

A Study on the Stress Factors and School Adjustment of Middle and High School Students in Jeju¹

- Focused on the Control Effect of Stress Management-

Hye-sook Han²
(WAIS, S. Korea)

Abstract

According to a recent survey of the stress recognition levels felt by teenagers, 34.9% experienced 'sad or frustrated' levels with their daily lives being disrupted by more than two weeks in a row and it turned out that the older you are, the higher your stress perception levels are.(청소년백서, 2014).

Jeju Island has eight regular high schools (27%) among 30 schools. Middle school students in Jeju are experiencing relatively high admission stress compared to other regions in order to enter regular high schools in the level equalization zone. High school students are also experiencing a higher level of academic awareness in college admissions by the academic reports, adding to the academic stress. Appropriate stress for adolescents provides new stimuli, gives motivation and energy, and can lead to the rehabilitation of learning, however, stress builds up when they are unable to deal with it on their own, leading to experiences of physical and psychological maladaptation as well as drug abuse, delinquency, maladjustment, school violence and suspension.

Key words : stress factors, stress recognition, school adjustment, physical and psychological maladaptation, school violence, suspension

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2. A doctoral course in public administration at Jeju National University.

1. Introduction

Unlike previous generations of teenagers, today's adolescents live under dynamic interactions of stimuli and responses in a variety of stressful environments, such as uncertain futures and risks. In particular, Korean adolescents are experiencing not only the stress of developing and adapting to the environment, but also higher education, social demands for higher education and the resulting expectations of their parents, and the test-focused school education environment increases the mental poverty and stress on adolescents by imposing psychological pressures on their studies. In the social education, which is needed for current teenagers in various stress environments to grow into healthy society members, the function of the home is decreasing and the role of the school is getting bigger. Schools are also the most stressful and challenging for adolescents. In these stressful school lives, if it is the school adaptation that the student is preferably accepted in an educational environment, maladjustment refers to the conflicts and dissonance caused by not having a harmonious relationship with the school life environment and not dealing with a given set of circumstances and social conditions (이병환, 2014). Therefore, adolescents are forced to be exposed to stress in the relationships of adjustment and maladjustment that occur throughout their school lives, and the stress they experience at school leads to affect their school life and mental health significantly.

According to a recent survey of the stress recognition levels felt by teenagers, 34.9% experienced 'sad or frustrated' levels with their daily lives being disrupted by more than two weeks in a row and it turned out that the older you are, the higher your stress perception levels are.(청소년백서, 2014).

Jeju Island has eight regular high schools (27%) among 30 schools. Middle school students in Jeju are experiencing relatively high admission stress compared to other regions in order to enter regular high schools in the level equalization zone. High school students are also experiencing a higher level of academic awareness in college admissions by the academic reports, adding to the academic stress. Appropriate stress for adolescents provides new stimuli, gives motivation and energy, and can lead to the rehabilitation of learning, however, stress builds up when they are unable to deal with it on their own, leading to experiences of physical and psychological maladaptation as well as drug abuse, delinquency, maladjustment, school violence and suspension.

According to the survey of the number of students who stopped studying due to maladjustment in elementary, middle and high schools nationwide, the number of students who stopped studying was about 60,000 in 2014, the percentage of students who are suspended from school compared to students in school is 0.8% in middle schools and 1.6% in high schools. High school students with the highest rate of disruption were found to have the highest number of stoppages due to maladaptation and demeanor.(청소년백서, 2014). The problem of academic interruption due to this maladjustment can be seen as a result of gradual departure from the studies that have taken place in school or an alienation from the training fields, not as a choice of their own.

According to 제주특별자치도 학교 밖 청소년 종합지원계획 수립 연구³ 「제주특별자치도 학교 밖 청소년 종합지원계획 수립」(in 2015~in 2019) Research was conducted on the comprehensive support plans for education and welfare by analyzing the actual conditions of adolescents outside of school. The investigation targets are 115 outside of schools(Probation office, youth counseling service center, juvenile detention center, and an qualification exam academy for school entrance) and 388 ordinary adolescents(middle school and high school students in the provincial ares). It was conducted from February 9th to 13th March in 2015.

34.4% of students outside of school answered the questionnaire 'No one helped me to solve the problem' and 26.7% of ordinary adolescents answered the same questionnaire(남진열, 2015). These results can also be seen as the need to recognize problems before adolescents are presented as the extreme result of academic interruption due to maladjustment in school. There are many causes and worries of adolescents adapting to school. However, not all adolescents in the same environment experience psychological or adaptive issues. As individual differences reflect different outcomes, it is necessary to understand the stress experienced by teens to reduce the maladaptation and suspension of schools for teens with diverse personal and environmental backgrounds. Also, if stress response methods are analyzed and intervened to help effectively adapt to school by proactively dealing with, it will have an effect to help improve school adaptation and reduce the rate of school maladaptation and suspension.

In this study, I investigated the stress levels of Jeju middle school students and the maladjustments of students. It is come up to the needs of researching about the differences of school adjustments

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between specialized high school and regular high school; regular high school students made their own decision to enter the high school. Therefore, this study examines the stress factors, stress response methods, and the difference and influence of school adjustment, and tries to identify and analyze the adjustment effects of stress response methods that middle and high school students in Jeju Island are perceived. Such research is intended to provide the basic data needed for proper guidance to promote mental health for young people and to effectively deal with the stress faced during their growth. To that end, the research issues raised were :

First, are there any differences in stress factors, ways of coping with stress, and school adjustment by school type?

Second, what is the effect of stress factors on school adaptation by school type?

Third, what is the effect of stress response on school adjustment by school type?

Fourth, what is the effect of adjusting the stress response method in relation to the stress factors and school adaptation?

II. Theoretical Background

1. Stress in Adolescence

Lazarus & Folkman(1984) defines stress as a psychological and physical tension condition that individuals experience when placed in an inadaptable environment. The adolescent stress is likely to be the tension of ambivalence between being dependent or independent on high expectations in school or at home in the separation of social independence and the demands of mature behavior, adapting to changes in one's own body and environment. In the role expectations required to that time, adolescence is the turning point as many say that adolescence, psychological turbulence, the time of frustration and agony. These adolescents experience insecurity and imbalance as they navigate to the self, explore new values and ways of life, and carry out developmental tasks to establish identity. And they experience stress in the tension and confusion that comes with it. Adolescence is emotional and sensitive, with an excessive response to parents or social expectations, and an mental conflict in reality and ideals, which constricts or exaggerate itself in expressing emotions. It goes to the experience of shame or the case of depression from social isolation. Also exposed to mental conflict control and stress can cause behavioral problems such as delinquency and running away from home, bullying, maladjustment and suspension in school, or show negative behaviors such as smoking, substance abuse and suicide(아영아 외, 2010). As

a result, the stress experienced by adolescents is a direct influence on the school adaptation and on the various development of the young adult, while being an important forecasting factor of adulthood development later on. Eventually, understanding the nature of the stress experienced during adolescence to help solve adolescent stress could provide helpful intervention in the adjustment process for adolescents. Therefore, this study defined adolescent stress as external and internal stress resulting from problems required to adolescent in modern society also as the problems in growth and development, and identified stress factors as school, family, toward personnel, and ego stress.

2. Stress coping style

A stress coping style means process and effort to the solution as an act of minimizing the damage that you would have to yourself and of adapting to when you encounter a stress situation that you feel is potentially intimidating and burdensome to your resources(정옥분, 1998). Adaptation or maladjustment may also react depending on the success of the coping style. As such, the appropriate coping style to an individual's stress can give off positive emotion and increase adaptability to handle stress effectively. Therefore, individual stress control measures have a lot of influence on school adaptation(아영아 외, 2010). Cohen and Wills (1985) could rather see positive outcomes with an effective response strategy. They could rather expect the more aggressive coping response, the less adverse consequences by changing the relationship between life encountering risks and environment. Eventually, stress coping style can be an act of controlling the stressful situation, possibly reducing or increasing stress by changing to what happened before or controlling the stress after it occurred(Miller & Green, 1985). 김정희 (1987) identified stress coping style based on a coping style scale developed by Lazarus (1984). Based on the cognitive assessment of stress events, the measures to address stress by changing the problem behaviour or environmental conditions were divided into problem-centered coping and social support pursuit. Efforts to control stress induced emotional states or events that were cognitively reconstructed, were 'emotional mitigation measures' and 'desire thinking' to distinguish positive aspects of events into their own passive coping styles. Other reasons include avoiding the cause. These two coping style can facilitate or delay problem solving for stressful events, but those who cope effectively employ both proactive and passive copying. Therefore, this study looked at stress coping style as a separate method of proactive coping, problem-centered coping, social support

pursuit, and of passive coping style, emotional mitigation measures and desire thinking.

3. School adaptation

Allport (1961) believes that adaptation is a spontaneous or creative act to the environment, and the results of that action are to give the individual stability and that the individual is in a state that meets the norms, values, and order of society. "Shaffer(1956) looked at adaptation as an interaction and balance between the individual's needs and the environment, with Gates(1950) and Lazarus(1969) seeing adaptations as an active process for the balance between the individual and the environment. Sarason (2001) defined adjustment as the passive coping process of an individual's ability to change behaviour or incompetence." (3페이지까지 번역한 내용입니다.) Then, students' adjustment to school is the total effect that schools have. That is, they can adjust themselves to school life to be satisfied by reasonably addressing their needs in the school environment by feeling satisfied and keeping in harmony with their teachers and students.

Education fields can be divided into the home, the school, and society. Among them, if school life is all of the educational effects that students receive in school, then it has an important role for adolescents to build the power to grow or adapt properly in a changing social environment. For adolescents, school becomes a spatial and temporal place to foster community consciousness, the basis of civic consciousness for the performance of successful developmental tasks and successful social adaptability of adulthood(남진열 외, 2011). So adjusting to school life for adolescents means modifying every educational environment they experience in school to their own needs or allowing students to adapt themselves to all aspects of school life. School adjustment is a concept that not only the results in achieving academic performance, but also that adolescents reach their social group's goal effectively. It can be seen as a concept that covers all of the satisfactory interactions proceeding between students(곽수란, 2002). This school adaptation is likely to vary depending on the experience of stress and the extent to which it is used to handle and manage stress. Therefore, based on this concept, the study looked at the school adaptation of young adults in four sub-area : teacher adaptation, peer adaptation, class adaptation and rule adaptation.

III. Method of study

1. Research subjects and sampling

The study was conducted by second and third grade students at two middle schools, first and second grade students at two regular high schools and two specialized high schools in Jeju. The survey was recalled after researchers visited the school from April 14 to April 28, 2015, explained the guidelines for and answers on questionnaires under the teacher's supervision. The questionnaire was distributed with a total of 750 copies, and 689 copies were used, excluding insincere questionnaires.

2. Measurement Tools and Reliability

Scale Configuration	Sub Area	Reliability (Cronbach's α)
Stressor	school, home, interpersonal relationship, ego	.91
Stress Coping Style	active coping passive coping problem-centered, social support emotional mitigated, desire thinking	.74
School adaptation	teacher adaptation, peer adaptation, class adaptation, rule adaptation	.96

3. Data analysis method

The data collected were analyzed using the Strategic Package for Social Sciences (SPSS) programme 18.0. First, frequency analysis was carried out to identify general characteristics of the survey participants. Second, the Cronbach's α coefficient was calculated to verify the reliability of the measuring tool. Third, a single variance analysis was performed to identify the stress factors, stress coping style, and level of school adaptation, and a post-testing was conducted for the Scheffé test. Fourth, a correlation analysis was carried out to identify the correlation between the variables. Fifth, multiple regression analysis was performed to see the effects of stress factors and stress coping style on school adaptation. Sixth, an adjustment (hierarchical) regression analysis was carried out to see the effect of stress coping style.

IV. Research results

1. General characteristics of the survey participants

The general characteristics of the subjects to be surveyed are shown in Table 1. In sex, 349 males (50.7%), 340 females (49.3%). The number of students who are attending schools is 312 (45.3%) in middle school, 171(24.8%) in regular

high schools, and 206(29.9%) in specialized high schools.

<Table 1> General characteristics of the survey participants (N=689)

Classification		Fre- quency(N)	%	Classification		Fre- quency(N)	%
Sex	Male	349	50.7	Grade	Middle school 2nd	167	24.2
	Female	340	49.3		Middle school 3rd	145	21.0
School type	Middle school	312	45.3		High school 1st	185	26.9
	Regular high school	171	24.8		High school 2nd	192	27.9
	Specialized high school	206	29.9				
Total		689	100.0	Total	689	100.0	

2. Stress factors by school types, stress coping style, differences in school adjustment

1) Stressors by school type

The result of a one-way ANOVA is shown in Table 2 to see if there are differences in stress factors for different school types. The analysis showed statistically significant differences in the school stress, and in the stress of the home as the sub-factor of stress factor ($p < .01$). First of all, the specialized high school was shown as the highest in the school stress ($M=2.80$). In addition, the difference in home stress was higher in middle schools ($M=2.70$) and regular high schools ($M=2.68$) than specialized high schools ($M=2.56$).

<Table 2> Stress factors by school types (N=689)

Classification	School types	N	M	SD	F-value	p	Scheffe
School stress	Middle school	312	2.68	.446	5.885*	.003	c>a, b
	Regular high school	171	2.66	.388			
	Specialized high school	206	2.80	.483			
Home stress	Middle school	312	2.70	.476	6.009*	.003	a, b>c
	Regular high school	171	2.68	.490			
	Specialized high school	206	2.56	.484			
Interpersonal stress	Middle school	312	2.48	.527	.467	.627	-
	Regular high school	171	2.49	.527			
	Specialized high school	206	2.52	.521			
Ego stress	Middle school	312	2.43	.527	.808	.446	-
	Regular high school	171	2.49	.519			
	Specialized high school	206	2.44	.491			
Total	Middle school	312	2.57	.394	.055	.946	-
	Regular high school	171	2.58	.374			
	Specialized high school	206	2.58	.393			

Annotation) Middle school(a), Regular high school(b), Specialized high school(c), * $p < .01$

2) Stress coping style by school types

The result of a one-way ANOVA is shown in Table 3, to see if there are any differences in stress coping styles by school types. The analysis showed statistically significant differences in stress coping styles in general and in sub-factor issues, in problem-centered, in social support, and in emotional mitigation ($p < .05$). First, regular high schools ($M=2.64$) was the highest for the overall stress coping styles. Regular high schools ranked highest in the sub-factor issues, in problem-centered coping style ($M=2.72$), in social support pursuit ($M=2.71$). Specialized high schools was the highest at emotional mitigation coping style ($M=2.61$).

<Table 3> Stress coping styles by school types (N=689)

Classifi- action	School types	N	M	SD	F-value	p	Scheffe
Problem- centered	Middle school	312	2.53	.481	23.363***	.000	b>a>c
	Regular high school	171	2.72	.614			
	Specialized high school	206	2.34	.575			
Social support	Middle school	312	2.70	.428	19.293***	.000	b, a>c
	Regular high school	171	2.71	.571			
	Specialized high school	206	2.45	.545			
Emotional mitigation	Middle school	312	2.40	.536	10.481***	.000	c>b, a
	Regular high school	171	2.44	.567			
	Specialized high school	206	2.61	.415			
Desire thinking	Middle school	312	2.74	.517	2.969	.052	-
	Regular high school	171	2.69	.580			
	Specialized high school	206	2.81	.436			
Total	Middle school	312	2.59	.272	4.352*	.013	b>a, c
	Regular high school	171	2.64	.318			
	Specialized high school	206	2.55	.297			

Annotation) Middle school(a), Regular high school(b), Specialized high school(c), * $p < .05$, ** $p < .01$, *** $p < .001$

3) school adjustment by school types

The results of a one-way ANOVA, to see if there are differences in school adjustment by school type, are shown in Table 4.

<Table 4> school adjustment by school types

(N=689)

Classification	School type	N	M	SD	F-value	p	Scheffé
Teacher adaptation	Middle school	312	2.58	.591	2.213	.110	-
	Regular high school	171	2.68	.589			
	Specialized high school	206	2.58	.538			
Peer adaptation	Middle school	312	2.72	.492	4900**	.008	a, b) c
	Regular high school	171	2.70	.596			
	Specialized high school	206	2.58	.515			
Class adaptation	Middle school	312	2.55	.593	12.715***	.000	b) a, c
	Regular high school	171	2.75	.628			
	Specialized high school	206	2.44	.579			
Rule adaptation	Middle school	312	2.67	.514	4.301*	.014	b) a, c
	Regular high school	171	2.79	.596			
	Specialized high school	206	2.63	.547			
Total	Middle school	312	2.63	.499	5.605**	.004	b) a, c
	Regular high school	171	2.73	.529			
	Specialized high school	206	2.56	.476			

*) Middle school(a), Regular high school(b), Specialized high school(c), *p<.05, **p<.01, ***p<.001

3. Correlation between major variables

The correlation analysis results are shown in Table 5 to determine the relationship between stress factors, stress coping styles, and school adjustment. The analysis shows that the school stress has statistically significant negative correlations(-) with problem-centered coping styles, and the social support pursuit.(p <.001) interpersonal stress has statistically significant positive correlations(+) with emotional mitigation coping style(p<.05). Also, sub-factors of stress factors such as school, home, forward personnel, and ego stress have statistically significant negative correlations(-) with school adjustment(p<.001). Finally, stress coping styles including problem-centered coping and social support pursuit have statistically significant positive correlations(+) with school adjustment(p<.001), and emotional mitigation coping and desire thinking coping have statistically significant negative correlation(-) with school adjustment(p<.01).

<Table 5> The relationship between school

adjustment and stress factors, and stress coping styles

Classification	Stress factors				Stress coping style				School adaptations
	1	2	3	4	1	2	3	4	
School stress	1								
Home stress	.406***	1							
Interpersonal stress	.503***	.564***	1						
Ego stress	.415***	.414***	.633***	1					
Problem-centered	-.134***	-.007	-.071	-.007	1				
Social support	-.177***	-.060	-.084	-.031	.605***	1			
Mental mitigation	.069	.062	.099*	.067	-.150***	-.143***	1		
Desire thinking	.053	.036	.034	-.020	-.147***	-.153***	.449***	1	
school adjustment	-.416***	-.272***	-.353***	-.277***	.576***	.528***	-.133***	-.115**	

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

4. Effect of stress factors on school adjustment by school types

The results of a multi-regression analysis are shown in Table 6 to see the effects of stress factors on school adjustment by school types.

<Table 6> Effect of stress factors on school adjustment by school types

School types	Unstandardized coefficients		Standardized coefficients	t	p	F	R2 (Adj.R2)
	B	Standard error	Beta				
Middle school	(Constant)	4.150	.176		23.582	.000	22.295*** (.215)
	School stress	-.465	.068	-.415	-6.869***	.000	
	Home stress	.000	.070	.000	-.006	.995	
	Interpersonal stress	-.044	.072	-.046	-.607	.544	
	Ego stress	-.068	.063	-.072	-1.080	.281	
Regular high school	(Constant)	5.300	.238		22.313	.000	36.419*** (.467)
	School stress	-.376	.092	-.275	-4.087***	.000	
	Home stress	-.166	.072	-.153	-2.297*	.023	
	Interpersonal stress	-.256	.081	-.254	-3.176**	.002	
	Ego stress	-.196	.076	-.192	-2.596*	.010	
Specialized high school	(Constant)	3.290	.222		14.853	.000	4.646** (.066)
	School stress	-.195	.082	-.197	-2.374*	.019	
	Home stress	-.028	.083	-.029	-.340	.735	
	Interpersonal stress	-.175	.092	-.192	-1.900	.059	
	Ego stress	.134	.086	.138	1.551	.122	

Dependent variable: school adjustment

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

The analysis results firstly show that the regression model for the middle school has an explanatory capacity of 22.5%, (F=22.295, p<.001), the regression model for the regular high school has an explanatory capacity of 46.7%, (F=36.419, p<.001), the regression model for the specialized high school has an explanatory capacity of 8.5%, (F=4.646, p<.01). Middle schools, regular high schools, and specialized high schools were all analyzed to be statistically significant in regression models. By independent variable, school stress had a significant

negative effect(-) on middle school and specialized high school, and when school stress was high, school adaptation decreased. In the case of regular high schools, it was shown that school, home, Interpersonal, and ego stress all have significant negative effects ($p < .05$), the higher overall stress, the lower school adjustment. Therefore, we can see that reducing school stress is an important factor in improving school adaptation for middle schools and specialized schools while reducing school stress, home stress, interpersonal stress, ego stress is important factor for regular high schools in improving school adjustment.

5. Effect of stress coping styles on school adjustment by school types

The results of performing multiple regression analysis to see how stress coping styles by school types affect school adjustment are shown in Table 7.

<Table 7> Effect of stress coping styles on school adjustment by school types

School types	Classification	Unstandardized coefficients		Standardized coefficients	t	p	F	R2 (Adj.R2)
		B	Standard error	Beta				
Middle school	(Constant)	.930	.211		4.418	.000	57.540***	.428 (.421)
	Problem-centered	.480	.053	.463	9.091***	.000		
	Social support	.288	.059	.247	4.860***	.000		
	Mental mitigation	-.085	.044	-.091	-1.902	.058		
	Desire thinking	-.032	.046	-.034	-.705	.482		
Regular high school	(Constant)	1.014	.261		3.879	.000	30.533***	.424 (.410)
	Problem-centered	.191	.068	.222	2.810**	.006		
	Social support	.445	.073	.480	6.093***	.000		
	Mental mitigation	-.028	.064	-.030	-.441	.659		
	Desire thinking	.023	.062	.025	.367	.714		
Specialized high school	(Constant)	1.008	.255		3.948	.000	25.854***	.340 (.327)
	Problem-centered	.353	.059	.426	5.970***	.000		
	Social support	.179	.063	.206	2.846**	.005		
	Mental mitigation	.108	.074	.094	1.455	.147		
	Desire thinking	.002	.072	.002	.026	.979		

Dependent variable: school adjustment
p<.01, *p<.001

The analysis results show that the ability of the regression model to explain are 42.8%, ($F=57.540$, $p < .001$) in middle school, 42.4%, ($F=30.533$, $p < .001$) in regular high school, 34.0%, ($F=25.854$, $p < .001$) in specialized school. Middle schools, regular high schools, and specialized high schools were all analyzed to be statistically significant in regression equation. By independent variable is found to have significant positive influence(+) on problem-centered coping style and social support pursuit in middle school, general high school and specialized

high schools. As the problem-centered coping style and the social support pursuit rise, school adaptation is showing a rise.

6. The control effect of stress coping style⁴

1) The control effect of problem-centered coping style
The results of an moderated regression analysis are shown in Table 8 to see if the stress-induced factors influencing school adjustment are controlled by the problem-centered coping style. First, a hierarchical regression was carried out, with the stress factors in model I as independent variables, the problem-centered coping in model II as moderator variables, interaction parameters in model III in turn. Model I has an explanatory power of 20.3%, which is statistically significant($F=43.591$, $p < .001$). As independent variables, school stress($\beta = -.307$, $p < .001$), interpersonal stress($\beta = -.148$, $p < .01$) has a significant negative (-) effect. Model II, with an additional problem-centered coping, was found to have an increased explanatory power by 28.2% to 48.5%, and was analyzed to be statistically significant($F=128.609$, $p < .001$). That is, it was analyzed that the additional problem-based coping($\beta = .538$, $p < .001$) variables have a significant positive effect on school adjustment.

And the explanatory power of model III, with an additional interaction variable inserted to verify the problem-centered coping control effects, increased by 1.8% to 50.3% and is statistically significant($F=76.333$, $p < .001$). Additional interaction (school stress \times problem-centered coping) variables shown statistically significant($\beta = .104$, $p < .01$). That is, problem-centered coping style can be seen as coordinating the relationship between school stress and school adjustment by sub-factor of stress factors.

<Table 8> Problem-centered coping styles' control effect

Classification	Model I		Model II		Model III		
	β	t	β	t	β	t	
School (A)	-.307	-7.589***	-.224	-6.830***	-.197	-5.962***	
Stress factors	Home (B)	-.049	-1.168	-.086	-2.548*	-.081	-2.404*
	Interpersonal (C)	-.148	-2.935**	-.103	-2.540*	-.097	-2.410*
	Ego (D)	-.035	-.794	-.079	-2.194*	-.087	-2.454*
Problem-centered coping style control effects	Stress coping style			.538	19.331***	.549	19.816***
	(A) \times (M)					.104	3.059**
	(B) \times (M)					.045	1.228
	(C) \times (M)					.013	.288
	(D) \times (M)					-.006	-.159
F-value(p)	43.591***(.000)		128.609***(.000)		76.333***(.000)		
R2	.203		.485		.503		
Change of R2	-		.282		.018		

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

2) Social support pursuit style's control effects

The results of an moderated regression analysis

4. Moderated regression analysis: In the process of step-by-step inserting variables into a regression equation, it is important to note that when a regulation variable is added as an item combined with an independent variable, the explanatory power (R^2) is increased statistically significantly.

are shown in Table 9 to see if the stress factors affecting school adjustment can be controlled by the stress coping style, social support pursuit coping style.

First, a hierarchical regression was carried out, with the stress factors in model I as independent variables, social support pursuit in model II as moderator variables, interaction parameters in model III in turn. Model I has an explanatory power of 20.3%, which is statistically significant ($F=43.591$, $p<.001$). As independent variables, school stress ($\beta = -.307$, $p<.001$), interpersonal stress ($\beta = -.148$, $p<.01$) has a significant negative(-) effect. Model II, with an additional social support pursuit, was found to have an increased explanatory power by 21.6% to 41.9%, and was analyzed to be statistically significant ($F=98.664$, $p<.001$). That is, it was analyzed that the additional social support ($\beta = .473$, $p<.001$) variables have a significant positive effect(+) on school adjustment. Finally, the explanatory power of model III, with an additional interaction variable inserted to verify the social support pursuit control effects, increased by 1.5% to 43.4% and is statistically significant ($F=57.836$, $p<.001$). Additional interaction (school stress \times social support pursuit) variables and interaction(home stress \times social support pursuit) variables are shown statistically significant ($\beta = .084$, $p<.05$, $\beta = .107$, $p<.01$). That is, it was analyzed that social support pursuit can control the relationship among school stress, home stress, and school adjustment.

<Table 9> Social support pursuit's control effects

Classification	Model I		Model II		Model III		
	β	t	β	t	β	t	
Stress factors	School (A)	-.307	-7.589***	-.217	-6.198***	-.209	-6.00***
	Home (B)	-.049	-1.168	-.054	-1.500	-.051	-1.420
	Interpersonal (C)	-.148	-2.935**	-.131	-3.037**	-.123	-2.864**
	Ego (D)	-.035	-.794	-.067	-1.751	-.076	-1.999
Social support pursuit's control effect	Social support(M)		.473	15.949***	.481	16.197***	
	(A) \times (M)				.084	2.384*	
	(B) \times (M)				.107	2.865**	
	(C) \times (M)				-.038	-.826	
	(D) \times (M)				-.047	-1.147	
F-value(p)	43.591***(.000)		98.664***(.000)		57.836***(.000)		
R2	.203		.419		.434		
Change of R2			.216		.015		

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

3) Mental mitigation coping style's control effects

The results of an moderated regression analysis are shown in Table 10 to see if the stress factors affecting school adjustment can be controlled by the stress coping style, mental mitigation coping style.

<Table 10> Mental mitigation coping style's control effects

Classification	Model I		Model II		Model III		
	β	t	β	t	β	t	
Stress factors	School (A)	-.307	-7.589***	-.305	-7.565***	-.292	-7.342***
	Home (B)	-.049	-1.168	-.049	-1.161	-.031	-.748
	Interpersonal (C)	-.148	-2.935**	-.141	-2.795**	-.133	-2.690**
	Ego (D)	-.035	-.794	-.035	-.792	-.044	-.996
Mental mitigation coping style's control effects	Mental mitigation(M)			-.093	-2.709**	-.067	-1.948
	(A) \times (M)					.007	.173
	(B) \times (M)					-.102	-2.308*
	(C) \times (M)					-.116	-2.203*
	(D) \times (M)					.040	.895
F-value(p)	43.591***(.000)		36.663***(.000)		23.762***(.000)		
R2	.203		.212		.240		
Change of R2			.009		.028		

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

First, a hierarchical regression was carried out, with the stress factors in model I as independent variables, mental mitigation coping style in model II as moderator variables, interaction parameters in model III in turn. Model I has an explanatory power of 20.3%, which is statistically significant ($F=43.591$, $p<.001$). As independent variables, school stress ($\beta = -.307$, $p<.001$), interpersonal stress ($\beta = -.148$, $p<.01$) has a significant negative(-) effect. Model II, with an additional mental mitigation coping, was found to have an increased explanatory power by 0.9% to 21.2%, and was analyzed to be statistically significant ($F=36.663$, $p<.001$). That is, it was analyzed that the additional mental mitigation ($\beta = -.093$, $p<.01$) variables have a significant negative effect(-) on school adjustment. Finally, the explanatory power of model III, with an additional interaction variable inserted to verify the mental mitigation control effects, increased by 2.8% to 24.0% and is statistically significant ($F=23.762$, $p<.001$). Additional interaction (home stress \times mental mitigation coping) variables and interaction(interpersonal stress \times mental mitigation) variables are shown statistically significant ($\beta = -.102$, $p<.05$, $\beta = -.116$, $p<.05$). That is, it was analyzed that mental mitigation coping style can control the relationship among home stress, interpersonal stress, and school adjustment.

4) Desire thinking coping style's control effects

The results of an moderated regression analysis are shown in Table 11 to see if the stress factors affecting school adjustment can be controlled by the stress coping style, desire thinking coping style.

<Table 11> Desire thinking coping style's control effects

Classification	Model I		Model II		Model III		
	β	t	β	t	β	t	
Stress factors	School (A)	-.307	-7.589***	-.302	-7.489***	-.294	-7.304***
	Home (B)	-.049	-1.168	-.047	-1.127	-.027	-.631
	Interpersonal (C)	-.148	-2.935**	-.144	-2.863**	-.134	-2.660**
	Ego (D)	-.035	-.794	-.043	-.965	-.042	-.947
Desire thinking coping style's control effects	Stress coping style						
	Desire thinking(M)			-.094	-2.744**	-.105	-3.088**
Interactions	(A)×(M)					-.053	-1.306
	(B)×(M)					-.046	-1.058
	(C)×(M)					-.116	-2.270*
	(D)×(M)					.045	.983
F-value(p)		43.591***(.000)		36.711***(.000)		23.164***(.000)	
R2		.203		.212		.235	
Change of R2				.009		.013	

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

First, a hierarchical regression was carried out, with the stress factors in model I as independent variables, desire thinking coping style in model II as moderator variables, interaction parameters in model III in turn. Model I has an explanatory power of 20.3%, which is statistically significant ($F=43.591$, $p < .001$). As independent variables, school stress ($\beta = -.307$, $p < .001$), interpersonal stress ($\beta = -.148$, $p < .01$) has a statistically significant negative (-) effect. Model II, with an additional desire thinking coping, was found to have an increased explanatory power by 0.9% to 21.2%, and was analyzed to be statistically significant ($F=36.711$, $p < .001$). That is, it was analyzed that the additional desire thinking ($\beta = -.094$, $p < .01$) variables have a significant negative effect (-) on school adjustment. Finally, the explanatory power of model III, with an additional interaction variable inserted to verify the desire thinking control effects, increased by 1.3% to 23.5% and is statistically significant ($F=23.164$, $p < .001$). Additional interaction (interpersonal stress \times desire thinking coping) variables was shown statistically significant ($\beta = -.116$, $p < .05$). That is, it was analyzed that desire thinking coping style can control the relationship between interpersonal stress and school adjustment.

V. Discussion and Conclusion

This study was to discover the difference and effect of stress factors by school types, stress coping style, school adjustment, and the control effect of stress coping style in relation to the school adjustment. Therefore, the discussion on this research question is as follows.

First, after examining the difference in stress factors by school types, stress coping styles, and school adjustment, the overall stress perception was higher in regular high schools and specialized high schools than in middle schools. The results are seen as a result of increased stress over the admission process and career choices for high schools. And

the difference in stress coping styles is that the regular high school and middle school were more proactive in problem-centered coping for problem solving, whereas the specialized high school was more distanced to control or avoid the emotional state rather than problem solving. The overall stress coping styles and school adjustment show higher levels in regular high schools than those of middle schools and specialized high schools. Regular high schools show rising levels of school adjustment by utilizing stress coping styles at the same conditions are given. On the other hand, specialized high schools showed the lowest level of stress coping styles and school adjustment compared to the high perception of school stress. With attention to these results, increasing school adjustment of specialized high schools requires intervention to ensure that proactive problem-centered coping to school stress are made.

Secondly, after looking at the effects of stress factors on school adjustment, middle schools and specialized high schools were affected by school stress while regular high schools were affected by overall school, home, peer, and ego stress. In the case of regular high schools, levels of stress coping styles and school adjustment were high. However, paying attention to the perception of diverse stresses relative to middle schools and specialized high schools, the social atmosphere that encourages competition with peers and over expectations from schools or home should be reduced to help reduce stress levels.

Third, as a result of investigating the effects of stress coping styles on school adjustment, it was revealed that there is a rise in school adjustment when problem-centered coping and social support pursuit, proactive coping style, becomes higher in middle schools, regular schools, and specialized schools. This is consistent with research results by 강은영(2007), who believes students who use problem-centered coping and social support are highly adaptable in all areas of school adjustment. Therefore, it can be seen that a proactive coping style is necessary to adapt to school, not to utilize passive coping styles such as purging stressful emotions or emotional avoidance.

Forth, the analysis of the stress coping style's control effects on the relationship between stress factors and school adjustment shows that problem-centered coping style is to control the relationship between school stress and school adjustment. These results indicate that students themselves are more adaptable to try to identify and solve problems without avoiding the stress they encounter in school. In social support pursuit, it was shown to control the relationship between school stress, home stress, and school adjustment. This is similar to the study confirmed by 김병안(2010) that social support pursuit as a pure control variable that can act as a mechanism to lower violent attitudes when used in conflict control situations. (12페이지까지 번

역한 내용입니다.) These results can be seen as an increase in school adaptability by asking for help or by sharing stress at school and at home with others (parents, friends, teachers, professional counselors, etc.) and by relieving or adjusting stress. In the following emotional mitigation coping style, it was shown to control the relationship between home stress, interpersonal stress and school adjustment. This is consistent with research results by 이지숙(2013), who found that passive and avoidant coping style would control the relationship between parent stress, friend stress and suicidal thoughts. In order to improve the mental health and school adjustment, guidance and support is needed to help them cope with the problems of home stress and interpersonal stress by proactive coping styles. Finally, in desire thinking coping style, it has been shown to control the relationship between interpersonal stress and school adjustment. This is not to proactively address in interpersonal stress or problems but to influence school adjustment by avoiding the causes of stress or emotionally reconfiguring an incident that affects them. Although this approach can be a temporary fix, it requires guidance and support on the acquisition of interpersonal skills to ensure that a fundamental solution can be made. Adolescents who use emotional mitigation coping style and desire thinking coping style have lower school adjustment than adolescents who use problem-centered coping style and social support pursuit against school stress, home stress, and interpersonal stress. Therefore, proper intervention is needed to achieve proactive coping style in stressful situations in order to improve school adjustment and reduce the rate of suspension.

Based on these findings, I would like to suggest the following.

First, to improve the adaptation of middle and high school students and to reduce the rate of suspension, groups of students can be identified as causes by early detection of maladjusted elements, thus, a method of education is needed so that adolescents can recognize and solve the stress causing school maladjustment. Sustained case management is needed through differentiated program delivery and post-effect verification, taking into consideration the characteristics and age of each type of school. Education suspension rates decreased due to the introduction of Stop-Study-Plan in 2014⁵, but the rate of suspension due to maladjustment in high school is still high and the highest rate is in first and second graders of high schools. In this study, the level of stress perception is higher among high school students than in middle school. In particular,

focusing on the fact that the specialized high school has higher school stress and the lowest school adjustment, it is believed that further studies would be needed to find out if the students who made their own choice of their high school failed to meet the requirements of their educational backgrounds.

Second, it is important to recognize that the effects of stress and maladjustment are not only from the individual psychological characteristics of the students, but from the problem of their interaction with school life and society environments. For regular high schools and middle schools, school adjustment are shown to be high, but the results of the high home stress tests indicate positive aspects of interactions with parents (guardians) at home should be done, parents education has to be active. Most of the parent education that is being conducted today is usually done during mid-day hours, so parents who work are unable to participate in the education. Thus, evening and weekend training should be organized to ensure greater participation in the education of the parents, and practical training should be provided to guide appropriate face training in the context of issues between the parents and the children.

Third, although there are traditional studies on stress and school adaptation of middle and high school students, not many studies have looked at the effects of different school types and control effects of coping styles. The results of this study show that the aggressive coping style has the effect of controlling school stress, home stress, and school adjustment. In conclusion, development and application of effective stress coping style program depending on characteristic of each school type is necessary to achieve proactive coping to stress to improve school adaptation.

In particular, it is believed that a specific program should be conducted to identify an individual's aptitude before entering high school.

5. 학업중단속려제」 full implementation(January, 2014): A system that prevents students from stopping their studying in a careless manner by giving them a chance to meditate for a certain period of time and supporting programs such as counseling.

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