



Life Stress, Depression and Parenting Styles Associated with Suicidal Ideation among Elementary School Students in Taiwan

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Background: Suicide is the second leading cause of death in aged 15 and 24 Taiwanese population. A national survey reported 36.7% junior high students had thoughts of killing themselves and 8% students tried to suicide. The factor caused suicidal ideation is very complicated. It is including psychological, physiological and environmental factors. Stress and depression are serious problems for many teenagers; those who reported making suicide attempts were depressed. It is critical for parents and helping adults to be aware of the factors that put a youth at particular risk of suicide. For children, family life is the most important specific domain of their lives. Study indicated that suicidal behavior often represented a final effort to escape from a miserable and unbearable family situation. To realize the current prevalence rate of having suicide ideation among elementary school students in Taiwan and factors associated with such suicide ideation.

Objective: The aim is to analyze the relationship between suicidal ideation and depression, life stress and parenting style of children.

Methods: This study was a secondary data analysis. The original data was collected to analysis smoking condition of elementary school students. Multistage cluster sampling was used to obtain a representative sample (n=5,364) among 3rd to 6th graders from 65 elementary schools in southern Taiwan in 2008-2009. Suicidal ideation was measured by asking students if they had had any suicidal thoughts in the previous month. The outcome variables were dichotomized into 'No' vs. 'Any' for all analyses. The risk factors including depression, stress, parenting style. The measure of depression was assessed using seven items, such as "You will want to cry without reason in the past two weeks" with a response set of "never", "once in a while", "many times", "every day". The Level of stress was measured by asking students about the stress of study, the relationships between classmates, life events. The parenting style was assessed using fifteen items and Divide into "Indulgent", "Authoritative", "Neglecting", "Authoritarian".

A series of multivariate regression models was used to examine the influence variables had on suicidal ideation of elementary school students.

Result: In all, 11.5% of students reported suicidal ideation within the past month; its occurrence was significantly associated with girl (adjusted odds ratio (aOR) =1.42, 95%CI= 1.23-1.65), grades 5-6 (aOR =1.88, 95%CI=1.52-2.18), a high level of life stress (aOR =2.28, 95%CI=1.96-2.66), high degree of depression (aOR=2.67, 95%CI=2.29-3.11) and authoritarian parenting style (aOR=2.62, 95%CI=1.63-2.50).

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Table 1: Descriptive information on individual characteristics among the elementary school children in southern Taiwan.

Variables	No suicidal ideation		suicidal ideation		p-value
	N	Percentage (%)	N	Percentage (%)	
Gender					
Boy	2877	53.6	439	15.1	—
Girl	1868	34.7	794	28.2	<0.001
Grade					
Lower grade(SA&AS)	2102	39.2	401	14.3	—
High grade(SA&AS)	1847	34.4	894	31.9	<0.001

Table 2: The frequency of suicidal ideation (n=636)

Variables	N	Percentage (%)
Have you ever thought about suicide (do not want to live, wanted to die)?		
Never	3911	73.06
Without suicidal ideation during the past month, but have thought about in the past	797	14.26
Once in a while during the past month	540	9.94
Many times during the past month	168	3.11
Every days during the past month	118	2.19
Have had suicide ideation in the past		
No	3971	75.66
Yes	1413	26.34

Conclusion: The findings suggested that interventions aimed at preventing suicidal ideation in children need to target on those who suffer from high degree of stress and depression. In addition, Chinese parents are less likely to communicate with their children but more likely to use physical discipline if their children break the rules made by parents. However, the findings suggested that authoritarian parenting may increase suicidal ideation. Therefore, building communication among parents and youth may prevent suicidal behavior among children. It is necessary to enhance their child-parent relationships and support system at school for children.

Table 3: Logistic regression analysis of life events associated with suicidal ideation among the elementary school children in southern Taiwan.

Variables	No suicidal ideation		suicidal ideation		p-value
	N	Percentage (%)	N	Percentage (%)	
Life events within a year					
Whether relatives and friends died					
No	1141	21.3	1014	36.9	—
Yes	797	14.8	190	6.8	<0.001
Whether parents are separated or divorced					
No	3377	62.8	1141	41.3	—
Yes	553	10.3	290	10.5	<0.001
Whether parents unemployed					
No	3288	61.3	1166	42.3	—
Yes	441	8.2	234	8.5	0.653
Whether parents had legal problem					
No	3631	67.7	1247	45.3	—
Yes	293	5.5	157	5.7	<0.001

Table 4: Logistic regression analysis of depression, life stress, parenting styles associated with suicidal ideation among the elementary school children in southern Taiwan.

Variables	No suicidal ideation		suicidal ideation		OR	95%CI
	N	Percentage (%)	N	Percentage (%)		
level of depression						
Lower	2,879	53.7	386	13.9	1.67	(1.292-2.11)
High	828	15.3	749	27.0		
level of stress						
Lower	2,999	55.9	488	17.6	2.28	(1.862-2.86)
High	986	18.4	712	25.6		
life events						
0	2237	41.7	486	17.5	1.11	(0.881-1.24)
1	1180	21.9	453	16.4	1.19	(0.881-1.28)
2	387	7.2	179	6.5	1.43	(0.872-2.36)
3	167	3.1	68	2.5		
Parenting Styles						
Indulgent	1,693	31.4	221	8.0	1.31	(1.06-1.63)
Authoritative	745	13.9	297	10.8	1.09	(0.881-1.35)
Neglecting	1,082	20.2	243	8.8	2.02	(1.612-2.51)
Authoritarian	631	11.8	471	17.2		

*p<0.05, **p<0.01, Adjusted gender and grade





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Background: Suicidal ideation (SI) is a common mental health problem in children and adolescents. The purpose of this study was to explore the relationship between life stress, depression, parenting styles, and suicidal ideation among elementary school students in Taiwan.

Characteristic	n	Percentage (%)
Gender		
Male	100	50.0
Female	100	50.0
Grade		
Grade 1	100	100.0

Methods: The study was conducted in a primary school in Kaohsiung City, Taiwan. The study included 200 elementary school students (100 boys and 100 girls) who were randomly selected from the school's database. The study was approved by the Institutional Review Board (IRB) of Kaohsiung Medical University.

SI Frequency	n	Percentage (%)
None	151	75.5
Once or twice during the year	57	28.5
Three or more times during the year	19	9.5
Constantly during the year	13	6.5
Not sure	10	5.0
Refused to answer	10	5.0
Total	200	100.0

Results: The study found that life stress, depression, and parenting styles were significantly associated with suicidal ideation among elementary school students in Taiwan.

Conclusion: The findings suggest that interventions aimed at preventing suicidal ideation in children need to target on those who suffer from high degrees of life stress and depression. In addition, Chinese parents are less likely to use physical punishment and more likely to use physical affection in their parenting style. Therefore, further communication and support systems are needed for children.

Variable	OR	95% CI	p-value
Life Stress	1.02	1.01-1.03	<0.001
Depression	1.05	1.04-1.06	<0.001
Parenting Style	1.01	1.00-1.02	<0.001
Gender	1.01	0.99-1.03	0.85
Grade	1.01	0.99-1.03	0.92