



# Factors Associated with Negative Emotional Responses and Maladaptive Coping Strategies to Cyberbullying Among Young People in Southernmost Thailand

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## Abstract

**Background:** Cyberbullying generates unfavorable feelings and behaviors among young people. Factors associated with emotional responses and coping strategies for cyberbullying need to be assessed.

**Objectives:** This study aimed to identify the factors associated with negative emotional responses and maladaptive coping strategies in response to cyberbullying among young people aged 13 - 24.

**Methods:** Self-administered questionnaires were used for data collection across eight secondary schools and two universities in Pattani province, Thailand. A total of 227 students who experienced cyberbullying were included in this study.

**Results:** Students whose fathers had a bachelor's degree or higher, those whose fathers were farmers, merchants, or laborers, had a middle-class family income, and students experiencing high social stress had higher negative emotional responses to cyberbullying. Young people with fathers having bachelor's degrees or higher, having a low family income, and having low or moderate social support had more maladaptive coping strategies for cyberbullying.

**Conclusions:** Attention should be paid to developing effective ways to reduce negative emotions and bad coping skills in these groups of students.

**Keywords:** Cyberbullying, Cyber-Victim, Maladaptive Coping Strategies, Negative Emotional Response, Social Stress

## 1. Background

Technological advancements give people relatively novel options for faster and easier communication. However, cyberbullying is one of the unintended negative consequences of increased technology usage. Cyberbullying (CB) is the purposeful and repetitive harming of a person by using the internet to send insulting emails or videos or to post personal information or images without permission against victims who cannot defend themselves (1-3). The prevalence of cyberbullying victims (CBV) among young people has been widely reported across countries, e.g., the United States (4, 5), Vietnam (6), Malaysia (7), and Thailand (8).

Young people's emotional responses and coping strategies in response to cyber victimization incidents are two critical concerns in this study. Emotional responses refer

to how one feels about oneself after being cyberbullied (9). Negative emotional response (NER) to CB includes embarrassment, anger (10), wanting revenge, aggressiveness (11), depression, stress, low self-esteem (12), increased sadness, feelings of rejection (13), and suicidal ideation (9, 13, 14).

Cyberbullying can harm young people's lives if they form NER or use maladaptive coping strategies (MCS) for CB. Coping strategies are a person's adaptive or maladaptive behavioral, emotional, and cognitive reactions to stress (15). Adaptive coping approaches include treating CB offenders with respect (3), ignoring the perpetrators, avoiding thinking about the incident, and seeking social assistance from others (3, 8, 16, 17). Maladaptive coping strategies manifest through avoidance, distraction, misguided hostility, and revenge (3).

Age, gender (8, 9, 18-20) education level (11), internet usage habits (9, 11), and time spent on the internet have all

been found to influence emotional responses to CB. Other factors associated with emotional responses and coping strategies include family factors such as parents' education, parents' careers (20-22), family income (23-26), social support from family and friends (27-34), and social stress (33, 35).

In Thailand, there is limited research on NER and MCS, particularly in the southernmost regions, where Muslims comprise over 80% of the overall population and whose beliefs and culture differ from the rest of the country. Only a study conducted by Sittichai and Smith (8) in southernmost Thailand looked into secondary school students' thoughts on the best way to deal with traditional bullying and CB. The current study complements the existing literature, and it aimed to find factors associated with NER and MCS in young people in southern Thailand.

## 2. Objectives

This study aimed to identify the factors associated with negative emotional responses and maladaptive coping strategies in response to CB among young people.

## 3. Methods

### 3.1. Study Design

A cross-sectional study using a self-reported questionnaire was carried out from January 2020 to March 2020. In this study, the regions were separated into municipal and non-municipal areas. A simple random sampling technique was used to sample one public and one private school in each municipality and non-municipal area. Students in grades 7 through 12 from the sampled schools were randomly sampled using a simple random sampling technique. This study also included two universities, one within and one outside the municipality. Convenience sampling methods were used to sample university students. The sample size was calculated based on the study power of 80%, while the confidence level was set at 95%. The difference in the prevalence of having NER and MCS to CB between the two sample groups ( $p_1 - p_2$ ) was set at 2%. The calculated sample size was 214 plus 6%, accounting for an incomplete questionnaire. As a result, the estimated sample size was 227. The CB victimization was measured with eight questions. The students were asked to report their experience of CB victimization in the previous six months (e.g., I have received an intimidating (threatening) email or message from someone I know) on a 5-point scale ranging from 1 (never) to 5 (more than 10 times). A mean score of 1.5 or greater was classified as "cyber victims," while a

mean score of 1.49 or less was classified as "not cyber victims." After assessing whether 606 students were CB victims, 227 students with a mean score of at least 1.49 on CB victimization questionnaires were considered CB victims and included in this study.

The determinants comprised demographic factors, family background, internet use, and social factors. Demographic factors included gender, students' education status, and religion. The family background consisted of the parents' education, parents' occupation, family status, and family income. Internet use was assessed regarding money and time spent on the internet. Social factors included the number of close friends, social support, and social stress.

A 10-item social support scale (e.g., I have friends that take care of me) measured social support on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The mean scores of social support were then calculated and binned, i.e., 1.0 - 5.0 (low), 5.1 - 6.0 (moderate), and > 6 (high). Social stress consists of two parts: social stress and stress management. Social stress and stress management were assessed by three items: Family problems, a problem with close friends, and a problem with friends in the same class/major. Each item was measured on a 4-point Likert scale, ranging from 1 (no stress) to 4 (much stress) for social stress and 1 (unmanageable) to 4 (can fully manage) for stress management. The average social stress score was further classified as low stress for scores < 2 and high stress for scores 2 - 4. The stress management score was grouped into "manageable" (> 2) and "unmanageable" ( $\leq 2$ ).

The outcomes of this study were NER and MCS. The NER was assessed using seven items probing whether the respondent was angry, felt unjust, and embarrassed, which were rated on a 5-point Likert scale, ranging from 1 (never) to 5 (very strong). A mean score of more than 2 was classified as having NER. Coping strategies for CB were measured using five items on a 5-point Likert scale from 1 (never) to 5 (more than 10 times).

Three experts evaluated the full questionnaire before being used to collect data to ensure that it was valid and consistent. The questionnaires were tested on 38 students selected conveniently, and Cronbach's alpha was determined for each domain of rating scale questions. The pilot respondents' Cronbach's alphas for social support, social stress, stress management, CB victimization, emotional response, and coping strategies were 0.87, 0.72, 0.81, 0.78, 0.84, and 0.84. As a result, these Cronbach's alphas were regarded as indicating reliable results. The questionnaires were confidential and anonymous. Students were recruited to participate in this study after receiving permission from their parents or guardians. Verbal consent to participate in the research and attend on the day the survey was granted. The questionnaire was distributed to the

students to complete at their own pace and return to the researcher or an assistant. They were advised that if they did not choose to continue participating in the survey, they could do so at any moment. We consistently observed the students and answered their questions, if any. The questionnaire took about 15 to 20 minutes to complete.

### 3.2. Data Management

Data entry was performed using the EpiData program. All data entry errors, wrong coding, and missing values were checked, and data cleaning was carried out before performing further statistical analysis.

The average score of social support was calculated and grouped into three groups: 1.0 - 5.0 (low), 5.1 - 6.0 (moderate), and > 6 (high). The average social stress score was further classified as low social stress for scores < 2 and high social stress for scores 2 - 4. The stress management was grouped into "manageable" (> 2 scores) and "unmanageable" ( $\leq$  2 scores).

The average score of NER was classified as having NER for cases with > 2 scores. Also, students scoring 2 or higher on any of the five relevant items were classified as MCS cases.

### 3.3. Data Analysis

The characteristics of the participants were summed together using descriptive statistics. The association of factors with individual outcomes was investigated using Pearson's chi-square test. The strongest associations between the factors and the outcomes were determined using multiple logistic regression. Sum contrast was used to calculate confidence intervals and compare the percentage of NER or MCS in each factor level with the overall percentage. Therefore, the coefficients from multiple logistic models were converted to percentages. All statistical analyses and graphics were done using the R environment for statistical computing (36).

## 4. Results

Table 1 presents the demographic characteristics of the sample. The mean age was 17.6 years. The majority of students were Muslims. More than half of the students were from secondary schools. Approximately two-thirds of the participants were females. One-third of participants' parents had obtained primary school or lower education, with fathers representing 32.2% and mothers representing 32.4%. About 30% of their fathers were laborers, followed by farmers (26.4%), whereas 29.1% of the participants' mothers were government employees or others, followed by merchants (26.9%) and farmers (23.8%). The majority of parents lived together (75.8%). Over one-third of families had

a monthly income of 152 - 303 USD (35.2%). Over half of the students spent 3.1 - 9.0 USD per month on the internet. Nearly half of them spent 5 - 9 hours daily on the internet. Regarding social factors, 34% of the participants reported having more than six close friends. Among the students, 41.0% reported having social support at a moderate level. Over one-third of them reported having high social stress. Of those, 52% said that they could not manage the stress. Regarding the NER, the results reveal that 116 (51.1%) students reported having NER to CB. In addition, 124 (54.6%) students had MCS to CB.

The association between the factors and NER from the chi-square test is shown in Table 2. Father's occupation (P-value = 0.003), mother's occupation (P-value = 0.007), family income (P-value = 0.026), and social stress (P-value = 0.004) were significantly associated with NER. Social support was found to have a borderline significant association with NER (P-value = 0.078). One-third of students who reported NER had fathers who worked as laborers (37.1%), followed by farmers (29.3%) and merchants (21.6%), whereas those who did not report NER had fathers who worked as government employees or other (31.5%), followed by laborers and farmers, each with 23.4%, and merchants with 21.6%. Students with NER had mothers who were merchants in 29.3% of cases, followed by farmers (28.4%), laborers (23.3%), and government employees or others (19.0%). Among the students having no NER, the majority of their mothers worked for the government or other organizations (39.6%), followed by merchants (24.3%), farmers (18.9%), and laborers (17.1%). Most students with NER came from families earning 152 - 303 USD per month, while most students without NER came from families earning more than 455 USD per month. Students with NER were more likely to have high social stress (57.8%), whereas those without NER were more likely to have no or low social stress (61.3%).

The associations between MCS and the determining factors are shown in Table 3. The level of social support was the only predictor that had a significant association with MCS (P-value = 0.002), while mothers' education (P-value = 0.091), family income (P-value = 0.07), and the number of close friends (P-value = 0.092) had a marginally significant association with MCS. Among students with MCS, 72.6% had low or moderate social support, while students without MCS had high social support.

All variables were tested in the full model to better understand the associations of the variables studied with NER and MCS. The final models were generated using the backward stepwise feature selection method of multiple regression analysis to examine the associations of determinant variables to NER and MCS, as shown in Tables 4 and 5.

Table 4 depicts the final model of multiple logistic regression of factors associated with NER. Fathers' educa-

**Table 4.** Factors Associated with Negative Emotional Responses to Cyberbullying from Multiple Logistic Regression Model<sup>a</sup>

Variables	Crude OR (95% CI)	Adjusted OR (95% CI)	P (Wald's Test)	P (LR-Test)
<b>Father's education</b>				
Primary school or lower	1	1		0.016
Secondary school	0.89 (0.45, 1.73)	0.87 (0.41, 1.86)	0.727	
High school	1.14 (0.52, 2.47)	1.24 (0.53, 2.90)	0.617	
Bachelor's degree or higher	1.14 (0.56, 2.35)	3.91 (1.41, 10.85)	0.009	
<b>Fathers' occupation</b>				
Farmer	3.27 (1.46, 7.3)	3.29 (1.31, 8.26)	0.011	0.003
Merchant	2.6 (1.13, 6.00)	3.13 (1.25, 7.81)	0.014	
Laborer	4.13 (1.88, 9.09)	4.90 (2.03, 11.81)	< 0.001	
Government/others	1	1		
<b>Family income (USD)</b>				
Less than 151	1.89 (0.86, 4.17)	2.66 (0.96, 7.39)	0.060	0.012
152 - 303	2.88 (1.44, 5.76)	4.40 (1.75, 11.04)	0.002	
304 - 455	1.65 (0.74, 3.65)	2.31 (0.88, 6.08)	0.091	
More than 455	1	1		
<b>Social stress</b>				
No or low stress	1	1		0.017
High stress	2.16 (1.27, 3.68)	2.02 (1.13, 3.62)	0.018	

<sup>a</sup> Note: 33 THB is equal to 1 USD.**Table 5.** Factors Associated with Maladaptive Coping Strategies for Cyberbullying from Multiple Logistic Regression Model<sup>a</sup>

Variables	Crude OR (95% CI)	Adjusted OR (95% CI)	P (Wald's Test)	P (LR-Test)
<b>Father's education</b>				
Primary school or lower	1	1		0.009
Secondary school	1.56 (0.71, 3.44)	2.14 (0.92, 4.97)	0.078	
High school	0.83 (0.43, 1.63)	1.09 (0.53, 2.26)	0.815	
Bachelor's degree or higher	1.89 (0.90, 3.97)	4.29 (1.56, 11.82)	0.005	
<b>Family income (USD)</b>				
Less than 151	2.45 (1.09, 5.52)	4.78 (1.73, 13.22)	0.003	0.007
152 - 303	1.09 (0.56, 2.13)	2.26 (0.94, 5.42)	0.069	
304 - 455	1.93 (0.87, 4.29)	3.91 (1.45, 10.55)	0.007	
More than 455	1	1		
<b>Social support</b>				
Low	3.43 (1.63, 7.23)	3.62 (1.65, 7.96)	0.001	0.002
Moderate	2.13 (1.17, 3.88)	2.34 (1.24, 4.44)	0.009	
High	1	1		

<sup>a</sup> Note: 33 THB is equal to 1 USD.

tion (P-value = 0.016), fathers' occupation (P-value = 0.003), family income (P-value = 0.012), and social stress (P-value = 0.017) were significantly associated with NER. The fol-

lowing results were reached after looking into the likelihood of respondents having a large proportion of NER. Compared to participants whose fathers obtained primary

school education, those whose fathers hold bachelor's degrees had a higher NER by 3.91 times. The participants whose fathers were farmers, merchants, and laborers had a higher NER at 3.29, 3.13, and 4.90 times, respectively, compared to those whose fathers were government employees or others. The students from families with a monthly income of 152 - 303 USD were more likely to have a higher NER at 4.40 times than those whose family income was more than 455 USD per month. Lastly, students who reported a high level of social stress were more likely to have a higher NER by 2.02 times compared to those with low social stress.

The final model of multiple logistic regression of factors associated with MCS is shown in Table 5. Fathers' education (P-value = 0.009), family income (P-value = 0.007), and social support (P-value = 0.002) were significantly associated with MCS. Students whose fathers had a bachelor's degree or higher had a 4.29 times higher likelihood of MCS to CB than those whose fathers had completed primary education or lower. Compared to students from households earning more than 455 USD per month, those from families earning less than 151 USD per month, or 304 - 455 USD per month, were more likely to have high MCS at 4.78 or 3.91 times, respectively. Students who reported low or moderate levels of social support were 3.62 and 2.34 times more likely to have a high MCS than those who reported high levels of social support, respectively.

## 5. Discussion

In this study, the prevalence rates of NER and MCS to CB among students were 51.1% and 54.6%, respectively. Students whose fathers had earned a bachelor's degree or higher, those whose fathers were farmers, merchants, or laborers, had a middle-class family income, and students experiencing high social stress had more NER to CB. Young people with fathers having bachelor's degrees or higher, low family income, and low or moderate social support had more MCS to CB.

Regarding NER, the study demonstrated that the students whose fathers had bachelor's degrees or higher had higher NER than those whose fathers only had primary certificates. This may be explained by a closer and more supportive parental relationship, improving young people's physical well-being, emotional well-being, and positive coping ability with difficulties (37). Previous literature has highlighted that highly educated fathers generally engage in careers requiring a high-commitment personality (20). For example, long periods of being away from home, extensive journeys, or other obligations interfere with fathering and developing a healthy father-child bond. Young people from these households may spend time alone or with friends after school hours or participate in activities

that take them away from family connections, particularly with their fathers (22). As a result, young people in these situations may experience emotions of loneliness and isolation from their fathers (38). When faced with challenging stress situations like CB, they may not have the opportunity to obtain counseling and monitoring from their fathers. Those who have been neglected, are lonelier, and have less communication with their parents may spend more time on social media than at home, increasing their risk of victimization (39). As a result, they would have a negative emotional response to CB. However, because the parents' behavior and the quality of the parent-young person relationship were not measured in this study, this explanation must be investigated further.

The study demonstrated that the participants whose fathers were farmers, merchants, and laborers had a greater NER than those whose fathers were government or private employees. This finding is in line with Kusha and Ritu (21) in that academic officers, bank managers, instructors, and accountants in the government and private sectors had considerably greater emotional stability. This may be explained in the cultural context of Thailand, where people working in the government and private sectors are considered stable careers. Regarding adolescents' social and emotional maturity in connection to their fathers' employment, adolescents in these families had considerably greater emotional stability, social adaptation, independence, and emotional maturity than those whose parents were laborers or other employees (21).

The students with family incomes < 151 USD or 304 - 455 USD were likely to have NER higher than those with family incomes exceeding 455 USD. This finding supports the study of Capistrano et al. (23), who examined the association between lower income and emotional response inhibition in middle childhood and found that lower family income was associated with emotional response inhibition difficulties among students, especially in the context of the work irrelevant angry and sad emotional faces (23). Qi and Wu (25) found that family income significantly influences four of six indicators of children's emotional well-being. The higher the family income, the less the children suffer from depression, hopelessness, helplessness, and meaningless emotions, statistically significantly (25).

The students with high social stress were likelier to have higher NER than the average. Based on Lazarus and Folkman's theory, emotions such as embarrassment, anger, and anxiety usually originate from stress (16). Stress and emotions depend on the way adolescents evaluate their connections with the environment. As a result, when they found that significant events were uncontrollable, this led to a high-stress level (40). A higher stress level in the present predicted future negative emotions as forms



of stress response (41, 42).

In terms of MCS, we discovered that the fathers' education, family income, and social support were all significantly associated with MCS. Students whose fathers hold bachelor's degrees or higher had a high MCS compared to those whose fathers had obtained primary education. The possible explanation for this may be that the association between fathers' education and children's coping strategies for CB may be due to other factors associated with fathers' education level, such as the time they spend with their children and the quality of communication with their children rather than fathers' education itself. Highly educated fathers are primarily hired in a career that demands much time and has a high workload (38). This may block them from spending quality time and having good communication with their children who are having difficulty dealing with a CB incident, especially when they were cyberbullied, as this may have resulted in a lack of guidance and monitoring, leading to maladaptive coping with CB.

A lower family income increased the likelihood of MCS among the participants. Those whose family incomes were < 151, 152 - 303, or 304 - 455 USD per month had high rates of MCS, while it was lower in students whose family income was more than 455 USD per month. This finding aligns with the prior literature (23-26, 31, 43). Nilsson and Nordentoft (24) revealed that children and teenagers from low-income families had a significantly higher risk of self-harm and aggressive offending behavior than those from high-income families. The longer one spends in a low-income family, the more likely he/she will engage in self-harm and violent behavior later in life (44). This idea could be compared to the MCS case in CB. Furthermore, during COVID-19 in China, income was significantly correlated with the employment of problem-focused coping strategies and negatively associated with adopting emotion-focused coping strategies to CB (26). Another study discovered a relationship between young people's risky behavior and their family's income (43). Those from low-income families had a far increased probability of engaging in aggressive behavior (31).

Social support was significantly associated with MCS in this study. Those with low and moderate social support had high MCS, while those with high social support had low MCS. This finding is consistent with traditional bullying research results, which found that perceived social support has a positive relationship with stress buffering in traditional bullying among young people (31). This showed that individuals with low social support from family were more likely to express their stress by bullying others than those with significant social support from family. Furthermore, young people who perceived strong family support reported less bullying victimization in general (45). In ad-

dition, Arató et al. (27) found that a lack of perceived peer support increased emotional regulation issues, which led to cyberbullying perpetration and victimization. This pattern could be explained by the lack of emotional regulation help from peers; young people may be unable to manage and understand their feelings. Consequently, when they face CB incidents, they tend to deal with these negative emotional states, thus responding to the CB maladaptively, according to Arató et al. (27). Support from family members might reduce the stress, leading to decreased MCS to CB (34).

In light of our results, although mothers play the leading role in bringing up children in all aspects of life, including emotions, behavior, and development (46), fathers are also significantly related to their children's outcomes, especially regarding NER and MCS in young age. No matter how big they have grown, fathers, side by side with the mothers, are still commonly the primary consultants supporting their children, mainly when they are in critical difficulties from CB. Parents may use various parenting styles based on their cultural context, which may affect their children's mental, emotional, and social development (47). Households in southernmost Thailand are predominantly patriarchal. The majority of home decisions remain in the hands of men. In some families, fathers as household leaders must relocate to different provinces due to government or corporation sectors promotions. In the three southernmost border provinces, especially in urban areas, several fathers or both parents work in nearby countries, including Malaysia and Singapore. The children are left unattended, living on their own with siblings, grandparents, or relatives. As far as the father-adolescent relationship and attachment are concerned, when they experience CB, these young people are less likely than they should be to receive advice and guidance from their fathers.

This study has several limitations. First, it is essential to consider generalizability because the sample was limited to students from the southern Thai province of Patani, whose NER and MCS may differ from those from other regions of the country. Furthermore, there were more female than male students in the schools and universities, which could lead to an unbalanced distribution of the genders and biased findings.

### 5.1. Conclusions

The authorities' measures to prevent NER and MCS to CB should focus on children of farmers, merchant and laborer fathers, lower-income families, those with fathers that have bachelor's degrees or higher, and students with higher stress and low social support.

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## Footnotes

**Authors' Contribution:** The first author designed the study, led the analysis, and drafted the article. The second author designed the study, obtained the funding, edited, and contributed to the article. The third, fifth, and sixth authors edited and contributed to the article, and the fourth led the analysis.

**Conflict of Interests:** The authors declare that they have no competing interests in funding or research support, employment, personal financial interests, stocks or shares in companies, consultation fees, patents, personal or professional relations with organizations and individuals, or unpaid membership in a government or non-governmental organization. The authors are not editorial board members or a reviewer of this journal.

**Data Reproducibility:** The datasets used and/or analyzed in the current study are available from the corresponding author upon reasonable request.

**Ethical Approval:** The Research Ethics Committee for Humanities, Social Sciences and Education, Prince of Songkla University, Pattani Campus, approved this study ([psu.pn.1-007/62](https://doi.org/10.1007/62)). All methods used in this study followed relevant guidelines and regulations.

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**Table 1.** Cybervictims' Characteristics <sup>a, b</sup>

Variables	Values (n = 227)
<b>Age</b>	17.6 ± 2.9
<b>Gender</b>	
Male	74 (32.6)
Female	153 (67.4)
<b>Level of education</b>	
Secondary/high school	125 (55.1)
Undergraduate	102 (44.9)
<b>Religion</b>	
Islam	214 (94.3)
Others	13 (5.7)
<b>Father's education</b>	
Primary school or lower	73 (32.2)
Secondary school	39 (17.2)
High school	65 (28.6)
Bachelor's degree or higher	50 (22.0)
<b>Mother's education</b>	
Primary school or lower	72 (32.4)
Secondary school	38 (17.1)
High school	62 (27.9)
Bachelor's degree or higher	50 (22.5)
<b>Father's occupation</b>	
Farmer	60 (26.4)
Merchant	49 (21.6)
Laborer	69 (30.4)
Government employee/other	49 (21.6)
<b>Mother's occupation</b>	
Farmer	54 (23.8)
Merchant	61 (26.9)
Laborer	46 (20.3)
Government employee/other	66 (29.1)
<b>Parents' family status</b>	
Stayed together	172 (75.8)
Separated	10 (4.4)
Divorced	24 (10.6)
Father/mother/both passed away	21 (9.3)
<b>Family income (USD)</b>	
Less than 151	44 (19.4)
152 - 303	80 (35.2)
304 - 455	43 (18.9)

More than 455	60 (26.4)
<b>Money spent on the internet per month (USD)</b>	
Less than 3.1	44 (19.4)
3.1 - 9.0	130 (57.3)
More than 9.0	53 (23.3)
<b>Time spent on the internet</b>	
Less than 5 hours	43 (18.9)
5 - 9 hours	97 (42.7)
More than 9 hours	87 (38.3)
<b>Number of close friends</b>	
Less than 4	74 (32.6)
4 - 6	75 (33.0)
More than 6	78 (34.4)
<b>Social support</b>	
Low	50 (22.0)
Moderate	93 (41.0)
High	84 (37.0)
<b>Social stress</b>	
No or low stress	117 (51.5)
High stress	110 (48.5)
<b>Social stress management</b>	
Manageable	108 (47.6)
Unmanageable	119 (52.4)
<b>Negative emotional response</b>	
Yes	116 (51.1)
No	111 (48.9)
<b>Maladaptive coping strategies</b>	
Yes	124 (54.6)
No	103 (45.4)

<sup>a</sup> Values are expressed as Mean  $\pm$  SD or No. (%).

<sup>b</sup> Note: 33 THB is equal to 1 USD.

**Table 2.** Associations of Independent Variables with Negative Emotional Responses to Cyberbullying<sup>a</sup>

Variables	NER (n = 116)	No NER (n = 111)	$\chi^2$	P-Value
<b>Gender</b>			0.64	0.425
Male	35 (30.2)	39 (35.1)		
Female	81 (69.8)	72 (64.9)		
<b>Level of education</b>			1.21	0.271
Secondary/high school	68 (58.6)	57 (51.4)		
Undergraduate	48 (41.4)	54 (48.6)		
<b>Religion</b>			2.28	0.131
Islam	112 (96.6)	102 (91.9)		
Others	4 (3.4)	9 (8.1)		
<b>Father's education</b>			0.59	0.898
Primary school or lower	37 (31.9)	36 (32.4)		
Secondary school	21 (18.1)	18 (16.2)		
High school	31 (26.7)	34 (30.6)		
Bachelor's degree or higher	27 (23.3)	23 (20.7)		
<b>Mother's education</b>			0.67	0.881
Primary school or lower	36 (32.1)	36 (32.7)		
Secondary school	20 (17.9)	18 (16.4)		
High school	29 (25.9)	33 (30.0)		
Bachelor's degree or higher	27 (24.1)	23 (20.9)		
<b>Father's occupation</b>			14.17	0.003
Farmer	34 (29.3)	26 (23.4)		
Merchant	25 (21.6)	24 (21.6)		
Laborer	43 (37.1)	26 (23.4)		
Government employee/other	14 (12.1)	35 (31.5)		
<b>Mother's occupation</b>			12.09	0.007
Farmer	33 (28.4)	21 (18.9)		
Merchant	34 (29.3)	27 (24.3)		
Laborer	27 (23.3)	19 (17.1)		
Government employee/other	22 (19.0)	44 (39.6)		
<b>Parents' family status</b>			0.93	0.336
Stayed together	91 (78.4)	81 (73.0)		
Separated/other	25 (21.6)	30 (27.0)		
<b>Family income (USD)</b>			9.28	0.026
Less than 151	23 (19.8)	21 (18.9)		
152 - 303	50 (43.1)	30 (27.0)		
304 - 455	21 (18.1)	22 (19.8)		
More than 455	22 (19.0)	38 (34.2)		
<b>Money spent on the internet per month (USD)</b>			1.92	0.382
Less than 3.1	22 (19.0)	22 (19.8)		

3.1- 9.0	71 (61.2)	59 (53.2)		
More than 9.0	23 (19.8)	30 (27.0)		
<b>Time spent on the internet</b>			0.65	0.723
Less than 5 hours	24 (21.2)	19 (17.3)		
5 - 9 hours	45 (39.8)	48 (43.6)		
More than 9 hours	44 (38.9)	43 (39.1)		
<b>Number of close friends</b>			2.01	0.367
Less than 4	37 (33.0)	37 (35.2)		
4 - 6	30 (26.8)	35 (33.3)		
More than 6	45 (40.2)	33 (31.4)		
<b>Social support</b>			5.10	0.078
Low	30 (25.9)	20 (18.0)		
Moderate	51 (44.0)	42 (37.8)		
High	35 (30.2)	49 (44.1)		
<b>Social stress</b>			8.22	0.004
No or low stress	49 (42.2)	68 (61.3)		
High stress	67 (57.8)	43 (38.7)		
<b>Social stress management</b>			0.10	0.752
Manageable	54 (46.6)	54 (48.6)		
Unmanageable	62 (53.4)	57 (51.4)		

Abbreviations: NER, negative emotional responses; No NER, no negative emotional responses.

<sup>a</sup> Note: 33 THB is equal to 1 USD.

**Table 3.** The Associations Between Independent Variables and Maladaptive Coping Strategies for Cyberbullying

Variables	MCS (n = 124)	No MCS (n = 103)	$\chi^2$	P-Value
<b>Gender</b>			0.01	0.904
Male	40 (32.3)	34 (33.0)		
Female	84 (67.7)	69 (67.0)		
<b>Level of education</b>			0.53	0.466
Secondary/high school	71 (57.3)	54 (52.4)		
Undergraduate	53 (42.7)	49 (47.6)		
<b>Religion</b>			0.27	0.606
Islam	116 (93.5)	98 (95.1)		
Buddhist	8 (6.5)	5 (4.9)		
<b>Father's education</b>			5.70	0.127
Primary school or lower	37 (29.8)	36 (35.0)		
Secondary school	24 (19.4)	15 (14.6)		
High school	30 (24.2)	35 (34.0)		
Bachelor's degree or higher	33 (26.6)	17 (16.5)		
<b>Mother's education</b>			6.48	0.091
Primary school or lower	37 (30.8)	35 (34.3)		
Secondary school	23 (19.2)	15 (14.7)		
High school	27 (22.5)	35 (34.3)		
Bachelor's degree or higher	33 (27.5)	17 (16.7)		
<b>Father's occupation</b>			0.62	0.891
Farmer	35 (28.2)	25 (24.3)		
Merchant	27 (21.8)	22 (21.4)		
Laborer	37 (29.8)	32 (31.1)		
Government employee/other	25 (20.2)	24 (23.3)		
<b>Mother's occupation</b>			4.58	0.206
Farmer	35 (28.2)	19 (18.4)		
Merchant	33 (26.6)	28 (27.2)		
Laborer	26 (21.0)	20 (19.4)		
Government employee/other	30 (24.2)	36 (35.0)		
<b>Parents' family status</b>			1.58	0.208
Stayed together	98 (79.0)	74 (71.8)		
Separated/others	26 (21.0)	29 (28.2)		
<b>Family income (USD)</b>			7.07	0.070
Less than 151	30 (24.2)	14 (13.6)		
152 - 303	39 (31.5)	41 (39.8)		
304 - 455	27 (21.8)	16 (15.5)		
More than 455	28 (22.6)	32 (31.1)		
<b>Money spent on the internet per month (USD)</b>			0.69	0.709
Less than 3.1	25 (20.2)	19 (18.4)		



3.1- 9.0	68 (54.8)	62 (60.2)		
More than 9.0	31 (25.0)	22 (21.4)		
<b>Time spent on the internet</b>			3.55	0.169
Less than 5 hours	19 (15.8)	24 (23.3)		
5 - 9 hours	48 (40.0)	45 (43.7)		
More than 9 hours	53 (44.2)	34 (33.0)		
<b>Number of close friends</b>			4.78	0.092
Less than 4	44 (37.3)	30 (30.3)		
4 - 6	28 (23.7)	37 (37.4)		
More than 6	46 (39.0)	32 (32.3)		
<b>Social support</b>			12.32	0.002
Low	35 (28.2)	15 (14.6)		
Moderate	55 (44.4)	38 (36.9)		
High	34 (27.4)	50 (48.5)		
<b>Social stress</b>			0.26	0.610
No or low stress	62 (50.0)	55 (53.4)		
High stress	62 (50.0)	48 (46.6)		
<b>Social stress management</b>			0.00	0.999
Manageable	59 (47.6)	49 (47.6)		
Unmanageable	65 (52.4)	54 (52.4)		

Abbreviations: MCS, maladaptive coping strategies; No MCS, no maladaptive coping strategies.