A Comparative Study of Stress and Its Coping Methods on the Subjective Well-being of Adolescents in Urban and Rural Areas

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Abstract

The purpose of this study is to identify the level of stress and its coping methods on the subjective well-being of students and to compare the two between students from the urban and rural areas. Subjects of students from two middle schools in City S and two middle schools in City A in South Korea completed a structured questionnaire consisting of questions to understand the students' stress levels and stress-coping methods. We analyzed the survey data from 219 responses, excluding unreturned or incomplete surveys. Data were analyzed using the t-test and χ^2 test to determine the differences in stress and stress-coping methods of adolescents. The mean stress score of students from urban schools was 2.06 and the mean stress score of students from rural schools was 1.92($t=-1.821$, $p>.05$). Therefore, this study identified a significant correlation between task-focused ($r=.512$, $p<.01$), emotion-focused ($r=.075$, $p<.01$) evasion-focused ($r=.314$, $p<.01$) stress-coping methods and positive emotions of subjective well-being on students from urban and rural schools.

Keywords: Stress, Coping, Well-being, Urban, Rural

1. Introduction

1.1 Background

Adolescence is a very important time for people's lives as it is the time when teens begin to secure their self-identity, expand their social relationships with others, develop their perception abilities towards others and form their concept of self[1]. During this time, any inability to adjust to one's social relations causes mental conflicts and brings confusion over one's identity. Adolescents fail to cope with these difficulties face and experience depression, an inability to adapt to one's school environment, violence and running away from home amongst other various problems[2][3].

The stress that adolescents experience in Korea is often overlooked over the necessity of

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academic achievement. However, despite the fact that said stress may seem mild, it stems from many different factors and causes tension in many complex forms. This tension could be more dangerous than large factor of stress that an adolescent individual may experience and could cause harm to one's mental and physical health[4]. According to data provided by the Ministry of Statistics in 2019, 45 percent of adolescents aged 13 to 24 admitted to be facing stress in their "overall life" and the number one cause of death amongst Korean adolescents have been suicide for eleven years in a row[5].

The responses that various people have towards stress depends on the individual's perception of the tension, and the ability to cope with the tension. Adolescents who fail to adapt to their mental and physical surroundings tend to face a lot of stress and those who cope well with such stress tend to expedite their growth[6]. Therefore, there is a need for additional research with students in various environments to assess different environments and coping methods to study the varied factors that may affect stress levels in different ways.

The notion of subjective well-being and accomplishment that individuals feel from completing their own tasks and increasing their quality of life could become the main theme of research for reducing the stress of adolescents[7].

Therefore, this research dives deep into the contrast between the stress-coping methods within various education systems and different geographical regions. The research compares the relationship between the methods' self-efficacy and the subjective well-being and also observes the potential risk for adjusting and the problem-solving abilities of the coping method through careful analysis. There are also further intervention measures and material provided in the research.

1.2 Objective

The objective of this study is to confirm the relationship between the coping methods for stress and the subjective well-being of students from urban and rural schools. The detailed objectives are as follows.

First, we aim to grasp the main qualities and the stress levels of students from urban and rural schools.

Secondly, we aim to grasp the stress-coping methods of students from urban and rural schools.

Thirdly, we aim to grasp the relationship between the stress-coping methods and the subjective well-being of students from urban and rural schools.

2. Methodology

2.1 Design

This study is a descriptive research aimed at observing the relationship between the stress-coping methods and the subjective well-being of students from urban and rural schools

2.2 Research Subjects and Data Collection

This study observed students in City S at 2 middle schools from May 15th, 2019 to June 19th of the same year and students at 2 rural schools. To consider the ethical aspect of this study, the data was collected after clearly explaining the objective of the student and receiving consent from the student participants via signature. Utilizing the G*Power 3.1.9 program the statistical significance $\alpha=.05$, and the statistical power $=1-\beta=.80$ for a size of effect at .25 was used. In addition, the original number of subjects was 230 but the real number of subjects' data used was 159. So in total, excluding all the incomplete and undependable sample data collected from questionnaires filled out with a lack of effort, there was data collected from 219 subjects.

2.3 Materials

2.3.1 Stress

The stress measurement tools used in this study are from the 5 domains of stress stated by Jun Ho Kim and Dong Won Lee(1996)[8] that include Parents, Academic Performance and School, Friends, Appearance, and Financial Issues. These domains were modified into 26 different questions to measure these areas. 3 nursing professors examined the internal validity of the questions. After this process was completed, the questions were modified and complemented for final review. Each question ranges from an answer scale of Doesn't Receive Stress(1 point) to Receives a lot of Stress(5 points). A higher point indicates a higher stress level. This study's Cronbach's alpha was at .90.

2.3.2 Stress Coping Method

The stress-coping methods measured in this study are those that were used by Endler and

Parker (1990)[9]. The methods were modified to fit towards this study. 3 nursing professors examined the internal validity of the coping methods after modification and complementation for the purpose of this study. The stress-coping methods include the 3 domains of task, emotion, evasion and these were measured by 30 questions. A higher stress-coping score indicates a more efficient coping methods score. This study's internal validity had a Cronbach's alpha of .89.

2.3.3 Subjective Well-being

To measure the subjective well-being of this study's subjects, Positive and Negative Affect Scale(PANAS) was used to measure the positive and negative emotions[10], and Satisfaction with Life Scale(SWLS)[11] was used as a scale for measuring life satisfaction. 3 nursing professors examined the questions for were modified to fit the purpose of this study and modified and complemented after the internal validity of the questions. The study's internal validity had a Cronbach's alpha of .91.

2.4 Method of Data Analysis

The data collected were analyzed using the SPSS/WIN 22.0 program to collect the subject's general characteristics, stress-coping methods and subjective well-being's real sample size, percentage, mean and standard deviation. In addition the t-tests and the χ^2 tests were used to analyze the differences between the subject's general characteristics, stress factors, stress-coping methods and subjective well-being. In addition the Pearson's correlation coefficient was used to analyze the relationship between the variables measured in the study.

3. Results

3.1 General Characteristics

The 219 subjects in this study are from two middle schools in urban area and two middle schools from rural area. The average age of the students was 13.8 and for both the 39 students from urban area(36.1%) and the 40 students from rural area(36.1%), the proportion of 2nd grade of middle school students was the highest. 33 students(30.5%) in urban area stated that they were protestant and 35 students from rural area(31.6%) stated that they had no religion or as miscellaneous as the most common answer for religion. middle was the most common response for academic performance based on the responses from 54 students from urban area

school(50.0%) and 59 students from rural area school(53.2%). In addition, middle was the most common response for economic background based on the responses from 49 students from urban area (45.4%) and 48 students from rural area (43.3%)([Table 1]).

[Table 1] General Characteristics of Subjects

(N=219)

Characteristics	Categories	Students from Urban Area	Students from Rural Area
		N(%)	N(%)
Gender	Male	56(51.9)	58(52.3)
	Female	52(48.1)	53(47.7)
Grade	1 st grade	35(32.4)	38(34.2)
	2 nd grade	39(36.1)	40(36.1)
	3 rd grade	34(31.5)	33(29.7)
Religion	Christians	33(30.5)	34(30.6)
	Catholicism	25(23.2)	22(19.8)
	Buddhism	19(17.6)	20(18.0)
	Other or None	31(28.7)	35(31.6)
Academic record	Upper	38(35.2)	31(27.9)
	Middle	54(50.0)	59(53.2)
	Lower	16(14.8)	21(18.9)
Economic status	Upper	26(24.1)	28(25.2)
	Middle	49(45.4)	48(43.3)
	Lower	33(30.5)	35(31.5)
N(%)		108(100)	111(100)

3.2 Stress Comparison among Subjects

The average stress levels of students from the urban area were at 2.06 and the average stress levels of students from the rural area were at 1.92 ($t=0.817$, $p>.05$). Comparing the results of each domain, it was observed that there was no significant difference in stress caused by parents between students from urban and rural area($t=-0.604$, $p>.05$), however, there were significant differences in coping methods scores for stress induced by the academic record($t=-2.652$, $p<.05$), stress induced by friends($t=-2.509$, $p<.05$), stress related to appearance ($t=-2.457$, $p<.05$), and stress induced by financial issues($t=2.411$, $p<.05$)([Table 2]).

[Table 2] The Comparison with Stress between Students from Urban and Rural Area (N=219)

Variables	Students from Urban Area (n=108)	Students from Rural Area (n=111)	t
	M±SD	M±SD	
Stress by parents	2.19±1.61	2.18±1.92	-0.604
Stress by academic record	2.71±1.43	2.37±1.03	-2.652*
Stress by friends	2.26±1.54	1.89±1.46	-2.509*
Stress by appearance	1.95±0.82	1.54±1.67	-2.457*
Stress by financial issue	1.21±2.09	1.63±1.96	2.411*
Total	2.06±1.49	1.92±1.61	-1.821

* $p < .05$

3.3 Comparison of Stress-Coping Methods

The study's comparison of the subjects' stress-coping methods is shown in [Table 3]. It can be observed that students from urban area were more likely to utilize Task-focused coping methods($t=-2.566$, $p<.05$) and Evasion-focused coping methods($t=-2.395$, $p<.05$) as opposed to students from rural area. In addition, emotion-focused stress coping methods were used more frequently by students from rural area as opposed to those from urban area($t=1.817$, $p<.05$) via statistical significance([Table 3]).

[Table 3] The Comparison with Stress-coping Methods between Students from Urban and Rural Area (N=219)

Variables	Students from Urban Area (n=108)	Students from Rural Area (n=111)	t
	M±SD	M±SD	
Task-focused coping	2.73±1.59	2.26±0.71	-2.566*
Emotion-focused coping	2.25±0.95	2.58±1.02	1.817*
Evasion-focused coping	2.47±1.62	2.16±1.58	-2.395*

* $p < .05$

3.4 The Correlations between Stress-coping Methods and Subjective Well-being

In this study, among the positive emotionality of the subjects' relationship between stress-coping methods and the subjective well-being, there was a positive correlation with task-focused ($r=.512$, $p<.01$), emotion-focused ($r=.075$, $p<.01$) and evasion-focused ($r=.314$, $p<.01$) methods. For the negative emotionality, there was a negative correlation with task-focused

($r=-.187$, $p<.01$) methods. For life satisfaction ratings, task-focused ($r=.265$, $p<.01$) and evasion-focused ($r=.217$, $p<.01$) had a positive correlation as indicated in the results([Table 4]).

[Table 4] The Correlations between Stress Coping Methods and Subjective Well-being (N=219)

Variables	Positive affect	Negative affect	Life Satisfaction
Task-focused coping	.512**	-.187**	.265**
Emotion-focused coping	.075**	1.12	.032
Avoidance-focused coping	.314**	.063	.217**

** $p < .01$

4. Discussion & Conclusion

This study aims to compare and contrast the stress and the stress-coping methods of adolescent students from urban and rural area, along with examining the relationship between coping methods and the subjective well-being of the students. The results and the conclusion that was incurred from the research is as follows.

The average stress levels for students in urban area was 2.06 and the average stress levels for students from rural area was 1.92($t=-1.821$, $p>.05$). Although the stress levels were normal compared to the research by Kyung-Hee Park(2002), Jeong Nam Lee(2003)[12][13], it could be observed that the stress levels for students in Seoul was high. Comparing the stress levels by domain, stress induced by parents had no significant difference between students in urban and rural area($t=-0.604$, $p>.05$), however there was a significant difference in stress induced by academic performance($t=-2.652$, $p<.05$), stress induced by friendships($t=-2.509$, $p <.05$), stress induced by physical appearance($t=-2.457$, $p<.05$) and stress caused by financial issues ($t=2.411$, $p<.05$). The coping method scores were also significantly different and the results of this study were similar to findings from the study done by Hyung Seon Kim(2001) and Jeong Nam Lee (2003)[13][14]. These findings show that students from capital region are more prone to stress especially caused by academic performance, and that domain should be given a bit more attention in the future.

For stress-coping methods used by both groups of students, students from urban area used more task-focused coping($t=-2.566$, $p<.05$) and evasion-focused coping($t=-2.395$, $p<.05$) compared to students from rural area, while students from rural area were more likely to use emotion-focused coping($t=1.817$, $p<.05$). In addition, considering the various academic environments, there is a need to approach each domain with a detailed intervention method for each case in the future.

According to various research studies done on stress-coping method, task-focused coping and evasion-focused copings run in conflict with each other. Students who utilize task-focused copings seem to adapt and fare better than those who use evasion-focused copings. However, those with depression seem to utilize evasion-focused copings better than other coping methods [15][16].

In this study, for positive emotionality, task-focused($r=.512$, $p<.01$) and emotion-focused($r=.075$, $p<.01$) and evasion-focused ($r=.314$, $p<.01$) had a positive correlation. Also, for life satisfaction, task-focused($r=.265$, $p<.01$) and evasion-focused($r=.217$, $p<.01$) had a positive correlation. Therefore, a task-focused approach or an evasion-focused approach could be a suitable way to avoid stress, and further research is needed to understand the effect of these methods on student's subjective well-being.

The limitations of this study include that the study only observed the subjects of 2 middle schools from each in urban and rural area. Therefore, it may not be that simple to extrapolate the collected data, the analyzed results and the stress-coping methods needed to all adolescents.

However, this study does confirm the relationship between stress-coping methods and the subjective well-being of students in urban and rural area while considering regional and other environmental factors. This study also has significant importance in understanding the foundation of stress-coping methods and what detailed intervention is required in the near future.

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