

## Original article

# Cyberbullying, well-being, and mental health of freshmen of a University in Bangkok

Thachira Jamnongrit<sup>a,\*</sup>*<sup>a</sup>Program in Mental Health, Department of Psychiatry, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand*

**Background:** Cyberbullying is an electronic harassment commonly found in adolescents and affects the well-being and mental health of the victims.

**Objective:** The purpose of this study was to estimate the prevalence of cyberbullying among freshman and to investigate the relationship between cyberbullying, psychological well-being, and mental health among freshmen of Chulalongkorn University.

**Methods:** A cross-sectional design enrolled participation of 1,433 freshmen in 19 faculties of Chulalongkorn University. The subjects were requested to complete online surveys concerning demographic information, cyber-aggression victimization scale (Thai version), Thai mental health questionnaire (TMHQ: CU-modified version), and CU student psychological well-being (revised 2020).

**Results:** Fifty-two point-seven percent of freshmen gained experience of cyberbullying; 25.5% of all subjects had low psychosocial well-being, and 44.2% were inclined to have mental health problems. Cyberbullying was associated with lower psychosocial well-being, as well as significantly increased somatization, depression, anxiety and psychotic symptoms.

**Conclusion:** Cyberbully victims reported lower well-being and poor mental health than those who had no experience of it. These findings indicated that cyberbullying could occur among college students and initiatives to prevent cyber-aggression and its consequences were required.

**Keywords:** Cyberbullying, freshman, mental health, well-being.

The advancement of technology nowadays is gradually growing for anyone to easily access; thus, the Internet has become a part of daily life. According to ETDA<sup>(1)</sup> reports, group of post 2001- born people, so-called Generation Z are mostly the 2<sup>nd</sup> Internet users who spend more than 10 hours and 22 minutes from Monday to Friday, and 11 hours, and 52 minutes during weekends on the Internet. Moreover, one study<sup>(2)</sup> claims that students are mostly at risk of cyberbullying through online media (10.0 – 20.0%). This situation is accompanied by low immunity of media exposure among the youth and causes many problems as seen in cyber security, sexually risky and improper content of media access, online gambling, verbal abuse and cyberbullying.

Cyberbullying is a spreading problem that occurs today attributed by a traditional bullying in society as verbal abuse, sexual harassment, bodily harm, social exclusion, correct and incorrect information discrimination, etc. However, cyberbullying is a normal harassment but it appears on the Internet<sup>(3)</sup> and uses social media and one can protect oneself by using pseudo name or other people's photo as well as victim's photo.

This kind of harassment can be done anytime and anywhere with the Internet and access tool. Moreover, it can be widely and rapidly spread all over the world within seconds. However, cyberbullying is gradually repeated affecting victims more severely than the social harassment of the old days. It also causes victims' embarrassment, anxiety, low self-esteem, depression, suicide, and other mental health problems.

Many reports reveal that students are cyberbullying's victims (8.0 – 15.0%) and they suffer from having low self-esteem, relationship anxiety, social exclusion, self-insecurity, strain, embarrassment,

\*Correspondence to: Thachira Jamnongrit, Program in Mental Health, Department of Psychiatry, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand.  
E-mail: Thachira.J@hotmail.com

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loneliness, depression than those who have no experience of cyberbullying. If one with depression symptom, cyberbullying will activate and finally they can be drawn to suicide. The problem shows the impact of changing society as the major role of the Internet in daily life which causes mental health problem and will have negative effect on everyone. Several studies aimed to estimate the prevalence of cyberbullying in Thai school but there are no studies exploring cyberbullying in all university students. This study aimed to determine the prevalence of cyberbullying among freshman and investigate the relationship between cyberbullying, psychological well-being, and mental health in order to stimulate student's awareness this kind of harassment.

### Materials and methods

A cross-sectional descriptive research design was conducted in 1,433 freshmen, studying in the academic of 2020 from 19 faculties of Chulalongkorn University and willing to participate in this study by giving informed consent. In all, students not under 18 years old were recruited by all freshmen of Chulalongkorn University except the Faculty of Nursing.

The study has been approved by the Institutional Review Board (IRB) of the Faculty of Medicine, Chulalongkorn University (IRB no.293/63). The survey was administered through paper or online questionnaires that were innovated by CU-Wellness Center, which was a secure online survey system using informed consent. If students were willing to participate in this study, they submitted the answers. Students were provided with instructions within the online survey and allowed to skip the questions that they feel uncomfortable to answer.

All subjects were invited to provide information by self-reporting using the following questionnaires: 1) demographic information; 2) cyber-aggression victimization developed by Anuroj K. and Pityaratstain N.<sup>(4)</sup>, the cut-score of the cyberbullying victim is over 0 with the overall Cronbach's alpha coefficient equaling to 0.85; 3) CU student psychological well-being revised 2020 developed by Santibenjapun S, revised by the CU-Wellness Center and Nimnuan C.<sup>(5)</sup>, scores lower than 106 indicates the low level of psychological well-being with the overall Cronbach's alpha coefficient equaling to 0.80 - 0.88; 4) The Thai Mental Health Questionnaire : TMHQ : CU-modified version developed by Phattharayuttawat S. and

revised by Nimnuan C.<sup>(6)</sup> with the overall Cronbach's alpha coefficient equaling to 0.89, using cut-score by the 90 (P90) percentage in psychotic and depression symptom part and the 95 (P90) percentage in anxiety, somatization and social function part.

### Statistical analysis

The analyses were conducted using the SPSS program version 22.0 including descriptive statistics, Chi-square for testing the correlation among factors related to cyberbullying, psychosocial well-being, and mental health. Logistics regression and predictive analysis was used to predict the relationship between cyberbullying, psychological well-being, mental health and factors related to it by using the enter method ratio.  $P < 0.05$  was considered as significant difference.

### Results

A total of 1,433 (25.2% response rate) of freshmen of Chulalongkorn University were selected and 34 unfulfilled ones were excluded. It has found that most respondents are female (65.0%), male (32.6%), and others (2.4%), ranging with 18 - 31 years of age. The score on psychological well-being was at a moderate level with high on family and society, whereas there was no tendency of mental health problem as scored by mental health test. However, there were 52.7% who experienced cyberbullying and 47.3% who had not (Table 1). It can be divided into 8 types of pain with the item of "receiving a hurtful message from someone" is mostly replied, 36.1% (Table 2).

The results showed significant association among cyberbullying on faculty, curriculum, proper cost, likeness of subject, and mental health problem as well as psychosocial well-being and mental health ( $P < 0.001$ ).

This study showed that those who experienced cyberbullying was negatively associated with psychosocial well-being ( $P < 0.001$ ) (Table 3) while it also was significantly related ( $P < 0.001$ ) to one type of schizophrenia such as physical symptom (OR = 1.920,  $P < 0.001$ ), depressive symptom (OR = 2.625,  $P < 0.001$ ), anxious symptom (OR = 2.625,  $P < 0.001$ ), and mental symptom (OR = 3.475,  $P < 0.001$ ) whereas there were other factors contributing to high social adaptation OR = 1.641,  $P < 0.001$  (Table 4).

**Table 1.** Demographics and descriptive statistics.

Factor	N	Percentage
<b>Gender</b>		
Female	932	65.0
Male	467	32.6
Others	34	2.4
<b>Faculty group</b>		
Biological Science	524	36.6
Physical Science	273	19.1
Social Science	550	38.4
Humanity	86	6.0
<b>Religion</b>		
Buddhism	1276	89.0
Other (and non-religion)	157	11.0
<b>Cost of living</b>		
Enough	1284	89.7
Not enough	148	10.3
<b>Liking in field of study</b>		
Like	924	64.7
Not like	507	35.3
<b>Cyberbullying experiences</b>		
No experience	678	47.3
Had experience	755	52.7

**Table 2.** Types of cyberbullying experiences.

	N	Percentage
Having something embarrassing or mean posted	217	15.1
Receiving a hurtful message from someone	517	36.1
Having an embarrassing photo or video posted	162	11.3
Having hurtful comments about your photo or video	249	17.4
Being purposely excluded online	245	17.1
Having something personal posted that you didn't want others to know	218	15.2
Having gossip or rumors spread about you	264	18.5
Having sexual content sent from someone who was trying to embarrass you	183	12.7

**Table 3.** Binary regression analysis<sup>a</sup> examining the effects of cyberbullying on psychological well-being<sup>b</sup>.

Predictors	$\beta$	aOR (95% CI)	P-value
Buddhism	-0.473	0.6 (0.433 - 0.897)	0.011
Dislike subjects	-1.751	0.2 (0.091 - 0.330)	<0.001
Cyberbullying victim	-0.669	0.5 (0.399 - 0.658)	<0.001

<sup>a</sup>Odds ratios adjusted for gender.

<sup>b</sup> Score >106 on CU-Well.

**Table 4.** Binary regression analysis<sup>a</sup> examining the effects of cyberbullying on mental health.

	Predictors	$\beta$	aOR (95% CI)	P-value
Mental problem at least one symptom	psychological well-being	-1.347	0.3 (0.214–0.316)	<0.001
	Cyberbullying victim	1.070	2.9 (2.255–3.762)	<0.001
Somatization <sup>b</sup>	Psychological well-being	-0.940	0.4 (0.311–0.491)	<0.001
	Cyberbullying victim	0.652	1.9 (1.377–2.678)	<0.001
Depression <sup>c</sup>	Psychological well-being	-1.060	0.2 (0.157–0.242)	<0.001
	Cyberbullying victim	0.965	2.6 (1.989–3.465)	<0.001
Anxiety <sup>d</sup>	Psychological well-being	-0.880	0.4 (0.336–0.511)	<0.001
	Cyberbullying victim	0.965	2.6 (1.927–3.577)	<0.001
Psychotic <sup>e</sup>	psychological well-being	-0.537	0.6 (0.470–0.727)	<0.001
	Cyberbullying victim	1.246	3.5 (2.436–4.958)	<0.001
Social function <sup>f</sup>	Psychological well-being	1.458	4.3 (3.176–5.816)	<0.001
	Cyberbullying victim	0.495	1.6 (1.123–2.397)	0.010

<sup>a</sup>Odds ratios adjusted for gender, group of faculties, religion, cost of living, Liking subjects.

<sup>b</sup> Score  $\geq 15$  on TMHQ in male and female.

<sup>c</sup> Score  $\geq 12$  on TMHQ in male and  $\geq 10$  in female.

<sup>d</sup> Score  $\geq 18$  on TMHQ in male and  $\geq 17$  in female.

<sup>e</sup> Score  $\geq 7$  on TMHQ in male and  $\geq 17$  in female.

<sup>f</sup> Score  $\geq 18$  on TMHQ in male and  $\geq 15$  in female.

## Discussion

According to a previous study<sup>(7, 8)</sup>, the results of this study illustrate that there are more than the two results of 19.0% and 15.1% of the whole students showing the influence of the Internet on students, since nowadays it is an important part in daily life such as online learning which exposes one to cyberbullying as well. Thus, the researcher had an assumption about the possibility that the instruments used to measure, or the sample group were different causing the prevalence was more than a previous study. Moreover, the influence of the internet in the present may affect students as an important aspect of their daily lives, especially in online learning. This makes the phenomenon of cyberbullying more prevalent as well. The pattern of cyberbullying is relevant to the previous study<sup>(9, 10)</sup> as the two tops of cyberbullying are “receiving painful content” and “online rumor or ridicule” as well as online exclusion and sexual embarrassment. Considering the effect of cyberbullying on psychosocial well-being, it is found that the results are relevant to the previous study<sup>(11, 12)</sup> which reveals that those who have not experienced cyberbullying significantly have more well-being scores than those who experienced cyberbullying. They have problems of relationship establishing, unsecure learning and emotion control. As for mental health, cyberbullying affects every aspect of mental health as physical symptom,

depressive symptom, anxious symptom, psychological symptom and social function, especially depressive and anxious symptoms; this is also in agreement with the previous study.<sup>(8, 10, 12-15)</sup>

Although there is no study concerning the relationship among psychological symptom and cyberbullying, the results of the previous study illustrate that mental health problem is an important consideration and society needs to provide more knowledge about cyberbullying management; whereas social function is not relevant to the previous study<sup>(16)</sup>, i.e., there is no relationship among those with cyberbullying experience and social function, though students' social adaptation is important for reinforcement and more supportive on their good mental health.

In this study, there are some limitations as it is a cross-sectional descriptive study conducted in a university in Bangkok, so that it could not be generalized to the other universities. Moreover, the questionnaires are created for Chulalongkorn University students; it could not be applied to others. Results of the Thai Mental Health Questionnaire: CU-modified version only reveals risk tendency of mental health problem that cannot be interpreted as mental disorder. Finally, the data are collected during the COVID-19 epidemic while most students are online-learning which cannot be compared to their normal learning mode. As a result, the questionnaire response rate was lower

than using paper or onsite survey. Interpretation of results may have an impact on the prevalence and interpretation in the psychosocial well-being and mental health of the population was not the same as in normal conditions. Therefore, it cannot be interpreted as a representation of the whole university population.

### Conclusion

The results of this study reveal problems of cyberbullying on more than half of the students in the university. Moreover, it affects to their well-being and mental health to have low psychosocial well-being and it is risky of mental disorder, especially anxious symptom and psychological symptom. However, there is interesting remark showing supportive factor as a good social function if they can be reinforced with related factor concerning social adaptation as well as knowledge and understanding of cyberbullying management which can assist them to gain better well-being and mental health.

### Conflict of interest

The authors, hereby, declare no conflict of interest.

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