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Effects of the Subjective Family Class on the Suicide Ideation of Adolescents: Double Mediating Effect of Social Support and Sense of Coherence

Kim, Jiyoun[1] · Ko, Young[2]

[1]Associate Professor, College of Nursing, Kyungdong University, Wonju
[2]Associate Professor, College of Nursing, Gachon University, Incheon, Korea

Purpose: The study was conducted to identify the relationship between subjective family class and suicidal ideation and to determine the double mediating effect of social support and sense of coherence on their relationship. **Methods:** Secondary analysis of data from 2015 Korean Psycho-social Anxiety which was a population-based representative was performed. Double mediating effects of social support and sense of coherence on suicidal ideation were analyzed using the PROCESS macro (model 6) with bootstrapping methods. **Results:** Subjective family class directly influenced social support (β=.20, p<.001) and sense of coherence (β=.10, p<.001). Subjective family class directly influenced suicide ideation (β=-.08, p<.001). Sense of coherence was directly influenced by social support (β=.28, p<.001). Suicide ideation was indirectly influenced by subjective family class through social support (β=-.22, p<.001) and sense of coherence (β=-.36, p=.001). The size of direct effect of subjective family class on suicide ideation was 0.24 and the total size of indirect effect was 0.12. **Conclusion:** Intervention to improve social support and sense of coherence is needed to prevent the suicide among adolescents.

Key Words: Social class; Suicidal ideation; Adolescent; Social support; Sense of coherence

INTRODUCTION

1. Background

The subjective social status (SSS) is an individual's cognitive judgment of their social status in society and refers to a person's subjective perception of their social and material resources [1]. This may or may not reflect the objective socioeconomic status [1]. On the other hand, although the SSS is similar to the objective socioeconomic status, it is considered a measure of social status that reflects more diverse aspects because it represents an individual's integrated perception of their social position through their past performance and prospects [2,3]. The most common method for assessing the SSS is to ask the respondents to indicate their position in society by choosing among a set of hierarchically arranged social classes [1]. In particular, the SSS is a useful indicator among older adults or adolescents who have no income or whose income cannot be investigated accurately [2]. When measuring the SSS in adolescents, the respondents are asked to indicate the social class to which their family belongs [1]. Adolescents regard family assets, family lifestyle, parents' occupations, and parents' education levels as important factors in determining their subjective social family class (SFC) [3]. The SSS is associated with the individuals' health and well-being, even when adjusted for the objective socioeconomic status in previous studies conducted on adults [4,5] and adolescents [1]. In Korean adults, the SSS was found to be associated significantly with psychological problems, including suicidal ideation, depression, and psychological pressure [4].

One of the most critical mental health problems in adolescents is suicide. The mortality rate from suicide in Korean adolescents is 7.6 per 100,000 people, which is higher than the OECD average mortality rate of 6.5 people, and

Corresponding author: Ko, Young
College of Nursing, Gachon University, 191 Hambakmoei-ro, Yeonsu-gu, Incheon 21936, Korea.
Tel: +82-32-820-4208, Fax: +82-32-820-4201, E-mail: camassia@naver.com

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suicide was ranked first among the causes of death in 2018 in the population aged 10~19 [6]. In a previous study of young people aged 10~19, 33.8% of adolescents reported suicidal ideation due to academic stress, anxiety about the future, family conflicts, bullying, and economic problems. Hence, adolescent suicide is a major public health problem that needs to be addressed urgently [7]. In particular, some studies identified the socioeconomic factors of adolescents' families as the main influencing factors for their suicide [8-10]. Therefore, the issue of suicide is attracting attention as a social problem that needs to be addressed on a societal level. Similar to the existing socioeconomic factors, the subjective family class that the adolescent perceived is also expected to be closely linked to suicidal ideation, but there has been no research on this association.

Previous studies on suicide mostly identified the risk factors of suicide regarding the psychological aspects at the individual level or social factors [11]. On the other hand, some studies examining the issue of suicide focused on protective factors, such as self-efficacy and resilience. This approach is similar to the theory of salutogenesis in that it takes a salutogenic perspective that deems individuals capable of solving their problems on their own. The theory of salutogenesis proposed by Antonovsky [12] focuses on how health is restored, maintained, and improved rather than the risk factors for health problems [11]. In addition, with its emphasis on the society's provision of resources necessary for individuals to cope with stress, the theory of salutogenesis is attracting increasing attention because it avoids problems, such as falling into the trap of criticizing victims, which is based on the Theory of Health Behaviors at the individual level [13]. This also allows research on suicide to be expanded to discussions on collective and social resources [13].

The core concept of the theory of salutogenesis is a sense of coherence, which consists of three sub-concepts: comprehensibility, manageability, and meaningfulness. Comprehensibility is defined as the ability to organize, predict, and explain situations faced by individuals. Manageability refers to a person's perception that there are internal and external resources available to manage the demands of stimuli in life. Meaningfulness refers to the ability to challenge the imposed demands, concentrate on them, and positively embrace them as things worth the investment of time and energy [12]. Even when an individual is faced with a serious crisis, they have a sufficient understanding of the problem situation, believe that there are abundant resources available that can be used to confront the situation, and think that such a challenge is meaningful, and they will cope effectively with the problem [13]. A study of people who have attempted suicide in the UK by Srensen et al.[14] showed that the sense of coherence was found to have a lasting and strong effect on suicidal ideation. Other studies have also shown that a low sense of coherence is a risk factor for suicide [15,16]. Therefore, efforts to improve the sense of coherence can be regarded as a meaningful intervention to prevent suicide. Several studies have examined a variety of general resistance resources that influence the improvement of the sense of coherence, especially research on social support, which a social resource [17]. Social support enables people to enjoy life and cope with crises because of an increase in the available resources. It also reduces the sociopsychological risks caused by adverse events [18]. As a result, it is expected to influence the improvement of the sense of coherence, ultimately reducing the risk of suicide. Hence, there is a need to investigate whether the effect of the subjective family class on the suicidal ideation of adolescents is mediated by a sense of coherence and social support. Therefore, this study examined the relationship between the subjective family class and suicidal ideation to determine the effects of social support and the sense of coherence on their relationship. The results of this study are expected to serve as basic data for the development of suicide prevention interventions.

2. Purpose

This study aimed to identify the double mediating effects of social support and the sense of coherence in the relationship between the subjective family class and suicidal ideation in adolescents. The specific objectives of this study were as follows:

- to determine if there is a significant difference in suicidal ideation according to subjective family class in adolescents;
- to identify whether there are significant differences in the general characteristics, social support, and sense of coherence according to subjective family class in adolescents;
- to examine the double mediating effect of social support and the sense of coherence on the relationship between the subjective family class and suicidal ideation in adolescents.

METHODS

1. Study Design

This study was a cross-sectional descriptive study to investigate the double mediating effects of social support

and the sense of coherence on the relationship between the subjective family class and suicidal ideation in adolescents.

2. Participants

The data of the 2015 Korean Psychosocial Anxiety Survey conducted by the Korea Institute for Health and Social Affairs were used for secondary analysis. The survey was carried out online from August 8 to September 22, 2015, and the participants were a total of 5,000 adolescents aged 14 to 18 living in Korea. In this study, the data of all the participants of the survey were analyzed.

3. Measures

1) Subjective family class

The subjective family class was measured using one question "What social class do you think your family belongs to?" by selecting one of five response options: ① lowest, ② low, ③ middle, ④ upper-middle, ⑤ highest. The item was reverse coded to visualize the direction of the influence of subjective family class on suicidal ideation. The group of subjective family class was divided into two groups: the group of adolescents who perceived their family to belong to a lower social class (① lowest, ② low) and the group of the adolescents who perceived their family to belong to middle or higher social class (③ middle, ④ upper-middle, ⑤ highest).

2) Suicidal ideation

Suicidal ideation was assessed by the responses to the following question: "Have you ever seriously thought about committing suicide in the past year?". The response of the question was answered with yes or no.

3) Sense of coherence

In this study, the sense of coherence was measured by reconstructing the assessment tool using the questionnaire items of the secondary data. First, items with similar content to that of the items presented in Antonovsky's [12] sense of coherence scale (SOC-29 items) were selected among the questionnaire items of the secondary data. First, to assess the comprehensibility, three items, which were similar to the items, "Do you have the feeling that you are in an unfamiliar situation and do not know what to do? (Very often/Very seldom or never)" and "In the past ten years your life has been (Full of changes without knowing what will happen next / Completely consistent and clear)", were selected. The selected items were as follows: ① 'I am confused by something insignificant and do not know what to do', ② 'I do not feel inclined to attempt anything', and ③ 'I think that my life is unstable.'

Regarding meaningfulness, three items similar to "Doing the things you do every day is a source of deep pleasure and satisfaction" and "How often do you have the feeling that there is little meaning in the things you do in your daily life?" were selected, and the selected items were as follows: ④ 'How happy do you think your life is?', ⑤ 'I think I am a worthy person like other people', and ⑥ 'I usually feel that I am a failed person.'

Regarding the items about manageability, four items similar to "How often do you have feelings that you are not sure you can keep under control)" and "In the past, when you had to do something that depended upon cooperation with others, did you have the feeling that it (Surely will not get done / Surely will get done)?" were selected, and the selected items were as follows: ⑦ 'Do you think that you effectively keep your anger under control?', ⑧ 'Given your current circumstances, how likely do you think you are to achieve your ideal goals in the future?', ⑨ 'I can work well with most other people', and ⑩ 'Everything seems to be going well for me.' Among all the items, ③ and ⑧ were originally items measured on a 10-point scale, but to facilitate comparisons, they were re-coded as four-point scale items. Therefore, all the items were assessed on a four-point scale. In addition, because items ①, ②, ③, and ⑥ were negative questions, they were reverse-coded, and the total scores were summed. In this study, because the data on the sense of coherence did not show a normal distribution, the participants were divided into the group with a high sense of coherence and the group with a low sense of coherence, based on the median value (29 points), as a representative value. In the final analysis model, it was used as a continuous variable. With respect to the similarity between the existing items and the 10 items selected, the validity was confirmed by three experts' content evaluation, and an analysis of the reliability of this instrument was conducted. In this study, the Cronbach's α for the items on the sense of coherence was .82.

4) Social support

Social support was measured using three questions: "How much social support do you think you are receiving?", "If you are in trouble, how much help do you think you can get from people around you?" and "How many people do you think you are usually able to consult candidly with?". Respondents were asked to rate each item on a 10-point scale (zero points - not at all, 10 points - very much). The total scores obtained by summing up response scores ranged from zero to 30 points. Higher scores in-

dicated higher levels of social support. In this study, the scores for social support did not show a normal distribution, so the participants were classified into the high social support group and low social support group, based on the median value (18 points). In the final analysis model, it was used as a continuous variable. In this study, Cronbach's α of the social support assessment tool was .80.

5) General characteristics and depression

The general characteristics examined in this study were gender, age, and status of coresidence with parents. With respect to the status of coresidence with parents, this study examined whether or not the respondent lived with both parents, with a single parent, or with someone else. Depression was assessed on a 4-point scale using a self-administered questionnaire, a short form of the Center for Epidemiologic Studies Depression 11 (CES-D11)[19]. A modified Korean-translated version of the CES-D11 developed in Korea was used, and its validity and reliability were established [20]. The total scores of depression were converted by multiplying them by 20/11 so that the total scores would range from 0 to 60 points. Scores of 16 points or more were classified as 'depression', and scores of less than 16 points were classified as 'no depression [21].' In this study, the Cronbach's α of CES-D11 was .85.

4. Ethical Considerations

The 2015 Korean Psychosocial Anxiety Survey was conducted online by the Korea Institute for Health and Social Affairs. An online survey company sent information on the survey to the youths in the target population to be surveyed by e-mail, and the adolescents who agreed to participate were surveyed. The researcher submitted a request for the data to the Korea Institute for Health and Social Affairs and was provided with the data excluding personal identification information. The Institutional Review Board (IRB) of the institution to which the researcher belongs approved this secondary analysis protocol (IRB No.: 1044396-202002-HR-058-01).

5. Statistical Analysis

Statistical analysis was conducted using the SPSS/WIN 23.0 program. First, the participants were divided into two groups: the group who perceived their family belonging to a low social class (lower subjective family class group) and the group who did not (higher subjective family class group). A x^2 test was then used to determine the statistical significance of the differences in the general characteristics, sense of coherence, social support, and suicidal ideation between the two groups. A parallel double mediation model was analyzed using the PROCESS macro SPSS/WIN 3.3 program, which can be used to perform path analysis, under the assumption that social support and a sense of coherence will mediate the effects of the subjective family class on suicidal ideation in adolescents [22]. This method can allow logistic regression analysis by automatically detecting binary variables. The subjective family class was entered as an independent variable, suicidal ideation as the dependent variable, and social support and the modified measure of sense of coherence as the mediator variables. In this study, model 6 was used for analysis, and bootstrapping was performed 5,000 times to verify the significance of the mediating effect.

RESULTS

1. Subjective Family Class and Suicidal Ideation of the Adolescents

The age of the participants ranged from 14 to 18 years. The total number of participants was 5,000; 52.2%(2,611 people) were male and 47.8%(2,389 people) were female. Table 1 lists the results of the analysis of the differences in the general characteristics, sense of coherence, social support, and suicidal ideation between the two groups classified according to subjective family class. Approximately 26.6%(1,330 people) of the total respondents perceived their subjective family class to be low. An older age was associated with a lower subjective family class (x^2=114.17, p<.001). Among adolescents who live with a single parent or do not live with their parents, the proportion of the adolescents who perceived their family to belong to lower social class (63.6%) was higher than those who perceived their family to belong to a middle or higher social class (x^2=338.77, p<.001). Among the adolescents with a high level of depressive symptoms, the proportion of the adolescents in the lower subjective family class group (31.3%) was higher than that of the adolescents in the higher subjective family class group (17.5%). In the group with a lower level of social support than the median value of this study, the proportion of the adolescents in the lower subjective family class group (65.3%) was higher than that of the adolescents in the higher subjective family class group (39.7%) (x^2=94.29, p<.001). In addition, within the group with a lower level of sense of coherence than the median value of this study, the proportion of the adolescents in the lower subjective family class group (65.3%) was higher than that of the adolescents in the higher subjective family

Table 1. General Characteristics, Depression, Social Support, Sense of Coherence and Suicide Ideation by Subjective Family Class

Characteristics	Categories	Total	Low SFC	Not low SFC	x^2	p
		n (%)	n (%)	n (%)		
Total		5,000 (100.0)	1,330 (26.6)	3,670 (73.4)		
Gender	Male	2,611 (52.2)	685 (51.5)	1,926 (52.5)	0.37	.542
	Female	2,389 (47.8)	645 (48.5)	1,744 (47.5)		
Age (year)	14	741 (14.8)	113 (8.5)	628 (17.1)	114.17	< .001
	15	1,192 (23.8)	254 (19.1)	938 (25.6)		
	16	818 (16.4)	234 (17.6)	584 (15.9)		
	17	1,045 (20.9)	310 (23.3)	735 (20.0)		
	18	1,204 (24.1)	419 (31.5)	785 (21.4)		
Living with parent	Both	4,043 (80.7)	484 (36.4)	3,188 (86.9)	338.77	< .001
	Single or none	966 (19.3)	846 (63.6)	481 (13.1)		
Depression	Normal	3,940 (78.8)	914 (68.7)	3,026 (82.5)	110.17	< .001
	High (≥16)	1,060 (21.2)	416 (31.3)	644 (17.5)		
Subjective social support	Low (≤17)	2,289 (45.8)	833 (62.6)	1,456 (39.7)	94.29	< .001
	High (18~30)	2,289 (54.2)	497 (37.4)	2,214 (60.3)		
Sense of coherence	Low (10~28)	2,711 (48.5)	869 (65.3)	1555 (42.4)	206.18	< .001
	High (29~40)	1,576 (51.5)	461 (34.7)	2,115 (57.6)		
Suicidal ideation	No	3,316 (66.3)	722 (54.3)	2,594 (70.7)	117.46	< .001
	Yes	1,684 (33.7)	608 (45.7)	1076 (29.3)		

SFC=subjective family class.

class group (42.4%) (x^2=206.18, p < .001). Furthermore, within the group with a lower sense of coherence, the proportion of adolescents in the lower subjective family class group (65.3%) was higher than that of the adolescents in the higher subjective family class (42.4%) (x^2=206.18, p < .001). The proportion of adolescents with suicidal ideation was higher in the lower subjective family class group (45.7%) than in the higher subjective family class group (x^2=117.46, p < .001)(Table 1).

2. Correlations between the Subjective Family Class, Sense of Coherence, and Social Support

Table 2 lists the results of the analysis of the correlations between the subjective family class, sense of coherence, and social support, the mean and standard deviation of each of these variables, and the skewness and kurtosis values. The scores for the sense of coherence ranged from 10 to 40 points, with an average of 28.60 points, and the scores for social support ranged from 0 to 30 points, with an average of 17.82 points. The subjective family class was positively correlated with both the sense of coherence (r= .54, p < .001) and social support (r=.25, p < .001). The sense of coherence showed a positive correlation with social support (r=.61, p < .001).

3. Mediating Effect of the Sense of Coherence and Social Support on the Relationship Between the Subjective Family Class and Suicidal Ideation

Before analyzing the mediating effects of the sense of coherence and social support on the relationship between the subjective family class and suicidal ideation in adolescents, the multicollinearity between independent variables was examined. The results showed that the tolerance ranged from 0.66 to 0.81, exceeding 0.1, the Variance Inflation Factor ranged from 1.24 to 1.53, and was not greater than 10. The correlation coefficient between the independent variables ranged from .28 to .44, showing values less than .80. Based on the results, it was concluded that there was no problem with multicollinearity.

Table 3 lists the results of the analysis using a parallel multiple mediation model using Process macro V.3.3, which enables simultaneous verification of the direct and mediating effects using regression analysis. The subjective family class had a significant effect on social support (β= .20, p < .001) and sense of coherence (β=.10, p < .001), which are the mediator variables. Among the mediator variables, social support had a significant effect on the sense of coherence, another mediator variable (β=.28, p < .001). The subjective family class (β=-.08, p < .001), social support (β= -.22, p < .001), and sense of coherence (β=-.36, p < .001) all

had a significant effect on suicidal ideation (Table 3). Table 4 and Figure 1 show the direct and indirect effects of the subjective family class (high → low) on suicidal ideation. First, the direct effect of the subjective family class on suicidal ideation was significant, with an effect size of 0.24 (95% Bootstrap CI: 0.51~0.71). The effect size of the indirect effect of subjective family class on suicidal ideation through the mediation of social support was 0.06 (95% Bootstrap CI: 0.01~0.04). The effect size of the indirect effect of subjective family class on suicidal ideation through the mediation of sense of coherence was estimated to be 0.04 (95% Bootstrap CI: 0.01~0.02). The effect size of the multiple indirect effects of subjective family class on suicidal ideation through the mediation of social support and sense of coherence on suicidal ideation was 0.02 (95% Bootstrap CI: 0.01~0.05), and the sum of the indirect effects was 0.12 (95% Bootstrap CI: 0.07~0.16), indicating statistical significance (Table 4, Figure 1).

Table 2. Correlations among Subjective Social Class, Sense of Coherence, Social Support (*N*=5,000)

Variables	Subjective social class	Sense of coherence	Social support
	r (*p*)	r (*p*)	r (*p*)
Subjective social class	1.00		
Sense of coherence	.54 (< .001)	1.00	
Social support	.25 (< .001)	.61 (< .001)	1.00
M±SD	2.89±0.01	28.60±0.06	17.82±0.0
Skewness	-0.02	-0.19	-0.32
Kurtosis	0.24	0.06	-0.17

Table 3. Mediating effect of Sense of Coherence and Social Support in the Relationship between Subjective Family Class and Suicide Ideation

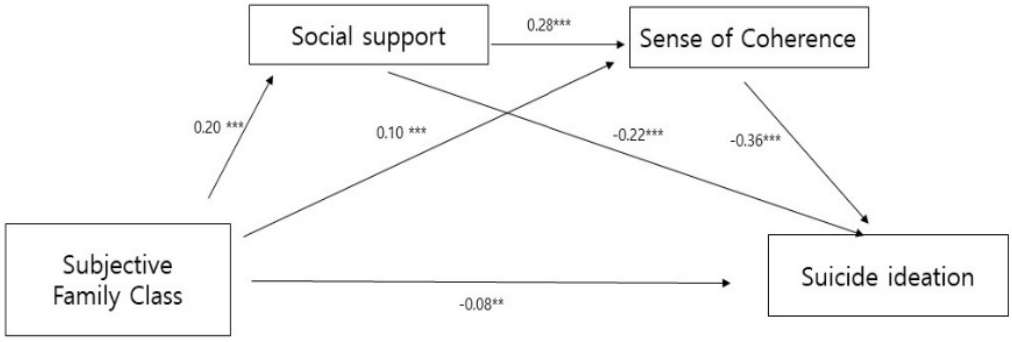
Pathway	β	SE	t	*p*	95%CI
SFC† → Social support	.20	0.01	16.51	< .001	0.51~0.71
SFC → SOC	.10	0.01	10.37	< .001	0.17~0.22
Social support→ SOC	.28	0.01	26.48	< .001	0.26~0.30
SFC → Suicide ideation	-.08	0.04	-2.11	.030	0.07~0.11
Social support → Suicide ideation	-.22	0.04	-5.01	< .001	-0.31~-0.13
SOC → Suicide ideation	-.36	0.06	-6.46	< .001	-0.47~-0.25

SFC=subjective family class, SOC=sense of coherence, β=coefficient, SE=standard error, CI=confidential interval; Covariates: age, depression, and living with parents; †SFC (1~5, 1 point=high, 5 point=low).

Table 4. Directing and Indirect Effects on Suicide Ideation

Pathway	Directing effect				Indirecting effect			
	Effect	Boot SE	95%CI		Effect	Boot SE	95%CI	
			Boot LLCI	Boot ULCI			Boot LLCI	Boot ULCI
SFC† → Suicide ideation	0.24	0.01	0.51	0.71				
SFC → Social support → Suicide ideation					0.06	0.01	0.04	0.09
SFC → SOC → Suicide ideation					0.04	0.01	0.02	0.07
SFC → Social suppor t→ SOC → Suicide ideation					0.02	0.01	0.01	0.05
Total					0.12	0.03	0.06	0.16

SFC=subjective family class; SOC=sense of coherence; β=coefficient; Boot=bootstrapping; SE=standard error; LLCI=lower limit confidential interval; ULCI=Upper Limit Confidential Interval; CI=Confidential Interval; Covariates: age, depression, and living with parents; †SFC (1~5, 1 point=high, 5 point=low).



**$p < .01$, ***$p < .001$.
Covariates: age, depression, and living with parents.

Figure 1. Multiple mediating effect of social support and sense of coherence on the relationship between subjective family class and suicide ideation.

DISCUSSION

In this study, 26.6% of the adolescents aged 14~18 perceived their subjective family class to be lower than middle class, and those who belong to the lower subjective family class group showed higher levels of depression and suicidal ideation. The proportion of adolescents who perceived their subjective family class to be lower than middle class was similar to the proportions reported in other domestic and foreign studies [1,8,10]. On the other hand, some previous studies reported a slightly higher or lower percentage. A study using data from the Korea Youth Risk Behavior Web-based Survey (KYRBS) conducted among middle school 1st year to high school 3rd year students reported that 22.5% of the total respondents perceived their subjective family class to be lower middle or low [8]. A study based on a survey of middle school students in the UK reported that 27.5% of the respondents assessed their subjective family class to be low social class [1].

Lower subjective family class was associated with higher levels of depression and suicidal ideation in this study. These results are in agreement with the findings of previous studies [8-10]. In a foreign meta-analysis study, subjective socioeconomic factors were related to mental health, such as subjective well-being, depression, and stress in adolescents [23]. On the other hand, a study of the relationships among socioeconomic factors, school-based social status, health status, and well-being of adolescents reported that the subjective socioeconomic factors were more closely associated with the health status and well-being than the objective socioeconomic factors and school-based social status [1]. Because there have been few studies on the relationship between the subjective family class and suicidal ideation, it is difficult to make direct comparisons. Nevertheless, the results of this study can be interpreted with a perspective of Social Identify Theory. According to Social Identify Theory, subjective social status perceived by individuals influences the relationship between social status and mental health [5]. Some studies reported results supporting the hypothesis that the perceived social status amplifies the relationship between low social status and negative mental health by reinforcing the relationship between the social class to which individuals belong and their perceived social class. Other studies, however, reported findings supporting the buffering hypothesis that the negative effects of low social status on mental health can be reduced by a strong sense of belonging or solidarity for their family or society [5]. In this study, adolescents in the low subjective family class group showed high levels of depression and suicidal ideation, which are consistent with the amplification hypothesis of social identity theory in that the perception of low subjective family class worsens mental health. In addition, the results of this study showed that the influence of the subjective family class on suicidal ideation is mediated by a sense of coherence and social support in adolescents. These results are consistent with the buffering hypothesis of the social identity theory that the individuals' sense of coherence and social support reduces the negative impacts of suicidal ideation, even when people perceive their family to belong to a lower social class. These findings suggest that although adolescents who perceive their family to belong to lower social class are more vulnerable to depression or suicidal ideation, a high level of perceived social support and a high sense of coherence can alleviate the negative mental health problems due to the lower subjective family class.

The results showed that subjective family class influences suicidal ideation through the double mediation of a

sense of coherence and social support in adolescents. The social structure does not unilaterally determine suicide, nor does it result entirely from the individuals' internal problems. This occurs as an acute or chronic reaction to a variety of complex tensions or stimuli that individuals may encounter in the environments surrounding them. The adolescents' perception of their family's social status can be considered in relation to the degree to which they think they have internal and external resources available. This can be used to meet the demands imposed at present or in the future, which is an important element of a sense of coherence. If adolescents perceive their social, psychological, and material resources to be insufficient, they are likely to think that they lack the ability to evaluate and solve problems and thus easily feel helpless in solving problems. Therefore, adolescents with a low sense of coherence are more vulnerable to suicidal behavior when faced with a problem situation. Other studies of adolescents have also reported similar results [24,25]. Therefore, to prevent adolescents' suicide, a range of interventions to improve the sense of coherence should be implemented. These studies showed that it is important to establish supportive relationships involving family, friends, and school as one of the interventions.

Therefore, the significance of this study is as follows. First, this study presented a more detailed mechanism for the process, in which subjective family class influences suicidal ideation by explaining that social support helps improve a sense of coherence and reduces suicidal ideation. Therefore, this study can serve as the basis for scrutiny of the relationships in the family and school, which are the sources of social support for adolescent suicide prevention in the future and provides empirical evidence to develop intervention programs. In addition, further studies on other general resistance resources will be needed to improve the sense of coherence. In this regard, Langeland et al. [26] evaluated talk therapy as an intervention to improve the coping ability of a group of students facing problem situations. They reported that the therapy improves the sense of coherence.

Another significant result of this study is related to the depression variable. Depression is a significant risk factor for suicidal behavior, and it is known as a common symptom of people who have seriously contemplated committing suicide [27]. Several studies in Korea have also reported the association between depression and suicidal behavior in adolescents [9,28]. In the research model of the present study, depression had a significant effect on suicidal ideation, but the influence of a sense of coherence and social support on suicidal ideation did not disappear, even though the depression variable was entered and controlled in the model. This is believed to show that the subjective family class, social support, and sense of coherence are important factors influencing suicidal ideation separately from depression.

In this study, through an evaluation of the tool with experts and a verification of the statistical reliability, the sense of coherence scale was reconstructed using the items in the secondary data. This method has a limitation in that it is difficult to make a direct comparison with the measurement results obtained using Antonovsky's [12] sense of coherence scale, which has already been verified and is used widely in many countries. Therefore, in future studies on the sense of coherence, it is necessary to make international comparisons using the sense of coherence scale developed by Antonovsky [12]. Moreover, it is also necessary to develop and review a sense of coherence scale that reflects Korean culture.

CONCLUSION

In this study, the relationship between the subjective family class and suicidal ideation was examined, and the influence of a sense of coherence and social support on their relationship was investigated. The results showed that the process, in which subjective family class influences suicidal ideation, is mediated by a sense of coherence and social support.

Based on the results of this study, the following suggestions are presented. First, a low subjective family class had a significant effect on mental health, including suicidal ideation. Therefore, adolescents who perceive their family to belong to a low social class should be a priority target group for suicide prevention projects. In addition, because a lower socioeconomic status is associated with lower social support from the family, it is necessary to provide a support system in school or society.

Second, it is necessary to provide interventions to improve the sense of coherence of adolescents to prevent suicide. Relationship networks or support systems involving the family, friends, and teachers, as well as those in society, should be established as a prerequisite to improving the sense of coherence of adolescents. In addition, there is a need to provide interventions to enhance the ability to cope with each problem situation. Finally, it is necessary to develop a tool to measure the sense of coherence that reflects Korean culture. In addition, it is necessary to conduct international comparative research through repeated studies using the sense of coherence scale developed by Antonovsky [12].

REFERENCES

1. Sweeting H, Hunt K. Adolescent socio-economic and school-based social status, health, and well-being. Social Science & Medicine. 2014;121:39-47. https://doi.org/10.1016/j.socscimed.2014.09.037
2. Bacak V. Measuring inequalities in health from survey data using self-assessed social class. Journal of Public Health. 2018;40(1):183-190. https://doi.org/10.1093/pubmed/fdx036
3. Goodman E, Amick BC, Rezendes MO, Levine S, Kagan J, Rogers WH, et al. Adolescents' understanding of social class: A comparison of white upper class and working class youth. Journal of Adolescent Health. 2000;27(2):80-83. https://doi.org/10.1016/S1054-139X(99)00116-0
4. Hong J, Yi J. The relationship of subjective social status to mental health in South Korean adults. World Psychiatry: Official Journal of the World Psychiatric Association. 2017;16(1):107-108. https://doi.org/10.1002/wps.20357
5. Rubin M, Staurt R. Kill or cure? Different types of social class identification amplify and buffer the relationship between social class and mental health. The Journal of Social Psychology. 2018;58(2):236-251. https://doi.org/10.1080/00224545.2017.1327405
6. Statistics Korea. Cause of death statistic [Internet]. Daejeon: Statistics Korea. 2019. [cited 2020 February 12]. Available from http://kosis.kr/statisticsList/statisticsListIndex.do?menuId=M_01_01&vwcd=MT_ZTITLE&parmTabId=M_01_01#SelectStatsBoxDiv
7. National Youth Policy Institute. The survey on Rights of the Children and Youth in South of Korea [Internet]. Sejong; National Youth Policy Institute. 2019. [cited 2020 February 07]. Available from https://www.nypi.re.kr/brdrr/boardrrList.do?menu_nix=4o9771b7&brd_id=BDIDX_PJk7xvf7L096m1g7Phd3YC
8. Ko MJ, Lee EY, Kim K. Relationship between socioeconomic position and suicide attempts among the Korean adolescents. Journal of Korean Medical Science. 2014;29(9):1287-1292.
9. Park D, Jang S. Influence of parental socioeconomic status on stress, depression and suicidal ideation among Korean adolescents. Journal of Korean Academia-Industrial cooperation Society. 2013;14(6):2667-2676. https://doi.org/10.5762/KAIS.2013.14.6.2667
10. Kang LY, Kim BS, Choi HR, Won CW, Kim SY, Kim JA. The effect of socioeconomic status on mental health in Korean adolescent. Korean Journal of Family Practice. 2015;5 suppl 3:665-672.
11. Kim JY, Kim CY. The relationship of 'Sense of Coherence', suicidal thought and social support. Health and Social Science. 2014;36(1):77-102.
12. Antonovsky A. The Jossey-Bass social and behavioral science series and the Jossey-Bass health series. Unraveling the mystery of health: How people manage stress and stay well. Jossey-Bass; 1987. 78 p.
13. Eriksson M, Lindstrom B. Validity of Antonovsky's sense of coherence scale: A systematic review. Journal of Epidemiology Community Health. 2005;59(6):460-466. https://doi.org/10.1136/jech.2003.018085
14. Srensen T, Klungsyr O, Kleiner R, Klepp OM. Social support and sense of coherence: Independent, shared and interaction relationships with life stress and mental health. International Journal of Mental Health Promotion. 2011;13(1):27-44. https://doi.org/10.1080/14623730.2011.9715648
15. Mehlum L. Suicidal ideation and sense of coherence in male conscripts. Acta Psychiatrica Scandinavia. 1998;98(6):487-492. https://doi.org/10.1111/j.1600-0447.1998.tb10124.x
16. Polewka A, Chrostek-Maj J, Kroch S, Mikołaszek-Boba M, Ryn E, Datka W, et al. The sense of coherence and risk of suicide attempt. Przeglaąd Lekarski. 2001;58(4):335-339.
17. Wolff AC, Ratner PA. Stress, social support and sense of coherence. Western Journal of Nurse Research. 1999;21(2):182-197. https://doi.org/10.1177/01939459922043820
18. Kong HS, Lee MS. A study on the effects of the elderly's social support and self-esteem on the suicidal ideation. The Journal of Korean Society for School & Community Health Education. 2012;13(3):115-125.
19. Kohout FJ, Berkman LF, Evans DA, Cornoni-Huntley J. Two shorter forms of the CES-D(Center for Epidemiological Studies Depression) depression symptoms index. Journal of Aging and Health. 1993;5(2):179-193. https://doi.org/10.1177/089826439300500202
20. Shin J, Lee T, Yun SJ. A bifactor approach to the factor structure study of the CED-S scale. Stress. 2017;25(4):272-278. https://doi.org/10.17547/kjsr.2017.25.4.272
21. Shin JD. National health status in the light of the Korea welfare panel study. Health and Welfare Policy Forum. 2010;170:23-31.
22. Hayes AF. Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York, NY: Guilford Press; 2013. 692 p.
23. Quon EC, McGrath JJ. Subjective socioeconomic status and adolescent health: A meta-analysis. Health Psychology: An official Journal of Division of Health Psychology, American Psychology Association. 2014;33(5):433-447. https://doi.org/10.1037/a0033716
24. Myrin B, Lagerström M. Sense of coherence and psychosocial factors among adolescents. Acta Paediatrica. 2008;97(6):805-811. https://doi.org/10.1111/j.1651-2227.2008.00801.x
25. Strang S, Strang P. Spiritual thoughts, coping and 'sense of coherence' in brain tumor patients and their spouse. Palliative Medicine. 2001;15(2):127-134. https://doi.org/10.1191/026921601670322085

26. Langeland E, Wahl AK, Kristoffersen K, Hanestad BR. Promoting coping salutogenesis among people with mental health problems. Issues in Mental Health Nursing. 2007;28(3):275-295. https://doi.org/10.1080/01612840601172627
27. Eriksson M, Lindström B. Antonovsky's sense of coherence scale and its relation with quality of life: A systematic review. Journal of Epidemiology Community Health. 2007;61(11):938-944. https://doi.org/10.1136/jech.2006.056028
28. Seo HN. A longitudinal study of adolescents' suicidal Ideation: Focusing on the effect of stress and depression. The Journal of Korean Psychology: General. 2011;30(3):629-646.