The role of parent-child relationship, school climate, happiness, and empathy to predict cyberbullying behavior

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Article Info	ABSTRACT					
Article history:	The lack of research on cyberbullying among Indonesian adolescents ha					
Received Aug 26, 2019	become one of the critical arguments of this research. This study aimed to					
Revised Feb 11, 2020	discover the factors that contribute to cyberbullying. This study took sample of students from three schools. The sample was 112 junior to senior hig					
Accepted Jun 20, 2020	school students. The findings of this study indicate that school clim parent-child relationship, and empathy have a significant role that encoura					
Keywords:	cyberbullying.					
Cyberbullying perpetrators						
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1. INTRODUCTION

Cyberbullying is an intentional aggressive act aimed to insult and hurt others, which is done repeatedly by individuals or groups through the internet or digital social media [1-4]. Recent studies show that cyberbullying victimization relates to alcoholism, marijuana usage, and frequent unhealthy sexual behavior. Furthermore, the combination of physical bullying and cyberbullying has a more severe impact on the emergence of deviant risk behavior [5]. Cyberbullying victimization also correlates with suicide ideas or suicidal behavior [6], and symptoms of depression.

Previous research found several adverse effects of cyberbullying. Cyberbullying victims show anger, decreased academic achievement, psychological problems, and hopelessness - allowing them to become cyberbullied [7-11]. Data reported that, of 265 female students involved in cyberbullying as either perpetrators or victims, showed high levels of depression and alcohol use [12]. Many victims of cyberbullying show an increase in severe social anxiety [13]. Akbulut & Cuhadar [14] and Schenk & Fremouw [10] report victims of cyberbullying showing sadness, crying, feeling embarrassed, skipping school, becoming depressed, experiencing insomnia, and the worst impact being having suicidal ideas. While Spears [15] report that some victims of cyberbullying experience constant fear of their safety. The impact of cyberbullying must not be underestimated, so it requires more profound research to understand and solve this phenomenon.

Regarding the prevalence rate, recent studies reveal cyberbullying to be quite common in the school-age population globally. Various studies across the world have explored this phenomenon, such as in Canada [16], UK and Ireland [17], and USA [18]. Additionally, it also occurred in Latin American

countries [19] Spain [20, 21]. Asian countries like Korea [22]; Israel [23]; Hong Kong China [24]; Japan [25], and Indonesia [1, 3]. The prevalence of cyberbullying victimization and perpetration can vary with regard to demographic backgrounds (e.g., gender, age, race/ethnicity, sexuality, education, disability), individuals (e.g., experiences with traditional bullying), academic achievement, school climate, personality, weight status, technology use), family, and peer [2, 4]. Regardless of this variation, however, cyberbullying is now a typical aggressive behavior found in interpersonal relationships in today's modern society. Thus, it becomes an important topic to be explored in moredepth, especially in Indonesia because there is a lacking study conducted about it. Therefore, this study aims to examine whether parent-child relationships, happiness, empathy, and school climate could predict cyberbullying among adolescents.

Previous research shows that an unhealthy family atmosphere has a negative impact on children's emotional, social, and personality development [26]. Negative family environment is characterized by lack of love, lack of social and emotional support, closed and abusive communication patterns, conflicts, limited parental availability, permissive parenting, coercive punishment and authoritarianism, encouragement for vulnerable children to experience being bullied or involved in acts of violence [27, 28]. Other studies also confirm that children who are exposed to marital conflict and families in their homes tend to engage in antisocial and violent behaviors). Children from these broken families tend to develop aggressive behavior [29] due to the frustration that they feel towards their families, which later ventures into their peers in the context of face to face aggression and cyberaggression [30]. An uncomfortable family atmosphere causes children to spend their timewith cyber activities as a way to escape the conflict in their families [31], increasing their likelihood to be involved in cyberaggression behavior to intimidate others. These aggressive teens tend to have hostile relationships with parents and find it challenging to develop adherence to existing social rules, encouraging the process of transference of aggressive behavior in the family to the school or cyberspace environment even more [32]. For this reason, the parent-child relationship role in cyberbullying behavior needs to be explored more, particularly in the context of Indonesia.

School climate is the social atmosphere of the learning environment where students grow and develop. The positive school climate has multiple aspects, such as clear rules, fair discipline, class management, empathic communication, and healthy interpersonal relationships, including a safe school environment [33-35]. Schools with a positive school climate can influence the formation of better teacher-student relationships; decrease the quantity of student delinquency, decrease victimization violence, increase teacher self-efficacy, increase academic performance, decrease bullying and ethnic discrimination/racial discrimination [34, 36-39]

School climate can also influence student academic achievement [40]. Exposure to school violence reduces student attendance, lowers test scores, increases misconduct, and reduces the likelihood of students graduating high school and being accepted in college [41, 42]. Research shows that being a victim of cyberbullying in schools is associated with an increased in poor student behavior and decreasededucational values [43] Even just witnessing violence occurring in schools results in consequences of students showing negative behavior, negative attitudes about schooling, and decreased attendance at school [44] Exposure to violance in schools, such as intimidation, or bullying is negatively correlated with student achievement and associated with more severe school violence [45-47]. Positive school climate can isolate students from a violent environment, turning it into a safe place to learn and develop [43]. In this context, research needs to explore the role of school climate on cyberbullying behavior in Indonesia.

Happiness is highly sought after by individuals and is closely related to life satisfaction, the meaningfulness of life, and psychological health. Happiness is also associated with an increase in positive emotional emotions and decrease in negative emotions [48]. Some studies show that happy individuals are more passionate, vibrant, energetic, and enthusiastic in comparison to unhappy individuals [48, 49]. Happiness also affects the increase in daily positive activities of individuals. Research on prosocialoffline behavior shows that happiness correlates with prosocial behavior; namely that happy individuals are more likely to show prosocial behavior [50-52]. Erreygers's research [53] found that individual happiness can spill over and cross over on prosocial behavior online; meaning that happy individuals tend to avoid antisocial behavior in cyberspace.

Several previous studies have confirmed the significant relationship between cyberbullying and happiness. Uusitalo-Malmivaara and Lehto [54] found that cyberbullying victims have increased symptoms of depression and a decreased level of happiness. Meanwhile, Ali Padir, Eroglu, & Caliskan [55] found a significant negative correlation between happiness and cyberbullying victimization. Navarro [56] found a decrease in subjective well-being in both perpetrators and victims. Furthermore, spillover-crossover research shows that positive moods in one context can spill over to another context, and even cross over from one person to another [57-59]. This theory asserts that happiness can spread in one context to another, as well as spread from one person to the next. Happy individuals tend to spread happiness to those around them, including in cyberspace. This causes them to avoid aggressive behavior in both the real world and cyberspace.

Empathy is the ability to understand others [60, 61]. It is defined as "an emotional response that stems from another person's emotional state or condition, which is highly similar to what the other individual would be expected to feel"[62]. Empathy is also a form of social awareness, where individuals share emotional experiences with others at an affective and cognitive level [63]. Affective empathy refers to the right emotional reaction in responding to the emotions of others [64]. In another sense, individuals can "catch" or "experience" the emotional state of others. Affective empathy is therefore essential in determining individual altruistic behavior [65, 66]. Meanwhile, cognitive empathy is the ability to know and distinguish the emotional state of others without experiencing emotional transmission [67-69].

Previous studies have consistently shown a relationship between empathy and antisocial behavior, bullying, and cyberbullying - regardless of the type of bullying and gender of the actors [70, 71]. Specifically, adolescents with poor empathy are more often involved in bullying. In contrast to face to face bullying, cyberbully perpetrators cannot see the reaction of the victim's distress because it occurs in the context of anonymity. Existing empirical findings indicate that empathy is a predictor of cyberbullying perpetration [72, 73]. Empathy also influences the possibility of online 'bystanders' becoming involved in cyberbullying [74-76]. Schultze-Krumbholz and Scheithauer [77] found that both actors and victims of cyberbullying showed low levels of empathy compared to adolescents who are not involved in cyberbullying. Some of the studies above confirm the role of empathy on cyberbullying behavior. Current research will reexamine this relationship in Indonesian adolescents to strengthen the theoretical consistency.

This study aimed to examine whether positive parent-child relationships, happiness, empathy, and school climate encourage cyberbullying behavior among adolescents. Based on the literature, the above variables have only been recently studied. Given the limited research on Indonesian adolescents, it is relevant to have more predictive studies to explain which factors may lead to perpetrators of cyberbullying.

2. RESEARCH METHOD

2.1. Participants

There were 112 students (median age = 15, SD = 1.34), comprising of junior (n = 68) and senior high school students (n = 44), participated in this study. Within this sample, 65 participants were female while the remaining participants are males (n = 47). The researcher employed simple random sampling to recruit the participants. Respondents came from three junior and senior high schools in Kulonprogo district, Indonesia.

2.2. Measurement

2.2.1. Cyberbullying

Nine items of perpetrator cyberbullying scale were constructed based on Willard [78] seven forms of cyberbullying namely: Flaming (online fights using electronic messages with angry and vulgar language), online harassment (repeatedly sending nasty, mean, and insulting messages), cyberstalking (repeated, intense harassment and denigration that includes threats or creates significant fear), denigration ("dissing" someone online. Sending or posting gossip or rumors about aperson to damage his or her reputation or friendships), masquerade/impersonation (pretending to be someone else and sending or posting material to get that person in trouble or danger or to damage that person's reputation or friendships), outing (sharing someone's secrets or embarrassing information or images online., and exclusion (intentionally and cruelly excluding someone from an online group). A higher score on the perpetrator cyberbullying scale indicates higher cyberbullying conducted by perpetrators. Each item has four alternative answers: frequently, occasionally, rarely and never. The scale consists of favorable and unfavorable responses. For the favorable response, the scores are given as such: frequently (4), occasionally (3), rarely (2), and never (1). Meanwhile, scores for the unfavorable response are given as such: never (1), rarely (2), occasionally (3), and frequently (4). Item examples include "I accidentally sent insulting words to someone's social media account", "I send indecent images to someone's social media account", and "I posted someone's personal secret on my social media account". The internal consistency reliability test shows a satisfactory result (Cyberbullying $\alpha = .862$).

2.2.2. Empathy

Empathy was assessed using the Eight Question Empathy scale (EQ-8), the scale has 8 items [79]. The EQ-8 assesses cognitive empathy, emotional reactivity, and social skills. A higher score on the EQ-8 indicates higher empathy. Responses to a 4-point scale ranging from Strongly Agree (1) to Strongly Disagree (4) (eg "I can feel what others are feeling." "When I see other people in distress, I feel like I help ease the burden." "I don't care about the feelings of others"). For the empathy scale, has an item-total correlation

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ranges from 445 -775. The internal consistency reliability test with Cronbach alpha shows a satisfactory result (Empathy $\alpha = .883$).

2.2.3. Parent-child relationship

The parent-child relationship was assessed using the adapted 14-item scale which originated from the Inventory of Parent and Peer Attachment (IPPA) by Armsden & Greenberg [80]. A higher score on the IPPA indicates more positive parent-child relationship. This scale was later modified by Vignolli & Mallet [81]. Responses are given on a 4-point scale ranging from 1 =Strongly Agree; to 4 =Strongly Disagree. (e.g., "my parent support me", "I can communicate openly with my parent", "I feel detach from my parent", "I have a long dispute with my parents"). The parent-child relationship scale has hasa item-total correlation ranges from .510-.791. The internal consistency reliability test with Cronbach alpha showsa satisfactory result (Parent-child relationship $\alpha = .851$).

2.2.4. Happiness

The happiness scale was assessed and adapted by Hills & Argyle [82]. A higher score on the happiness scale indicates higher happiness level. There are 15 statements (e.g., "I intensely care about other people," "I feel that life is very boring," "I have very warm feelings towards almost everyone," "I feel happy in general"). Participants were asked to indicate how much they agree or disagree to each statement througha 4-point response format ranging from Strongly Agree (1) to Strongly Disagree (4). The happiness scale has an item-total correlation ranges from .297-.697. The internal consistency reliability test with Cronbach alpha shows astisfactory result (happiness $\alpha = .902$).

2.2.5. School climate

School climate was assessed using the School Climate Survey (SCS) which measure fairness, order and discipline, student-teacher relations, and achievement motivation [83]. A higher score on the SCS indicates more positive school climate. Participants were asked to indicate their answer in a 4-point response format ranging from Strongly Agree (1) to Strongly Disagree (4) (e.g., "at my school, boys and girls are treated equally well", "Some children carry guns or knives to my school", "My teachers make me feel good about myself", "I like coming to school"). The school climate scale has an item-total correlation ranges from .320 to .744. The internal consistency reliability test with Cronbach alpha shows satisfactory result (school climate $\alpha = .901$).

2.2.6. Procedure

Data was collected from three schools by first asking for permission from the school. Data was collected in the classroom. All students completedinformed consent and understood that involvement in this research is voluntary without coercion. Next, an assistant researcher briefed the students about the subject of this research, how to fill in the scales, and explained the anonymity in filling the scale. In addition, the research assistant also explained the confidentiality issue of this study. Students also received an explanation that there is no right or wrong answers. They were encouraged to choose the answers that best reflect their current condition. It took approximately 35 minutes to fill-in the measurement tools.

2.2.7. Data analysis

Linear regression analysis was used to test the hypotheses of this study. Additionally, descriptive analysis was employed to explore the participants' demographic data. Tests for normality, linearity, multicollinearitywere also carried out to ensure that data meets its parametric assumptions.

3. RESULTS AND DISCUSSION

The results of this study indicate that school climate has a role in cyberbully behavior (β = -.251, p = .010). Likewise, parent-child relationship (β = -.257, p = .004), empathy (β = -.179, p = .050), and happiness (β = -.168, p = .051) also encourage cyberbullying behavior. Table 1 describes the regression analysis results.

Meanwhile, Table 1 depicts the mean, standard deviation, and correlation between variables. School climate has a negative significant correlation with cyberbullying behavior. Happiness also has a negative significant correlation with cyberbullying behavior. Empathy has a negative significant correlation with cyberbullying behavior. Parent-child relations have a negative significant correlation with cyberbullying behavior. Table 2 shows the regression analysis of school climate, happiness, parent-child relationships, and empathy for cyberbullying.

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Measures	М	SD	1	2	3	4	5
Cyberbullying	30	4.6	1.000	-	-	-	-
School climate	32.9	4.3	474*	1.000		-	-
Happiness	26.9	3.	331*	.351*	1.000	-	-
Parent-child relation	29.2	4.2	442*	.275**	.248**	1.000	-
Empathy	31.6	3.7	392*	.399*	.020	.376*	1.000
*p < .01, **p< .05							

Table 1. Means, standard deviations, and intercorrelations between variables

Table 2. The regression analysis of school climate, happiness, parent-child relationships, school antibullying, empathy for cyberbullying

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Variables	В	SEB	β	t	р					
School climate	.275	.105	251	2.624	.010					
Happiness	.228	.115	168	1.976	.051					
Parent-child relation	.287	.096	257	2.985	.004					
Empathy	.223	.113	179	1.984	.050					
<i>Note</i> . Adjusted $R^2 = .343$ ($N = 312$, $p = .000$).										

This study examined whether parent-child relationships, happiness, empathy, and school climate encourage cyberbullying behavior among adolescents. The results of this study indicate that all proposed hypotheses are accepted. More specifically, the results of this study found a significant relationship between empathy and cyberbullying behavior. The results of this study are also in accordance with Festl'sstudy which found a significant relationship between empathy and cyberbullying [84]. Likewise, Del Rey's research results confirmed the same results [85]. This study shows that the findings are in accordance to previous studies, notably that empathy correlates with cyberbullying behavior [24, 86]. The relationship between empathy and cyberbullying is also consistent with previous traditional bullying studies [87-89].

Furthermore, this study presents arguments despite important differences between the contexts in which intimidation and aggression occur; the results of this study indicate that people who conduct cyberbullying display a lack of empathy similar to traditional bullying [71]. Cognitive and affective empathy can influence social interaction, while affective empathy seems to be an essential factor in shaping and encouraging bullying behavior. Future research should investigate this relative role of cognitive and affective empathy in cyberbullying behavior. Empathy based on some previous studies is also shown to have a strong relationship with antisocial behavior.

This study also illustrates a significant relationship between school climate and cyberbullying behavior. These results corroborate the findings of Låftman, Ostberg & Modin [89] who found positive school leadership to be related to a low frequency of cyberbullying/cyber victimization behavior in schools. Some previous studies have found a connection between various school-contextual characteristics and traditional forms of intimidation [90]. Traditional bullying has been shown to occur less frequently in schools, characterized by traits such as clear rules, positive student-teacher relations, attitudes of teachers who are against intimidation as well as their intervention for it [85, 91-95] in their study of teachers and students in Norway found that schools that assessed their teachers about school leadership, teacher affiliation, and high collaborative activities showed lower rates of victims and perpetrators bullying. The research by Acosta, et al. [96] found that students in positive school climates reported experiencing fewer physical and emotional abuse, as well as cyberbullying behaviors. They also report high levels of school connectedness, peer attachment, assertiveness, and empathy. Research by Farina [97] found that positive school climate predicts bullying incidence. Eliot et al [98] found that students who perceived having supportive teachers and school staff members are more likely to have a positive attitude towards help-seeking for bullying and threats of violence. In addition, other studies show that students' perception of the school climate is positively correlated with student adjustment, academic achievement, and commitment to learning [99, 100], including school safety and teacher victimization [101, 102].

This study also found a significant relationship between parent-child relationships and cyberbullying behavior. The study from Navarro et al [21] confirms the same results in which parental mediation in the use of the internet decreases the incidence of cybervictimization. Larrañaga et al [103] study also confirms that adolescents with a type of avoidance communication with their mothers are associated more with cyberbullying victimization. In addition, it was also found that adolescents who have avoidant communication andhigh sense of loneliness are associated with severe cyberbullying victimization, and individuals who have the offensive type of communication within the family in preventing cyberbullying

victimization. The study of Estéévez, Murgui, Musitu, & Moreno [104] confirms that a positive family environment is characterized by adequate social support, strong cohesiveness among family members, and an open and empathic communication. Thiscommunication contribute to preventing adolescents from engaging in cyberbullying behavior or becoming victims of cyberbullying. Conducive family condition facilitates children to develop adequate social adjustment, and establish positive relationships with their peers. Furthermore, previous research shows that family environment positively influences children's adherence to social rules, which is directly related to school violence [105]. In addition, high family conflict acts as a risk factor for being bullied via digital social media, and victims of cyberbullying have families that are less cohesive and open than non-victims of cyberbullying [106].

Contradicly, this study found not significant positive relationship between happiness and cyberbullying behavior. These results contradict with Qodir, Diponegoro & Safaria study [107] which states that there is a relationship between happiness and cyberbullying behavior. Additionally, Ali Padir, Eroglu, & Caliskan [55] also showed difference result Furthermore, the study of Navarro et al [56] found a decrease in happiness in both perpetrators and victims of cyberbullying. The link between happiness and prosocial behavior into the Broaden-and-Build Theory [57], which posits that, experiences positive emotions broad people perspectives and actions and builds enduring biopsychosocial resources and relationships.

Although current research provides new insights related to the relationship between parent-child relationship, happiness, empathy and school climate with cyberbullying behavior, there are several limitations of this study that should be considered. First, the cross-sectional design of this study cannot produce the establishment of causality between different variables; therefore, longitudinal studies are recommended for future studies. Secondly, the participants in this study only consisted of three schools from a specific region in Yogyakarta, Indonesia, so it is suggested that future research use a broader and more representative sample to ensure arobust and reliable result. Thirdly, this study uses self-reported measures, which although effective and reliable in collecting data, can be influenced by response bias (faking good or faking bad).

Despite these limitations, the results of this study are of particular relevance given that they highlight factors that affect the cyberbullying problem among Indonesian adolescents. These are variables that have yet to receive much attention from the scientific field. Thus, the parent-child relationship, school climate, empathy, and happiness are seen to play an important role as a protective factor from cyberbullying. Similarly, all of the previously mentioned variables act as a protective factor against students becoming victims as well as aggressors. Thus, it is corroborated that all variables should be taken into consideration when developing social and educational policies as well as prevention and intervention programs to alleviate this problem.

4. CONCLUSION

The results of this study show that parent-child relationship, empathy, happiness, and school climate has a negative significant relationship with cyberbully behavior. The suggestion for further research is to add other variables that are hypothesized to play a role in the occurrence of cyberbullying. Taking into consideration the low representativeness of the sample, future studies are advised to consider using a larger number of samples to improve the representativeness of current population.

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