

Factors Influencing Suicidal ideation among Korean University Students

Inhong Kim ¹, Younghee Park²

1. Department of Nursing, University of Medicine, Dongguk University
123, Dongdaero, Gyeongju, Gyeongsangbuk-do 38066, Korea
82-10-7372-3731, 82-54-770-2616, ihk@dongguk.ac.kr
2. Department of Nursing, University of Medicine, Dongguk University
123, Dongdaero, Gyeongju, Gyeongsangbuk-do 38066, Korea
82-10-9402-6205, 82-54-770-2616, gml0726@gmail.com

Abstract

Korea has the highest suicide rate among the OECD countries, and the suicide rate is highest among young adults in their 20s, most of whom are university students. Therefore, suicide among Korean university students is a public health issue that is of interest to us. This study was investigated the factors affecting suicidal ideation among 344 Korean university students. These factors are absence of parents, depression, and quality of life. The results of the study indicate the need to actively identify the group of university students in their 20s with high risk of suicide through continuous evaluation of depression, and to improve the quality of life as a method of preventing suicide. In addition, the effect of absence of parents on the suicidal ideation among Korean university students suggests that parental support may play an important role in suicide prevention.

Key words: suicidal ideation, depression, quality of life, universities, students

Introduction

Korea is among the few OECD countries where the suicide rate is increasing, and it is also at the top in terms of the rate of increase and absolute numbers of suicide rates [1]. When different age groups are compared, suicide is reported as the number one cause of death in young adults in their 20s. As of 2014, the number of suicides among young adults in their 20s is 36 suicides per 100,000 young adults [2]. The data of the National Statistical Office did not distinguish suicide subjects as university students. However, 68.9% of Korean high school graduates go to university [3], and university students are mostly in their twenties. Therefore, the suicide rate for young adults in their twenties is closely related to the suicide rate among university students [4]. In Korean society, university student suicide is a serious public health problem that should be of interest to medical professionals and policy makers.

Studies related to suicide attempt to predict the risk of suicide by measuring suicidal ideation. Indeed, young adults in their 20s showed a higher rate of suicidal ideation than other adults, leading to higher rates of suicidal plans and suicidal attempts [5]. Therefore, in order to prevent suicide among university students, it is important to evaluate and mediate suicidal ideation among individuals.

To understand the broad concept surrounding suicidal ideation among university students, it is necessary to analyze the degree of influence of suicide protective factors and risk

factors on suicidal ideation. First, depression is a major threat to mental health according to many existing studies [6, 7], it is a common psychological problem found among people who already have suicidal intentions and has been reported as one of the strong predictors of suicidal ideation [8].

Further, drinking alcohol is a risk factor for suicide as it has been noted that those who commit suicide tend to consume more alcohol before suicide, and in about 50% of suicide deaths, are drunk when they die [6, 7]. In addition, drinking alcohol before suicide plays an important role in unplanned suicide attempts [8].

Suicide protective factors play a role in regulating and improving individual responses to mitigate the negative effects of suicidal risk factors and to adaptively cope with them [9], so identifying suicide protective factors may help prevent suicides. Social support, a suicide protective factor, is one of the factors affecting suicide. It is an external resource for individuals coping with suicide, and is considered as a representative protective factor to reduce suicidal thoughts and behavior [10]. Stravynski and Boyer [11] reported that the lack of social support from family and friends was closely related to the suicidal ideation among adolescents and adults as well as university students. In other words, high levels of social support from university students may have a protective effect on suicide by reducing negative influences in stress situations. However, being socially disconnected or unsupported can be a suicide risk factor [12].

Another suicide protective factor is quality of life. Those who attempt suicide have a lower quality of life than those who do not, and low quality of life can be a marker of poor coping skills and inadequate social support [13].

Therefore, understanding the relationship between risk factors, protective factors, and suicidal ideation will be helpful as a basis for effective intervention to prevent suicide. Finally, these findings will contribute to helping university students adapt to university life and live as healthy members of society.

Method

A. Study design

This is a cross-sectional descriptive study designed to identify depression, drinking, social support, quality of life, degree of suicidal ideation, and factors influencing suicidal ideation.

B. Sample and Data collection

We used a convenience sampling strategy for university students at two universities in Seoul and Gyeongbuk provinces.

The data collection for this study was done through a survey from May 1, 2018 to June 30, 2018, after receiving consent from the research participants. The researchers directly distributed questionnaires to 350 subjects who responded to the questionnaires. A total of 344 subjects were analyzed in the final study, and 6 persons who had insufficient responses were excluded from the results analysis.

C. Sample size Measures

The number of subjects in this study was calculated using the G * Power 3.0 program. The significance level was .05, the effect size was .10, the power was .95 [14], and the minimum sample size was 132 when the predictor was 5. Due to the sensitivity of this research subject, high dropout rate was a concern. Finally, 350 people expressed willingness, and the minimum sample size of 132 was achieved.

D. Data analysis

We used SPSS / Win 23.0 to analyze the data. The general characteristics were determined by frequency and percentage, and differences in life respect and will according to general characteristics were analyzed by mean, standard deviation, dependent t-test, and one-way ANOVA. The relationship between depression, drinking alcohol, social support, quality of life, and suicidal ideation were determined by Pearson's correlation coefficient. Hierarchical regression analysis was used to identify factors influencing suicidal ideation.

G. Ethical considerations

Ethical approval was obtained from Dongguk University Institutional Review Board (IRB NO: DGU IRB 20180006-02). We explained the objectives, requirements, expectations, and implications of this study to the potential participants. Then, they decided for themselves whether or not to participate in the study. The participants gave written consent and were free to withdraw it.

Results

Suicidal ideation according to General Characteristics

The suicidal ideation among university students showed a statistically significant difference according to the subjects' major, grade, parental survival status, and school life satisfaction (Table I). Significantly higher suicidal ideation was noted among those who majored in arts (t=8.848, p<.001), suffered due to absence of parents (t=2.843, p=.038), were university freshmen (t=3.976, p=.004), or had lower school life satisfaction (t=5.275, p<.001).

Descriptive statistics and correlations of research variables

The mean and standard deviation of the variables in the study are shown in Table II, and the results of the analysis of correlations between the variables in this study are presented in Table III. There was a statistically significant negative correlation between depression and social support (r = -. 41, p <.001), depression and quality of life (r=-.65, p<.001). On the other hand, depression was positively correlated with drinking alcohol (r = .12, p <.05) and suicidal ideation (r = .45, p <.001). Suicidal ideation and drinking alcohol (r = .14, p <.05) showed a positive correlation, while suicidal ideation and social

TABLE I
 Suicidal ideation according to General Characteristics (N=344)

Variables	Category	n(%)	Suicidal ideation	t(F)	p	
			M±SD			
Gender	Male	150(43.3)	36.43±4.94	-1.823	.069	
	Female	195(56.7)	37.46±5.30			
Grade	1st	104(30.2)	36.73±5.23	1.796	.148	
	2nd	169(49.1)	37.33±5.14			
	3rd	47(13.7)	35.72±4.13			
	4th	24(7.0)	38.29±6.43			
Religion	Yes	142(41.3)	36.59±4.80	-1.222	.223	
	No	202(58.7)	37.28±5.39			
Majors	Department of Humanities and Social Studies	114(33.1)	36.35±5.13	8.848	<.001	
	Department of Nature and Engineering	212(61.6)	36.97±4.87			
	Department of Art	18(5.3)	43.42±6.17			
Parent survival status	Both parents' survival	268(77.9)	37.33±5.42	2.843	.038	
	One parent' survival	50(14.5)	35.98±3.75			
	Parent divorce	20(5.8)	34.50±1.84			
	Absence of parents	6(1.7)	38.66±8.01			
Residence	Home	134(39.0)	37.71±5.66	.966	.497	
	Independent Living	122(35.5)	37.37±5.27			
	Dormitory	88(25.6)	35.11±3.19			
	Higher level	48(14.0)	35.60±4.57			
	Middle-upper level	80(23.3)	35.92±4.75			
	Middle level	142(41.3)	37.29±4.89			3.976
School grades	Middle-lower level	52(15.1)	37.96±5.78			
	Lower level	22(6.4)	39.72±6.47			
	Higher level	10(2.9)	34.00±1.33			
	Middle-upper level	65(18.9)	37.38±4.92			
	Economic level of family	Middle level	166(48.3)	37.37±5.46	1.365	
		Middle-lower level	46(13.4)	36.06±3.73		
Lower level		57(16.6)	36.80±5.80			
Lover	Yes	152(44.2)	37.05±5.66	.103	.918	
	No	192(55.8)	36.99±5.13			
Satisfaction in school life	Very satisfied	26(7.6)	35.00±2.36	5.275	<.001	
	Satisfied	108(31.4)	35.88±4.66			
	Medium	156(45.3)	37.39±5.24			
	Unsatisfied	44(12.8)	39.50±5.88			
	Very unsatisfied	10(2.9)	37.00±6.53			

support (r = -. 26, p <.001), suicidal ideation and quality of life (r = -. 46, p <.001) were negatively correlated and statistically significant. Social support and quality of life (r = .22, p <.001) showed a significant positive correlation.

TABLE II
 Scores of Variables (N=344)

Variables	Min.	Max.	M±SD	Ranges
Depression	24	63	38.18±8.28	0~60
Drinking alcohol	5	15	7.34±1.04	4~8
Social support	15	26	17.35±3.190	15~105
Quality of life	79	230	157.58±33.73	23 ~ 230
Suicidal ideation	33	51	36.99±5.16	19~57

TABLE III
 Correlations of Depression, Alcohol drinking, Social support, Quality of life, Suicidal ideation (N=344)

Variables	Depression r(P)	Drinking alcohol r(P)	Social support r(P)	Quality of life r(P)	Suicidal ideation r(P)
Depression	1				
Drinking alcohol	.12 (.025)	1			
Social support	-.41 (<.001)	-.06 (0.210)	1		
Quality of life	-.65 (<.001)	-.13 (0.012)	.22 (<.001)	1	
Suicidal ideation	.45 (<.001)	.14 (.008)	-.26 (<.001)	-.46 (<.001)	1

TABLE IV
 Factors influencing sub-scale of suicidal ideation (N=344)

Variables	Model 1			Model 2		
	β	SE	p	β	SE	p
Major Grades	.096	.46	.075	.015	.43	.759
Absence of parents	-.022	.32	.685	-.006	.29	.907
Satisfaction in school life	-.086	.41	.104	-.095	.36	.044
Depression	.198	.31	<.001	.048	.30	.356
Drinking alcohol				.247	.03	<.001
Social support				-.060	.24	.217
Quality of life				.019	.07	.699
				-.280	.01	<.001
F (p)	5.725(<.001)			15.518(<.001)		
Adjusted R ²	.252			.420		

Factors influencing the Suicidal ideation

The factors that influence suicidal ideation are presented in Table IV. In the regression model 1, the variables with significant differences in suicidal ideation among general characteristics were considered as independent variables. As a result, among the general characteristics, suicidal ideation was

influenced by school life satisfaction ($\beta = .198, p <.001$) and explanatory power was 25.2%. The overall explanatory power in model 2, which includes the effects of depression, drinking alcohol, social support, and quality of life, was 42.0%. In Model 2, suicidal ideation was predicted by the absence of parents ($\beta = -.095, p <.044$), depression ($\beta = .247, p <.001$), quality of life ($\beta = -.280, p <.001$) were significant influencing factors.

Discussion

The results of this study showed that the factors affecting the suicidal ideation among Korean university students were quality of life, depression, and absence of parents. The most powerful factor influencing the suicidal ideation among university students was the quality of life. This is similar to the results of Park [15], who reported that quality of life affects the suicidal ideation of adults, though not university students. In today's Korean society, university students live in a stressful situation that has resulted due to the difficulty in finding employment in a competitive society and decrease in social network. The social isolation of university students is growing due to their lifestyle [16]. Therefore, suicide among university students is a result of not only personal factors, but also socio-environmental factors. Since quality of life is a concept that measures multidimensional human characteristics and social factors, it is considered to be the most influential factor in the suicidal ideation among university students. Based on these findings, it can be said that in future when measures are proposed to deal with student suicides through the suicide prevention program for university students, suggestions from individual students, together with those from their universities and communities, should be considered.

The depression among university students in this study was found to be 36.99 points. This is higher than the average score, and in line with the findings of an existing study [17], in which the degree of depression among university students in Korea was found to be higher than the average score. Depression is reported to be more common among university students than among adults, and it is the most critical health problem among university students, and more than 30% of university students in Korea experience depression [18], which is supported by the results of this study. The second factor that influences the suicidal ideation among university students was depression. These results are in agreement with existing studies [17, 18] in which depression was found to be an influential variable in suicidal ideation. The more severe the depression is, the more suicidal ideation increases and suicidal attempts are made. . Diagnostic and Statistical Manual of Mental Disorders (DSM-5) includes a specific plan for suicide, suicidal attempt, or suicide as symptoms of major depressive disorders [19]. In recent years, Korean students have been experiencing depression due to the economic difficulties caused by the rise in prices, increase in tuition fees, and difficulty in finding employment, resulting in anxiety about the future [20]. Therefore, depression is a dangerous factor causing personal vulnerability and leading to suicide and it is necessary to have concrete interventions at the university level to manage the depression among university students.

Finally, the absence of parents was also a factor in suicide

ideation among university students. The results of this study are similar to those of Toolan [21], who reported that children and adolescents without one or both parents showed suicidal ideation and suicidal behavior. In the present study, it is interesting to note that the absence of parents affects the suicidal ideation among university students, but not among children and adolescents. This is because it is difficult to find in existing studies that the absence of parents influences university students' suicidal ideation. The results of this study are indicative of the characteristics of parent-child relationship in Korean society.

Unlike the West, Korean children receive absolute support from parents because children become economically and socially independent only after graduating from university. A review of existing studies supports the results of this study. Thus, the influence of parents is not only important for childhood and adolescence, but also important for university students. The results of this study suggest that students must be encouraged to maintain a close relationship with parents in order to reduce the rate of suicide among Korean university students. In addition, it was confirmed that the attachment formation to the parents and the supportive attitude of the parents toward the university going children will play an important role in the prevention of suicides.

Conclusion

The results of this study showed that it is possible to identify high risk group for suicide through sustained depression assessment of university students in their 20s, and that active intervention for depression is necessary. The results confirmed that intervention is needed to improve the quality of life as a way to prevent suicide among the students in their 20s. In addition, the impact of the absence of parents on the suicidal ideation among Korean university students suggests that the adult university students are still in need of parental support, which may play an important role in preventing suicide.

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Authorship

Inhong Kim made substantial contributions to conception and design, and acquisition of data, and analysis and interpretation of data; Younghee Park made substantial contributions to design and analysis and interpretation of data and final approval of the version submitted.

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