

Perception of economic inequality and its association with depressive symptoms and suicide ideation among young adults in South Korea

Minjae Choi, Joshua Kirabo Sempungu, Joon Hee Han, Mi-Hyui Kim, Eun Hae Lee and Yo Han Lee

Background

Inequality can increase the risk of poor mental health. Objective measures explain the effects of socioeconomic disparities, but individuals may perceive inequality differently.

Aim

We aimed to investigate the association between the perception of economic inequality and depressive symptoms and suicide ideation.

Method

We used data from the Survey of Korean Youths' Lives, a nationally representative cross-sectional study of 14 918 young adults aged 19–34 years in South Korea. Multivariate logistic regression analysis was conducted to assess the association between perceived economic inequalities (i.e. income inequality and inequality of intergenerational mobility) and depressive symptoms/suicide ideation. Additionally, subgroup analyses were performed based on objective and subjective income levels.

Results

Young adults with a high perception of economic inequality were more likely to experience depressive symptoms and suicide ideation. For example, those with a high perception of intergenerational mobility inequality had higher odds of depressive symptoms (odds ratio 1.82, 95% CI 1.49, 2.23) and suicide ideation (odds ratio 1.87, 95% CI 1.35, 2.60). Statistical

evidence showed no interaction between the perception of inequalities and income, suggesting that a high perception of inequalities is associated with depressive symptoms and suicidal ideation, regardless of income. Nevertheless, the strongest association with poor mental health was observed in those with high perceived inequality and low income.

Conclusions

This study shows that the way young adults perceive economic inequality could affect their depressive symptoms and suicidal ideation. The findings highlight the importance of reducing these perceptions and addressing economic inequalities to improve mental health.

Keywords

Perceived economic inequality; socioeconomic status; depressive symptoms; suicide ideation.

Copyright and usage

© The Author(s), 2025. Published by Cambridge University Press on behalf of Royal College of Psychiatrists. This is an Open Access article, distributed under the terms of the Creative Commons Attribution-NonCommercial licence (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original article is properly cited. The written permission of Cambridge University Press must be obtained prior to any commercial use.

Economic inequality – the unequal distribution of resources and opportunities in different social domains such as education, employment and income within societies – has been one of the most challenging issues of recent decades.^{1,2} Inequality threatens social and economic development and adversely affects the individual's sense of fulfilment and self-worth.³ Moreover, this might be associated with an increased risk of poor mental health.^{4–6}

Several studies have focused on objective economic inequality (e.g. Gini coefficient) in understanding how economic inequality could impact mental health.^{4,5} Previous systematic reviews and meta-analyses have shown that economic inequality negatively affects mental health.^{4,5} Although objective measures of inequality can explain how different socioeconomic positions affect population mental health, people may not always perceive the same level of inequality in society.^{1,7} Perception of economic inequality refers to how individuals perceive the distribution of resources within society through everyday interactions and social comparisons.⁸ Previous studies reported that the perception of economic inequality was associated with well-being^{9,10} and mental health.^{11–13} Understanding the psychological impact of economic inequality should also consider its perceived component.⁷

Young adulthood is a period when individuals face the challenges of transitioning into adulthood within a society.¹⁴

During this phase, individuals may experience social and environmental changes through socialisation and social interaction.^{15,16} Through these processes, the psychological impact of economic inequality may be stronger for young adults;¹⁷ they may be more influenced or motivated in their beliefs about future mobility by social contexts, such as income inequality and intergenerational mobility, through everyday interactions and social comparisons.^{8,11,18,19} Furthermore, young adults may be at a heightened risk for adverse mental health outcomes when they face multiple new challenges, including increased financial responsibility and distress, particularly in economically challenging environments.²⁰ This highlights the mental health consequences of economic factors, making the case for examining economic pressures and inequalities among young adults even more compelling.

However, few studies have investigated the association between perceived economic inequality and mental health among young adults and demonstrated mixed findings.^{11,12} One previous study showed that young adults with higher perceptions of economic inequality are more likely to experience poor mental health, such as anxiety and depression,¹² while another found no statistically direct association.¹¹ Thus, further investigation is needed to identify the association of different economic inequality perceptions

(e.g. inequality of intergenerational mobility) with various public mental health indicators among young adults (e.g. suicide ideation). Moreover, few studies have provided evidence on whether the association between perceived economic inequality and mental health varies by socioeconomic status (SES).⁹ One previous study, conducted in a specific region in China, showed that neither objective nor subjective SES intensified or mitigated the association between perceived inequality and well-being among college students.⁹ Further investigation into mental health is needed using nationally representative samples among young adults.

In South Korea, with a population of about 52 million people, objective economic inequality has increased in the last 30 years, with a gradual decline in the proportion of total income for the low- and middle-income classes but increases for the high-income class.²¹ Moreover, a term called ‘spoon class’ has become popular among young people, suggesting that parental SES determines their children’s SES. In South Korea, the spoon class metaphor could refer to public dissatisfaction with stagnant upward social mobility among young people.²² In the meantime, South Korea recently showed the highest prevalence of depression and suicide mortality rates among Organisation for Economic Co-operation and Development (OECD) countries in 2020.²³ This suggests that South Korea provides a unique context in which to investigate the association between perceived economic inequality and mental health among young adults.

Therefore, we aimed to (a) investigate the association between perceived economic inequality and mental health and (b) examine whether this association differs by individual objective and subjective income level among young adults aged 19–34 years in South Korea.

Method

Data and study sample

We used data from the Survey of Korean Youths’ Lives, a nationally representative, cross-sectional study of young adults aged 19–34 years in South Korea. The Survey of Korean Youths’ Lives was conducted in 2022 by the Office for the Prime Minister’s Secretariat and the Korea Institute for Health and Social Affairs, to understand and improve the well-being of young adults.²⁴ The survey used a stratified, two-stage sampling design. The first stage involved selecting administrative districts (si-gun-gu) and the second involved selecting households and individuals aged 19–34 years to ensure that the sample was representative of young adults aged 19–34 years in South Korea.²⁴ In this survey, a wide range of information was collected about their life conditions, including perceived economic inequality, SES and health-related behaviour and status. Further information on this survey is available elsewhere.²⁴ We obtained the data provided by Statistics Korea through the MicroData Integrated Service website in October 2023 (<https://mdis.kostat.go.kr> [in Korean]). Of the 14 966 young adults who participated in the survey, we excluded those with missing information ($n = 48$), resulting in a final sample of 14 918 participants.

Depressive symptoms and suicide ideation

Outcome variables were depressive symptoms and suicide ideation. Depressive symptom was measured with Patient Health Questionnaire-9 (PHQ-9), asking participants to report their depressive symptoms over the past 2 weeks using 9 items.²⁵ Each item was rated on a 4-point Likert scale from 0 to 3, where 0 represents ‘none’ and three represents ‘almost every day’. These scores were summed for the overall PHQ-9 score, which ranges

from 0 to 27. Respondents with a total PHQ-9 score >10 were considered to have depressive symptoms.²⁶ Suicide ideation was measured using a single question, as used by previous studies:^{27–30} ‘Have you ever seriously considered dying by suicide over the past year?’ Respondents who reported ‘Yes’ to the question were considered as having experienced suicide ideation.

Perceived income inequality and perceived inequality of intergenerational mobility

Perception of economic inequality covers various aspects such as income, wealth, economic opportunities and social mobility.⁸ Our main explanatory variables of perceived economic inequalities were perceived income inequality and perceived inequality of intergenerational mobility. Perceived income inequality was assessed by a single question: ‘How would you assess the current level of income inequality in South Korea?’ on an 11-point scale, where 0 indicates no inequality and 10 indicates very severe inequality, similar to previous studies.^{10,11} Perceived inequality of intergenerational mobility was measured by a single question: ‘To what extent do you think parental income influences their children’s income?’ on an 11-point scale, where 0 represents no influence and 10 represents complete influence. We transformed the answers (perceived income inequality: mean 6.9, median 7.0; perceived inequality of intergenerational mobility: mean 7.1, median 7.0) into dichotomous variables, classifying them as either high or low inequality based on the sample median (value 7.0), a common dichotomisation approach.³¹

Covariates

To account for previously identified covariates of depressive symptoms and suicide ideation in the multivariate analysis, demographic, SES and health-related variables were included as covariates based on previous studies.^{27–29,32–37} For SES covariates, objective income, subjective income, education level and employment status were included.^{28,29,32,36,37} Objective income was assessed by asking participants to report their actual annual income (median 19 090 000 KRW; mean 19 234 262 KRW). We categorised the reported income into binary groups (high or low) based on the median value.³¹ Subjective income was assessed by asking respondents to evaluate their perceived income, which was classified as high, high-middle, middle, low-middle or low. We then transformed the responses (mean 3.24; median 3.0) into dichotomous variables, categorising them as either high subjective income (high, high-middle and middle) or low subjective income (low and low-middle) based on the median value.³¹ Education level was categorised based on the current level of education (elementary school, middle school, high school, college, university and graduate school), and we grouped this into ‘high school or below’ and ‘college or higher’ for this study.^{28,29} Employment status was grouped into three categories: employed, unemployed and economically inactive. Other demographic covariates included sex (male and female), age group (19–29 and 30–34 years), marital status (single and married) and household size (1, 2–3 and 4+ persons); health-related covariates included subjective health status (very good/good and moderate to very poor), current smoking (yes and no) and heavy drinking (yes and no).^{27,29,34,35}

Statistical analysis

First, a descriptive analysis of the study participants was conducted using chi-square tests. We then calculated the prevalence of depressive symptoms and suicide ideation by category in each explanatory variable and covariate, and used Rao–Scott chi-square tests to examine bivariate associations. Third, to assess the

association of perceived economic inequalities with depressive symptoms and suicide ideation, we conducted a multivariate logistic regression analysis to estimate the odds ratio and its 95% CI. Specifically, we included perceived income inequality and perceived inequality of intergenerational mobility in the same model and analysed depressive symptoms and suicidal ideation separately. The analysis was adjusted for all confounding variables, including gender, age group, education, employment status, subjective income, objective income, marital status, number of household members, region, subjective health, current smoking and heavy drinking, because there was no statistical evidence of multicollinearity (data not shown). Additionally, we conducted the same analyses using continuous variables before dichotomisation, including perceived income inequality, perceived inequality of intergenerational mobility, quintile objective income and subjective income as a sensitivity analysis. Last, subgroup analysis of the association of perceived economic inequalities with depressive symptoms and suicide ideation was conducted by objective and subjective income (high or low). We also conducted an interaction test by including interaction terms in the multivariate models. In all analyses, except for chi-square tests of the general characteristics of the sample, we applied sample weights provided to all study participants to represent the young adult population aged 19–34 years in South Korea. All analyses were performed using SAS 9.4 software for Windows (SAS Institute, Cary, NC, USA; see <https://www.sas.com>). We considered statistical significance at two-sided *P*-values <0.05. Because this study used publicly available secondary data, ethical approval for the research was waived by the Institutional Review Board (IRB) of Korea University (approval no. KUIRB-2024-0298-01), and participant consent was not required.

Results

Table 1 shows the general characteristics of the study participants aged 19–34 years. Among 14 918 young adults, 862 (5.8%) and 355 (2.4%) individuals had depressive symptoms and suicide ideation, respectively. A different distribution of categories was observed for each variable, except for objective income. Table 2 presents the weighted prevalence of depressive symptoms and suicide ideation for each exposure variable and covariate. The weighted prevalence of depressive symptoms and suicide ideation was about two times higher in young adults who perceived economic inequalities, including both high inequality in income and intergenerational mobility. For example, 9.0% (95% CI 7.9, 10.0) of those perceiving high income inequality reported depressive symptoms, compared with 4.5% (95% CI 3.9, 5.0) of those perceiving low inequality. Similarly, 3.6% (95% CI 3.0, 4.2) of those perceiving high intergenerational mobility inequality reported suicide ideation, compared with 1.4% (95% CI 1.1, 1.7) for those perceiving low inequality. Regarding income level, young adults with low subjective income had higher rates of depressive symptoms and suicide ideation than those with high subjective income (e.g. suicide ideation: 1.7 v. 4.0%, *P* < 0.001). However, no significant difference was found for depressive symptoms based on objective income (i.e. 6.4 v. 5.8%, *P* = 0.22).

Table 3 shows the multivariate associations between perceived economic inequalities and depressive symptoms/suicide ideation. After accounting for all covariates (gender, age group, education, employment status, subjective income, objective income, marital status, number of household members, region, subjective health, current smoking and heavy drinking), young adults perceiving high income inequality were more likely to have both depressive symptoms (odds ratio 1.40, 95% CI 1.14, 1.71) and suicide ideation

Table 1 General characteristics of the study sample

Parameters	<i>n</i>	%	<i>P</i> -value ^a
Perceived income inequality			
Low inequality	9589	64.3	<0.001
High inequality	5329	35.7	
Perceived inequality of intergenerational mobility			
Low inequality	8469	56.8	<0.001
High inequality	6449	43.2	
Subjective income			
Low	4719	31.6	<0.001
High	10 199	68.4	
Objective income			
Low	7459	50.0	1.0
High	7459	50.0	
Gender			
Male	7147	47.9	<0.001
Female	7771	52.1	
Age group (years)			
19–29	11 701	78.4	<0.001
30–34	3217	21.6	
Education			
Lower than high school	2076	13.9	<0.001
College or above	12 842	86.1	
Employment status			
Employed/self-employed	9624	64.5	<0.001
Unemployed	498	3.3	
Economically inactive	4796	32.2	
Marital status			
Married	1576	10.6	<0.001
Single	13 342	89.4	
Number of household members			
1	5343	35.8	<0.001
2–3	6201	41.6	
4+	3374	22.6	
Region			
Capital and near-capital areas	4919	33.0	<0.001
Other areas	9999	67.0	
Subjective health			
Good	8247	55.3	<0.001
Poor or moderate	6671	44.7	
Current smoking			
No	12 055	80.8	<0.001
Yes	2863	19.2	
Heavy drinking			
No	14 776	99.0	<0.001
Yes	142	1.0	
Depressive symptoms			
No	14 056	94.2	<0.001
Yes	862	5.8	
Suicide ideation			
No	14 563	97.6	<0.001
Yes	355	2.4	
Total	14 918	100.0	

a. *P*-value represents the difference in the distribution of categories for each variable.

(odds ratio 1.62, 95% CI 1.18, 2.21) compared with those perceiving low income inequality, respectively. Similarly, high perceived inequality in intergenerational mobility was associated with higher odds of depressive symptoms (odds ratio 1.82, 95% CI 1.49, 2.23) and suicide ideation (odds ratio 1.87, 95% CI 1.35, 2.60). Associations with other covariates, such as low SES and poor health behaviour, were in line with expected patterns. In a sensitivity analysis, similar results were observed using continuous variables (perceived income inequality, intergenerational mobility inequality, quintile objective income and subjective income) (see Supplementary Material 1).

Figure 1 shows the subgroup analysis of multivariate associations between perceived economic inequalities and

Table 2 Weighted prevalence (95% CI) of depression symptoms and suicide ideation by perceived economic inequality

Parameters	Depressive symptoms			Suicide ideation		
	<i>n</i>	Weighted prevalence (95% CI)	<i>P</i> -value	<i>n</i>	Weighted prevalence (95% CI)	<i>P</i> -value
Perceived income inequality						
Low inequality	419	4.5 (3.9,5.0)	<0.001	159	1.6 (1.3,1.9)	<0.001
High inequality	443	9.0 (7.9,10.0)		196	3.8 (3.1,4.4)	
Perceived inequality of intergenerational mobility						
Low inequality	342	3.9 (3.4,4.4)	<0.001	131	1.4 (1.1,1.7)	<0.001
High inequality	520	8.9 (7.9,9.8)		224	3.6 (3.0,4.2)	
Subjective income						
High	424	4.5 (4.0,5.0)	<0.001	162	1.7 (1.4,2.0)	<0.001
Low	438	9.7 (8.6,10.8)		193	4.0 (3.2,4.7)	
Objective income						
High	475	6.4 (5.7,7.1)	0.22	165	2.1 (1.7,2.5)	0.033
Low	387	5.8 (5.1,6.5)		190	2.8 (2.3,3.3)	
Gender						
Male	331	4.9 (4.3,5.5)	<0.001	124	1.8 (1.4,2.2)	<0.001
Female	531	7.5 (6.7,8.3)		231	3.1 (2.6,3.6)	
Age group (years)						
19–29	654	5.9 (5.4,6.5)	0.23	272	2.4 (2.0,2.8)	0.99
30–34	208	6.6 (5.6,7.7)		83	2.4 (1.8,3.0)	
Education						
Lower than high school	154	8.0 (6.5,9.5)	0.003	72	3.2 (2.3,4.1)	0.034
College or above	708	5.8 (5.3,6.3)		283	2.3 (1.9,2.6)	
Employment status						
Employed/self-employed	606	6.4 (5.7,7.0)	0.047	238	2.3 (1.9,2.6)	0.005
Unemployed	39	8.3 (5.2,11.5)		22	5.3 (2.6,8.0)	
Economic inactive	217	5.3 (4.4,6.2)		95	2.3 (1.7,3.0)	
Marital status						
Married	94	6.3 (4.9,7.8)	0.78	30	1.7 (1.0,2.4)	0.064
Single	768	6.1 (5.6,6.6)		325	2.6 (2.2,2.9)	
Number of household members						
1	348	7.3 (6.4,8.2)	0.028	145	2.9 (2.4,3.5)	0.079
2–3	332	6.0 (5.2,6.8)		133	2.0 (1.6,2.5)	
4+	182	5.5 (4.5,6.4)		77	2.5 (1.9,3.2)	
Region						
Capital and near-capital areas	375	7.4 (6.6,8.3)	<0.001	140	2.8 (2.3,3.4)	0.002
Other areas	487	4.7 (4.2,5.2)		215	1.9 (1.6,2.2)	
Subjective health						
Good	152	2.3 (1.8,2.7)	<0.001	66	0.9 (0.6,1.2)	<0.001
Poor or moderate	710	10.8 (9.8,11.7)		289	4.2 (3.6,4.8)	
Current smoking						
No	645	5.8 (5.2,6.3)	0.003	250	2.2 (1.8,2.5)	0.003
Yes	217	7.6 (6.4,8.9)		105	3.4 (2.5,4.2)	
Heavy drinking						
No	839	6.0 (5.5,6.5)	<0.001	341	2.4 (2.0,2.7)	0.003
Yes	23	16.4 (8.4,24.4)		14	6.2 (2.2,10.2)	

depressive symptoms/suicide ideation by objective and subjective income. Although no statistical evidence of an interaction between perceived economic inequalities and income was found, associations were consistently observed between high perceived inequalities and depressive symptoms/suicide ideation, particularly among young adults with low objective or subjective income. The strongest associations were observed for those with high perceived intergenerational mobility inequality or low subjective income. For example, the highest odds ratio for depressive symptoms (odds ratio 3.26, 95% CI 2.50, 4.25) and suicide ideation (odds ratio 3.22, 95% CI 2.11, 4.93) was found in young adults with high perceived intergenerational mobility inequality and low subjective income (see Supplementary Material 2).

Discussion

Main findings

Our main findings showed that young adults who had a high perception of economic inequalities were more likely to have

depressive symptoms and suicide ideation. Given that there was no statistical evidence of an interaction between perceived economic inequalities and income, individuals with a high perception of inequalities showed more depressive symptoms and suicidal ideation, regardless of income level. Nevertheless, young adults with low income and a high perception of economic inequalities showed the strongest association with depressive symptoms and suicide ideation, particularly when they perceived high inequality in intergenerational mobility and had low subjective income levels.

Interpretations of findings

Our findings showed that high perceived economic inequalities were associated with depressive symptoms and suicide ideation among young adults, even after adjusting for covariates and various SES indicators. This is consistent with previous findings.^{12,13} Economic inequality may influence mental health through psychosocial mechanisms, such as status competition and social distance.^{1,38} Previous studies reported that perceived economic inequality was associated with lower social cohesion and

Table 3 Multivariate association between perceived economic inequalities and mental health

Parameters	Depressive symptoms		Suicide ideation	
	Odds ratio (95% CI)	P-value	Odds ratio (95% CI)	P-value
Perceived income inequality				
Low inequality	Reference		Reference	
High inequality	1.40 (1.14,1.71)	0.001	1.62 (1.18,2.21)	0.003
Perceived inequality of intergenerational mobility				
Low inequality	Reference		Reference	
High inequality	1.82 (1.49,2.23)	<0.001	1.87 (1.35,2.60)	<0.001
Subjective income				
High	Reference		Reference	
Low	1.82 (1.51,2.20)	<0.001	1.83 (1.38,2.43)	<0.001
Objective income				
High	Reference		Reference	
Low	1.03 (0.82,1.30)	0.78	1.51(1.10,2.07)	0.010
Gender				
Male	Reference		Reference	
Female	1.59 (1.29,1.97)	<0.001	2.02 (1.42,2.87)	<0.001
Age group (years)				
19–29	Reference		Reference	
30–34	0.91 (0.72,1.16)	0.44	1.09 (0.77,1.56)	0.620
Education				
Lower than high school	Reference		Reference	
College or above	1.10 (0.86,1.40)	0.44	1.15 (0.81,1.62)	0.440
Employment status				
Employed/self-employed	Reference		Reference	
Unemployed	1.28 (0.81,2.01)	0.23	1.94 (1.11,3.41)	0.018
Economic inactive	0.95 (0.73,1.22)	0.25	0.98 (0.68,1.42)	0.100
Marital status				
Married	Reference		Reference	
Single	1.05 (0.76,1.46)	0.76	1.72 (1.04,2.86)	0.035
Number of household members				
1	Reference		Reference	
2–3	0.89 (0.72,1.09)	0.98	0.79 (0.58,1.08)	0.200
4+	0.79 (0.61,1.01)	0.12	0.90 (0.63,1.29)	0.920
Region				
Capital and near-capital areas	Reference		Reference	
Other areas	0.65 (0.55,0.78)	<0.001	0.75 (0.57,0.97)	0.038
Subjective health				
Good	Reference		Reference	
Poor or moderate	4.34 (3.43,5.48)	<0.001	3.62 (2.56,5.13)	<0.001
Current smoking				
No	Reference		Reference	
Yes	1.54 (1.20,1.98)	0.001	2.04 (1.38,3.02)	<0.001
Heavy drinking				
No	Reference		Reference	
Yes	2.17 (1.17,4.04)	0.015	1.88 (0.92,3.84)	0.082

interconnectedness, proxies for social distance, suggesting that perceived economic inequality increases social distance due to reduced cooperation.¹ Similarly, a previous Korean study found that social trust mediated the association between perceived income inequality and depressive symptoms.¹¹ Additionally, as a proxy for status competition, individuals with a high perception of economic inequalities may have a stronger desire for power and greater sensitivity to threats from others due to heightened concerns about their SES.¹ Thus, young adults, particularly in a competitive social environment, might put in extra effort to increase their competitiveness. Consequently, a high perception of economic inequality may increase status anxiety and lead to poor mental health among adults¹³ through heightened social distance and status competition.¹ This indicates a stronger association between the perception of economic inequality and mental health, underscoring the importance of the perception. However, further investigation is needed to better understand the underlying mechanisms for this association.

Our findings showed that there was no interaction effect between the perception of economic inequalities and income level. Similar to a previous study,⁹ individuals with a high perception of

economic inequalities tended to have more symptoms of depressive symptoms and suicide ideation, irrespective of their income level, suggesting that the perception of inequalities affects mental health to a greater extent. Nevertheless, our findings indicate that young adults with a high perceived economic inequality and both low objective and subjective income showed the greatest risk of depressive symptoms and suicidal ideation. In particular, the inequality perception of intergenerational mobility was more strongly associated with these outcomes than perceptions of income inequality. Furthermore, those with low subjective income and perceived higher economic inequality were more likely to experience poor mental health than those with low objective income. Many young adults in South Korea started to believe that parental SES determines their children's SES, an expression known as the spoon class since the mid-2010s.²² After this expression became popular and widespread, young people began comparing themselves with those born with a silver spoon, which indicates wealthy families, and assessing their socioeconomic position. Consequently, some young people may perceive themselves as being born with a 'dirt spoon', representing a less socially advantaged background with limited resources and opportunities

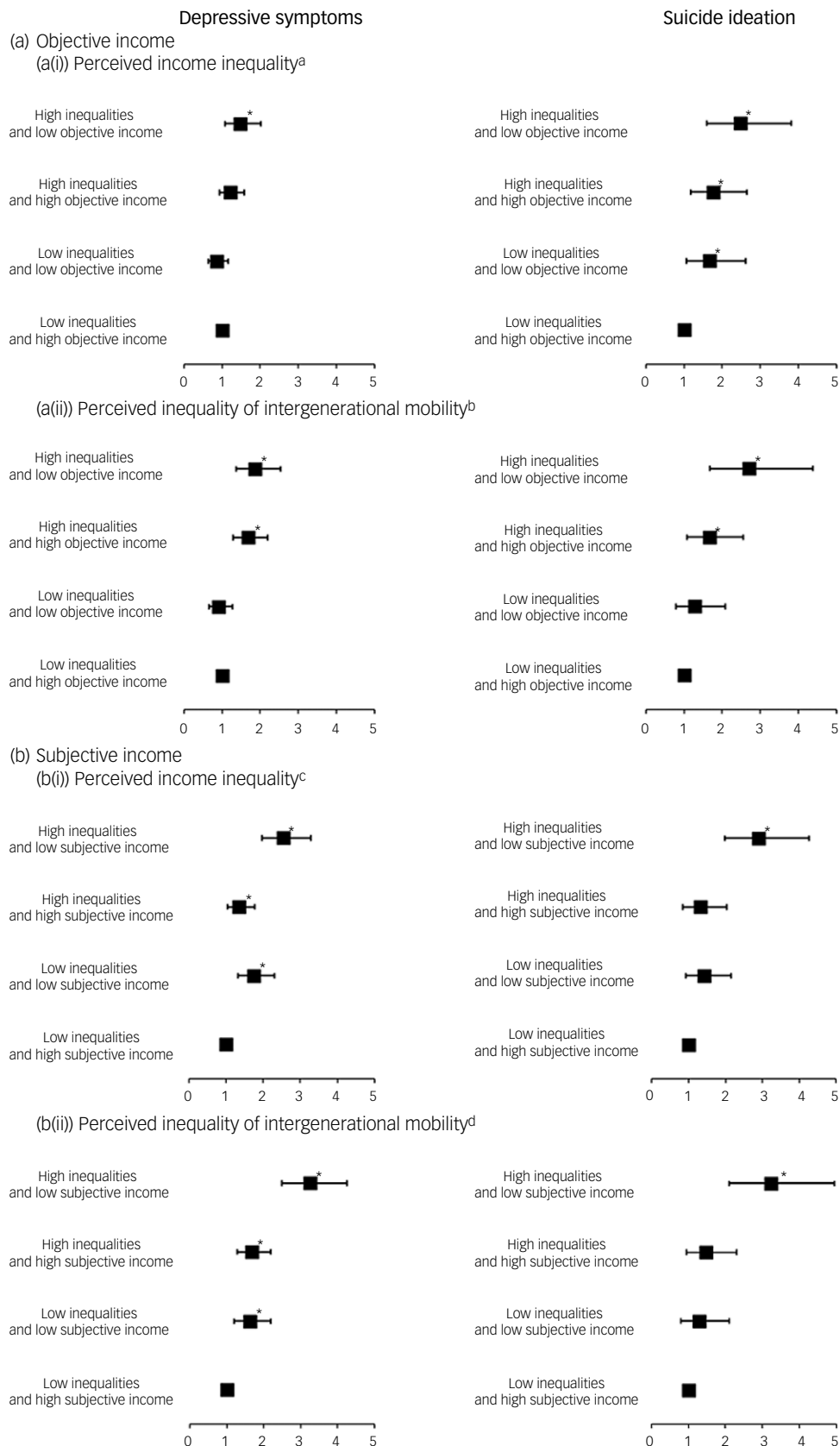


Fig. 1 Multivariate association between perceived economic inequalities and mental health, by (a) objective and (b) subjective income.

a. Adjusted for subjective income, perceived inequality of intergenerational mobility, gender, age group, employment, marital status, number of household members, region, subjective health, current smoking and high-risk drinking.

b. Adjusted for subjective income, perceived income inequality, gender, age group, employment, marital status, number of household members, region, subjective health, current smoking and high-risk drinking.

c. Adjusted for objective income, perceived inequality of intergenerational mobility, gender, age group, employment, marital status, number of household members, region, subjective health, current smoking and high-risk drinking.

d. Adjusted for objective income, perceived income inequality, gender, age group, employment, marital status, number of household members, region, subjective health, current smoking and high-risk drinking. * $P < 0.05$.

for upward mobility.²² Exposure to this social climate related to intergenerational mobility inequality can lead to dissatisfaction with what we have and promote individual upward comparisons. This could then deepen perceived economic inequalities and heighten the risk of emotional distress or psychosocial burden if there are limited resources and opportunities for upward mobility.^{13,39} In particular, individuals with lower income status and a high perception of economic inequalities may feel more frustrated than others, because they may recognise that they have very limited chances of improving their situation.¹⁰ Such comparisons could also lead to a lower sense of subjective SES among individuals with low objective income, due to feelings of personal inadequacy⁴⁰ and a sense of relative unfairness.⁴¹ Furthermore, this dissatisfaction and upward comparison may drive young adults to develop a sense of relative deprivation⁴² and pessimistic expectations of their future status, which could be linked to poor mental health.²⁸ This suggests a stronger link between perceived economic inequality and mental health, highlighting the importance of addressing structural economic inequalities.

Implications

Given that young people have social interactions in their everyday lives, including via media, communications with people and other informal sources,^{2,10,43} these interactions may not only influence individuals' perception of economic inequality (visible condition) but also shape the social climate surrounding the perception of economic inequality in communities (invisible condition).¹ Policy needs to interact with young adults through social campaigns and education to reduce the perception of economic inequalities and promote optimistic expectations for their future social mobility. Furthermore, governments and policymakers should consider structural factors to ensure fair access to resources and opportunities for young adults, regardless of parental and individual SES, which can reduce inequality and its negative consequences.^{1,19} Specifically, greater socioeconomic and welfare support is needed to alleviate the social burden and pressure among young adults with lower SES, such as expanding support policies and fostering the development of high-quality job opportunities.¹¹ Therefore, it is essential to develop and implement strategies that reduce both perceived and actual economic inequalities to improve mental health among young adults.

Strengths and limitations

This study provides additional evidence on the association of perceived economic inequalities with mental health, using a large, nationally representative sample of South Korean young adults aged 19–34 years. Moreover, we focused on two aspects of perceived inequalities: income inequality and inequality of intergenerational mobility. However, some limitations should be considered when interpreting our findings. First, the data used in this study were cross-sectional, which suggests that we could not infer clear causality between perceived inequalities and depressive symptoms/suicide ideation. Although we assumed that perceived inequalities among young adults might influence their depressive symptoms and suicide ideation, the association could also be bidirectional. This suggests that further investigation is necessary with longitudinal data to better understand the dynamic of this relationship over time.^{12,13} Second, some of the key variables (e.g. perceived inequalities and suicide ideation) used in this study were measured using a single question. Although these single-question measurements were commonly used in previous studies,^{11,27–30} such an approach may provide less detailed information and lead to measurement errors.⁴⁴ Future studies might consider

using a more comprehensive and validated scale, such as the Perceived Economic Inequality Scale (PEIS)⁴⁵ or the Beck Scale for Suicide Ideation (BSS).⁴⁶ Third, although dichotomising the continuous variables of interest in our study might pose some limitations, it may also be beneficial for data presentation and the ready interpretation of results.³¹ While this dichotomising process may incur some cost, such as loss of information,³¹ our sensitivity analysis shows that similar results with statistical evidence were observed using the continuous variables (see Supplementary Material 1). This suggests that our findings using dichotomisation may be less biased. Fourth, although we accounted for a range of covariates in our analysis, we could not include potential interpersonal factors (e.g. personality or self-esteem) or cultural factors (e.g. Confucianism and capitalism). Addressing these factors in future studies could potentially improve the understanding of the underlying mechanisms of the association. Lastly, future qualitative research could enhance our understanding of how perceived inequality impacts mental health challenges in young adults.

Minjae Choi , Institute for Future Public Health, Graduate School of Public Health, Korea University, Seoul, Republic of Korea; and Department of Preventive Medicine, Korea University College of Medicine, Seoul, Republic of Korea;
Joshua Kirabo Sempungu, Department of Preventive Medicine, Korea University College of Medicine, Seoul, Republic of Korea; and Program in Public Health, Graduate School, Korea University, Seoul, Republic of Korea; **Joon Hee Han**, Department of Preventive Medicine, Korea University College of Medicine, Seoul, Republic of Korea; and Program in Korean Unification Studies, Graduate School, Yonsei University, Seoul, Republic of Korea; **Mi-Hyui Kim**, Department of Preventive Medicine, Korea University College of Medicine, Seoul, Republic of Korea; and Program in Public Health, Graduate School, Korea University, Seoul, Republic of Korea; **Eun Hae Lee**, Department of Preventive Medicine, Korea University College of Medicine, Seoul, Republic of Korea; and Program in Public Health, Graduate School, Korea University, Seoul, Republic of Korea; **Yo Han Lee** , Department of Preventive Medicine, Korea University College of Medicine, Seoul, Republic of Korea

Correspondence: Yo Han Lee. Email: vionic@korea.ac.kr

Supplementary material

The supplementary material can be found online at <https://doi.org/10.1192/bjo.2025.785>

Data availability

The data-sets used and/or analysed during the current study are available from MicroData Integrated Service (<https://mdis.kostat.go.kr/index.do> [in Korean]) provided by Statistics Korea.

Author contributions

M.C. and Y.H.L. designed the study. M.C. and J.K.S. were involved in reviewing the literature, data collection and statistical analyses and drafted the manuscript. M.C., J.K.S. and M.-H.K. interpreted the data. M.C. and J.K.S. contributed to the creation of tables and figures. M.-H.K., E.H.L. and J.H.H. revised the manuscript. All authors approved the final manuscript.

Funding

Y.H.L. was supported by grants from Korea University. M.C. was supported by the National Research Foundation (NRF) of Korea funded by the Ministry of Education (grant no. NRF-2022R1A6A3A01086222). The funding bodies played no role in the design, collection, analyses and interpretation of data.

Declaration of interest

None.

Ethical statement

Ethical approval for this research was obtained from the IRB of Korea University (approval no. KUIRB-2024-0298-01).

References

- Willis GB, García-Sánchez E, Sánchez-Rodríguez Á, García-Castro JD, Rodríguez-Bailón R. The psychosocial effects of economic inequality depend on its perception. *Nat Rev Psychol* 2022; 1: 301–9.

- 2 Pickett KE, Wilkinson RG. Income inequality and health: a causal review. *Soc Sci Med* 2015; **128**: 316–26.
- 3 United Nations. *Equality: Why It Matters*. United Nations, 2018.
- 4 Ribeiro WS, Bauer A, Andrade MCR, York-Smith M, Pan PM, Pingani L, et al. Income inequality and mental illness-related morbidity and resilience: a systematic review and meta-analysis. *Lancet Psychiatry* 2017; **4**: 554–62.
- 5 Patel V, Burns JK, Dhingra M, Tarver L, Kohrt BA, Lund C. Income inequality and depression: a systematic review and meta-analysis of the association and a scoping review of mechanisms. *World Psychiatry* 2018; **17**: 76–89.
- 6 Patel V, Saxena S, Lund C, Thornicroft G, Baingana F, Bolton P, et al. The Lancet Commission on global mental health and sustainable development. *Lancet* 2018; **392**: 1553–98.
- 7 Schmalor A, Heine SJ. The construct of subjective economic inequality. *Soc Psychol Personal Sci* 2022; **13**: 210–19.
- 8 Castillo J-C, García-Castro J-D, Venegas M. Percepción de desigualdad económica: conceptos, factores asociados y proyecciones de una agenda creciente de investigación [Perception of economic inequality: concepts, associated factors and prospects of a burgeoning research agenda]. *Int J Soc Psychol* 2022; **37**: 180–207.
- 9 Du H, Huang Y, Ma L, Chen X, Chi P, King RB. Subjective economic inequality is associated with lower well-being through more upward comparison and lower trust. *Appl Psychol Health Well Being* 2024; **16**: 25–41.
- 10 Oshio T, Urakawa K. The association between perceived income inequality and subjective well-being: evidence from a social survey in Japan. *Soc Indic Res* 2014; **116**: 755–70.
- 11 Kim J. The impact of perceived income inequality on depression among youth: the mediating effects of social capital. *Health Soc Welfare Rev* 2021; **41**: 83–100.
- 12 H-I N, Shim E-J. Longitudinal associations of perceived social inequality and subjective socioeconomic status with anxiety and depression in university students. *Stress* 2021; **29**: 106–14.
- 13 Zhang S, Wang T, Zhang L, Wei Y, Jian W, Guo J. Relationship between social inequality perception patterns and depressive symptoms among Chinese adults: a national representative longitudinal study. *Int J Soc Psychiatr* 2024; **70**: 933–44.
- 14 Pegado A, Alvarez MJ, Roberto MS. The role of behaviour-change theory in sleep interventions with emerging adults (aged 18–29 years): a systematic review and meta-analysis. *J Sleep Res* 2023; **32**: e13877.
- 15 Conley CS, Shapiro JB, Huguenel BM, Kirsch AC. Navigating the college years: developmental trajectories and gender differences in psychological functioning, cognitive-affective strategies, and social well-being. *Emerg Adulthood* 2020; **8**: 103–17.
- 16 Newman DL, Moffitt TE, Caspi A, Magdol L, Silva PA, Stanton WR. Psychiatric disorder in a birth cohort of young adults: prevalence, comorbidity, clinical significance, and new case incidence from ages 11 to 21. *J Consult Clin Psych* 1996; **64**: 552–62.
- 17 Dorling D, Mitchell R, Pearce J. The global impact of income inequality on health by age: an observational study. *BMJ* 2007; **335**: 873.
- 18 Lierse H. Why is there not more demand for redistribution? Cross-national evidence for the role of social justice beliefs. *Int J Public Opin Res* 2019; **31**: 121–41.
- 19 Browman AS, Destin M, Kearney MS, Levine PB. How economic inequality shapes mobility expectations and behaviour in disadvantaged youth. *Nat Human Behav* 2019; **3**: 214–20.
- 20 Achdut N. Inequality in psychological distress among young adults: An integrative model of economic, social, and environmental determinants. *Am J Orthopsychiatry* 2023; **93**: 321–34.
- 21 Chancel L, Piketty T, Saez E, Zucman G. *World Inequality Report 2022*. Harvard University Press, 2022.
- 22 Kang WC, Park S. Stuck in an unequal society: wealth inequality and pessimistic prospects on future social mobility in South Korea. *Soc Forces* 2024; **103**: 475–94.
- 23 Organisation for Economic Co-operation and Development (OECD). *Suicide Rates*. OECD, 2024 (<https://www.oecd.org/en/data/indicators/suicide-rates.html>).
- 24 Cheong S, Ryoo J, Kang Y-E, Kim S, Ham S, Kim D, et al. 2022 Survey of Korean Youths' Lives. Korea Institute for Health and Social Affairs, 2022.
- 25 Löwe B, Kroenke K, Herzog W, Gräfe K. Measuring depression outcome with a brief self-report instrument: sensitivity to change of the Patient Health Questionnaire (PHQ-9). *J Affect Disord* 2004; **81**: 61–6.
- 26 Choi HS, Choi JH, Park KH, Joo KJ, Ga H, Ko HJ, et al. Standardization of the Korean Version of Patient Health Questionnaire-9 as a screening instrument for major depressive disorder. *J Korean Acad Family Med* 2007; **28**: 114–9.
- 27 Choi M, Ki M, Yip PS, Park J, Song A, Lee WY, et al. Small but protective social capital against suicide ideation in poor communities: a community-based cross-sectional study. *Medicine* 2020; **99**: e22905.
- 28 Choi M, Lee EH, Sempungu JK, Lee YH. Long-term trajectories of suicide ideation and its socioeconomic predictors: a longitudinal 8-year follow-up study. *Soc Sci Med* 2023; **326**: 115926.
- 29 Choi M, Sempungu JK, Kim M-H, Han J, Lee YH. Happiness and its association with suicide ideation and attempt in Korea: the roles of socio-environmental, psychological, and health-related factors. *J Korean Med Sci* 2024; **39**: e283.
- 30 Nahrin R, Al-Mamun F, Kaggwa MM, Al Mamun M, Mamun MA. Prevalence and factors associated with suicidal ideation among students taking university entrance tests: revisited and a study based on Geographic Information System data. *BJPsych Open* 2023; **9**: e129.
- 31 Altman DG, Royston P. The cost of dichotomising continuous variables. *BMJ* 2006; **332**: 1080.
- 32 Lee H-Y, Hahm M-I, Park E-C. Differential association of socio-economic status with gender-and age-defined suicidal ideation among adult and elderly individuals in South Korea. *Psychiatry Res* 2013; **210**: 323–8.
- 33 Graham C, Fenelon A. Health, suicidal thoughts, and the life course: how worsening health emerges as a determinant of suicide ideation in early adulthood. *J Health Soc Behav* 2023; **64**: 62–78.
- 34 Schmidt AM, Golden SD, Gottfredson NC, Ennett ST, Aiello AE, Ribisl KM. Psychological health and smoking in young adulthood. *Emerg Adulthood* 2021; **9**: 320–9.
- 35 Weitzman ER. Poor mental health, depression, and associations with alcohol consumption, harm, and abuse in a national sample of young adults in college. *J Nerv Ment Dis* 2004; **192**: 269–77.
- 36 Akhtar-Danesh N, Landeen J. Relation between depression and sociodemographic factors. *Int J Ment Health Syst* 2007; **1**: 4.
- 37 Graham C, Ciciurkaite G. Subjective social status as a predictor of physical and mental health among early midlife adults in the United States: appraising the role of gender. *Soc Ment Health* 2025; **15**: 57–74.
- 38 Pickett KE, Wilkinson RG. Inequality: an underacknowledged source of mental illness and distress. *Br J Psychiatry* 2010; **197**: 426–8.
- 39 Elenbaas L, Rizzo MT, Killen M. A developmental-science perspective on social inequality. *Curr Dir Psychol Sci* 2020; **29**: 610–6.
- 40 McCarthy PA, Morina N. Exploring the association of social comparison with depression and anxiety: a systematic review and meta-analysis. *Clin Psychol Psychother* 2020; **27**: 640–71.
- 41 Smith HJ, Pettigrew TF, Pippin GM, Bialosiewicz S. Relative deprivation: a theoretical and meta-analytic review. *Pers Soc Psychol Rev* 2012; **16**: 203–32.
- 42 Condon M, Wichowsky A. Inequality in the social mind: social comparison and support for redistribution. *J Polit* 2020; **82**: 149–61.
- 43 Gugushvili A, Reeves A, Jarosz E. How do perceived changes in inequality affect health? *Health Place* 2020; **62**: 102276.
- 44 Fisher GG, Matthews RA, Gibbons AM. Developing and investigating the use of single-item measures in organizational research. *J Occup Health Psychol* 2016; **21**: 3–23.
- 45 Valtorta RR, Vezzoli M, Mari S, Durante F, Volpato C. Measuring subjective inequality: development and validation of the Perceived Economic Inequality Scale (PEIS). *Span J Psychol* 2024; **27**: e2.
- 46 Beck AT, Kovacs M, Weissman A. Assessment of suicidal intention: the Scale for Suicide Ideation. *J Consult Clin Psychol* 1979; **47**: 343–52.