

# The Relationship between Experiences of Cyber-Bullying and Happiness among Adolescents, with Reference to the Effects of Internet Addiction and Attitudes toward Bullying

Hui-Min Wang<sup>1\*</sup>, Jiun-Hao Wang<sup>2</sup>, Chli Huang<sup>3</sup>

## Abstract

Cyber-bullying among adolescents has become a topic of global importance. The present study investigates the relationship between experiences of cyber-bullying and happiness among adolescents in Taiwan. Our results show that 24.14% of Taiwanese adolescents have experienced cyber-bullying. Our analysis reveals that the probability of becoming a cyber-bully or being cyber-bullied declines with age, but the negative emotions associated with the experience increase. The better adolescents perceive their academic performance, or with less internet addiction, would eventually increase their life satisfaction and positive emotions, and less likely they become cyber-bullies or victims.

## Research Methodology

### A. Data Sources

### B. Definitions of Variables and Measures

- i) Experience of Bullying ii) Attitudes toward Bullying iii) Happiness iv) Personal and Domestic Factors

TABLE 1<sup>†</sup>  
ANALYSIS RESULTS OF THE SIGNIFICANCE AND RELATION BETWEEN CHARACTERISTICS OF ADOLESCENTS AND CYBER-BULLYING<sup>†</sup> (N = 1774)<sup>†</sup>

Variable <sup>†</sup>	Experience of Bullying Others <sup>†</sup>			Experience of Being Bullied <sup>†</sup>		
	Bullies (%) <sup>†</sup>	Non-bullies (%) <sup>†</sup>	Statistical Value <sup>†</sup>	Bullied (%) <sup>†</sup>	Non-bullied (%) <sup>†</sup>	Statistical Value <sup>†</sup>
<b>Personal Factors<sup>†</sup></b>						
Age <sup>†</sup>	M: 14.89 <sup>†</sup> SD: 2.17 <sup>†</sup>	M: 15.48 <sup>†</sup> SD: 2.35 <sup>†</sup>	-3.07** <sup>†</sup>	M: 15.24 SD: 2.36 <sup>†</sup>	M: 15.47 SD: 2.34 <sup>†</sup>	-1.45 <sup>†</sup>
Gender <sup>†</sup>						
Male <sup>†</sup>	70(7.7) <sup>†</sup>	844(92.3) <sup>†</sup>	0.22 <sup>†</sup>	142(15.5) <sup>†</sup>	772(84.5) <sup>†</sup>	3.52 <sup>†</sup>
Female <sup>†</sup>	71(8.3) <sup>†</sup>	789(91.7) <sup>†</sup>		107(12.4) <sup>†</sup>	753(87.6) <sup>†</sup>	
Age <sup>†</sup>	M: 14.89 <sup>†</sup> SD: 2.17 <sup>†</sup>	M: 15.48 <sup>†</sup> SD: 2.35 <sup>†</sup>	-3.07** <sup>†</sup>	M: 15.24 SD: 2.36 <sup>†</sup>	M: 15.47 SD: 2.34 <sup>†</sup>	-1.45 <sup>†</sup>
Self-perception of Academic Performance <sup>†</sup>	M: 2.86 <sup>†</sup> SD: 0.99 <sup>†</sup>	M: 3.16 <sup>†</sup> SD: 1.00 <sup>†</sup>	3.39** <sup>†</sup>	M: 3.00 <sup>†</sup> SD: 0.98 <sup>†</sup>	M: 3.16 <sup>†</sup> SD: 1.00 <sup>†</sup>	2.41* <sup>†</sup>
<b>Domestic Factors<sup>†</sup></b>						
Parental Marital Status <sup>†</sup>						
Married & Living Together <sup>†</sup>	110(8) <sup>†</sup>	1269(92) <sup>†</sup>	0.007 <sup>†</sup>	176(12.8) <sup>†</sup>	1203(87.2) <sup>†</sup>	8.32** <sup>†</sup>
Other Marital Status <sup>†</sup>	31(7.8) <sup>†</sup>	364(92.2) <sup>†</sup>		73(18.5) <sup>†</sup>	322(81.5) <sup>†</sup>	
Father's Work Status <sup>†</sup>						
Fully Employed <sup>†</sup>	98(7.2) <sup>†</sup>	1265(92.8) <sup>†</sup>	4.62* <sup>†</sup>	170(12.5) <sup>†</sup>	1193(87.5) <sup>†</sup>	11.92** <sup>†</sup>
Not Fully Employed <sup>†</sup>	43(10.5) <sup>†</sup>	368(89.5) <sup>†</sup>		79(19.2) <sup>†</sup>	332(80.8) <sup>†</sup>	
Mother's Work Status <sup>†</sup>						
Fully Employed <sup>†</sup>	95(8.5) <sup>†</sup>	1023(91.5) <sup>†</sup>	1.25 <sup>†</sup>	153(13.7) <sup>†</sup>	965(86.3) <sup>†</sup>	0.31 <sup>†</sup>
Not Fully Employed <sup>†</sup>	46(7.0) <sup>†</sup>	610(93) <sup>†</sup>		96(14.6) <sup>†</sup>	560(85.4) <sup>†</sup>	
<b>Internet Addiction<sup>†</sup></b>						
Compulsive Internet Use and Avoidance Response <sup>†</sup>	M: 3.41 <sup>†</sup> SD: 0.87 <sup>†</sup>	M: 2.92 <sup>†</sup> SD: 0.90 <sup>†</sup>	6.25*** <sup>†</sup>	M: 3.28 SD: 0.92 <sup>†</sup>	M: 2.90 <sup>†</sup> SD: 0.89 <sup>†</sup>	6.14*** <sup>†</sup>
<b>Attitudes toward Bullying<sup>†</sup></b>						
Positive response <sup>†</sup>	M: 2.94 <sup>†</sup> SD: 0.89 <sup>†</sup>	M: 3.30 <sup>†</sup> SD: 0.83 <sup>†</sup>	-4.81*** <sup>†</sup>	M: 3.10 SD: 0.90 <sup>†</sup>	M: 3.30 <sup>†</sup> SD: 0.83 <sup>†</sup>	-3.39*** <sup>†</sup>
Proactive Disagreement <sup>†</sup>	M: 3.99 <sup>†</sup> SD: 0.87 <sup>†</sup>	M: 4.37 <sup>†</sup> SD: 0.63 <sup>†</sup>	-3.08*** <sup>†</sup>	M: 4.21 <sup>†</sup> SD: 0.72 <sup>†</sup>	M: 4.36 <sup>†</sup> SD: 0.65 <sup>†</sup>	-3.23*** <sup>†</sup>

<sup>†</sup>p < .05, \*\* < .01, \*\*\* < .001<sup>†</sup>

### B. Logistical Regression Analysis Results for Experiences of Bullying<sup>†</sup>

TABLE 2<sup>†</sup>  
ANALYSIS RESULTS OF LOGISTICAL REGRESSION MODEL FOR EXPERIENCES OF BULLYING<sup>†</sup>

Independent Variable <sup>†</sup>	Experience of Bullying Others <sup>†</sup>				Experience of Being Bullied <sup>†</sup>			
	Beta <sup>†</sup>	S.E. <sup>†</sup>	Wald <sup>†</sup>	Exp(B) <sup>†</sup>	Beta <sup>†</sup>	S.E. <sup>†</sup>	Wald <sup>†</sup>	Exp(B) <sup>†</sup>
<b>Personal Factors<sup>†</sup></b>								
Age <sup>†</sup>	-0.25 <sup>†</sup>	0.04 <sup>†</sup>	32.44*** <sup>†</sup>	0.78 <sup>†</sup>	-0.10 <sup>†</sup>	0.03 <sup>†</sup>	10.15** <sup>†</sup>	0.90 <sup>†</sup>
Gender <sup>†</sup>	-0.21 <sup>†</sup>	0.19 <sup>†</sup>	1.21 <sup>†</sup>	0.81 <sup>†</sup>	0.22 <sup>†</sup>	0.14 <sup>†</sup>	2.40 <sup>†</sup>	1.25 <sup>†</sup>
Self-perception of academic performance <sup>†</sup>	-0.33 <sup>†</sup>	0.10 <sup>†</sup>	11.68*** <sup>†</sup>	0.72 <sup>†</sup>	-0.12 <sup>†</sup>	0.07 <sup>†</sup>	2.49 <sup>†</sup>	0.89 <sup>†</sup>
<b>Domestic Factors<sup>†</sup></b>								
Parents' Marital Status <sup>†</sup>	0.42 <sup>†</sup>	0.24 <sup>†</sup>	3.12 <sup>†</sup>	1.52 <sup>†</sup>	-0.18 <sup>†</sup>	0.17 <sup>†</sup>	1.10 <sup>†</sup>	0.84 <sup>†</sup>
Father's Work Status <sup>†</sup>	-0.53 <sup>†</sup>	0.22 <sup>†</sup>	5.91** <sup>†</sup>	0.59 <sup>†</sup>	-0.43 <sup>†</sup>	0.17 <sup>†</sup>	6.69** <sup>†</sup>	0.65 <sup>†</sup>
Mother's Work Status <sup>†</sup>	0.37 <sup>†</sup>	0.20 <sup>†</sup>	3.20 <sup>†</sup>	1.44 <sup>†</sup>	0.06 <sup>†</sup>	0.15 <sup>†</sup>	0.16 <sup>†</sup>	1.06 <sup>†</sup>
<b>Internet Addiction<sup>†</sup></b>								
Compulsive Internet Use and Avoidance Response <sup>†</sup>	0.36 <sup>†</sup>	0.13 <sup>†</sup>	8.25*** <sup>†</sup>	1.43 <sup>†</sup>	0.30 <sup>†</sup>	0.10 <sup>†</sup>	10.32** <sup>†</sup>	1.36 <sup>†</sup>
Time management and Interpersonal Problems <sup>†</sup>	0.33 <sup>†</sup>	0.15 <sup>†</sup>	5.07** <sup>†</sup>	1.39 <sup>†</sup>	0.30 <sup>†</sup>	0.11 <sup>†</sup>	7.33** <sup>†</sup>	1.35 <sup>†</sup>

<sup>†</sup>p < .05, \*\* < .01, \*\*\* < .001<sup>†</sup>

### C. Analysis of the Regression Model for Happiness<sup>†</sup>

TABLE 3<sup>†</sup>  
ANALYSIS RESULTS OF THE REGRESSION MODEL FOR HAPPINESS<sup>†</sup>

Independent Variable <sup>†</sup>	Dependent Variable <sup>†</sup>		
	Life Satisfaction <sup>†</sup> (Model 1) <sup>†</sup>	Positive Emotions <sup>†</sup> (Model 2) <sup>†</sup>	Negative Emotions <sup>†</sup> (Model 3) <sup>†</sup>
	Coefficient <sup>†</sup>	t <sup>†</sup>	Coefficient <sup>†</sup>
<b>Personal Factors<sup>†</sup></b>			
Age <sup>†</sup>	-0.03 <sup>†</sup>	-1.30 <sup>†</sup>	-0.05 <sup>†</sup>
Gender <sup>†</sup>	-0.02 <sup>†</sup>	-0.83 <sup>†</sup>	0.01 <sup>†</sup>
Self-perception of Academic Performance <sup>†</sup>	0.16 <sup>†</sup>	6.85*** <sup>†</sup>	0.18 <sup>†</sup>
<b>Domestic Factors<sup>†</sup></b>			
Parental Marital Status <sup>†</sup>	0.02 <sup>†</sup>	0.85 <sup>†</sup>	0.04 <sup>†</sup>
Father's Work Status <sup>†</sup>	0.04 <sup>†</sup>	1.71 <sup>†</sup>	0.05 <sup>†</sup>
Mother's Work Status <sup>†</sup>	0.02 <sup>†</sup>	0.78 <sup>†</sup>	0.003 <sup>†</sup>
<b>Internet Addiction<sup>†</sup></b>			
Compulsive Internet Use and Avoidance Response <sup>†</sup>	-0.08 <sup>†</sup>	-2.91** <sup>†</sup>	-0.06 <sup>†</sup>
Time Management and Interpersonal Problems <sup>†</sup>	-0.09 <sup>†</sup>	-3.48** <sup>†</sup>	-0.06 <sup>†</sup>
<b>Attitudes toward Bullying<sup>†</sup></b>			
Positive response <sup>†</sup>	0.004 <sup>†</sup>	0.16 <sup>†</sup>	0.03 <sup>†</sup>
Proactive Disagreement <sup>†</sup>	0.67 <sup>†</sup>	2.61** <sup>†</sup>	0.10 <sup>†</sup>
<b>Experiences of bullying<sup>†</sup></b>			
Experience of Bullying Others <sup>†</sup>	-0.07 <sup>†</sup>	-2.90** <sup>†</sup>	-0.03 <sup>†</sup>
Experience of Being Bullied <sup>†</sup>	-0.01 <sup>†</sup>	-0.50 <sup>†</sup>	-0.07 <sup>†</sup>
F value <sup>†</sup>	16.34*** <sup>†</sup>		18.87*** <sup>†</sup>
R <sup>2</sup> Adj <sup>†</sup>	0.09 <sup>†</sup>		0.11 <sup>†</sup>

<sup>†</sup>p < .05, \*\* < .01, \*\*\* < .001<sup>†</sup>

## Conclusion and Suggestions

● This study shows that around 7.9% of adolescents have experience of cyber-bullying others, while 16.24% have experience of being cyber-bullied.

● The study results prove that positive and proactive attitudes in confronting bullying can reduce the subsequent risk of its occurrence. Such attitudes also help to raise life satisfaction and positive emotions, showing that by establishing a correct understanding of bullying among adolescents, we can make a positive contribution to the prevention of bullying.

● In summary, this study argues that age is an important personal factor. If schools intervene in adolescents of lower grades with preventative technology education programs and courses, and parents supervise and guide their children in a timely manner, reducing the rate of internet addiction