

Level of Depression and Anxiety among Undergraduate Students

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Abstract

This study attempted to examine the level of depression and anxiety among undergraduate students, providing basic data for the development of mental health programs for college students. Informed consent was obtained from all participants, comprising 431 undergraduate students from C university in Gyeonggi Province, South Korea. Participation in this study was voluntary. Structured questionnaires were administered to participants regarding sociodemographic characteristics and level of depression and anxiety. Data were analyzed using SPSS 18.0. The results showed that undergraduate students' average depression and anxiety scores were 1.36 and 1.26 out of 4, respectively. There were significant differences in anxiety scores according to gender ($t = -2.676$, $p = .008$) and type of residence ($F = 2.573$, $p = .037$), Female students obtained higher anxiety scores than male students did. Regarding living status, participants living alone and those in home stays had higher anxiety scores than those living with family, in dormitories, and with others. Moreover, a strong positive correlation was observed between depression and anxiety ($r = .517$, $p < .001$), with higher depression leading to greater anxiety. Therefore, identifying and efficiently managing factors that cause depression and anxiety in college students is necessary to improve their mental health.

Keywords: Anxiety, College Students, Depression, Mental Health, South Korea

1. Introduction

1.1 Background

South Korea's college entrance rate was 81.9% in 2009, implying that most high school graduates attended college¹. College life differs from high school life in numerous ways. High school students are highly dependent on their parents or teachers, as their lives center around their admission into college. However, on entering college, they are immediately required to be self-reliant and find effective solutions for various problems and situations independently. College students engage in new activities, cultures, and lifestyles. Developing self-sufficiency, through which they can manage myriad psychological, social, and personal issues, is necessary^{2,3}.

Moreover, college students are expected to expand their social networks by interacting with a range of people. Academically, they are compelled to grow out of heteronomous studying tactics; instead, they need to

engage in self-study and implement efficient study plans. During this process of radical change, college students are likely to be confused by their newly acquired autonomy and responsibilities and can lose focus in their new environment⁴.

Approximately 52.6% of college students reported that they experienced some form of mental disturbance. According to a Dong-A Ilbo survey in 2007, about 12% of college students experienced a variety of psychological maladjustments, including depression⁵. Furthermore, over 200 college students committed suicide in 2010, many of whom studied at the most popular universities in Korea. These statistics reflect maladjustment issues experienced by college students, indicative of their fragile emotional and mental health. Moreover, the rising suicide rate of young adults in their twenties suggests that they do not have the social safety net that other age groups do and are faced with grave psychological difficulties⁶.

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Depression is reported to be the most prevalent mental disorder among college students⁷. It is estimated that approximately 29.3% of all college students experience mild depression, 10.9% experience moderate depression, and 4.0% experience severe depression⁸. It affects students interpersonal skills and everyday lives by inducing negative mindsets, undermining physical energy, crippling desire, and impairing concentration⁹. Depression may be induced by the instability and developmental changes students undergo during their transition into college.

Considering these findings, it is imperative that researchers determine college students mental health status to understand factors that influence their well-being in order to inform the development of prevention and coping strategies for college students. Alternative supports are needed to address their psychological emptiness and help them lead more diverse and rich college lives. Therefore, the present study sought to provide basic data for the development of mental health-enhancement programs for college students by identifying factors influencing their mental health, specifically depression and anxiety.

1.2 Objectives

The study objectives were as follows:

- To analyze undergraduate students' sociodemographic characteristics;
- To determine levels of depression and anxiety in undergraduate students;
- To compare differences in depression and anxiety according to their sociodemographic characteristics; and
- To examine the correlation between depression and anxiety in undergraduate students.

2. Methods

2.1 Research Design

This descriptive study investigated the level of depression and anxiety in undergraduate students.

2.2 Sample and Data Collection

Potential participants-college students from C university in Gyeonggi province-were explained the purpose of this study, that participation was voluntary, and that information would be kept confidential. A questionnaire was administered to 450 consenting college students in January-February, 2014.

Excluding the 19 questionnaires with missing or unclear responses, data from 431 questionnaires were analyzed.

2.3 Research Instruments

To measure depression, the Beck Depression Inventory, developed by Beck, Ward, Mendelson, Mock, and Erbaugh (1961) and translated by Lee and Song¹⁰, was used in this study. Depression items were rated on a four-point scale, with a higher score indicating a higher degree of depression. Cronbach's α was .773

To measure anxiety, the Beck Anxiety Inventory, developed by Beck, Ward, Mendelson, Mock, and Erbaugh (1961) was used in this study. Anxiety was rated on a four-point scale ranging from 1 "never experienced" to 4 "severe feeling," with a higher score indicating greater anxiety. Cronbach's α was .847.

2.4 Data Analysis

Data were analyzed with SPSS 18.0 software program.

- Frequencies and percentages of participants' sociodemographic characteristics were calculated.
- The level of depression and anxiety among undergraduate students were analyzed by calculating the mean and standard deviation of their scores.
- Differences in depression and anxiety according to participants' sociodemographic characteristics were examined by conducting t-tests and ANOVAs. Schaffer's method was performed as a post-hoc test.
- Pearson's correlation coefficient was used to examine correlations between depression and anxiety among undergraduate students.

3. Results

3.1 Participants' Sociodemographic Characteristics

Table 1. presents the participants' sociodemographic characteristics. Male undergraduate students comprised 56.4%, while female college students comprised 43.6%. With regard to participants' religion, 59.9% did not follow a religion, 20.0% were Protestant, 11.6% were Catholic, and 7.1% were Buddhist. The majority of participants-62.9%-Had moderate economic status; 19.3% had high economic status, and 17.9% of the participants had low economic status. With regard to their type of residence,

Table 1. Participants' sociodemographic character
(N = 431)

Characteristics	Categories	n	%
Gender	Male	243	56.4
	Female	188	43.6
Religion	Protestant Christians	86	20.0
	Catholics	50	11.6
	Buddhists	35	8.1
	Others	2	0.5
Economic Status	No religion	258	59.9
	High	83	19.3
	Moderate	271	62.9
Living Status	Low	77	17.9
	Living with family	293	68.0
	Dormitory	60	13.9
	Home stay	16	3.7
	Living alone	52	12.1
Living Area	Others	10	2.3
	Large city	340	78.9
	Middle city	70	16.2
Level of Depression	Country	21	4.9
	Normal	297	69.9
	Mild	103	24.2
	Moderate	23	5.4
Severe	2	0.5	

68.0% of the participants lived with families, 13.9% lived in dormitories, and 12.1% lived alone. The majority, 78.9%, reported that they lived in large city. Participants in a depressive state comprised 30.1% of the sample; 24.2% of the participants suffered from mild depression, 5.4% suffered from moderate depression, and 0.5% suffered from severe depression.

3.2 Level of Depression and Anxiety

The level of depression and anxiety among undergraduate students were analyzed in Table 2. The results show that the average score for depression and anxiety among undergraduate students were 1.36 and 1.26 out of 4, respectively.

3.3 Differences in Depression and Anxiety according to Participants' Sociodemographic Characteristics

Table 3. shows the differences in depression and anxiety according to participants' sociodemographic

Table 2. Level of depression and anxiety (N = 431)

Variable	Average	Standard Deviation
Depression	1.36	.22
Anxiety	1.26	.26

characteristics. There were significant differences in anxiety by gender ($t = -2.676$, $p = .008$) and type of residence ($F = 2.573$, $p = .037$). With regard to gender, female participants obtained higher anxiety scores than male participants did. Regarding type of residence, participants living alone or in home stays had higher anxiety scores than those living with family, in dormitories, and with others.

3.4 Correlation between Depression and Anxiety

The correlation analysis of depression and anxiety among undergraduate students is presented in Table 4. A strong positive correlation between depression and anxiety was observed ($r = .517$, $p < .001$), implying that higher levels of depression among undergraduate students is associated with greater anxiety.

*** $p < .001$

4. Discussion

Prevalence of depression in this sample of college students was 30.1%. More than 12% of students were found to suffer from various psychological maladjustments, including depression. This appears to be a result of a combination of the current unstable labor market, which demands diverse and specialized skill sets; increasing unemployment due to long-term recession; and severe stress from interpersonal relationships, financial problems, family issues, and establishing conscientious values⁵.

The analysis of differences in depression and anxiety according to sociodemographic characteristics revealed no statistically significant differences in depression by gender, religion, economic status, type of residence, or area of residence, supporting Moon's results¹¹. Similar to Choi's findings, male students showed higher levels of depression than female student's did¹². While Park reported that depression was inversely associated with monthly income¹³, the present study did not find a

Table 3. Differences in depression and anxiety according to participants' sociodemographic characteristics

(N = 431)

Characteristic	Categories	Depression		Anxiety	
		M±SD	t or F(p)	M±SD	t or F(p)
Gender	Male	1.35 ± .22	-1.658 (.098)	1.23 ± .23	-2.676 (.008)
	Female	1.38 ± .22		1.30 ± .28	
Religion	Christians	1.37 ± .22	1.051 (.380)	1.25 ± .25	2.143 (.075)
	Catholics	1.32 ± .19		1.25 ± .25	
	Buddhists	1.39 ± .24		1.26 ± .23	
	Others	1.19 ± .20		1.38 ± .29	
	No religion	1.36 ± .23	2.293 (.102)	1.19 ± .27	.195 (.823)
Economic Status	High	1.33 ± .18		1.28 ± .28	
	Moderate	1.35 ± .22		1.26 ± .24	
	Low	1.24 ± .27		1.26 ± .26	
Living Status	Living with family	1.36 ± .21	1.145 (.335)	1.26 ± .26	2.573 (.037)
	Dormitory	1.33 ± .25		1.21 ± .20	
	Home stay	1.40 ± .21		1.36 ± .31	
	Living alone	1.37 ± .22		1.34 ± .27	
	Others	1.50 ± .24		1.20 ± .13	
Living Area	Large city	1.37 ± .23	.927 (.397)	1.26 ± .26	.751 (.473)
	Middle city	1.33 ± .18		1.25 ± .22	
	Country	1.36 ± .20		1.33 ± .25	

Table 4. Correlation between depression and anxiety

	Depression	Anxiety
Depression	1.000	
Anxiety	.517***	1.000

significant difference in depression according to students' economic status.

There were no significant differences in the level of anxiety by gender, religion, economic status, or area of residence; however, a significant difference according to the type of residence was observed, with those living alone and in home stays showing higher levels. Although not statistically significant, female students tended to have higher levels of anxiety than their male counterparts did. This is in line with Choi's results¹².

Mental well-being begins with positive self-perceptions, including self-concept and self-esteem. Teenagers who perceive themselves as worthy and competent can actively adapt to the fickleness and instability of adolescence; however, low self-esteem stifles such adaptive efforts. Individuals with low self-esteem tend to have higher

levels of depression and anxiety than those with higher self-esteem do. Individuals with high self-esteem tend to attribute positive outcomes to themselves, are confident, and expect productive results in the future. They tend to accept themselves and others; recognize their capacities, as well as others; are emotionally stable; and develop a sense of belonging⁶. The present study found a positive correlation between depression and anxiety; that is, the level of anxiety increased with an increase in the level of depression. This suggests that it is necessary to identify and manage factors that undermine self-esteem in college students to improve their mental health. This study provides a number of valuable implications; however, the findings' broader applicability is somewhat limited by the structure of the study. For example, it is difficult to generalize these results because participants only comprised college students from a university in Gyeonggi Province, South Korea. Therefore, follow-up studies should expand the subject pool to college students in other regions. Moreover, in-depth research involving qualitative research methods (e.g., interviews) is necessary to investigate a larger number of diverse sub-factors.

5. Conclusion

This study is significant in that it views Korean undergraduate students' level of depression and anxiety. In this study, we found a positive correlation between depression and anxiety. Thus, to maintain or improve students' mental health, it is important to develop different interventions tailored to the sociodemographic characteristics. In clinical practice, greater social assistance and concern are needed to support students with depression and anxiety living in university whose support systems may be insufficient.

In future studies, based on these findings, it suggest that customized intervention strategies for improving mental health, according to the subjective perspectives of students with depression and anxiety, need to be developed and that these effects should be evaluated in future studies.

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