Roles of Empathy, Emotion Regulation and School Climate against Cyberbullying in High Schools in Merangin, Jambi

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ABSTRACT: This study aims to determine the roles of empathy, emotion regulation and school climate on cyberbullying among high school students in Merangin, Jambi. The subjects in this study were students of class X to XII. The sampling technique used was incidental sampling. The measuring instrument used were scales of empathy, emotion regulation, school climate as well as cyberbullying scale. Research data were retrieved via google form distributed online. The research data were analyzed using multiple regression techniques using the Statistical Product and Service Solution for Windows 23.0 program.

Based on the results of the multiple regression analysis, F change value of 22.781 was obtained with a very high significance level of 0.000 (p <0.01). The results indicate that empathy, emotional regulation and school climate play significantly negative roles on cyberbullying among school students in Merangin. Empathy was indicated to play role in cyberbullying in high school students in Merangin, Jambi, shown by the t value of 1.691 with a significance level of 0.094 (p > 0.05). A significant positive role was shown by emotional regulation on cyberbullying in high school students in Merangin, Jambi, indicated by a t value of 2.839 with a significance level of 0.006 (p <0.05). Moreover, school climate was also shown to have a significant role on cyberbullying indicated by a t value of -2.258 with a significance level of 0.026 (p <0.05).

Keywords: Empathy, Emotional Regulation, School climate and Cyberbullying

I. INTRODUCTION

Information technology continues to develop and become increasingly sophisticated in all areas of life. Technological developments can be enjoyed by all groups of people where children, adolescents and even parents have now become familiar with the use of technology. Unsurprisingly, there are many things to be learned as this development progresses, and if one is not able to follow it properly, one could be left behind and make take as well as effort to catch up with technological advances. One of the most frequently used products that technological developments has offered us is the internet.

Based on a survey by the Indonesian Internet Network Providers Association (APJII), it is revealed that more than half of Indonesia's population are now connected to the internet. A survey conducted in 2018 found that 171.7 million Indonesians were connected to the internet in respect to the total population of Indonesia of 264 million. This depicts an increase to 64.8% from the number of internet users in 2017 of 54.86% internet users (APJII, 2018).

Research from the Indonesian Internet Service Providers Association (APJII) found that around 49% of internet users were victims of bullying in the form of being ridiculed and harassed on social media. This figure was obtained from a survey targeted towards internet users in Indonesia comprising of 5,900 teenagers. As many as 31.6% admitted that they often ignore the treatment and do nothing. Meanwhile, 7.9% responded to this treatment with similar types of bullying on social media (APJII, 2019).

Based on Comparitech 2020 statistical data in the United States, it is revealed that out of 20,793 teenagers, the majority (59%) have experienced some form of cyberbullying. This cyberbullying can take forms of online harassment and intimidation via social media. The most common types of cyberbullying include verbal abuse (42%), spread of false rumors (32%), receipt of unsolicited pictures or videos (25%), physical threats (16%), and pictures that are distributed without consent at 7% (Comparitech, 2020). From the two data above, it is
apparent that cyberbullying is mostly done by teenagers who interact frequently on social media both in Indonesia and abroad.

Internet has become a necessity among teenagers (Nixon, 2014). The internet for adolescents, especially school students, allows them to find references to do school assignments, find information to increase students’ insight and knowledge, play games in their spare time, and download music to develop hobbies (Gross, 2004). The existence of the internet has a positive impact as it provides opportunities to interact with people who live far away, access to various entertainment media and information, as well as convenience with online shopping (Redekopp & Kalanda, 2015). The internet also poses negative impacts that encompass the spread of irresponsible news, cybercrime, and internet addiction which leads to various problems including cyberbullying (Lazarus, Barkoukis, Ourda & Tsorbatzoud, 2013).

Cyberbullying is defined as an act of insulting another person by sending or posting material that is offensive, harassing, disparaging or engaging in forms of social cruelty by using the internet or other digital technology (Willard, 2007). According to Williams and Guerra (2007) cyberbullying is any form of aggressive communication through technological information media, deliberately disseminated through cyberspace. Usually, the content of the messages conveyed is basically psychological violence (Ybarra & Mitchell, 2004). Cyberbullying normally targets an individual who is weaker and cannot defend themselves easily (Smith, Mahdavi, Carvalho, Fisher, Russell & Tippet 2008). Their purpose is to humiliate, harass, or intimidate the victim (Patchin & Hinduja, 2010). Cyberbullying can be done using a computer or telephone via e-mail, text messages, websites and chat rooms (Smith, Mahdavi, Carvalho, Fisher, Russell & Tippet, 2008).

The negative impact of cyberbullying done through cyberspace for victims include anxiety, depression, shame, stress and having intentions to commit suicide (Sittichai, 2014). Adolescents who are victims of cyberbullying show decreased concentration, absenteeism from school and poor academic grades and no achievements (Beran & Li, 2007). This could also sometimes result in dropping out of school as well as negative impact on their mental health manifested through drug use (Songsiri & Musikaphan, 2011). Another negative impact of cyberbullying, according to Priyatna (2010), on victims are experiences of negative emotions such as sadness, worry and frustration. Victims also withdraw from their families and social environment, to the point where some chose to end their life. Additionally, Gradinger, et al. (2011) stated that victims of both bullying and cyberbullying generally show poor adjustment, aggression, depression and other somatic symptoms compared to students who have not experienced cyberbullying.

The internal factor that affects cyberbullying is empathy (Brewer & Kerslake, 2015). Individuals who lack empathy are susceptible to cyberbullying acts that disturb and hurt others. Empathy encompasses the understanding and being able to feel and experience other people's emotions. Papalia, Old and Felman (2008) stated that empathy is the ability to position oneself in another person's position and feel what other people feel. Davis (1983) said that empathy is an individual's reaction to things experienced by other individuals that includes cognitive (the tendency to understand other people's perspectives) and emotional reactions characterized by a tendency to feel sympathy or care for others. Low empathy can result in individuals being less able to respond to pressure and discomfort felt by others. Individuals who have low empathy are unable to understand the emotional experiences that others experience. This results in the perpetrator being unable to feel what the victim feels when acting on cyberbullying behaviors (Jolliffe & Farrington, 2006).

Emotion regulation is highly, if not, most important factor in an adolescent development, especially in respect to their social life. Chadwick (2014) stated that individuals who are able to evaluate and manage emotional reactions both positively and negatively in a way that is appropriate to their social circumstances will be able to adapt or handle conflicts as well as deal with daily problems effectively. Gross (2015) stated that emotion regulation is the ability to experience and express or form emotions possessed by individuals in a manner or through strategies that will make their conditions better. Research from Mawardah and Adiyanti (2014) explained that cyberbullying tendencies are negatively related to emotional regulation. This means that the lower the emotional regulation, the higher the tendency to become a cyberbullying actor, suggesting that emotional regulation has a contribution to cyberbullying behavior. Individuals who have a high level of emotional regulation are expected to think about the consequences that will accompany their actions and thus presenting behaviours that will not harm themselves or others.

The external factor that affects cyberbullying is the school climate (Baron & Caballero, 2016). It is said that the school environment, social supports from teachers and friendship between students are indispensable for students to have when they are in school. A negative turn out from one of the three can possibly lead to cyberbullying, and this action can worsen individual experiences as well as their personal identity in their environment. Cyberbullying can be well controlled when all stakeholders including school administrators, teachers, parents, and students are all involved (Mark & Ratcliffe, 2011).

Dewitt and Slade (2014) proposed that school climate is the quality and character of a school life encompassing values, norms, interpersonal relationships and social interactions, as well as organizational processes and structures that exist within the school. School climate consists of all aspects related to school
experience such as the quality of teaching and learning, social relationships, structural systems, values and norms. The school climate is often viewed as a multidimensional construction, categorised within community and environmental institutions (Wang & Degol, 2016). Distinctively, focus and sense of importance that need to be constructed in its regard is the feeling of being safe in school through quality protection among school members from subsequent interactions in school.

Bayar and Ucanok's research (2012) found that students who engage in cyberbullying assess their school environment as less positive, and alternatively, adolescents who are not involved in bullying, both through cyberspace and at school, view school and teachers as having a more positive role. These findings emphasize that creating a positive school atmosphere can help reduce violent behaviour, specifically bullying both at school and in cyberspace.

Research Hypotheses
1. Empathy, emotional regulation and school climate play negative roles on cyberbullying of high school students in Merangin, Jambi. The higher the roles of empathy, emotional regulation and school climate that students have, the lower the cyberbullying acts.
2. There is a negative role played by empathy on cyberbullying of high school students in Merangin, Jambi. The higher the empathy that students have, the lesser acts of cyberbullying that exist.
3. There is a negative role played emotional regulation on cyberbullying of high school students in Merangin, Jambi. The higher the emotional regulation of students, the lesser the acts of cyberbullying.
4. There is a negative role played by school climate on cyberbullying of high school students in Merangin, Jambi. The higher the quality of a school climate, the lesser the acts of cyberbullying.

Research Aim
Based on the above, this study aims to determine the roles of empathy, emotional regulation, and school climate on cyberbullying of high school students in Merangin, Jambi.

II. RESEARCH METHODOLOGY

Participants
The subjects of this study were high school students from class X to class XII in Merangin, Jambi, with 90 students as the research subjects. The subjects were 16-18 years old, willing to participate in the research and possess social media. The research data were disseminated online using Google Form.

Instruments
This study utilized four measuring instruments, namely (1) cyberbullying scale (2) empathy scale (3) emotional regulation scale and (4) school climate scale. The cyberbullying scale was based on Willard's (2007) theory that encompasses aspects of flaming, harassment, denigration, impersonation, outing, trickery, exclusion and cyberstalking forms and was consisted of 30 statement items. The scale was arranged in two categories of statements, namely favorable and unfavorable statements. The distribution of items can be seen in Table 1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Form</th>
<th>Valid Item Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Flaming</td>
<td>1, 2, 3</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>Harrasment</td>
<td>4, 5</td>
<td>11</td>
</tr>
<tr>
<td>3.</td>
<td>Denigration</td>
<td>6, 7</td>
<td>12, 13</td>
</tr>
<tr>
<td>4.</td>
<td>Impersonation</td>
<td>8, 9</td>
<td>14</td>
</tr>
<tr>
<td>5.</td>
<td>Outing</td>
<td>15, 16</td>
<td>23, 24</td>
</tr>
<tr>
<td>6.</td>
<td>Trickery</td>
<td>17, 18</td>
<td>25, 26</td>
</tr>
<tr>
<td>7.</td>
<td>Exclusion</td>
<td>19, 20</td>
<td>27, 28</td>
</tr>
<tr>
<td>8.</td>
<td>Cyberstalking</td>
<td>21, 22</td>
<td>29, 30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>17</td>
<td>13</td>
</tr>
</tbody>
</table>

The empathy scale was based on Davis (1983) consisting of aspects of perspective taking, fantasy, empathic concern, and personal distress comprised of 24 statement items. The scale was managed into two forms of statements, namely favorable and unfavorable statements. The distribution of items can be seen in Table 2.
The emotional regulation scale was based on Gross (2007) consisting of aspects of situation selection, situation modification, attentional deployment, cognitive change, and response modulation expressed through 20 statement items. The scale was constructed under two forms of statements, namely favorable and unfavorable statements. The distribution of items can be seen in Table 3.

<table>
<thead>
<tr>
<th>No.</th>
<th>Form</th>
<th>Item Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Perspective taking</td>
<td>1, 2, 3</td>
<td>16, 17</td>
</tr>
<tr>
<td>2.</td>
<td>Fantasy</td>
<td>4, 5, 6, 7</td>
<td>18, 19, 20</td>
</tr>
<tr>
<td>3.</td>
<td>Empathic concern</td>
<td>8, 9, 10, 11</td>
<td>21</td>
</tr>
<tr>
<td>4.</td>
<td>Personal distress</td>
<td>12, 13, 14, 15</td>
<td>22, 23, 24</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 3. Distribution Of Emotional Regulation Items Determined After Trial

<table>
<thead>
<tr>
<th>No.</th>
<th>Form</th>
<th>Item Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Situation selection</td>
<td>1, 2</td>
<td>14, 15</td>
</tr>
<tr>
<td>2.</td>
<td>Situation modification</td>
<td>3, 4, 5</td>
<td>16</td>
</tr>
<tr>
<td>3.</td>
<td>Attentional deployment</td>
<td>6, 7, 8</td>
<td>17, 18</td>
</tr>
<tr>
<td>4.</td>
<td>Cognitive change</td>
<td>9, 10, 11</td>
<td>19</td>
</tr>
<tr>
<td>5.</td>
<td>Responder modulation</td>
<td>12, 13</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
<td>7</td>
</tr>
</tbody>
</table>

The school climate scale was based on Dewitt & Slade (2014) consisting of aspects of engagement, empowerment and autonomy, inclusivity and equity, as well as environment expressed into 20 statement items. The scale was generated in two forms of statements, namely favorable and unfavorable statements. The distribution of items can be seen in Table 4.

<table>
<thead>
<tr>
<th>No.</th>
<th>Form</th>
<th>Item Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Engagement</td>
<td>1, 2, 3</td>
<td>12, 13, 14, 15</td>
</tr>
<tr>
<td>2.</td>
<td>Empowerment and autonomy</td>
<td>4, 5, 6, 7</td>
<td>16, 17</td>
</tr>
<tr>
<td>3.</td>
<td>Inclusivity and equity</td>
<td>8, 9</td>
<td>18, 19</td>
</tr>
<tr>
<td>4.</td>
<td>Environment</td>
<td>10, 11</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11</td>
<td>9</td>
</tr>
</tbody>
</table>

Data collection were done through the scale method from Azwar (2013). The scales used in this study are Likert scales with each scale having four alternative answers separated into favorable statements and unfavorable statements. The four categories of answers as well as their scoring can be seen in Table 5.

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Favourable</th>
<th>Unfavorable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Agree (SA)</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Agree (A)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Disagree (D)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Strongly Disagree (SD)</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Validity and Reliability

The validity explored in this study is content validity which is the validity that can show the extent to which items in the scale cover the entire content area that the scale intends to measure (Azwar, 2014). Content
validity is the validity that is estimated through testing the content of the scale with rational analysis or through professional judgment. Professional judgment is carried out through item review by asking for considerations from competent parties, in this case, the supervisor, to see whether the items compiled have revealed the aspects required in this study.

The reliability uncovered in this study was manifested through the internal consistency approach. The internal consistency approach is the reliability carried out using one form of scale imposed only once on a group of subjects (Azwar 2014). Reliability is expressed by the reliability coefficient in which the numbers are in set within the range of 0 to 1.00 (Azwar, 2014). The reliability coefficient generated in this study was the Cronbach alpha reliability coefficient. The expected or desired alpha reliability coefficient in this study was ≥ 0.700.

III. RESULTS

The results of the SPSS calculation using multiple regression analysis tests are as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficient</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>Empathy</td>
<td>0.306</td>
<td>0.181</td>
<td>0.312</td>
</tr>
<tr>
<td>Emotion regulation</td>
<td>0.457</td>
<td>0.161</td>
<td>0.480</td>
</tr>
<tr>
<td>School climate</td>
<td>-0.244</td>
<td>0.108</td>
<td>-0.231</td>
</tr>
</tbody>
</table>

The first hypothesis was posed to determine whether empathy, emotional regulation and school climate played roles on cyberbullying among school students in Merangin, Jambi. Based on the results of multiple regression analysis, the value of F change obtained was 22.781 with a significance level of 0.000 (p <0.01), which is very significant. This indicated that the hypothesis proposed in this study can be accepted, meaning that very significant negative roles were played by empathy, emotional regulation and school climate on cyberbullying in school students in Merangin, Jambi.

The second hypothesis was modeled to find out if there was a role played by empathy that affected cyberbullying in high school students in Merangin, Jambi. Based on multiple regression analysis, the value of t obtained was 1.691 with a significance level of 0.094 (p > 0.05). This indicated that the hypothesis proposed was rejected, meaning that there was no role of empathy that influenced cyberbullying in high school students in Merangin, Jambi.

The third hypothesis was designed to determine the role of emotional regulation on cyberbullying in high school students in Merangin, Jambi. Based on the results of multiple regression analysis, the t value obtained was 2.839 with a significance level of 0.006 (p <0.05). This depicted the significant role of emotional regulation on cyberbullying. However, the relationship shown was positive, meaning that the higher the emotional regulation, the higher the cyberbullying that occurs among students. Accordingly, the researcher's hypothesis was rejected.

The fourth hypothesis was posed to determine the role of school climate on cyberbullying among high school students in Merangin, Jambi. Based on the results of multiple regression analysis, the t value obtained was -2.258 with a significance level of 0.026 (p <0.05). The relationship shown was negative, meaning that the higher the quality of school climate, the lower the level of cyberbullying that took place. This indicated that the researcher's hypothesis could be accepted, that the school climate held significant role on cyberbullying among high school students in Merangin, Jambi.

In this research, the effective contribution (EC) of the empathy variable presented a value of 18%, whilst the emotional regulation variable was 29% and the school climate variable was 4.9%. The remaining 48.1% was determined by other factors.
IV. DISCUSSION

The results of the cyberbullying variable category showed that some subjects had acted on cyberbullying behaviors in the moderate category. Satalina (2014) stated that the factors that motivate individuals to conduct cyberbullying are related to their extrovert or introvert personality types. Extroverted individuals have the characteristics of being able to socialize and being impulsive, like to joke, quick to think, optimistic and are able to respect relationships with other people. Meanwhile, introverted individuals tend to be more anti-social, quiet or unfriendly, and like to be alone which thus affect the individual's level of cyberbullying activity. Another factor that we can attribute this to are peers who have big influence on the life and tendency of individuals to become cyberbully. However, peers can also mediate the relationship between cyberbullying and the dissatisfaction experienced by adolescents (Merril & Hanson, 2016).

The results of the empathy variable category indicated that most of the subjects were at a moderate level or can be said to be good. Individuals with good empathy abilities would be able to have a positive impact, with good empathy will help individuals in decision making so that it can limit involvement in cyberbullying behavior (Barlinska, Szuster & Winiewski, 2015).

The results from the category of emotion regulation variable indicated that most subjects have high level of emotional regulation. This presented that the emotional regulations of the subjects were within a very good category. Subjects were not easily affected by negative emotions felt, and were able to control the emotional response felt as well as the emotional response displayed (behavior, tone of voice), implying that individuals do not feel excessive emotions and generally present appropriate emotional responses (Gratz & Roemer, 2008).

The school climate variable category showed that most of the subjects possess high quality of school climate in their respective environment. This implied that the subjects’ school climates were generally very good. Students have beliefs, values and attitudes as well as good character promoted in their school life and they are able to form patterns of interaction between students, teachers and employees at school very well (Zulling, Koopman, Patton & Ubbes, 2010).

The results of multiple regression analysis indicated very significant roles of empathy, emotional regulation and school climate on cyberbullying among high school students in Merangin, Jambi. This means that the higher the roles of empathy, regulation and school climate, the lesser the acts cyberbullying. Therefore, empathy, emotional regulation and school climate play roles on cyberbullying behaviors.

The analysis of the influence of empathy on cyberbullying showed that there was no significant role played by empathy that affected cyberbullying in high school students in Merangin, Jambi. Thus, it was determined that empathy does not play a role in hindering individuals to do cyberbullying. This is of course contrary to the proposed research hypothesis, and the hypothesis was accordingly rejected.

The analysis of emotional regulation influence on cyberbullying showed that there was a significant role played by emotional regulation on cyberbullying. However, the relationship shown was positive, meaning that the higher the emotional regulation, the higher the cyberbullying that occurred. On the contrary the lower the emotional regulation, the lesser the occasions of cyberbullying behavior. This finding is in contrary to the hypothesis that the researcher proposed.

The results of the school climate analysis influence over cyberbullying showed that there was a significant negative role played by the school climate that affected cyberbullying among high school students in Merangin, Jambi. The more negative the perceptions possessed on the school climate, the higher the rate of cyberbullying behaviors. Conversely, the more positive the perception of the school climate, the lower the cyberbullying behaviors.

Hinduja and Patchin's research (2014) stated that students who experience cyberbullying possess negative perception on the school climate. Students who perceive the school climate as positive tend to have lower cyberbullying behavior than students who perceive the school climate as negative.

Nurpaduhita and Suminar (2014) supported the finding that students who have a positive school climate perception can certainly engineer low cyberbullying in the school. This is because students that possess positive perception on the school climate feel physically and psychologically comfortable in the school environment, are able to follow the ongoing teaching and learning process, establish good interpersonal relationships with all parties they interact with including schoo higher ups, teachers and school employees as well as with fellow students. Students who obey rules tend to avoid any intention of having maladaptive behaviors such as cyberbullying as they understand the reciprocating consequences of their actions.

The present research poses a disadvantage in which the researcher did not know the actual condition of the subject when filling out the research form. There was a lack of opportunity for respondents to clarify the questions presented on the scale if they somehow did not understand certain things, they were more likely to consult with other people to answer the research question resulting in the longer time used to fill in the data.
V. CONCLUSIONS
1. Empathy, emotional regulation and school climate played significantly negative roles on cyberbullying among high school students in Merangin, Jambi.
2. There is no influence posed by empathy on cyberbullying in high school students in Merangin, Jambi.
3. There is a significant positive role of emotional regulation on cyberbullying in high school students in Merangin, Jambi.
4. There is a significant negative role of school climate on cyberbullying among high school students in Merangin, Jambi.
5. The present research is able to provide theoretical implications in the development of social psychology research as well as implications in the school environment for students. Additionally, expansion of the research unit using different cyberbullying contexts was proposed and the results of the research can be generalized.

VI. RESEARCH IMPLICATION
The results of this study are expected to provide an overview of the role of roles of empathy, emotion regulation and school climate against cyberbullyingin high schools as a reference in further research related to the four variables.

Recommendation
It is hoped that school students can wisely and more positively use the existing technological sophistication, especially social media, so that there may not be any acts of cyberbullying that can harm themselves and others.

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