *Psychology & Health*, 19(2), 237-246.

Ostrove, J. M., Adler, N. E., Kuppermann, M. & Washington, A. E. (2000). Objective and subjective assessments of socioeconomic status and their relationship to self-rated health in an ethnically diverse sample of pregnant women. *Health Psychology*, 19(6), 613.

Reitzel, L. R., Vidrine, J. I., LI Yisheng, Mullen, P. D., Velasquez, M. M., Cinciripini, P. M. & Wetter, D. W. (2007). The influence of subjective social status on vulnerability to postpartum smoking among young pregnant women. *American Journal of Public Health*, 97(8), 1476-1482.

Saban, K. L., Hoppensteadt, D., Bryant, F. B. & DeVon, H. A. (2014). Social determinants and heat shock protein-70 among African American and non-Hispanic white women with atherosclerosis: A pilot study. *Biological Research for Nursing*,

16(3), 258-265.

Sanchón-Macias, M., Prieto-Salceda, D., Bover-Bover, A. & Gastaldo, D. (2013). Relationship between subjective social status and perceived health among Latin American immigrant women. *Revista Latino-Americana de Enfermagem*, 21, 1353-1359.

Shanmugasegaram, S., Oh, P., Reid, R. D., McCumber, T. & Grace, S. L. (2013). Cardiac rehabilitation barriers by rurality and socioeconomic status: A cross-sectional study. *International Journal for Equity in Health*, 12(1), 1-8.

Singh-Manoux, A., Marmot, M. G. & Adler, N. E. (2005). Does subjective social status predict health and change in health status better than objective status?. *Psychosomatic Medicine*, 67(6), 855-861.

Tsakos, G., Demakakos, P., Breeze, E. & Watt, R. G. (2011). Social gradients in oral health in older adults: Findings from the English longitudinal survey of aging. *American Journal of Public Health*, 101(10), 1892-1899.

Tsui, C. K. Y., Shanmugasegaram, S., Jamnik, V., Wu, G. & Grace, S. L. (2012). Variation in patient perceptions of healthcare provider endorsement of cardiac rehabilitation. *Journal of Cardiopulmonary Rehabilitation and Prevention*, 32(4), 192-197.

Wagstaff, A. & Van Doorslaer, E. (1994). Measuring inequalities in health in the presence of multiple-category morbidity indicators. *Health Economics*, 3(4), 281-291.

Wright, C. E. & Steptoe, A. (2005). Subjective socioeconomic position, gender and cortisol responses to waking in an elderly population. *Psychoneuroendocrinology*, 30(6), 582-590.

ZHOU Jing. (2003). Income-related health inequality in China and its decomposition: An empirical analysis based on CGSS2008 data. *Journal of Guizhou University of Finance and Economics*, 5(3), 52-57.

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