


Bystanders' behaviours and associated factors in cyberbullying

Jidapa Panumaporn,¹ Sirichai Hongsanguansri,² Wanlop Atsariyasing,³ Komsan Kiatrungrit ²

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¹Master of Science Program in Child, Adolescent and Family Psychology, Affiliate Program Between Faculty of Medicine Ramathibodi Hospital, Faculty of Medicine Siriraj Hospital and National Institute for Child and Family Development, Mahidol University, Bangkok, Thailand
²Psychiatry, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, Thailand
³Psychiatry, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand

Correspondence to
Dr Komsan Kiatrungrit;
komsan.kei@gmail.com

ABSTRACT

Background Cyberbullying is presently an alarming problem worldwide due to its impact on the emotions, behaviour and psychological well-being of not only the victims, but the bullies themselves and also bystanders. **Aim** This study aims to investigate bystanders' behaviours in cyberbullying and associated factors. **Methods** This research is a cross-sectional study of 578 secondary school students in Bangkok, Thailand. Simple random sampling was used to select four secondary schools. Data were collected through online questionnaires which included four sections: (1) demographic data, (2) bystanders' behaviour in cyberbullying (cyberbullying experience and attitude towards cyberbullying were included in this section), (3) parental attachment (Inventory of Parent Attachment-Revised), and (4) self-esteem (Rosenberg Self-Esteem Scale-Revised).

Results It was found that most occurrences of bystanders' behaviour were: (a) willing to intervene or help victims (34.6%), (b) ignoring the cyberbullying (28%) or (c) partaking in cyberbullying (26.3%). Participants who either were victims of cyberbullying or knew of cyberbullying happening to friends or relatives and had high parental attachment would intervene more than those who never had such experiences. Participants who knew of cyberbullying happening to the general public had tendencies towards ignoring the cyberbullying. Participants who indicated they were bullies and had positive attitude towards joining in tended to partake in the cyberbullying more than those who were not.

Conclusion Factors relating to the behaviours of bystanders in cyberbullying should be further explored to provide support in the discouragement of ignoring and averting participation in cyberbullying. Secure parental attachment is one important factor that should be instilled during childhood years.

INTRODUCTION

Cyberbullying is currently a pressing global issue. In many countries, records show that victims of cyberbullying account for 20%–40% of children and adolescents.¹ The number had been rising between 2007 and 2016 and has still been continuing to rise.² Cyberbullying affects many aspects within the life of children and adolescents, especially how emotional and social factors may lead to suicidal tendencies.³ These effects

happen to victims, bullies and bystanders of cyberbullying.

There have been only a few studies focusing on bystanders in cyberbullying. A study in Belgium found that the majority of bystanders tended to ignore cyberbullying (54.1%), followed by those who would intervene (41.7%) and those who would join in (4.2%).⁴ A study in Israel found that 55.4% were ignoring and 44.6% were intervening.⁵ However, such studies used only one question which cannot represent the bystander's reactions as there can be various ways in which a bystander can intervene in cyberbullying, such as asking someone for help, stopping the cyberbullying or comforting the victim.^{6,7} In Thailand, there has never been a study on bystanders' behaviour in cyberbullying. However, there was one study about adolescents' attitudes towards cyberbullying in which it was found that 28% of participants view that offences to victims in cyberbullying are a common occurrence.⁸ This attitude may lead to cyberbullying, and increase the chance of bystanders' reaction either to join in or ignore cyberbullying. This can cause the victims to feel a lack of support and experience despair. If bystanders help the victims or intervene to stop the cyberbullying, it can prevent reoccurrences of cyberbullying.

As previously stated, bystanders' behaviour is important. Therefore, knowing the factors that influence these behaviours is important. Factors that affect bystanders' behaviour in cyberbullying can be both personal factors which are gender,^{4,9} age, empathy,⁴ morals,¹⁰ internet usage¹¹ and self-efficacy⁵; and social factors which are relationship between bystanders and victims or bullies,⁷ perceived norms¹⁰ and social support.⁵ Parental attachment and self-esteem are important factors associated with bystanders' behaviour in traditional bullying; there were only a few studies in the cyberbullying context.¹² In traditional bullying, children who have avoidant and ambivalent attachment tend to bully others

more than children with secure attachment.¹³ On the other hand, those with secure attachment help others.¹² As for self-esteem, bystanders in traditional bullying who intervene have high self-esteem,¹⁴ but those with low self-esteem may join in or ignore cyberbullying.¹⁵ Moreover, beliefs, attitude and norms will affect the behaviour, too. There is no study about the importance of attitudes towards cyberbullying and cyberbullying behaviours despite previous studies exploring attitudes and traditional bullying.^{15 16}

The aims of this study are: (1) to investigate bystanders' behaviours in cyberbullying and (2) investigate the association between parental attachment, self-esteem and bystanders' behaviours in cyberbullying. The research hypotheses are: (1) bystanders tend to ignore more than intervene or join in the cyberbullying, and (2) participants who have high parental attachment and self-esteem tend to intervene in cyberbullying than those who did not.

METHODS

The populations were selected from 352 196 secondary school students in Bangkok.¹⁷ Simple random sampling was used to select four secondary schools (one school from each affiliate, namely Secondary Education Service Area Office Districts 1 and 2, Department of Bangkok Education, and Office of the Private Education Commission) in Bangkok. Then, two classrooms from both lower and upper secondary classes were selected at teachers' convenience according to their timetable. Participants were included if they are (1) students in secondary school in Bangkok, and (2) fluent in Thai language with capability to read and answer the questionnaire by themselves. There were no exclusion criteria (figure 1).

Data were collected through online questionnaires in the class with researcher present after receiving an ethical approval. Participants were informed about research objectives and consent was requested from both participants and their parents before data collection. After finishing the questionnaires, the researchers educated

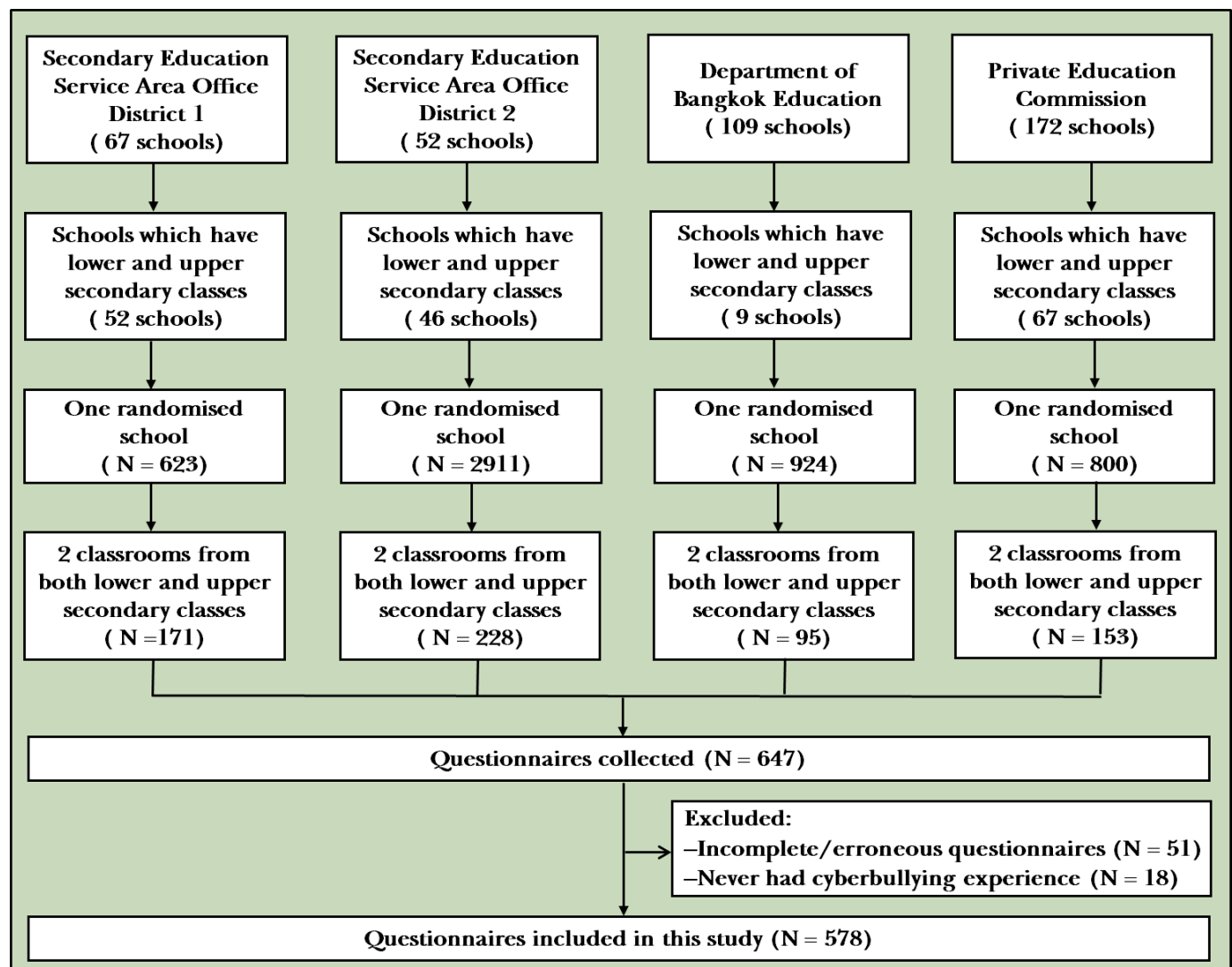


Figure 1 Total number of collected questionnaires and questionnaires included in the study.

the participants on how to appropriately react when confronting cyberbullying.

MEASURES

Demographic data

There are four questions in this section: gender, age, primary caregiver (Who is your primary caregiver?) and parents' marital status.

Bystanders' behaviour in cyberbullying questionnaire

This questionnaire was developed by researchers. The content validity follows the index of item-objective congruence which was verified by three experts on cyberbullying (refer to the Acknowledgements section) and revised according to their recommendations. Afterwards, the questionnaire was tested through interviewing seven participants and through seeking responses from 31 participants from secondary school students in Bangkok. The questionnaire was then revised again with the recommendation of the experts.

This questionnaire consists of three parts: cyberbullying experience, bystanders' behaviour in cyberbullying and attitude towards cyberbullying.

Cyberbullying experience

In this part, there are four items: experience of being (1) victims (Have you ever been cyberbullied by others?) and (2) bullies (Have you ever cyberbullied other people?), cyberbullying happening to (3) friends and relatives (Have you ever known of cyberbullying which happened to someone close to you, eg, family members, relatives, close friends?), and (4) to the general public (Have you ever known of cyberbullying which happened to someone who is not close to you, eg, seniors/juniors, superstars, other online strangers?). There are four choices for each item: often (3), sometimes (2), rarely (1) and never (0). Participants who answer 'never' were grouped as 'no experience'. Participants who answered 'rarely', 'sometimes' or 'often' were grouped as victims, bullies, knew of cyberbullying happening to friends and relatives or knew of cyberbullying happening to the general public according to which item they answered.

Bystanders' behaviour in cyberbullying

There are 18 items in this part. The behaviours are divided into three patterns: *intervening* (items 1–6) (eg, 'send message with advice to the victim', 'tell the bully to stop cyberbullying', 'ask others to help the victim'), *ignoring* (items 7–12) (eg, 'refrain from commenting after reading the bully's message', 'do nothing') and *joining in* (items 13–18) (eg, 'reinforce posts or hurtful comments', 'share posts that embarrass the victims'). There are four choices for each item: always (3), often (2), rarely (1) and never (0) (min-max=0–18 for each pattern). Coefficients of reliability test in intervening and joining in parts are fair (Cronbach's alpha=0.63 and 0.68, respectively), and higher in ignoring cyberbullying from bystanders

(Cronbach's alpha=0.77). Those who score above the 75th percentile in each behaviour group are considered in each of these groups: intervene (6 points), ignore (10 points) and join in (4 points) the cyberbullying. Participants who score lower than the criterion in any group are non-group.

Attitude towards cyberbullying

There are three items related to attitude towards bystanders' behaviour when knowing of cyberbullying happening to someone. We asked our participants the question, 'What was your opinion towards these behaviors when you saw cyberbullying?': (1) intervening, (2) ignoring, and (3) joining in cyberbullying. There are four choices for each item: strongly agree (4), agree (3), disagree (2) and strongly disagree (1). The more scores on each behaviour reflect the more positive attitudes towards it. There is one item about perceived norms of the general public's view on personal behaviour when confronting cyberbullying. We asked our participants the question, 'In your opinion, what is the behavior which most people are likely to do when they see cyberbullying?' This item has three options: help victims, ignore and join in the cyberbullying. The results of this question are categorised into three groups: (1) perceived norms of intervening, (2) perceived norms of ignoring, and (3) perceived norms of joining in cyberbullying.

Parental attachment questionnaire

The parent part of the Inventory of Parent and Peer Attachment-Revised (28 items), which was translated into Thai by Lucktong *et al.*, was used to assess participants' attachment to parents.¹⁸ There are three choices for each item: not true (1), occasionally true (2) and always true (3) (min-max=28–84). The parental part of the questionnaire demonstrated good reliability (Cronbach's alpha=0.88). The more scores reflect the more secure attachment with their caregiver. The mean score of this questionnaire in a previous study is 65.24 (8.14).¹⁸

Self-esteem questionnaire

Rosenberg Self-Esteem Scale-Revised in Thai version translated by Tinakon and Nahathai Wongpakaran¹⁹ (10 items) was used to assess participants' self-esteem. There are four choices for each item: strongly agree (4), agree (3), disagree (2) and strongly disagree (1) (min-max=10–40). The reliability for the self-esteem questionnaire was good (Cronbach's alpha=0.86). Higher scores reflect higher self-esteem. The mean score of this questionnaire in a previous study was 3.044 (0.486).¹⁹

Analysis and statistics

The Statistical Package of Social Sciences (SPSS) V.18 was used to analyse statistics. Descriptive statistics were used to determine frequency, percentage, mean and SD of demographic data, cyberbullying experiences, attitudes towards cyberbullying, parental attachment and self-esteem. χ^2 and Pearson's correlation analysis were used to examine the relationship between bystanders' behaviours

Table 1 Demographic data, cyberbullying experience, perceived norms of bystanders' behaviours and p value of χ^2 analysis (n=578)

	Intervene (n=200)†			Ignore (n=162)†			Join in (n=152)†			Total
	Intervene n (%)	Others n (%)‡	P value	Ignore n (%)	Others n (%)‡	P value	Join in n (%)	Others n (%)‡	P value	
Gender										
Male	66 (33.3)	175 (46.3)	0.002**	67 (41.4)	174 (41.8)	0.918	70 (46.1)	171 (40.1)	0.204	241
Female	134 (66.7)	203 (53.7)		95 (58.6)	242 (58.2)		82 (53.9)	255 (59.9)		337
Class										
Junior	83 (41.5)	171 (45.2)	0.389	73 (45.1)	181 (43.5)	0.736	57 (37.5)	197 (46.2)	0.071	254
Senior	117 (58.5)	207 (63.9)		89 (54.9)	235 (46.5)		95 (62.5)	229 (53.8)		324
Main caregiver										
Parents	175 (87.5)	326 (86.2)	0.672	144 (88.9)	357 (85.8)	0.329	134 (88.2)	367 (86.2)	0.532	501
Others	25 (12.5)	52 (13.8)		18 (11.1)	59 (14.2)		18 (11.8)	59 (13.8)		77
Parental status										
Together	153 (76.5)	276 (73)	0.362	125 (77.2)	304 (73.1)	0.313	116 (76.3)	313 (73.5)	0.492	429
Widow	47 (23.5)	102 (27)		37 (22.8)	112 (26.9)		36 (23.7)	113 (26.5)		149
Cyberbullying experience										
Victims§	137 (68.5)	172 (45.5)	<0.001***	76 (46.9)	233 (56)	0.049*	106 (69.7)	203 (47.7)	<0.001***	309
	63 (31.5)	206 (54.5)		86 (53.1)	183 (44)		46 (30.3)	223 (52.3)		269
Bullies§	131 (65.5)	173 (45.8)	<0.001***	70 (43.2)	234 (56.2)	0.005**	121 (79.6)	183 (43)	<0.001***	304
	69 (34.5)	205 (54.2)		92 (56.8)	182 (43.8)		31 (20.4)	243 (57)		274
Friends¶	178 (89)	292 (77.2)	0.001***	125 (77.2)	345 (82.9)	0.11	128 (84.2)	342 (80.3)	0.286	470
	22 (11)	86 (22.8)		37 (22.8)	71 (17.1)		24 (15.8)	84 (19.7)		108
General¶	192 (96)	339 (89.7)	0.008**	158 (97.5)	373 (89.7)	0.002**	144 (94.7)	387 (90.8)	0.132	531
	8 (4)	39 (10.3)		4 (2.5)	43 (10.3)		8 (5.3)	39 (9.2)		47
Perceived norms										
Intervene††	92 (46)	133 (35.2)	0.011*							225
	108 (54)	245 (64.8)								353
Ignore††				89 (54.9)	167 (40.1)	0.001**				256
				73 (45.1)	249 (59.9)					322
Join in††							30 (19.7)	67 (15.7)	0.256	97
							122 (80.3)	359 (84.3)		481

Parents=mother/father as caregiver. Together=parents live together. Widow=divorced or mother/father deceased. Victims=victims' experience. Bullies=bullies' experience. Friends=cyberbullying happening to friends and relatives. General=cyberbullying happening to general public.

***p<0.001; **p<0.01; *p<0.05.

†The total number of participants in intervening, ignoring and joining in cyberbullying groups can exceed the total number of participants (n=578) because one participant can be grouped into more than one behaviour group.

‡Other participants means those who cannot be grouped under that grouping behaviour (eg, for intervening group, others are participants who ignore or join in cyberbullying, in some cases, it means those who cannot be grouped in any group).

§Experience of being victims or bullies. The blank space under 'victims' and 'bullies' rows means participants who never have been victims and bullies, respectively.

¶Known of cyberbullying happening to friends/relatives or to general public. The blank spaces under them were participants who never had these experiences.

††Participants who report have perceived norms of general public's view on personal behaviour when confronting cyberbullying as intervening, ignoring or joining in cyberbullying. The line under each perceived norm is the participant who reports others perceive norms.

and associated factors. Finally, logistic regression analysis was used to determine the influence of associated factors on bystanders' behaviours, by using the enter method.

RESULTS

There were a total of 578 participants in this study (figure 1). Two hundred and forty-one of the participants (41.7%) were males. The mean age of participants was

14.97 years (SD=1.61, min-max=11–19) (table 1). Participants had a mean self-esteem score of 28.39 (SD=4.57, min-max=10–40) and mean parental attachment score of 63.65 (SD=8.90, min-max=34–84). The other demographic data can be found in table 1.

Experience and attitude towards cyberbullying

There were 309 participants (53.9%) who were victims, and 304 participants (52.6%) were bullies. Four hundred and

seventy of them (81.3%) knew of cyberbullying happening to friends and relatives and 531 participants (91.9%) who knew of cyberbullying happening to the general public.

There was higher positivity towards intervening (mean=3.16, SD=0.81) than ignoring and joining in cyberbullying (mean=1.99, SD=0.75; mean=1.42, SD=0.69, respectively). Most of them (n=258, 44.3%) perceived the norm to be ignoring, followed by those who saw intervening and joining in as the norm (n=225, 38.9% and n=97, 16.8%, respectively).

Bystanders' behaviour in cyberbullying

Three hundred and fifty of the participants were grouped into either intervening (n=200, 34.6%), ignoring (n=162, 28%) or joining in the cyberbullying groups (n=152, 26.3%). The remaining 228 participants were grouped as non-group which was previously mentioned. The mean score for intervening, ignoring and joining in the cyberbullying behaviours was 4.47 (min-max=0–16, SD=2.738), 7.08 (min-max=0–18, SD=4.222) and 2.46 (min-max=0–15, SD=2.439), respectively.

Relationship between bystanders' behaviours in cyberbullying and associated factors

In the intervening group, participants who were females, victims, bullies and knew of cyberbullying happened to friends/relatives and in the general public intervened cyberbullying more than those who did not have these experiences. However, participants who perceived intervening to be the norm intervened less than those who perceived the norm to be ignoring or joining in. As for the ignoring group, participants who were victims and bullies were less likely to ignore cyberbullying than participants who have never been victims or bullies. Participants who knew of cyberbullying happening in the general public or perceived ignoring of cyberbullying to be the norm,

chose to ignore more often than those who did not share these perceptions. In the joining in group, it was found that participants who were victims or bullies joined in the cyberbullying more than participants who were neither victims nor bullies (table 1).

As for correlation between continuous data, there were positive correlations between intervening behaviour and joining in behaviour, as well as attitudes towards intervening and attitudes towards joining in. While, there were positive correlations between ignoring behaviour and attitude towards intervening and ignoring, the correlation between ignoring behaviour and attitude towards joining in was negative. Moreover, joining in behaviour was positively correlated with intervening, age, attitudes towards ignoring and attitudes towards joining in, but negatively correlated with parental attachment. In addition, parental attachment was positively correlated with attitude towards intervening and self-esteem, but negatively correlated with attitude towards joining in (table 2).

Influence of associated factors on bystanders' behaviours in cyberbullying

As for the intervening group, the results show that female participants who knew of cyberbullying happening to friends, relatives and in the general public and had the perceived norm of intervening tended to intervene more than those who did not. Moreover, those who scored one point higher in parental attachment were 1.029 times more likely to intervene (table 3).

In the ignoring group, participants who were bullies tended to ignore less than those who never were bullies. However, participants who knew of cyberbullying happening in the general public and who had a perceived norm of ignoring tended to ignore more than those who did not. Furthermore, those who scored one point higher

Table 2 Pearson's correlation analysis between age, attitude, attachment, self-esteem and bystanders' behaviours

	Intervene	Ignore	Join in	Age	Intervening attitude	Ignoring attitude	Joining in attitude	IPA	RSE
Intervene	1	-0.060	0.592***	0.046	0.160***	-0.062	0.094*	0.066	0.044
Ignore	-0.060	1	0.030	0.052	0.201***	0.283**	-0.082*	0.021	-0.026
Join in	0.592***	0.030	1	0.087*	-0.072	0.084*	0.330***	-0.093*	-0.007
Age	0.046	0.052	0.087*	1	0.071	0.030	-0.011	-0.021	0.008
Intervening attitude	0.160***	0.201***	-0.072	0.071	1	-0.103*	-0.144**	0.139**	0.132**
Ignoring attitude	-0.062	0.283***	0.084*	0.030	-0.103	1	0.177**	-0.046	-0.058
Joining in attitude	0.094*	-0.082*	0.330***	-0.011	-0.144**	0.177**	1	-0.132**	-0.061
IPA	0.066	0.021	-0.093*	-0.021	0.139**	-0.046	-0.132**	1	0.468***
RSE	0.044	-0.026	-0.007	0.008	0.132**	-0.058	-0.061	0.468***	1

Intervening attitude=attitude towards intervening. Ignoring attitude=attitude towards ignoring. Joining in attitude=attitude towards joining in the cyberbullying.

***p<0.001; **p<0.01; *p<0.05.

IPA, Inventory of Parent Attachment (parental attachment); RSE, Rosenberg Self-Esteem (self-esteem).

Table 3 Regression analysis of associated factors on bystanders' behaviours in cyberbullying

	Bystanders' behaviours (dependent variables)					
	Intervene		Ignore		Join in	
	OR (95% CI)	P value	OR (95% CI)	P value	OR (95% CI)	P value
Females	1.596 (1.089 to 2.339)	0.017*	1.102 (0.743 to 1.634)	0.628	0.853 (0.562 to 1.293)	0.453
Age	0.985 (0.875 to 1.110)	0.807	1.016 (0.898 to 1.149)	0.798	1.104 (0.968 to 1.258)	0.139
Victims	2.144 (1.382 to 3.325)	0.001**	0.809 (0.512 to 1.278)	0.364	1.099 (0.677 to 1.783)	0.702
Bullies	1.446 (0.934 to 2.240)	0.098	0.611 (0.387 to 0.964)	0.034*	4.067 (2.434 to 6.798)	<0.001***
Friends	2.075 (1.215 to 3.542)	0.007**	0.849 (0.519 to 1.388)	0.513	0.730 (0.417 to 1.275)	0.269
General	2.444 (1.075 to 5.558)	0.033*	4.565 (1.580 to 13.187)	0.005**	1.623 (0.693 to 3.798)	0.264
Attitude	1.276 (0.992 to 1.640)†	0.058	1.977 (1.524 to 2.566)‡	<0.001***	1.885 (1.427 to 2.490)§	<0.001***
Norms	1.686 (1.149 to 2.474)¶	0.008**	1.607 (1.093 to 2.364)††	0.016*	1.310 (0.771 to 2.225)‡‡	0.318
Attachment	1.029 (1.004 to 1.053)	0.022*	0.997 (0.973 to 1.023)	0.835	0.983 (0.957 to 1.009)	0.207
Self-esteem	0.969 (0.925 to 1.015)	0.187	1.002 (0.956 to 1.050)	0.928	0.999 (0.947 to 1.054)	0.97
Constant	0.009	<0.001***	0.025	0.006**	0.032	0.013

Victims=victims' experience. Bullies=bullies' experience. Friends=cyberbullying happening to friends and relatives. General=cyberbullying happening to general public.

* $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

†Attitude towards intervening.

‡Attitude towards ignoring.

§Attitude towards joining in the cyberbullying.

¶Perceived norm of intervening.

††Perceived norm of ignoring.

‡‡Perceived norm of joining in the cyberbullying.

on attitude towards ignoring had a 1.977 times higher chance of ignoring (table 3).

As for the joining in group, participants who were bullies tended to join in more than those who were never bullies. Moreover, those who scored one point higher on attitude towards joining in the cyberbullying had a 1.885 times higher chance of joining in (table 3).

DISCUSSION

Main findings

This study found that most participants were in the 'intervene group', followed by 'ignore' and 'join in' the cyberbullying group. This result is inconsistent with previous studies which found that most of the bystanders tended to ignore rather than intervene or join in the cyberbullying.⁴ It assumed that Asian culture emphasises more on collectivism as opposed to Western culture which values individualism. Collectivists tend to follow social pressure or norms.²⁰ Moreover, this study found that the norm for intervening had a significant influence on intervening behaviour. Furthermore, we found that females tended to intervene more than males which coincided with a previous traditional bullying study.²¹ According to the social role theory, females are perceived as caring, tender and kind.²² In addition, it is found that there was a significant tendency for older adolescents to join in with the cyberbullying, which corresponds to the developmental theory of antisocial behaviour which points that late adolescents display more antisocial behaviour than early

adolescents.²³ In addition, older adolescents have greater access to the internet,¹⁷ which increases the chance for them to engage in cyberbullying.

Participants who were victims of cyberbullying tended to intervene more than those who were not; this is likely because the experience of being victims generates empathy.⁴ On the other hand, participants who were bullies tended to join in the cyberbullying. Rigby and Slee stated that the bullying experience is associated with attitude towards aggressive behaviour.²⁴ Moreover, participants who were bullies tended to have a positive attitude towards joining in the cyberbullying. Hence, this might affect their behaviour especially when they are bystanders.

Participants who knew of cyberbullying happening to both friends/relatives and the general public tended to intervene more than those who did not. These experiences might generate empathy (which is one of the important factors that predict bystanders' response to both traditional bullying and cyberbullying) in them when they witness the cyberbullying.²⁵ However, participants who knew of cyberbullying happening in the general public tended to ignore the general public since they would not be within their social group. Most people feel the need to help people in their own social group more,²⁶ meaning that cyberbullying may also have become habitual.

Our study also found that participants who perceived the norm to be intervening or ignoring the cyberbullying had the tendency to show these behaviours. These results are consistent with the previous studies of traditional

bullying.^{15 16} This is in accordance with the theory of reasoned action by Fishbein and Ajzen who pointed out that beliefs, attitudes and norms will affect behaviour.²⁷ On the other hand, the attitude of intervening had no effect on the action of intervening. Additionally, the desire to intervene is also influenced by other factors, such as self-efficacy, personality, social support and morals.¹⁰ Changing one's attitude towards their action in cyberbullying is important to reduce such behaviour.

Participants who had high parental attachment tended to help victims when confronting cyberbullying, which is consistent with a previous traditional bullying study.¹² The secure attachment leads to trust, which is an important basis for building good relationships with others and social behaviour in a child's growing years.²⁸ Thus, raising and caring for children in a way that promotes good relationships can encourage one to help victims.

We did not find the relationship between self-esteem and bystander's behaviours to be inconsistent with previous traditional bullying studies which found a positive relationship between self-esteem and intervening but a negative relationship when ignoring and joining in bullying.²⁹ The nature of cyberbullying does not easily identify the bystander's identity (anonymity). People are less aware of cyberbullying and thus intervening in cyberbullying is different and less than in the traditional bullying context. Furthermore, lack of self-efficacy and social support can prevent a person who has high self-esteem from intervening.^{5 30} Therefore, more studies leading to understanding of bystanders' behaviours and ways to support intervening and discourage ignoring and joining in the cyberbullying are recommended.

Limitations

There are some limitations in our study. First, participants in this study were randomised from the Bangkok area only and thus cannot be generalised to cover a range of the general population. Second, most of our results are self-report, so it might not reflect the actual action especially joining in behaviour. However, according to the nature of cyberbullying which is anonymity, self-report might be more accurate than others' report. Lastly, there are also many more factors that can affect bystanders' behaviours which were not covered in this study. These factors should be included in further studies.

Implications

Factors related to bystanders' behaviours in cyberbullying should be taken seriously and developed into intervention. Population should be encouraged to promote more intervening behaviour and reduce ignoring behaviour in order to prevent cyberbullying. Secure parental attachment is one important factor that should be instilled during childhood years. Nowadays, children can see cyberbullying happening to friends and relatives as well as the general public and it will affect their attitude and behaviour. Therefore, families, teachers and caregivers should teach the right attitude about cyberbullying and

prepare children with skills to help others and avoid joining in or ignoring when seeing cyberbullying.

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ORCID iD

Komsan Kiatrungrit <http://orcid.org/0000-0002-6975-114X>

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Jidapa Panumaporn obtained a Bachelor's of Science in Psychology from Chulalongkorn University, Thailand. She is currently enrolled in the Affiliate Program of Ramathibodi Hospital School of Medicine, Siriraj Hospital School of Medicine, and National Institute for Child and Family Development, Mahidol University in Thailand working towards a Master's degree in Child, Adolescent and Family Psychology. She is working as a school psychologist. Her main research interests include cyberbullying, critical thinking and child and adolescent mental health.