

# Cyberbullying and Its Influence on Academic, Social, and Emotional Development of Undergraduate Students

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## Abstract

This study investigated the influence of cyberbullying on the academic, social, and emotional development of undergraduate students.

Participants in this study were 638 Israeli and 102 American undergraduate students. The data were collected with the Revised Cyber Bullying Survey which evaluates the frequency and media used to perpetrate cyberbullying, and the College Adjustment Scales which evaluate the academic, social and emotional development of college students.

The findings revealed that 65% of the students had experienced cyberbullying at least once or twice through different types of media. Also, correlations were conducted and confirmed significant relationships between cyberbullying, mainly through instant messaging, and the academic, social and emotional development of undergraduate students. Instant messaging (IM) was found to be the most common means of cyberbullying among undergraduate students. Implications of the findings are discussed.

**Keywords:** Cyberbullying, Undergraduate students, electronic media.

## Introduction

Cyberbullying is defined as the electronic posting of mean-spirited messages about a person (such as a student) often done anonymously (Merriam-Webster, 2017). Most of the investigations of cyberbullying have been conducted with students in elementary, middle and high school, aged from 9 to 18 years old, and have focused on examining the prevalence and frequency of cyberbullying. A gap in the literature exists among undergraduate students. Given their relationship and access to technology, it is likely that cyberbullying occurs frequently among undergraduate students. The purpose of this study is to examine the frequency and media used to perpetrate cyberbullying, as well as the relationship that it has with the academic, social and emotional development of undergraduate students.

Undergraduate students use the Internet for a wide variety of purposes, including recreation, such as communicating in online groups or playing games; academics, such as doing assignments, researching scholarships or completing online applications; and practical, such as preparing for job interviews by researching companies. Students also use the Internet for social communication with increasing frequency.

The cyberbullying literature suggests that the victims generally manifest psychological problems such as depression, loneliness, low self-esteem, school phobias and social anxiety (Greene, 2003; Juvonen, Graham, & Shuster, 2003). Moreover, research findings have shown that cyberbullying causes emotional and physiological damage to defenceless victims (Akbulut, Sahin, & Eristi, 2010) as well as psychosocial difficulties including behavior problems, drinking alcohol, smoking, depression, and low commitment to academics (Ybarra & Mitchell, 2007).

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Victims of cyberbullying, under great emotional stress, are unable to concentrate on their studies, and thus their academic progress is adversely affected (Faryadi, 2011). Since the victims are often hurt psychologically, the depressive effect of cyberbullying prevents students from excelling in their studies (Faryadi, 2011). The overall presence of cyberbullying victimization among undergraduate college students was found to be significantly related to the experience of anxiety, depression, substance abuse, low self-esteem, interpersonal problems, family tensions and academic underperformance (Beebe, 2010).

The objective of the research was to determine the influence of cyberbullying on the academic, social, and emotional development of college students.

## Method

In the current research, 638 Israeli and 102 Americans undergraduate students participated. The sample was 76% female; 70% single; 51% Jewish, 27% Muslim, 7% Druze, 15% Christian; sexual orientation – 71% straight women, 23.5% straight men, 4% bisexual, 1% lesbians, 0.5% gay males (note: according to the Williams Institute approximately 4% of the population in the US are LGBT, [Gates, 2011], while 6% of the EU population are LGBT, [Dalia, 2016]).

Two instruments were used to collect data: The Revised Cyber Bullying Survey (RCBS), with a Cronbach's alpha ranging from .74 to .91 (Kowalski & Limber, 2007), designed to measure incidence, frequency and medium used to perpetrate cyberbullying. The survey is a 32-item questionnaire. The frequency is investigated on 5-item scale: from 'it has never happened to me', to 'several times a week', through five different media: email, instant messaging, chat room, text messaging and social network sites. Each medium is examined with the same six questions related to cases of cyberbullying. The College Adjustment Scales (CAS) (Anton & Reed, 1991), which evaluate the academic, social, and emotional development of college students, were employed (they were standardized and validated for use with college students). The validity for each subscale ranges from .64 to .80, noting high correlations among scales. Reliability of the scales ranges from .80 to .92, with a mean of .86. The instrument includes 128 items, divided into 10 scales, based on a four-point Likert scale: Anxiety, Depression, Suicidal Ideation, Substance Abuse, Self-esteem Problems, Interpersonal Problems, Family Problems, Academic Problems, Career Problems, Regular Activities.

Participants also responded to a demographic questionnaire that included personal and background information like gender, birth year, academic institution, marital status, ethnicity, and sexual orientation. As sexual orientation is a major cause for bullying (Pollock, 2006; Cahill, & Makadon, 2014), it was included in the background information.

Convenience sampling and purposive sampling were used for this study. Surveys with written instructions were administered in classrooms, libraries and online via Google Docs at the end of the semester.

## Findings

Participants reported that they were cyberbullied at least once or twice through: instant messaging (IM) (30.3%), social network sites (28.9%), text messaging (SMS) (28.6%) and email (25.4%), while the chat was the medium with the fewest reported episodes of cyberbullying (15.2%). Of the students, 65.3% experienced cyberbullying by: a brother or sister (1.7%), a friend (9.9%), a student (7.3%), a current or former boyfriend or girlfriend (5.0%), a stranger (34.7%) or someone else (6.7%).

Significant difference was found between male and female students in regard to the following variables: Depression ( $p < 0.01$ ,  $t_{(732,0.95)} = 3.04$ ; women:  $M = 53.47$ ; men:  $M = 51.05$ ), Interpersonal Problems ( $p < 0.01$ ,  $t_{(731,0.95)} = 2.59$ ; women:  $M = 52.74$ ; men:  $M = 50.59$ ), Self-esteem Problems ( $p < 0.001$ ,  $t_{(732,0.95)} = 3.68$ ; women:  $M = 50.23$ ; men:  $M = 47.20$ ) and Suicidal Ideation ( $p < 0.05$ ,  $t_{(731,0.95)} = 2.48$ ; women:  $M = 52.04$ ; men:  $M = 50.06$ ). See table 1.

**Table 1. Results of independent t-test for research variables by gender**

		<b>M</b>	<b>SD</b>	<b>t</b>
Depression	Male	51.05	8.69	3.04**
	Female	53.47	9.35	
Interpersonal Problems	Male	50.59	8.01	2.59**
	Female	52.74	8.46	
Self-Esteem Problems	Male	47.20	9.78	3.68***
	Female	50.23	9.26	
Suicidal Ideation	Male	50.06	8.78	2.44*
	Female	52.04	9.60	

Note:  $n_{\text{male}} = 177$ ,  $n_{\text{female}} = 562$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

A one-way ANOVA for research variables by age showed significant difference between age groups in regard to the variable Suicidal Ideation ( $p < 0.06$ ,  $F_{(2,5815)} = 3.84$ ; age group 20–25:  $M = 55.45$ ; age group 31–35:  $M = 49.71$ ; and age group 30–26:  $M = 50.13$ ).

Significant difference was found between observant and secular persons in regard to the variables Depression ( $p < 0.05$ ,  $t_{(733,0.95)} = 2.14$ ; observant:  $M = 53.56$ ; secular:  $M = 52.10$ ) and Suicidal Ideation ( $p < 0.01$ ,  $t_{(732,0.95)} = 3.74$ ; observant:  $M = 52.77$ ; secular:  $M = 50.16$ ). See table 2.

**Table 2. Results of independent t-test for research variables by level of religiosity**

		<b>M</b>	<b>SD</b>	<b>t</b>
Depression	Religious	53.56	9.24	2.14*
	Secular	52.10	9.20	
Suicidal Ideation	Religious	52.77	9.84	3.75**
	Secular	50.16	8.77	

Note:  $n_{\text{religious}} = 404$ ,  $n_{\text{secular}} = 336$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

An independent t-test between the CAS variables and sexual orientations shows a significant difference between heterosexuals and 'non-heterosexuals' such as Anxiety ( $p < 0.001$ ,  $t_{(728,0.95)} = 16.4$ ), Depression ( $p < 0.05$ ,  $t_{(723,0.95)} = 2.55$ ), Family Problems ( $p < 0.001$ ,  $t_{(726,0.95)} = 3.37$ ), Interpersonal Problems ( $p < 0.05$ ,  $t_{(727,0.95)} = 3.35$ ), Self-esteem Problems ( $p < 0.05$ ,  $t_{(727,0.95)} = 2.39$ ), Substance Abuse ( $p < 0.001$ ,  $t_{(727,0.95)} = 4.20$ ) and Suicidal Ideation ( $p < 0.001$ ,  $t_{(727,0.95)} = 5.61$ ), are higher among 'non-heterosexuals' (table 3).

**Table 3. Results of independent t-test for research variables by sexual orientation**

		<b>M</b>	<b>SD</b>	<b>t</b>
Anxiety	Heterosexual	50.48	8.19	2.55*
	Other	54.33	9.89	
Depression	Heterosexual	52.47	10.55	4.16***
	Other	58.31	9.05	
Family Problems	Heterosexual	44.72	11.02	3.73***
	Other	51.09	12.13	
Interpersonal Problems	Heterosexual	52.00	8.21	2.35*
	Other	55.00	9.52	
Self-esteem Problems	Heterosexual	49.29	9.44	2.39*
	Other	52.78	9.62	
Substance Abuse	Heterosexual	49.37	8.25	4.20***
	Other	54.80	10.32	
Suicidal Ideation	Heterosexual	51.06	9.19	5.61***
	Other	59.07	10.38	

Note:  $n_{\text{heterosexual}} = 690$ ,  $n_{\text{other}} = 45$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

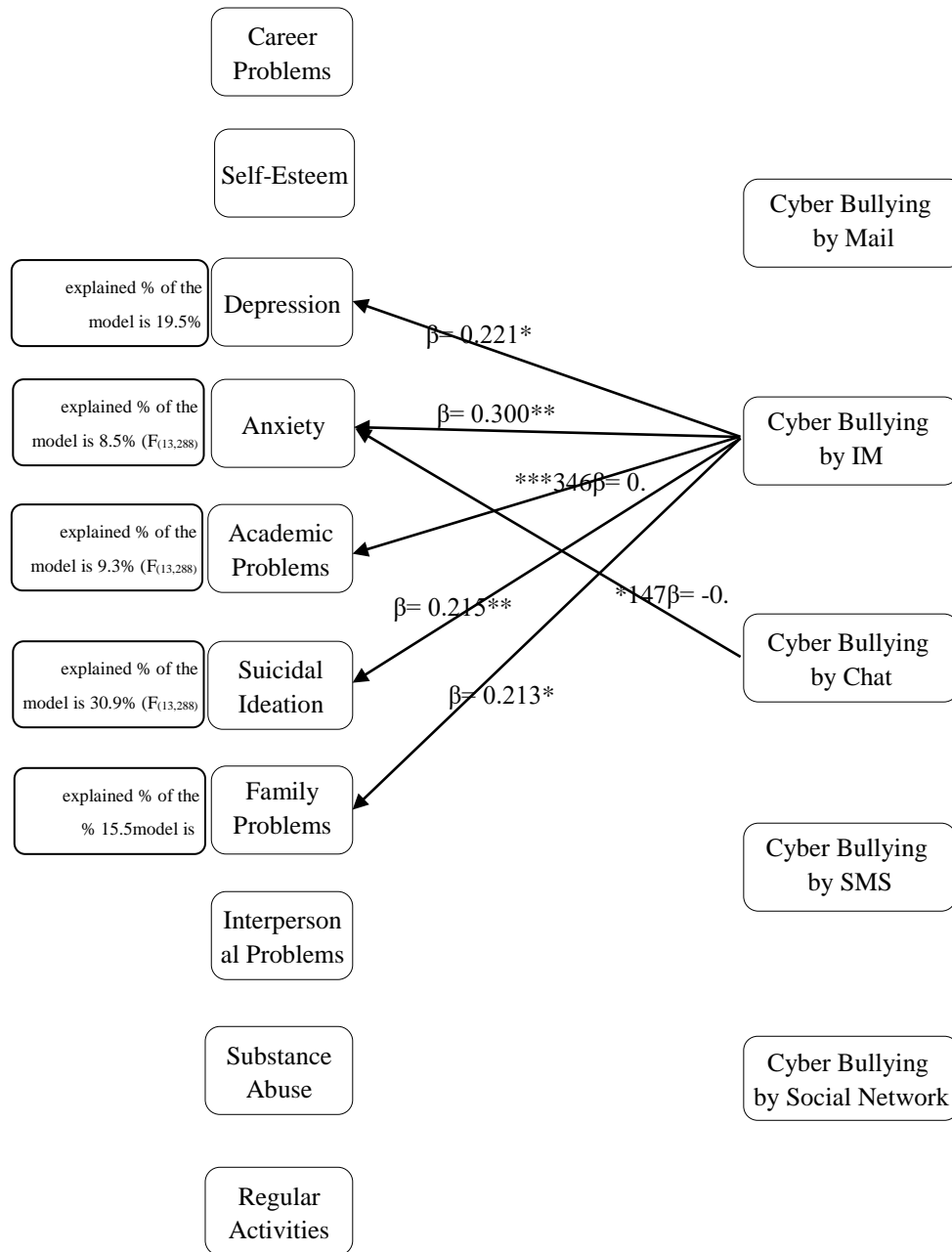
Pearson correlation of cyberbullying with the CAS variables can be seen in table 4.

**Table 4. Pearson correlation of cyberbullying with CAS variables**

<b>Cyberbullying</b> <b>CAS Variables</b>	<b>Mail</b>	<b>IM</b>	<b>Chat</b>	<b>SMS</b>	<b>Social Network</b>
1. Career Problems	0.015~	0.084*	0.023	0.056	0.039
2. Depression	0.047	0.163***	0.092*	0.090*	0.144***
3. Self-Esteem	0.023	0.195***	0.112**	0.157***	0.181***
4. Anxiety	0.056	0.217***	0.087*	0.157***	0.190***
5. Academic Problems	0.015	0.168***	0.102**	0.111**	0.139***
6. Suicidal Ideation	0.115**	0.199***	0.168***	0.081*	0.137***
7. Substance Abuse	0.137***	0.202***	0.168***	0.174***	0.186***
8. Interpersonal Problems	0.027	0.111**	0.075*	0.016	0.076*
9. Family Problems	0.184***	0.231***	0.119**	0.178**	0.209***
10. Regular Activities	-0.071~	-0.014	0.000	0.014	0.045

Note:  $n = 740$ , ~ $p < .06$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

A regression on the effect of cyberbullying variables on the CAS variables shows that cyberbullying by IM affects, to varying degrees, family problems, suicidal ideation, academic problems, anxiety, and depression (see figure 1).



**Figure 1. The influence of cyberbullying in college variables on the CAS variables**

### Discussion

Cyberbullying exists in universities and colleges, and it has an influence on the academic, social, and emotional development of undergraduate students. Sixty-five percent of the students who participated in this study had experienced cyberbullying at least once. Considering the effect of

such an encounter on the academic, social and emotional development of undergraduate students, there's room for great concern on the part of academic policy makers.

Instant messaging (IM) was found to be the most common means of cyberbullying among undergraduate students. Results indicate that cyberbullying by IM has an influence on academic, family, and emotional problems (depression and anxiety and Suicidal Ideation) of undergraduate students. A possible interpretation of the higher frequency of cyberbullying through IM may be that young adults want to be always connected, and this medium allows for being online in 'real time' with many peers or groups, but the possibility to remain anonymous (by creating an avatar – a fake profile) and the possibility of exposing private information that remains recorded turn them into easy targets for cyberbullying. IM apps such as WhatsApp are extremely popular as they allow messages, photos, videos, and recordings to be shared and spread widely and in real time.

Students use the Internet as a medium and use it with great frequency in their everyday lives. As increasingly aspects of students' lives are conducted online, and with the knowledge that excessive use may have consequences for them, it is important to study the phenomenon of cyberbullying more deeply.

Finally, cyberbullying is not only an adolescent issue; therefore, given that studies of cyberbullying among undergraduate students are not fully developed although its existence has been proven, this particular population needs special attention in future research.

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