



**Factors Associated with Cyberbullying among the Youth in  
Jakarta, Indonesia**

**Santi Gusti Handono**

**A Thesis Submitted in Fulfillment of the Requirements for the Degree of  
Master of Arts in Human and Social Development  
Prince of Songkla University  
2019**

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**Thesis Title** Factors Associated with Cyberbullying among the Youth in Jakarta, Indonesia

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### **ABSTRACT**

The growth of the Internet offers many positive advantages but also presents other aspects which are negative and problematic. For young people, cyberbullying, which has become common in many countries, including Indonesia, is one of the problems entailed by the Internet. This study examined the factors associated with cyberbullying among youth in Jakarta, Indonesia. This quantitative study used questionnaire to collect the responses from 210 participants. All of the participants were Jakarta resident aged 15-24 years old.

In order to analyze the data, this study used R program employing several ways of analysis: Pearson Product-moment correlation, multiple linear regression, chi square, and logistic regression. This study analyzed the association between each of nine determinants variable (perceived social support from family, perceived social support from friends, problematic internet use, time spent online, exposure to media violence, exposure to peer violence, exposure to family violence, attitude toward cyberbullying, and self-esteem) and cyberbullying as the outcome variable.

It was found that the level of cyberbullying in Jakarta was high (3.63 out of 5), and 40.5% of respondents were fall into “commit cyberbullying” category. After crosschecking the result from different analysis mentioned above, it was found that there were four factors that found significant in association with cyberbullying behavior: perceived social support from friends, exposure of media violence, exposure of family violence, and attitude toward cyberbullying.

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## CONTENTS

Title Page.....	i
Approval Page.....	ii
Certification.....	vi
Abstract.....	v
Acknowledgement.....	vi
Contents.....	viii
List of Tables.....	xi
List of Figures/Illustrations.....	xii
List of Abbreviations and Symbols.....	xiii
List of Published Papers and Proceedings.....	xiv
<b>INTRODUCTION.....</b>	<b>1</b>
1. Background .....	1
2. Research Problem .....	4
3. Research Questions .....	5
4. Research Objectives .....	5
5. Research Significance .....	6
6. Scope of Research .....	6
7. Definition of the Key Terms .....	7
<b>LITERATURE REVIEW.....</b>	<b>11</b>
1. Cyberbullying.....	11
1.1. Definition of Cyberbullying.....	11
1.2. Types of Cyberbullying.....	12
1.3. Effects of Cyberbullying for the Victim.....	14
1.4. Real Story of Cyberbullying.....	14
2. Cyberbullying Prevalence Around the World.....	15
2.1. Cyberbullying in Countries Outside Asia.....	15
2.2. Cyberbullying in Asia .....	17
2.3. Cyberbullying in Indonesia.....	19

3. Perceived Social Support Factors.....	20
3.1. Theory of Perceived Social Support.....	20
3.2. Family Social Support Associated with Cyberbullying.....	21
3.3. Friend Social Support Associated with Cyberbullying.....	21
4. Cyber Factors.....	22
4.1. Problematic Internet Use Concept.....	22
4.2. Problematic Internet Use Associated with Cyberbullying.....	23
4.3. Time Spent Online Associated with Cyberbullying.....	24
5. Exposure to Violence Factors.....	24
5.1. Social Learning Theory.....	24
5.2. Exposure to Media Violence Associated with Cyberbullying.....	25
5.3. Exposure to Peer Violence Associated with Cyberbullying.....	26
5.4. Exposure to Family Violence Associated with Cyberbullying.....	26
6. Psychological Factors.....	26
6.1. Theory of Planned Behavior.....	26
6.2. Attitude toward Cyberbullying Associated with Cyberbullying.....	28
6.3. Concept of Self-Esteem.....	28
6.4. Self-Esteem Associated with Cyberbullying.....	29
7. Conceptual Framework.....	30
<b>METHODOLOGY.....</b>	<b>31</b>
1. Participant and Sampling Method.....	31
2. Measurement Method.....	32
3. Tryout and Pilot Study.....	36
4. Data collection.....	37
5. Data Analysis .....	39
<b>RESULTS.....</b>	<b>41</b>
1. Profile of the respondents.....	41
2. Multiple regression.....	41
2.1. Descriptive statistics of the outcome variable and determinant variables .....	41
2.2. Relationships between the nine determinant variables and cyberbullying .....	45

3. Logistic regression.....	49
3.1. Data Descriptive of Cyberbullying Behavior and the nine Determinants .....	49
3.2. Association between Cyberbullying Behavior and the nine Determinants .....	52
3.3. Factors Associated with Cyberbullying Behavior.....	54
<b>DISCUSSIONS AND SUGGESTIONS .....</b>	<b>56</b>
1. Discussions .....	56
1.1. Level of Cyberbullying among the Youth in Jakarta.....	56
1.2. Association between perceived social support factors, cyber factors, exposure of violence factors, and psychological factors with cyberbullying among the youth in Jakarta.....	59
2. Conclusion and Recommendations.....	63
References .....	65
Appendices .....	71
Indexing for Paper .....	111
Journal Paper 1 .....	112
Journal Paper 2 .....	121
Journal Paper 3 .....	134
VITAE .....	152

**LISTS OF TABLES**

Table 1. Questionnaire Scale .....	35
Table 2. Cronbach's Alpha Coefficient .....	36
Table 3. Data Collection Places in Jakarta .....	38
Table 4. Descriptive statistics of determinant variables .....	42
Table 5. Descriptive statistics of outcome variable .....	42
Table 6. Descriptive statistics of outcome variable (per item).....	44
Table 7. Reduced linear regression model of relationship between determinant variables and the outcome variable: cyberbullying, final model .....	49
Table 8. Binary Percentage of Nine Determinants and Outcome (Cyberbullying) ....	50
Table 9. Association between cyberbullying behavior and nine determinants.....	52
Table 10. Factors associated with cyberbullying behavior: the final model .....	55

**LIST OF FIGURES/ILLUSTRATIONS**

Figure 1. Conceptual Framework of PIU (Moreno, Jelenchick, Christakis, 2013) .....	22
Figure 2. Theory of Planned Behavior (Ajzen, 1991).....	27
Figure 3. Jakarta Administrative Map.....	31
Figure 4. Locations of the Data Collecting Places.....	38
Figure 5. Relationship between social support from family and cyberbullying .....	46
Figure 6. Relationship between social support from friends and cyberbullying .....	46
Figure 7. Relationship between problematic Internet use and cyberbullying .....	46
Figure 8. Relationship between time spent online and cyberbullying .....	46
Figure 9. Relationships between Exposure of Media Violence and cyberbullying ....	47
Figure 10. Relationships between Exposure of Peer Violence and cyberbullying ....	47
Figure 11. Relationships between Exposure of Family Violence and cyberbullying ..	47
Figure 12. Relationships between attitude toward cyberbullying and cyberbullying ...	47
Figure 13. Relationships between self-esteem and cyberbullying .....	48
Figure 14. Example of Slandering.....	57

## LIST OF ABBREVIATIONS AND SYMBOLS

<b>Abbreviations/Symbols</b>	<b>Meaning</b>
BPS	Badan Pusat Statistik
D3	Diploma 3
DKI	Daerah Khusus Ibukota
ID	Identification
IDR	Indonesian Rupiah
IOC	Item Objective Congruence
MSPSS	Multidimensional Scale of Perceived Social Support
NGO	Non-Governmental Organization
PIU	Problematic Internet Use
POP	Potentially offensive internet and mobile phone practice
PRIUSS	The Problematic and Risky Internet Use Screening Scale
PSU	Prince of Songkla University
QFSSS	Questionnaire of the Frequency of and Satisfaction with Social Support
REVS	Recent Exposure of Violence Scale
S1	Strata 1
S2	Strata 2
S3	Strata 3
SD	Sekolah Dasar
SMA	Sekolah Menengah Atas
SMP	Sekolah Menengah Pertama
SO	Significant Other
SPV	Subject per Variable
UK	United Kingdom
USA	United States of America

**LIST OF PUBLISHED PAPERS AND PROCEEDINGS**

- | <b>S/NO</b> | <b>List of Published Papers and Proceedings</b>   |
|-------------|---|
| 1           | Relationship between Violence Influence Factors and Cyberbullying of Youth in Jakarta, Indonesia. Paper presented at the 10th International Conference on Humanities and Social Sciences, 10 <sup>th</sup> ICHiSS 2018, 11-13 May 2018. Organized by National Defence University of Malaysia.                 |
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| 3           | Risk Factors Associated with Cyberbullying by Young People in Jakarta, Indonesia. (Manuscript submitted for publication to Makara Human Behavior Studies in Asia (Makara Hubs-Asia)). Directorate of Research and Public Service Universitas Indonesia and indexed in Emerging Sources Citation Index (ESCI). |



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# INTRODUCTION

## 1. Background

Nowadays internet is an important part of people's life. Lots of activity require internet, such as reading the news, watching cooking video tutorial on Youtube, or chatting with friends. At the beginning, people only uses the internet to send emails to each other or browsing for educational purpose, but now suddenly almost activity require internet.

According to Internet World Stats Website ([www.internetworldstats.com](http://www.internetworldstats.com)), on June 2017 the number of internet user all over the world is 3,885,567,619. Its approximately 51.7% of world population (Internet World Stats, 2017). So with slightly more than a half of world population use the internet, prove that internet is one of the essential part of people's life.

Indonesia with as many as 263,510,146 people in 2017, having similar number of internet penetration with the world. Half of Indonesian people had access and exposed to internet, make it contributes around 130 million people to the world's internet user (Internet World Stats, 2017). The internet user growth in 2017 reaches 51% if compared to the January 2016 data (We Are Social, 2017).

Social media has grown as one of the impact of the internet. Social media is a platform of social networking where people could interact with another people, not defined by place or time. Few examples of social media are Facebook, Twitter, Instagram, Youtube, Snapchat and Tumblr.

All around the world, there are 2.789 billion social media user, or approximately 37% of the world population. This number is keep growing, as the matter of fact it has been grew 21% since January 2016 (We Are Social, 2017). With the significant number of people exposed to social media, it slowly became a part of daily life. People were like to share things happening in their life on their social media to let others know about what happened in their life.

Indonesia is keeping up with the trends, including social media. In Indonesia there are 106 million social media user, as many as 40% of the population (We Are Social, 2017).

This means only 11% of internet user in Indonesia not exposed to social media, while the rest are involved in social media activities.

According to the 2010 population survey, Jakarta province was the 6<sup>th</sup> largest population in Indonesia with 9.607.787 person (Badan Pusat Statistik Indonesia, 2012). Since 2000-2015, Jakarta always been on the first place for province with the largest population density, with 15.328 person per square km in 2015 (Badan Pusat Statistik Indonesia, 2015). With the significant number of population, Jakarta is a good place to study about cyberbullying in Indonesia.

Number of internet users in Jakarta was 3.538.000 person in 2013, and it puts Jakarta on the first place for the largest number of internet users among other city in Indonesia (Kominfo RI, n.d.). People in Jakarta also found to be very active in social media. In 2012, Jakarta was found to be the most active city in Twitter among cities around the world (Semiocast, 2012).

With the rising numbers of users, internet not only comes with its benefits, but also with consequences. The nature of internet allows everyone including children to access anything, without knowing whether it's good or bad. Children and youth could easily exposed to any kind of negative side of the internet, including cyberbullying.

A survey conducted on 7.000 young people in UK reported that 69% of them is a victim of cyberbullying. The survey also uncover that the most common platform of the cyberbullying is on social network especially Facebook, Twitter, and Ask.FM. Additionally, the participant are twice more likely to be bullied on Facebook rather than another platform (Ellis, 2013).

Another recent survey shows that Instagram has been in the top list of cyberbullying platform. With all the development on Instagram, this photo-sharing application becomes place for judging someone else's life and the cyberbully will just leave a mean comment in the comment box. Although Instagram developer has been concerned about this issue and create new feature to turn off the comment box, cyberbullying is not slowing down (Wakefield, 2017).

Previous research about social media activity in Jakarta found that the participants were spent at least 30 minutes per day on social media. The participants were spending their time on social media for 30 minutes (14%), 30 minutes-1 hour (20%), 1-2 hours (23%), 2-3 hours (15%), and more than 3 hours (28%) per day (Permatasari & Kuswadi, 2017).

Cyberbullying can happen to anyone, not only to regular person, but also celebrity, political elite, or famous person. With the high number of social media and active internet users, chances for Indonesian people to be exposed to cyberbullying is increasing. Everyone from children to elderly people can easily access content of the internet without limitation. Below will be given some viral cyberbullying cases in Indonesia.

Deddy Corbuzier is a public figure in Indonesia. He has a girlfriend named Chika who also a public figure. Like other public figures, their Instagram profile receives any rude comments annually, but a comment slut-shaming Chika in Deddy's Instagram made them outrageously angry. They stroke back the cyberbully. They reported the man to the police and the man was traced down in Jambi, Sumatera. The police captured him and bring him to Jakarta to meet Deddy and Chika. He was also asked to publicly apologize to them (Purnomo, 2016). It was a good example to remind the cyberbully that they can't hide from their anonymous internet identity.

One phenomenal case about a viral video leads to cyberbullying in 2016. Sonya Depari just graduated from high school in Medan. Sonya and her friends was doing a graduation celebration parade when she was stopped by a police officer because her parade was disturbing other people on the road. She yelled and fought the police officer and said that she was a family of high-rank army member. The video went viral and netizen was outrageous and started to bully Sonya for being rude to the police officer. The cyberbullying keep going on social media and the news, until Sonya suffered from depression and Sonya's father got sick and died right after reading all the rude comments bullying his daughter (Maharani, 2016).

It is reported that Jakarta Police Office (Polda Metro Jaya) has been receiving approximately 25 reports about cyberbullying per day. The case is usually involved flaming and personal between a perpetrator and a victim. The police officer said that usually before

the case going to the court, a mediation process will be conducted to solve the problem in peace (Vir dhani, 2016).

With the urgency of cyberbullying significant number of population and internet users in Jakarta and significant time spending on social media, Jakarta is a good subject for doing research about cyberbullying. The motivation to commit cyberbullying was remain unknown. Therefore, this research discovered more in the side of factors associated with the cyberbullying behavior of the youth in Jakarta.

## **2. Research Problem**

Many researches already discover facts about several factors associated with the cyberbullying behavior. One of those is perceived social support, that the lack of it can increase the likelihood of cyberbullying behavior. It is known that decent family and friend social support could be the protective factors to prevent someone involve in bullying and cyberbullying (Williams & Guerra, 2007).

Another factor that proved to be associated with cyberbullying is the online behavior, such as problematic internet use and time spent online. Individual with high level of problematic internet use has higher tendencies to involve with cyberbullying behavior (Kircaburun & Bastug, 2016). Study found that time spent online is correlated with the likelihood of cyberbullying. The more people spend time online, increase the likelihood to involve in cyberbullying activities (Ozdemir & Akar, 2011).

Cyberbullying as one of the violence behavior, believed to be linked with the exposure of media, peer, and family violence. A study linked the influence of parental violence to bullying behavior and found a positive relationship between them (Baldry, 2003). Exposure to media violence also can increase aggressiveness and lead to cyberbullying (Fanti, Vanman, Henrich, & Avraamides, 2009).

Someone's attitude toward something can affect their behavior on that thing (McKnight & Chapman, 2010). Therefore it is also believed and approved that attitude toward cyberbullying has a relationship to the cyberbullying behavior (Barlett & Chamberlin, 2017). Lastly, self-esteem is also a factor on determining cyberbullying

behavior. It is known that low self-esteem contributes positively to the involvement on cyberbullying behavior (Patchin & Hinduja, 2010).

This research will cover about the level of cyberbullying behavior in Jakarta, Indonesia. This research will also analyze nine above determinants (family social support, friends social support, problematic internet use, time spent online, exposure to media violence, exposure to peer violence, exposure to family violence, attitude toward cyberbullying, and self-esteem) in association with the cyberbullying behavior of youth in Jakarta.

### **3. Research Questions**

The research questions of this thesis is based on the assumption that to understand and overcome the cyberbullying issue, factors associated to the behavior should be discovered first. Then, an examination is available to do to find the best ways to solve the cyberbullying problem.

1. What is the level of cyberbullying of youth in Jakarta?
2. Do the perceived social support factors, cyber factors, exposure to violence factors, and psychological factors associated with cyberbullying of youth in Jakarta?

### **4. Research Objectives**

The research objectives are as follows:

1. To study the level and the percentage of cyberbullying of youth in Jakarta, Indonesia
2. To estimate the perceived social support factors, cyber factors, exposure to violence factors, and psychological factors association with cyberbullying of youth in Jakarta.

## 5. Research Significance

This study is significant to the policy and research of cyberbullying in Indonesia. There were a small number of study about cyberbullying phenomenon in Indonesia, particularly about the factors associated into it. In general, there were many studies about the factors associated with cyberbullying, but this research contain combination of factors that were never found in the previous research.

### **i. New Knowledge:**

- (a) This study add the new knowledge about level of cyberbullying in Jakarta, Indonesia.
- (b) This study add the new knowledge about factors associated to cyberbullying behavior in Jakarta, Indonesia.

### **ii. Application:**

- (a) This study provides data and ideas to help the authority in forming the policy to overcome the issues of cyberbullying in Indonesia. If the authority is aware about what factor causes cyberbullying, then it will be so helpful for them to create the effective program and campaign in order to solve cyberbullying issues.
- (b) This study also contributes to bring awareness to the people of Indonesia about factors associated with cyberbullying. Parents, teacher, and other authority figure could prevent the cyberbullying on their own social environment.

## 6. Scope of Research

- 1) Content: The scope of this study was to measure the level of the cyberbullying in Jakarta, Indonesia and examine the factors associated with cyberbullying in Jakarta, Indonesia.
- 2) Variables: There were ten variables in this study: social support from family, social support from friends, problematic internet use, time spent online, exposure to media



violence, exposure to peer violence, exposure to family violence, attitude toward cyberbullying, self-esteem, and cyberbullying.

- 3) **Limitations:** This study had several limitations. First, this study conducted only on one city, Jakarta, Indonesia. Second, the participants were limited by age (only 15-24 years old), nor including younger and older population. Thirdly, this study only focused on the perpetrator of cyberbully, not including cyber-victim..

## 7. Definition of the Key Terms

To get definitive understanding of the research, the following definitions are clarified:

- 1) **Cyberbullying** is an awful or bad things an individual or group do to another individual or group on the cyberspace, such as social media, text, email, website, photo, videos, instant messaging or some other platform online. Cyberbullying can be measured by five big indicators, flaming, slandering, identity theft, reveal other's secret, deleting or blocking someone from the group. Cyberbullying indicator from Tudkea and Laeheem, 2014 was used to measure if someone involved in cyberbullying activities,. There are 24 item of questionnaire for measuring cyberbullying in five mentioned indicator above. The sample question for the whole part are 1) *I say bad words about someone without they're knowing*; 2) *I tease someone with physical impairment*; 3) *I distribute someone's embarrassing picture or video online*; 4) *I use someone's name to chat online without permission*; 5) *I distribute someone's shameful and disgraceful secret online*; 6) *I remove someone I don't like from the group*. This part use 5-point Likert scale, with point 1 (never) indicate never, point 2 (rarely) indicate less than 6 times, point 3 (sometimes) indicate 6-10 times, point 4 (often) indicate 11-15 times and point 5 (always) indicate 16 times or more.
- 2) **Family Social Support** is the supports given by the family member to an individual that includes many aspects like emotional support (affection, love), helpfulness, and availability to be there when needed, and any other support that related to one's well-being. Satisfaction and frequency of the social support is one of the important thing in measuring social support, so those are includes on the questionnaire. This part consists

- of 7 items. The sample questions of the questionnaire are “*my family is being helpful to me*”, “*when I’m making a decision my family is willing to help me*”, “*I feel satisfy with my family’s love and affection and when they hear me out when I want to talk and express my feeling*”. This part use 5-point Likert Scale ranging from strongly disagree (1), disagree (2), neutral (3), agree (4), until strongly agree (5).
- 3) Friends Social Support** is the supports given by friends to an individual that includes many aspects like emotional support (affection, love), helpfulness, and availability to be there when needed, and any other support that related to one’s well-being. Satisfaction and frequency of the social support is one of the important thing in measuring social support, so those are includes on the questionnaire. This part consists of 7 items. The sample questions of the questionnaire are “*my friends are being helpful to me*”, “*when things go wrong, one of the person I can count on are my friends*”, “*I feel satisfy with my friends love and affection and when they hear me out when I want to talk and express my feeling*”. This part use 5-point Likert Scale ranging from strongly disagree (1), disagree (2), neutral (3), agree (4), until strongly agree (5).
- 4) Problematic Internet Use** is the overused of internet usage that linked with negative meaning because the overused of the internet is lack of benefit and positive intention. The problematic internet use is also have a bad effect to the social, emotional, and performance of an individual. To measure whether someone’s level of problematic internet use, it was divided it into three dimension: social, emotional and performance. This part consists of 10 items. The example questions of this part are “*I prefer to socialize online rather than in person*”, “*When I’m not able to use internet, I feel irritated*”, “*I put internet first than the important and everyday activities*”. This section use 5-point Likert Scale ranging from strongly disagree (1), disagree (2), neutral (3), agree (4), until strongly agree (5).
- 5) Time Spent Online** is the amount of time an individual spent to do any activities on the internet. To measure the time spend online, the participant will fill in the approximate hours they spent online per day separately on weekdays and weekend.
- 6) Exposure to Media Violence** is the condition when an individual is exposed to the violence on media such as television, internet and movie. The violence indicators for media violence are aggressive action and threat. To measure this variable, researcher

- ask about the frequency of participant in witnessing violence on the three media (television, internet, and movie), each on two violence indicator (aggressive action and threat). This part consists of 6 items. The example questions are “*I witness someone doing aggressive action on TV*”, and “*I witness got threaten on the internet*”. This part use 5-point Likert Scale ranging from never (1), rarely (2), sometimes (3), often (4), until always (5).
- 7) Exposure to Peers Violence** is the condition when an individual is exposed to or experience violence from their peers (not limited to school friends, but includes all of their friends elsewhere). The violence indicators of peer violence are slap/punch/hit, threat, and beat another person. Unlike media violence that limited to only witnessing the action, peers violence includes not only witnessing the action, but also experiencing it. This part consists of 6 items. The example questions to measure peers violence are “*I witness my friend got slapped/punched/hit*”, and “*My friend has threatened me*”. This part use 5-point Likert Scale ranging from never (1), rarely (2), sometimes (3), often (4), until always (5).
- 8) Exposure to Family Violence** is the condition when an individual is exposed to or experience the violence from family (can be all of the family member, not limited to the parent). The violence indicators of family violence are slap/punch/hit, threat, and beat another person. This part consists of 6 items. The example questions to measure family violence are “*I witness someone got slapped/punched/hit at home*”, and “*Someone has threatened me at home*”. This part use 5-point Likert Scale ranging from never (1), rarely (2), sometimes (3), often (4), until always (5).
- 9) Attitude toward Cyberbullying** is the individual’s attitude which is more favorable to the cyberbullying behavior. To measure their cyberbullying attitude, participant should answer the question “*what do you think about cyberbullying?*” by expressing their using 7-point Semantic Differential Scales (ranging from 1 to 7). There are 10 items, and the example of the items are “*advantage-disadvantage*”, “*good-bad*”, “*fun-not fun*”, “*not embarrassing-embarrassing*”.
- 10) Self-Esteem** is someone’s perception of themselves, what they believe as their personal value, affected by their participation in social world. To measure self-esteem, Rosenberg Self-esteem scale was used, with 10 item and 5-point Likert Scale ranged

strongly disagree (1), disagree (2), neutral (3), agree (4), until strongly agree (5). On question number 2,5,6,8,9 the score are reversed.

**11) Social Media** is forms of electronic communication (such as websites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (such as videos).

**12) Netizen** is an active participant in the online community of the internet.

**13) Viral** is quickly and widely spread or popularized especially by person-to-person electronic communication.

**14) Youth** are individuals between the age 15-24 (definition by the United Nation).

## LITERATURE REVIEW

This part discussed about the theoretical framework of cyberbullying to bring wider understanding about the cyberbullying phenomenon. This part included cyberbullying definition, types, causes and effects. Cyberbullying cases and facts from all over the world were provided to emphasize the empirical situation.

### **1. Cyberbullying**

#### **1.1. Definition of Cyberbullying**

Talking about cyberbullying could not be separated from the original bullying phenomenon, traditional bullying. Traditional Bullying is an act where an individual or group is exposed repeatedly to negative act from another individual or group. There is an imbalance of power, where the negative individual or group (perpetrator) is more powerful than the one exposed to the harassment (victim). The victim somewhat cannot fight back or defend themselves due to the physical or mental deficient, or lose in numbers. This bullying action is identified by three criteria, 1) the act is aggressive and harmful; 2) the act is done repeatedly and in a long term; 3) nature of the relationship is a power imbalance. (Olweus, 1997)

As time goes by, the cyber world has been developed significantly and influence the way people interact to one another. People now interact mostly through electronic devices and the internet, these two items able to connect people despite of their location. This new way of interaction surely bring lot of changes, example people used to call but now people can text each other using online chatting platform. This changes also brought a new form of bullying in the cyber world, called cyberbullying.

Although there are lot of different versions of the definition of cyberbullying, cyberbullying researcher generally defines that cyberbullying is the form of bullying that happens in electronic platform. Cyberbullying is an aggressive and intentional act done by an individual or group repeatedly and over time using electronic platform to individual or group that cannot defend themselves (Smith, et al., 2008). This definition took the essence

of Olweus bullying definition “repeatedly and over time” and “imbalance of power” but modified the platform into electronic platform.

When traditional bullying is more focused on physical and verbal or direct and indirect form of bullying, cyberbullying has different approach. Smith et al (2008) specified that there are seven electronic platform used to do cyberbullying, mobile text messaging, phone call, instant messaging, chat room, email, website and picture/video.

Another distinction about traditional bullying and cyberbullying is about how to measure the power imbalance and the repetition of the bullying act. A research conducted by Dooley found out that the difference of power imbalance is on traditional bullying the power imbalance usually related to physical or psychological power, meanwhile in cyberbullying it is related to the power technology, anonymity nature of internet, and the content used. The repetition of traditional bullying is based on the behavior repetition of the perpetrator, while in cyberbullying the repetition is according on the technology and features of published content not depends on the initial perpetrator intention (Dooley, Pyzalski, & Cross, 2009).

From the differences above could be concluded that cyberbullying is much easier to do since the perpetrator can hide their identity by staying anonymous. Since the perpetrator can hide behind the keyboard, they don't have to face the victim directly. The other internet user and the internet itself also helping the cyberbullying by the sharing features of the internet, where it beyond the initial perpetrator behavior.

## **1.2. Types of Cyberbullying**

Types of cyberbullying are the range of act representing the cyberbullying behavior. There is no exact types of cyberbullying, but different research will interpret their own version of cyberbullying types. Generally it includes attacking someone in cyberspace or doing an act in cyber space that could bring damage on someone's or their reputation. In this part, the types of cyberbullying will be discussed by studying previous research related to cyberbullying.

According to a research by Vandebosch and Cleemput, cyberbullying can be classified by the impact exposure, that is direct (physical) and indirect types. For the

physical type, the harm caused a direct impact to the victim like injecting virus to one's computer (property harm), using internet to insult others (verbal harm), sending threat or harmful images (non-verbal harm), and excluding one's from a group (social harm). Indirect types includes outing of email entrusted information, pretending to be someone else, spreading gossips, and taking part in defamatory website. (Vandebosch & Cleemput, 2009)

On other research from Ozden and Icelliglu use 10 types of cyberbullying in measuring the cyberbullying behavior. The cyberbullying behavior are 1) anonymous calls; 2) sending spam mail and viruses; 3) sending mean, vulgar or threatening messages; 4) spreading lies and rumors of someone else; 5) creating fake profile or web page; 6) posting someone's photographs or videos without their consent; 7) sending online request of sexual intercourse; 8) hacking someone's profile; 9) harassing or threatening statement devoted to a partner in romantic relationship; 10) fake statue or place statement. (Ozden & Icelliglu, 2014)

Other research conducted by Tudkuea and Laeheem classify cyberbullying with different and more specific indicator for Asian demography. The research is about developing cyberbullying indicator in Songhkla, Thailand. From the research, it is known that there are five types of cyberbullying (flaming, slandering, identity theft, reveal other's secret, and deleting or blocking others from group) which each types have several indicators. The indicators were tested and found to be reliable with the score of .70 for the entire questionnaire.

Flaming indicators are saying bad words behind others or to dishonor or attack others, making fun about other's embarrassment, teasing other with physical impairment. Slandering consist of slandering using other's name to make other person hate them, distributing other's embarrassing photos, videos, or rumors to embarrass or harm their reputation. Identity Theft includes using someone's name to chat others, do bad things and harm others, and using someone's name or picture without permission. Revealing other's secret includes distributing someone's relative names, inferiority or disgraceful secret, and personal information. Deleting or blocking other's from group consist of removing or blocking someone from group or asking friend to do so (Tudkuea & Laeheem, 2014).

In this research, the above cyberbullying types from Tudkuea & Laeheem will be used as the cyberbullying behavior indicators for the questionnaire. It was chosen because this questionnaire was found to be more appropriate because it was formulated and tested in Asian demography, so it was more relevant to use in Jakarta, Indonesia. The questionnaire was also timely relevant because it was developed recently on 2016.

### **1.3. Effects of Cyberbullying for the Victim**

Effect of cyberbullying is known more into psychological distress of the victim. A research in Canada found that experiencing cyber-victimization contributes to raise anxiety and stress in adolescents (Broll, Dunlop, & Crooks, 2018). Aside of anxiety and stress, cyber-victims also experience sadness, and disappointment (Patchin & Hinduja, 2008).

Cyberbullying may also affected someone's self-esteem. Someone that involved and being a victim in cyberbullying more likely to have lower self-esteem. This can be a problem since it will affect their life and surrounding social environment direct and indirectly, like lower the school climate and youth well-being (Patchin & Hinduja, 2010).

Another study linked cyberbullying and loneliness, and found a strong relationship between cyber-victim and loneliness. Cyber-victim, as well as cyberbully, spend much time on the internet. It is an indicator of loneliness, that someone spend much time on the phone or internet, to isolate themselves from the society (Sahin, 2012).

### **1.4. Real Story of Cyberbullying**

A real story of the cyberbullying caused a loss of a 12 years-old school girl in New Jersey, USA. The girl, Mallory, killed herself after suffering a cyberbullying harassment from her friend in school. Mallory is being attacked and humiliated in text and social media (Snapchat and Instagram) for months, told that she was a loser and even told to kill herself, she had no friends. She didn't want to go to school, she suffered some health issues and finally committed suicide (Rosenblatt, 2017).

In the neighbor country, Canada, similar case of cyberbullying appeared. This case was happened earlier in 2012, when Amanda Todd took her own life after being cyberbullied on social media. Before she committed suicide, she posted a video to tell



people that she was being harassed on Facebook, where she was blackmailed to expose herself online. The perpetrator was a Dutch man, who also reported doing online harassment to dozen other girls. He was later arrested in 2014 (BBC News, 2017).

Like any other people, cyberbullying on celebrity is also unavoidable, in fact being a celebrity or famous person creates a higher chances to be cyberbullying because their life is exposed to public. The famous singer, Adele, said that she was among the cyberbullying victim. She received lots of rude words after public found out that she gave birth of her son in 2012. People said rude things about her “fat” body and her baby on Twitter. Another celebrity, Jessie J, also being mocked on the internet about her “flat-chest” body (Nixon, 2013).

Bad luck for celebrities, they can’t hide because their life is already been public interest. With or without social media, the paparazzi will actively seeking about their life updates. One thing they can do to minimalize it is by closing their social media account like what Justin Bieber do when he was being massively cyberbullying because of his new relationship on 2016 (Lockett, 2016).

## **2. Cyberbullying Prevalence Around the World**

This part consisted of the review cyberbullying prevalence and facts from many countries all over the world. This section will be divided into three parts, countries outside Asia, Asian countries, and Indonesia.

### **2.1. Cyberbullying in Countries Outside Asia**

Start from North America, a research conducted among 172 indigenous youth in Canada explained that 17.3% of respondent was experiencing cyberbullying, while 19.9% reported performing cyberbullying to others (Broll, Dunlop, & Crooks, 2018). Meanwhile in the US, research conducted on 1963 students found that under 30% experienced cyberbullying in the past 30 days, and 22% committed to cyberbullying activities in the past 30 days. The most common form of cyberbullying according to the victims is receiving

upsetting email. The most common form of cyberbullying according to the perpetrator is posting something about a person to make others laugh (Patchin & Hinduja, 2010).

Moving to European countries, a research conducted in Belgium with 2052 participant of primary and secondary school. The result showed some different facts. When the students were directly asked about their involvement in cyberbullying, 11.1% said that they were a victim, 18.0% said that they were the perpetrator, and 27.9% said that they were bystander. When asked about their experience with POP (potentially offensive internet and mobile phone practice), result showed that 61.9% of participant were victims, 52.5% were perpetrators, and 76.3% were bystanders (Vandebosch & Cleemput, 2009).

Another study involving 438 students in Italy, showed that 11% students were involved in cyberbullying as perpetrator and 15.4% students were the victim of cyberbullying (Palermi, Servidio, Bartolo, & Costabile, 2017). In Spain, there was a research conducted among 1431 high school students to see how much of them was being cyberbullying perpetrator. The study found that 44.1% of the participant involved on cyberbullying, specifically being the perpetrator. Most common cyberbullying form is excluding someone from online group, and spreading gossip/rumors/jokes to make fun about others (Calvete, Orue, Estevez, Villardon, & Padilla, 2010).

Lower result revealed from a research conducted among 533 student in UK. When asked about when is the last time they were cyberbullied, 5.3% of participant answered last week or month, 5.1% answered this term, 3.7% last school year, and surprisingly 82.7% claimed they were never been cyberbullied. When asked when is the last time they perform cyberbullying to others, 6.5% said last week or month, 2.8% said this term, 1.8% said last school year, and 87.6% said they were never cyberbully others (Smith, et al., 2008). Another research from the same country also revealed similar result. The research involved 90 students, and among them only 16.22% were victims and 13.54% were cyberbullying perpetrator (Brewer & Kerslake, 2015).

Still in the Europe, an organization in Irish conducted a research about cyberbullying among school student. They found that there were 219 cases of cyberbullying in the past 12 month. This is a serious condition, when 69% of the teacher felt that they were not equipped to teach online safety to the children. Moreover given the

fact that 22% of the students have been having contact with stranger on the internet (Mcalesee, 2017).

Moving to different continent, a study conducted in Australia involved 500 Australian students. This study result has divided bullying into 12 categories, including traditional bullying and cyberbullying. Among all those categories, it was known that 10.2% of the respondent were included in cyberbullying perpetrator categories, meanwhile 10.4% were included in cyber-victim categories. It is almost half of all participant that involved in bullying activities (includes traditional bullying and cyberbullying), that is 25.2% of the respondent (Tanrikulu & Campbell, 2015).

## **2.2. Cyberbullying in Asia**

On 2015 a research reviewed 43 published research about bullying and cyberbullying in Southeast Asia. From all the paper, only 10 was talking about cyberbullying. One talking about Indonesia, five talking about Singapore, and four talking about Thailand. The discussion is around prevalence of cyberbullying, association between factors and cyberbullying, and types of cyberbullying, and reliability of cyberbullying scale (Sittichai & Smith, 2015). This indicates the demand on cyberbullying research is high to cover the knowledge of cyberbullying situation on each country.

A research in Sri Lanka studied about the cyberbullying involvement of university student. It was found that at least 53% of respondent have been a cyber-victims, but most of them has been victimized on rare basis. About 48% of respondent was being cyberbullied by anonymous calling, 17% by fake profiles, and 15% by photo or videos sharing. On the other side, research found that only 27% engaged in cyberbullying activities and 65% of them use anonymous calls to bully others. While the rest 35% was creating fake profile or website to bully others (Suriyabandara, 2017).

Another research conducted in South Korea involving 4000 adolescents in 7-12<sup>th</sup> grade. About 34% of respondent were involved in cyberbullying activities, with 6.3% as cyberbully, 14.6% as cyber-victim, and 13.1% as both cyberbully and cyber-victim. It was known that there are three factors that increase cyberbullying tendency, those are time

spent online, being cyberbullied experience, and offline bullying perpetrator. On the other hand, cognitive empathy decrease the cyberbullying tendency (Lee & Shin, 2017).

In Thailand, several studies has been conducted to measure the number of cyberbullying activities. In 2009 study conducted by Boonoon among 2500 students, found that almost half of the participant were cyber-victim by receiving threatening words on the internet (43%). Another study conducted by Musikaphan in the same year involved 2000 students and 14 key informants. It is known that 59% respondent were the victim of cyberbullying more than once a month. However, 60% of the respondent realized that cyberbullying should be prohibited because it's negative and could be avoided (Sittichai & Smith, 2013).

In Singapore, Cyberbullying is also happening. A research conducted among the adolescents to see the prevalence of cyberbullying. It is found that 23.6% of boys and 15.1% of girls is involved in cyberbullying activity. Among the boys who have been actively involved in cyberbullying, 3.7% were classified as frequent bullies, while the rest 19.9% were classified as infrequent bullies. Same result is found from the girls, lower percentage is found as frequent bullies, as low as 0.9%, while the rest 14.2% were infrequent bullies (Ang & Goh, 2010).

Developed country like Japan also can't avoid cyberbullying problem as well. Study conducted among the adolescents with 899 participants, found that cyberbullying activity is happening among them. As many as 22% of the participant claimed that they're experiencing cyberbullying in becoming a victim. Meanwhile, lower number, as low as 7.8% of the participant claimed themselves to be the cyberbullying perpetrator (Udris, 2015).

Indonesia's neighbor country, Malaysia, faced the same situation as countries above. A research conducted by Microsoft on adolescents aged 8-15 years old found that 33% of the respondent experienced cyberbullying. The cyberbullying activities can be break down as mean or unfriendly treatment (11%), made fun of or teased (20%), and called by mean names (16%) (Microsoft Corporation, 2012).

In conclusion, cyberbullying not only existed in western countries but also existed in Asian countries. Cyberbullying was not a specific issue for a certain types of country, but a general issue for developed or developing countries, also not regarding to the geographical location.

### **2.3. Cyberbullying in Indonesia**

There are not much journal about cyberbullying in Indonesia. I found these two journals study about the empirical facts of cyberbullying in Indonesia. One is from Medan (Sumatra Island) and another one is from Yogyakarta (Java Island). None of them study about Jakarta, the area on which this research will take place.

One study about cyberbullying described the nature of cyberbullying of adolescents in Medan. The participants are 232 students chosen randomly in Medan City. The result showed that 36% of the participant admitted to be cyberbully, while 50% claimed themselves to be cyber-victims. Additionally, 29% of the participant declared themselves as cyberbully and cyber-victims. Meanwhile, 45% didn't identify themselves to be cyberbully and cyber-victims. About 4% claimed that they're cyberbully but not cyber-victims, and 21% being cyber-victims but not cyberbully. This research also found out that most of the respondent spent 1-5 hours per day on the internet (Nazriani & Zahreni, 2016).

Another study conducted in another city, Yogyakarta, showed more worrying result. Above 80% of the participant claimed to be cyber-victims, with varied experience from occasional (one or twice) to almost every day (more than five) experience. The cyber-victims reported that they were been cyberbullied through Facebook, Twitter, text messages, phone calls, and Youtube. The cyber-victims experienced name calling harassment (45.1%), name calling and denigration (12.7%), denigration (5.9%), and name calling, denigration and threat combined (4.9%). About the cyberbullying perpetrator, 53.9% didn't know who did it, and the rest is bullied by someone they known (Safaria, 2016).

Those facts prove that cyberbullying is really happening in Indonesia. High level of cyber-victim in Yogyakarta area is worrying and further research is needed to find out about the nature of cyberbullying in different cities in Indonesia.

### **3. Perceived Social Support Factors**

#### **3.1. Theory of Perceived Social Support**

According to Shumaker & Brownell (1984), social support can be defined as exchange of resources between two persons intended to enhance the well-being of the recipient. This process is perceived by either the provider or recipient. In this theory, social support is highlighted as an exchange process. Exchange process involved at least two persons and have potential cost and benefit for each participant.

There are two items that usually used to evaluate the costs and benefits, those are reciprocity and prosocial behavior. In reciprocity, the social support process can be available because a recipient that accepted benefit will gotten into uncomfortable condition, so that they would like either to reject the benefit or reciprocate it. Prosocial behavior explain a little bit different, it highlighted the provider and the factors behind the decision to commit the act. Those include characteristic of the recipient, characteristic of the provider, and number of other people around (Shumaker & Brownell, 1984).

This theory also explains the nature participant involved in social support. The relationship between the actors is usually comes from the same network. Although some exception may comply according to prosocial behavior, make it possible for the actors to be a complete stranger. The anonymity nature of stranger also welcomed by actors that unwilling to burden their friends when asking for social support.

Another important thing explained is the perception of the participant. In the exchange process of social support, there may be some misunderstanding if the help needed by the recipient is not the same with the help given or responded by the provider. This can create an incongruity. If there are differences between recipient and provider idea on how to offer an assistance to other, more likely the recipient will not receive what they feel they needed. In this case, the recipient may be unwilling or unable to tell the type of help they wanted.

Perceived social support could be defined as the condition when the recipient and provider perceived an optimal form of exchange, when there's a clarity between the

recipient needs and the provider response to those needs. This is an important part, because if there's mismatched between the needs and response, it can create a negative or unexpected outcome. (Shumaker & Brownell, 1984)

Perceived social support has been known as the preventive factors of cyberbullying behavior, because a good social environment, like a positive school climate or friends support has negative relation into all form of bullying. The perceived social support could be given by surrounding social environment, especially family and friends (Williams & Guerra, 2007).

### **3.2. Family Social Support Associated with Cyberbullying**

Research found out that someone with a decent family support will involve less in cyberbullying activities, both as the perpetrator and the victim. Family or parental support has a great influence in protecting someone from engaging in cyberbullying activities. It is also said that even though someone has low level of friends support, but if the family support is high it will decrease the chance to involve in cyberbullying. The fact indicate that family social support hold a greater impact than others social support (Fanti, Demetriou, & Hawa, 2012). Similar result from another research also said that higher parental support was negatively associated with cyberbullying involvement (Wang, Iannotti, & Nansel, 2009).

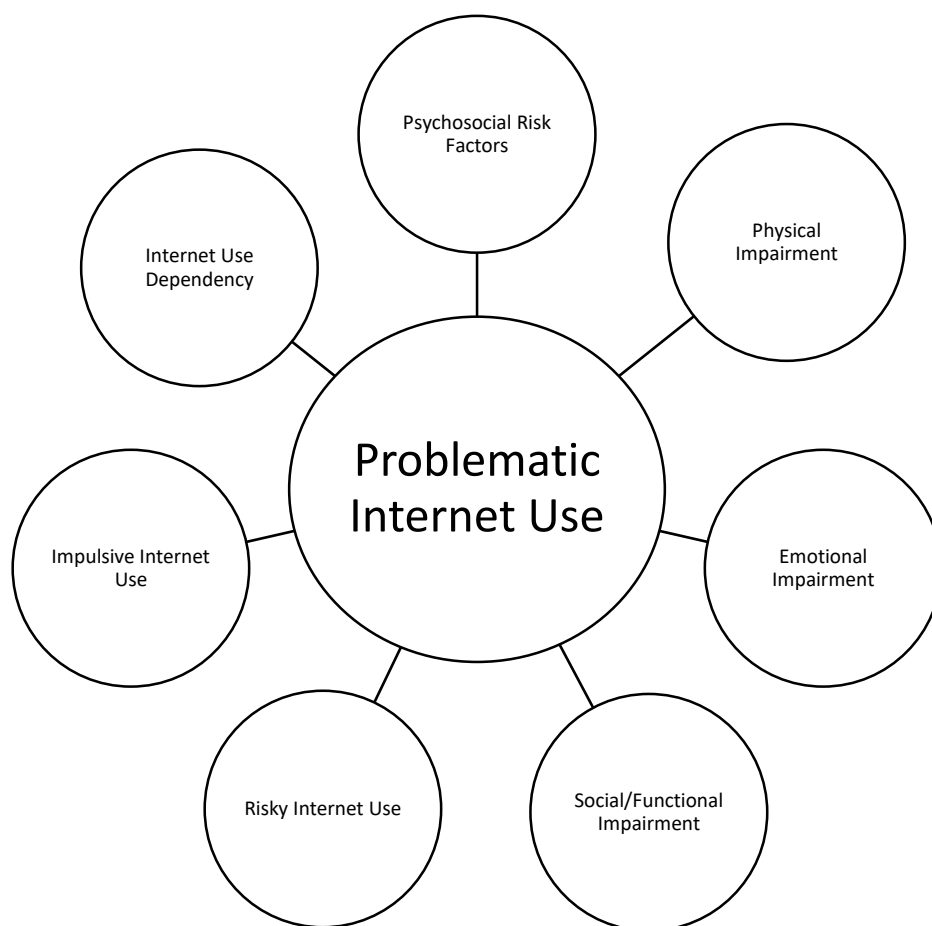
### **3.3. Friend Social Support Associated with Cyberbullying**

Research result also found out that perceived social support from peers is negatively linked with the cyberbullying behavior, meaning that someone with the low level of perceived social support from peers/friend more likely to be the cyberbullying perpetrator (Calvete, Orue, Estevez, Villardon, & Padilla, 2010). A person with a decent perceived peer support with trustworthy, helpful and caring friends will get a lower likelihood to commit bullying behavior, including cyberbullying (Williams & Guerra, 2007).

## 4. Cyber Factors

### 4.1. Problematic Internet Use Concept

Since the cyberbullying is happened on a cyberspace or the internet, one factor associated with cyberbullying is the problematic internet use. There are many different concept about Problematic Internet Use, but one concept is more deepen and broaden than others. According to Moreno, Jelenchick and Christakis (2013), problematic internet use cannot simply be identified as internet addiction or internet overuse. This concept must have broaden understanding beyond just an addiction, but also interfere some aspect of one's life.



*Figure 1. Conceptual Framework of PIU (Moreno, Jelenchick, Christakis, 2013)*

This concept of Problematic Internet Use is developed with 7 aspects that could explain the concept further. First, psychosocial risk factors includes emotional and social



states of an individual, such as anxiety and depression. These might be the risk factors of an individual to do PIU. Second, the physical, emotional and social impairment as the area that individual is affected by the PIU.

Third, impulsive, risky and dependent internet use explain the characteristic of behavior and symptoms of PIU. Risky internet use is internet behavior that increase the risk of consequences. This idea is never been talked before, that besides of the amount of times spent on the internet, the way how it spent is also an important things to be noticed. Impulsive use is the inability to control the internet use in daily life. Lastly, dependent use is symptoms that associated with internet addiction.

Those 7 aspects construct a deeper conceptual framework of PIU, that creates the definition of PIU as internet use that is excessive, impulsive and risky and might affect someone's life in physical, emotional, social or functional way (Moreno, Jelenchick, & Christakis, 2013).

This conceptual bring the scale to measure PIU created by the same team of researcher, that is The Problematic and Risky Internet Use Screening Scale (PRIUSS). The scale assessed by three subscales of the concept: social impairment, emotional impairment and impulsive/risky internet use. The question scale examples are about choosing internet over real life socialization, feeling bad when internet is not around, and neglect of responsibilities because of internet usage (Jelenchick, et al., 2014).

#### **4.2. Problematic Internet Use Associated with Cyberbullying**

With the riskiness and impulsiveness of internet use of people who has problematic internet use, is it not impossible to link it with cyberbullying behavior. Some researcher already try to find the link between those two things and occurred into similar result. A research among 4531 Korean youth shows that 16.1% of the male respondents and 8.1% of female respondents suffers from problematic internet use. It is also known that problematic internet use is associated with cyberbullying among them (Jung, et al., 2014).

Different researcher also found that problematic internet use is a significant predictor of attitude toward cyberbullying. It also said that to reduce the cyberbullying behavior, problematic internet use among adolescents have to be prevented and controlled

(Kircaburun & Bastug, 2016). Another research found similar result, that problematic internet use has positive relationship with cyberbullying and time spent online (Nartgun & Cicioglu, 2015).

#### **4.3. Time Spent Online Associated with Cyberbullying**

Time spent online is also a determining factor of the cyberbullying tendency since the cyberbullying mostly happened on cyber space. Moreover, a research studied about the student purpose when they spending time internet. It was found that most of the students, 55.5%, spending their online time on social media. About 38.5% use internet for homework and study. About 12.5% use internet for online gaming, and the rest 37% use it for entertainment like movie, music and other entertainment (Kircaburun & Bastug, 2016).

Research found out aside of the problematic internet use, time spent online is also pointed to have positive line with cyberbullying tendencies. The more time spent online and fulfilment of problematic internet use indicator, the more possibility to do cyberbullying (Nartgun & Cicioglu, 2015). It is also argued that when someone spend more time online, they will be exposed more to cyberbullying behavior (Navarro, Serna, Martinez, & Luiz-Oliva, 2013).

### **5. Exposure to Violence Factors**

External factor that can support cyberbullying behavior is exposure to violence. From the childhood to adulthood, people interact and influenced by many things in their life, whether those things are good or bad. The learning process from social interaction along someone's life explained by the Social Learning Theory by Bandura, 1977.

#### **5.1. Social Learning Theory**

As in Bandura (Bandura, 1977), there is a way to explain why people behave as they do, it is called Social Learning Theory. In Social Learning Theory, people learn how to behave by the Observational Learning. People do observational learning by observing another people in their life, like family, friends, and social environment. People give

attention on other's behavior and encode it. Later they may imitate the behavior accordingly based on their gender or their preference.

People may imitate the person that they perceived similar to themselves. Then they will see if there's any consequences if they do the behavior. If the consequences is positive, they will repeat the behavior. It creates some kind of reinforcement for an individual to perform the behavior repeatedly. The reinforcement can be internal or external. People can get the reinforcement from external, in form of approval from family or friends, or internal from happy feelings.

Bandura also introduce four mediational process: attention, retention, reproduction, and motivation. Attention is the process when people exposed or notice the behavior. Retention is the part when the behavior noticed is well-remembered. Reproduction is the ability whether people could or couldn't imitate the behavior. People may be holding back because of personal issue, like their physical condition. Motivation is the will to do the behavior. In this step people may already observed the reward or consequences if they do the behavior.

This theory can explain one of the factor to do cyberbullying, exposure to violence factor. When a person exposed to the violent environment, they might adopt the behavior as they don't really sure if it's the right or wrong thing to do because the "reward and the consequences" may differ according to the people themselves. People may adopt the violent behavior from violent environment and perform it to another environment that may find it disturbing.

## **5.2. Exposure to Media Violence Associated with Cyberbullying**

Exposure to media violence believed to have strong connection to cyberbullying likelihood, both for cyberbullying and cyber-victimization. It is known that media violence can decrease both the sensitivity of aggression in real life and sympathy of the victim. This situation may increase the aggressive behavior likelihood (Fanti, Vanman, Henrich, & Avraamides, 2009). Another research also found positive link between exposure to violence and cyberbullying behavior (Calvete, Orue, Estevez, Villardon, & Padilla, 2010).

### **5.3. Exposure to Peer Violence Associated with Cyberbullying**

Exposure to peer violence can be connected to traditional bullying, since traditional bullying usually happened at school between classmates or schoolmates. One study conducted on students in Korea found that traditional bullying perpetrator is positively linked to cyberbullying perpetrator. It means that a bullying perpetrator is more likely to also become cyberbullying perpetrator (Lee & Shin, 2017).

Similar result found by another research, that both traditional bullying perpetrator and victim are more likely to also be perpetrator and victim in cyberbullying. The person involved in traditional bullying tend to involved at cyberbullying as well (Smith, et al., 2008).

### **5.4. Exposure to Family Violence Associated with Cyberbullying**

Third exposure to violence factors that linked to cyberbullying is exposure to family violence. Family is an essential part and socialization phase of someone's life. Family value is important and highly affect someone, whether if it's positive or negative. It is proven that exposure of family violence has positive relationship with likelihood of cyberbullying behavior (Tanrikulu & Campbell, 2015; Calvete, Orue, Estevez, Villardon, & Padilla, 2010; Festl & Quandt, 2016; Low & Espelage, 2013).

## **6. Psychological Factors**

As psychological condition is an important factor of someone life, this also become a factor in determining cyberbullying behavior. This psychological factor contains two items, which are attitude toward cyberbullying and self-esteem.

### **6.1. Theory of Planned Behavior**

Theory of Planned Behavior by Icek Ajzen, 1991, explain about human behavior specifies at their intention on performing certain behavior. Ajzen explain that before an individual performing a behavior, the core factor is their intention. With the intention, people can see their motivation, and how hard is their effort to do the behavior. The stronger

their intention to perform such behavior, the more likely they will succeed in performing the behavior.

To examine more about one's intention of performing a behavior, there are three items that have an important role in determining one's intention. Those items are attitude toward behavior, subjective norm, and perceived behavioral control. The explanation will be on the picture below.

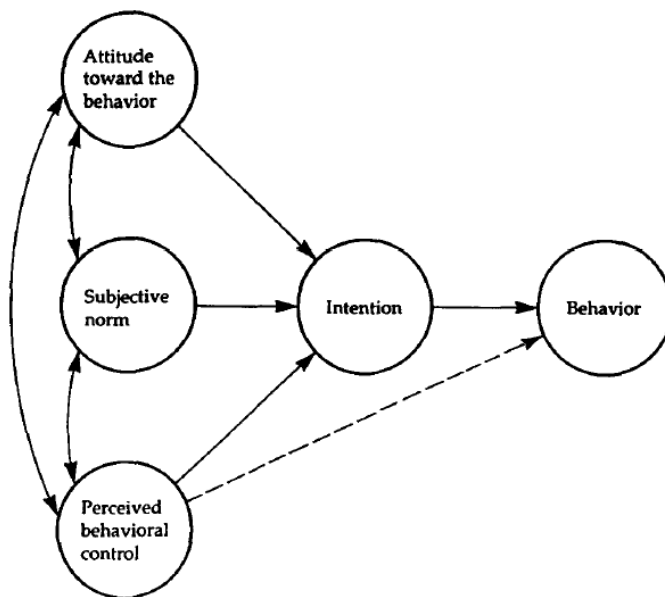


Figure 2. Theory of Planned Behavior (Ajzen, 1991)

First item is perceived behavioral control. Perceived behavioral control is the resources and availabilities of the opportunities to perform the behavior. If there are opportunities and low number of obstacle, the situation can increase the likelihood of performing a behavior. Perceived behavioral control can be combined with two other items to support the intention of performing certain behavior. On the other hand, perceived behavioral control collaboration with behavior intention also could directly predict the behavior.

Attitude toward the behavior is the degree of favor an individual think about a behavior. For example when someone have a favor towards partying, it means she/he have positive attitude toward partying. Otherwise, when someone have unfavorable thinking

toward partying, it means that she/he have negative attitude toward partying. The more positive one's attitude about a behavior, the stronger the intention to perform the behavior.

Thirdly, subjective norm is the perceived social pressure whether to perform or not to perform a behavior. The combination of these three item, behavioral control, attitude toward behavior and subjective norm is the strong factor to influence someone's intention in performing a behavior (Ajzen, 1991).

## **6.2. Attitude toward Cyberbullying Associated with Cyberbullying**

A research connected the cyberbullying tendencies and Theory of Planned Behavior. The result said that among three items that affect one's intention of performing behavior, attitude toward behavior is the strongest factor for the likelihood of adolescents in committing cyberbullying behavior. Perceived behavioral control and subjective norm is following in the second and third place (Heirman & Walrave, 2012). On several separated research, positive attitude towards cyberbullying proved to have a significant relation with cyberbullying perpetration (Heirman & Walrave, 2012; Barlett & Chamberlin, 2017; Kircaburun & Bastug, 2016; Williams & Guerra, 2007).

## **6.3. Concept of Self-Esteem**

Self-esteem is simply defined as someone's perception of themselves, what they believe as their personal value, affected by their participation in social world (Patchin & Hinduja, 2010). It is claimed that people with high self-esteem will be more attractive, better in relationship with others, and could create better impression, compared to those with lower self-esteem. People with high self-esteem also more expressive and triggered to experience something new (Baumeister, Campbell, Krueger, & Vohs, 2003).

On more broaden conceptual, according to Cast & Burke (2002), self-esteem is both an outcome and a necessary item in the self-verification process occurs in the group, to maintain both the group and the individual. The process of self-verification process or role identity will result an individual behavior that match between their self-relevant meaning in a situation and the meaning and expectation from identity standard. Self-esteem will take part in this process in several different roles, as an outcome, buffer, and motive.

Self-esteem can be identified as an outcome of identity verification, when individual successfully matched their identity goals and the perception of the environment of them. Example if a worker reflect his identity to maintain good attendance at work, he will try to do things to support his good attendance, like setting alarm to get up early and taking care of his car. When these acts make him able to achieve good attendance, he will feel he can control the situation like he control his good attendance. This may result good self-esteem.

Self-esteem also can identified as a buffer in self-verification. Self-esteem has been analogues as an energy reservoir which can be filled up by successful self-verification and used to sustain the process when it's disrupted. At the time of problematic self-verification occurred then individual might feel distress, self-esteem will provide some positive energy that could buffer the negative emotions gained for the disruptive of self-verification process.

Third, self-esteem can be seen as a motive in a self-verification process. In this point self-esteem can be seen as self-motive. This suggest individuals wants to maintain or enhance their self-esteem to higher level. For example the married couple with unverified identity may feel rejected by the spouse, and in the end choose to leave the relationship to find another spouse that accept and love them, where they could verify their identity (Cast & Burke, 2002).

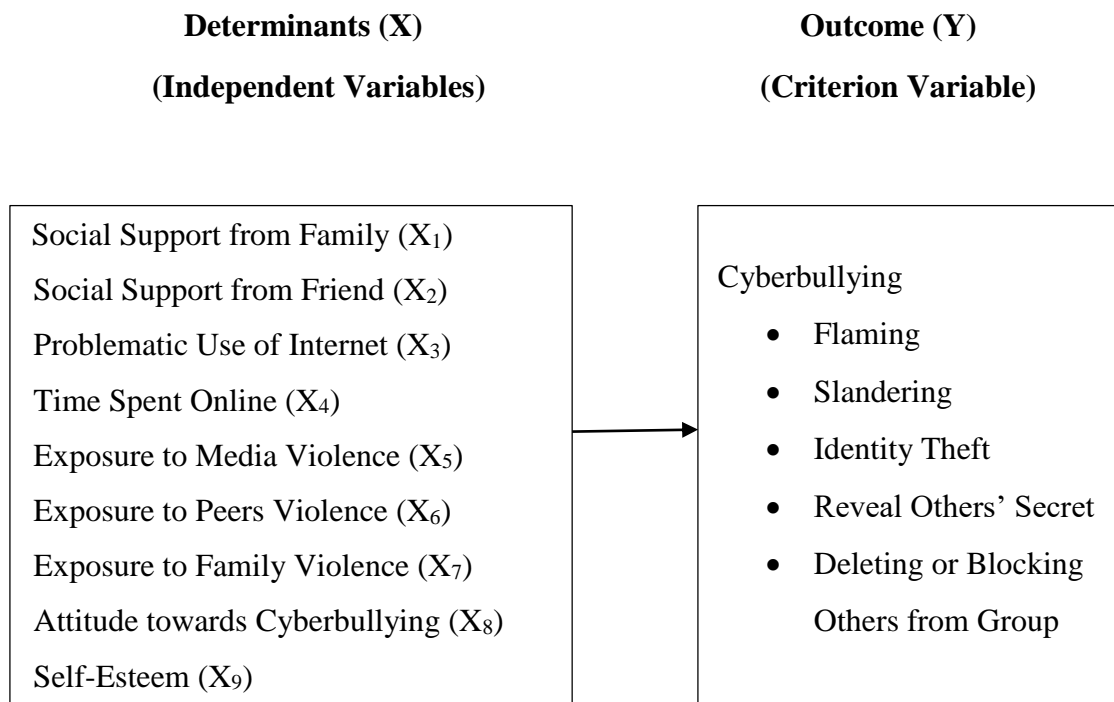
#### **6.4. Self-Esteem Associated with Cyberbullying**

Research found that someone with low self-esteem is more likely to be involved in cyberbullying, as the perpetrator or the victim. One with low self-esteem could be an easy target to be cyber-victim. On the other hand, one with low self-esteem is also likely to become cyberbullying perpetrator because of the "anonymous" nature of cyberbullying (Brewer & Kerslake, 2015).

Similar result obtained from different research, said that self-esteem have relation with cyberbullying (Brewer & Kerslake, 2015; Okoiye, Anayochi, & Onah, 2015). Those who involved in cyberbullying, both as perpetrator and victim, significantly has lower self-

esteem, compared to people with no involvement of cyberbullying (Patchin & Hinduja, 2010).

## 7. Conceptual Framework



This research focused on explaining the factors that caused cyberbullying behavior and types of cyberbullying behaviors that happens among Youth in Indonesia, especially in Jakarta city. Researcher examined more about the association of these nine determinants with cyberbullying behavior.



## METHODOLOGY

This part explained about the methodology that used in collecting and processing data in this research. The research was a cross-sectional study, capturing the cyberbullying phenomenon among the population of youth in Jakarta, Indonesia. The methods used in this research is quantitative method. Quantitative method was used because this method could measure more precisely and effectively for the research questions. The details of the methods described below.

### 1. Participant and Sampling Method

The type of the population used in this research was accessible population. The population was all youth in Jakarta. The participants were limited to the youth who possessed Jakarta resident ID. Population frame for this research was limited by the age of the population (15-24 years old). The United Nation reference of youth definition (age 15-24) was used to define the age limitation. According to DKI Jakarta Government Statistic Center (BPS DKI Jakarta), in 2015 the total amount of Jakarta resident aged 15-24 is 1,590,433 people.



Figure 3. Jakarta Administrative Map

According to the data analyzing using linear regression, the sample size defined by SPV (Subject per Variable). The minimum number of subject (20 subjects per variable). The calculation will be explained below:

$$20 (\text{subjects}) \times 10 (\text{variables}) = 200 \text{ participants}$$

With the calculation, it was known that the right sample size for this research was minimum 200 participants, but in the reality the number of participants were 210 person.

The sampling method used for this research was non-probability sampling, using convenient sampling. Convenient sampling was the way on choosing sample that is convenient to be reached out by the researcher, which age was matched with the target participants of this research (Watt & Berg, 2002). The reason to choose convenient sampling was to make the questionnaire to spread widely, not assigned to a certain group and anyone who fill it will do it voluntarily.

## 2. Measurement Method

Questionnaire was used to gather information from the participants. This tools was chosen because questionnaire could give the most appropriate measurement for this research objective. The questionnaire was divided into six parts: basic information of the youth, perceived social support factors, cyber factors, exposure to violence factors, psychological factors, and cyberbullying. The details of each part will be explained below:

**Basic information of youth.** This part consist of 8 questions. In this part, the participants filled in their socio-demographic information, such as gender, age, religion, educational level, occupation, internet spending per month and parent's educational level. On all of the questions, answer options were provided. On religion, educational level, occupation, and parent's educational level, participants could filled out their own answer if none of the option fit them well.

**Perceived social support factors.** In this part, researcher measured the level of participant's perceived social support. This part was divided by two sections, social support from family and social support from friends, with 10 questions of each section. This part

of the questionnaire was adapted and combined from Multidimensional Scale of Perceived Social Support - MSPSS (Zimet, Dahlem, Zimet, & Farley, 1988) and Questionnaire of the Frequency of and Satisfaction with Social Support - QFSSS (Gracia-Martin, Hombrados-Mendieta, & Gomez-Jacinto, 2016) to measure the level of perceived social support of the participants from their friends and family. Researcher deleted some items from MSPSS because social support from Significant Other (SO) was not included in this research. Researcher added some items from QFSSS (from family and friends section) to understand more about the participant's frequency and satisfaction of the social support. The sample questions of the questionnaire are: 1) *my family is being helpful to me*; 2) *when I'm making a decision my family is willing to help me*; 3) *I feel satisfy with my family's love and affection and when they hear me out when I want to talk and express my feeling*; 4) *my family frequently give me useful advice and information when I have question(s), problem(s) or daily task(s)*. The same items will be ask for friend social support section. This part use 5-point Likert Scale ranging from strongly disagree (1), disagree (2), neutral (3), agree (4), until strongly agree (5).

**Cyber factors.** This part was focused on the participant's behavior while using the internet. There were two sections, those were problematic internet use and time spent online. This part consist of 12 questions, 10 questions on the first section and 2 questions on the second section. In the problematic internet use section, the questionnaire was adapted from The Problematic and Risky Internet Use Screening Scale - PRIUSS (Jelenchick, et al., 2014). Researcher eliminate few item to shorten the questionnaire. Some of the example questions are: 1) *I prefer to socialize online rather than in person*; 2) *When I'm not able to use internet, I feel irritated*; 3) *I put internet first than the important and everyday activities*. This section use 5-point Likert Scale ranging from strongly disagree (1), disagree (2), neutral (3), agree (4), until strongly agree (5). Another section in this part was about time spent online. In this section, the participant will fill in the approximate hours they spent online per day in weekdays and weekend.

**Exposure to violence factors.** This part was divided by three sections, media, peers, and family violence, consisted of 6 questions on each section. The questions on this part were adapted and developed from the Recent Exposure of Violence Scale – REVS

(Dulmen & Singer, 2008). This part measured the exposure of violence from three objects: media, peer, and family. Researcher edited few items, and add media violence into this scale. On the media violence section, the questions were about witnessing violence in media. Meanwhile on the peer and family violence section, the questions included witnessing and experiencing violence from peer and family. Some examples were: 1) *I witness someone doing aggressive action on TV*; 2) *I witness my friend got slapped/punched/hit*; 3) *My friends has beaten me*; 4) *I witness someone got threaten at home*; 5) *Someone has beaten me at home*. This whole part was using 5-point Likert Scale ranging from never (1), rarely (2), sometimes (3), often (4), until always (5).

**Psychological factors.** This part consisted of two sections, attitude toward cyberbullying and self-esteem. Each section of this part consisted of 10 questions. The attitude toward cyberbullying section was adapted and developed from the attitude towards cyberbullying measurement (Heirman & Walrave, 2012). Originally the questions only have 6 items and the rest of the questions were added by the researcher. The question was “*what do you think about cyberbullying?*”, and the participant should answer according to their opinion about each item (of 10 items) in 7-point Semantic Differential Scales (ranging from 1 to 7). The example of the items were “*advantage-disadvantage*”, “*good-bad*”, “*fun-not fun*”, “*not embarrassing-embarrassing*”. The second section of this part was about self-esteem. The self-esteem part was adapted from Rosenberg Self-Esteem Scale (Rosenberg, 1965). Some of the sample questions are 1) *On the whole, I am satisfied with myself*; 2) *At times I think I am no good at all*; 3) *I feel that I have number of good qualities*; 4) *I am able to do things as well as most other people*. This section use 5-point Likert Scale ranging from never (1), rarely (2), sometimes (3), often (4), until always (5). For question number 2,5,6,8,9 the score were reversed.

**Cyberbullying behavior indicator.** This whole part of the questionnaire was adapted from Cyberbullying Indicator (Tudkuea & Laeheem, 2014). This part consisted of 24 questions and divided into five section, which is flaming, slandering, identity theft, revealing other’s secret, and deleting or blocking others from group. The sample question for the whole part were 1) *I say bad words about someone without they’re knowing*; 2) *I tease someone with physical impairment*; 3) *I distribute someone’s embarrassing picture*

or video online; 4) I use someone's name to chat online without permission; 5) I distribute someone's shameful and disgraceful secret online; 6) I remove someone I don't like from the group. This part use 5-point Likert Scale, with 1 is never (0 times), 2 is rarely (less than 6 times), 3 is sometimes (6-10 times), 4 is often (11-15 times) and 5 is always (16 times or more).

Table 1. Questionnaire Scale

<b>Factor</b>	<b>Section(s)</b>	<b>Item(s)</b>	<b>Scale</b>
Basic	1	8	-
Perceived Social Support	2	20	1-5 Likert Scale
Cyber Factors	2	12	1-5 Likert Scale for Problematic Internet Use
Exposure to Violence Factors	3	18	1-5 Likert Scale
Psychological Factors	2	18	-3 – 3 Semantic Differential Scale for attitude toward cyberbullying 1-5 Likert Scale for self-esteem
Cyberbullying Behavior	1	24	1-5 Likert Scale

Upon distribution, this questionnaire was translated into Bahasa Indonesia. The reason for the translation was to reach more people in any social and educational level. Not all Indonesian people could speak English, because English is not a formal language nor second language in Indonesia. Other reason to translate this questionnaire into Bahasa Indonesia was to minimize the misunderstanding about each question on this questionnaire.

To make sure the translation version of the questionnaire is valid, the questionnaire was translated twice with forward and backward method with two different translators. Both translator hired to translate this questionnaire was a professional translator. Both were a member in the Association of Indonesian Translator. First, the questionnaire were translated by translator 1 (Dimas Rangga) from English to Bahasa Indonesia. Next, the

questionnaire were translated back from Bahasa Indonesia to English by translator 2 (Anang Fatkhurozi). Afterwards, researcher examined the translation quality to ensure the meaning of each question was consistent.

### 3. Tryout and Pilot Study

Before the questionnaire employed for the research, IOC process was conducted to test the content validity of the questionnaire. There were three experts, two experts from Faculty of Liberal Arts PSU, Assoc. Prof. Wanchai Dhammasaccakarn, Asst. Prof. Dr. Kanda Janyam and one expert from Hat Yai University, Assoc. Prof. Dr. Niran Chullasap. After the questionnaire reviewed and approved by the experts, next step was translation process and then conducted the pilot study (10-15 people) to make sure that each question of the questionnaire was understandable. The questionnaire was evaluated and revised according to the result.

After pilot study, tryout test was done to measure the reliability of the questionnaire. On the tryout test, there were 54 participants. All of the sample were youth aged 15-24 residing in Bekasi City. Tryout test took place on a shopping mall for data collecting. The result of the reliability test described on table 2.

*Table 2. Cronbach's Alpha Coefficient*

Questionnaire	No. of items	Cronbach's Alpha
<b>Part 2. Perceived Social Support Factor</b>		
1. Social Support from Family	10	.925
2. Social Support from Friends	10	.899
<b>Part 3. Cyber Factors</b>		
1. Problematic Internet Use	10	.888
<b>Part 4. Exposure to Violence Factors</b>		
1. Exposure to Media Violence	6	.881
2. Exposure to Peer Violence	6	.935

<b>3. Exposure to Family Violence</b>	6	.932
<b>Part 5. Psychological Factors</b>		
1. Attitude toward Cyberbullying	10	.932
2. Self-Esteem	8	.756
<b>Part 6. Cyberbullying</b>	24	.919

#### **4. Data collection**

Data collection method for this research was based on web survey online using online questionnaire platform (google form). This particular data collection method because online questionnaire was simpler (no need to bring papers). This increased the mobility and flexibility of the researcher when collecting the data. Online questionnaire also help the researcher because the result was automatically stored online, no need to manually input the result from the paper.

The strategy of the data collection process was by meeting the participant face to face and asking them to fill the online questionnaire. Electronic devices (mobile phone and tablet) were provided for the participants to fill in the questionnaire. Data collecting process took place in five shopping malls in Jakarta. Reason to choose these five shopping malls was to covers all five administrative cities in Jakarta: North Jakarta, East Jakarta, South Jakarta, West Jakarta, and Center of Jakarta.



Figure 4. Locations of the Data Collecting Places

Table 3. Data Collection Places in Jakarta

Number	Area	Mall	Total
1	North Jakarta	AEON Jakarta Garden City	42
2	East Jakarta	Buaran Plaza	42
3	South Jakarta	Kalibata City Mall	42
4	West Jakarta	Central Park Mall	42
5	Center of Jakarta	Atrium Senen	42

Even though the nature of this questionnaire was voluntary, a gift was given to each participants to motivate and thank them of their participation. This gift didn't influence of the participants answers of the questionnaire, only as a thank you gift for their participation in this research.

Concerning about the ethical issue of the participant participation, the consent information was put on the introductory part of the questionnaire. Since the online questionnaire didn't support the signature, the terms and condition of this questionnaire



that the data obtained will be confidential only for research use was written on the heading. Participants had to click the button as their agreement of consent on the online form.

## 5. Data Analysis

For analyzing the data of this research, a computer program was used. There were three parts of the data analysis to answer the research objectives of this research:

1. First, the percentage of the personal data of the respondents, like the age, religion, education, occupation, parental education, and internet budget was provided.
2. Second part of the analysis is multiple linear regression. In this part, there were three sub-part. First sub-part was for answering the first objective about the level of cyberbullying in Jakarta. Researcher used numeric data analysis, like mean and standard deviation. The result of this analysis were the numeric data about each types and indicators of cyberbullying. Researcher used the interpretation from Cronbach Best (Best, 1981) as follows:

<b>Score</b>	<b>Interpretation</b>
<b>1.00-1.49</b>	Lowest
<b>1.50-2.49</b>	Low
<b>2.50-3.49</b>	Moderate
<b>3.50-4.49</b>	High
<b>4.50-5.00</b>	Highest

Second sub-part was to answer the second objective. The data were analyzed using Pearson Product-moment Correlation to see the relationship between cyberbullying outcome and all of the determinants (exposure to violence factors, cyber factors, exposure of violence factors, and psychological factors). In this part researcher used the interpretation from Cohen (Cohen, 1988), as follows:

<b>r value</b>	<b>Interpretation</b>
<b>.10 to .29</b>	Low correlation
<b>.30 to .49</b>	Medium correlation
<b>.50 to 1.0</b>	High correlation

Third sub-part of the analysis was to add the answer for the second objective about relationship between mentioned factors and cyberbullying. Researcher conducted using Multiple Linear Regression analysis. By using analysis, the relationship between each factors in association with cyberbullying could be determined and the risk factors for cyberbullying could be identified. Variables were eliminated from the model of backward method.

3. Third and last part of the analysis were the Logistic Regression. This analysis were used to measure the association between cyberbullying and all the determinants. The risk factor of cyberbullying among the determinants could be determined. On this analysis, the score from cyberbullying part were summed and transformed (24 items) into Z-scores (standardized to a mean of 0 and a standard deviation of 1). Then those were divided into two categories (Laeheem, Kuning, McNeil, & Besag, 2009; Gini, 2008) as follows:

<b>Z-score</b>	<b>Interpretation</b>
$\geq 1.0$	Commit cyberbullying
$< 1.0$	Not commit cyberbullying

For all the determinants items, the score were measured based on the respondents' responses to the relevant items in the questionnaire. The mean score for each participant for each variable was then calculated and standardized into Z-scores as detailed above. Then, the scores were divided into three groups, based on Laeheem (Laeheem, 2016):

<b>Z-score</b>	<b>Interpretation</b>
$< -1.00$	Low / Never / Occasionally
$-1.00$ to $1.00$	Moderate / Occasionally / Neutral
$> 1.00$	High / Regularly / Positive

After that, researcher described the outcome and determinant in percentages, frequency. Next step was analyze the chi square to determine which determinants was significant. With the result from the chi square, researcher analyzed the data using logistic regression.

## **RESULTS**

### **1. Profile of the respondents**

There were 210 respondents in this study, 38.57 % were male and 61.43 % were female. All of the respondents were in the age range of 15-24 years. They were divided into three smaller ranges, 15-17 years old (21.9 %), 18-20 years old (38.1 %), and 21-24 years old (40 %). The participants' religion was mostly Islam (92.38 %), followed by Christianity, and Buddhism which together made up less than 8%. The respondents' present educational attainment was mostly senior high school (64.29 %), with the remainder having completed college (33.81 %) or junior high school (1.90 %). The respondents were mostly students (67.15 %) or workers (28.57 %), or jobless (4.28 %) making up the balance. Most of the respondents (56.67 %) spent IDR50.001-100.000 on Internet access per month, with 19.52 % spending IDR100.001-150.000, 12.86 % spending under IDR50.000, 6.67% spending above IDR150.000, and 4.29 % spending nothing because they used wi-fi at their homes. The educational levels of the respondents' fathers were school: 59.52 %, diploma/bachelor's degree: 30.95 %, and master's degree/PhD: 9.52 %. The educational level of the respondents' mothers were school: 59.05 %, diploma/bachelor's degree: 36.67 %, and master's degree/PhD: 4.29 %.

### **2. Multiple regression**

#### **2.1. Descriptive statistics of the outcome variable and determinant variables**

Table 4 shows the descriptive statistics of the determinant variables. There were nine determinant variables in this study and the results found varied between them. Five of the variables were found to be on the high level, those are time spent online (mean = 3.83), attitude toward cyberbullying (mean = 3.75), exposure of media violence (mean = 3.58), exposure of family violence (mean = 3.54) and self-esteem (mean = 3.50). The rest of the variables were in the moderate level, those are social support from family (mean = 3.30), social support from friends (mean = 3.43), problematic internet use (mean = 3.29), and exposure of peer violence (mean = 2.88).

Table 4. Descriptive statistics of determinant variables

Variable	Mean Score	S.D.	Interpretation
Social Support from Family (X <sub>1</sub> )	3.30	0.67	Moderate
Social Support from Friends (X <sub>2</sub> )	3.43	0.53	Moderate
Problematic Internet Use (X <sub>3</sub> )	3.29	0.40	Moderate
Time Spent Online (X <sub>4</sub> )	3.83	0.91	High
Exposure of Media Violence (X <sub>5</sub> )	3.58	0.79	High
Exposure of Peer Violence (X <sub>6</sub> )	2.88	0.45	Moderate
Exposure of Family Violence (X <sub>7</sub> )	3.54	0.62	High
Attitude toward Cyberbullying (X <sub>6</sub> )	3.75	0.79	High
Self-Esteem (X <sub>7</sub> )	3.50	0.28	High

Table 5 shows the descriptive analysis of outcome variable (cyberbullying) and all five types of cyberbullying. It was found that out of five type of cyberbullying, four were on the high level and one in moderate level. Highest score was slandering (mean = 3.79), followed by identity theft (mean = 3.78), reveal others secret (mean = 3.78), deleting or blocking others from group (mean = 3.55), and lastly flaming (mean = 3.23). The total score for cyberbullying was 3.63 and found to be in high level.

Table 5. Descriptive statistics of outcome variable

Category	Mean	S.D.	Interpretation
Flaming	3.23	0.89	Moderate
Slandering	3.79	0.60	High
Identity Theft	3.78	0.59	High
Reveal Others Secret	3.78	0.60	High
Deleting or Blocking Others from Group	3.55	0.79	High
<b>Cyberbullying (Accumulation)</b>	<b>3.63</b>	<b>0.30</b>	<b>High</b>

Table 6 shows the descriptive statistics of outcome variable more detail per item. For the first type of cyberbullying (flaming), the item with the highest score was “I say

words to harm, embarrass and dishonor their reputation” with the mean score of 3.54, and the lowest was “I say bad words about someone without they’re knowing” with the mean score of 2.98.

For the second type of cyberbullying (slandering), the item with the highest score was “I distribute someone’s picture to harm their reputation” with the mean score of 3.85 and the lowest was “I slander using someone’s name to other person” with the mean score of 3.65.

For the third type of cyberbullying (identity theft) the item with the highest score was “I use someone’s name for bad things without permission” with the mean score of 3.90 and the lowest was “I use someone’s image without permission” with the mean score of 3.60.

For the fourth type of cyberbullying (reveal other’s secret), the item with the highest score was “I distribute someone’s shameful and disgraceful secret online” with the mean score of 3.86 and the lowest was “I distribute someone’s secret to others online” with the mean score of 3.73.

Last type of cyberbullying (deleting or blocking other’s from group), the item with the highest score was “I ask my friends to block someone I don’t like from the group” with the mean score of 3.68, and the lowest was “I block someone I don’t like from the group” with the mean score of 3.42.

From all items in five types of cyberbullying, the item with the highest score was “I use someone’s name for bad things without permission” with the mean score of 3.90 and the lowest was “I say bad words about someone without they’re knowing” with the mean score of 2.98. It was also found that among 24 items, there were 19 items with high level and 5 items with moderate level.

Table 6. Descriptive statistics of outcome variable (per item)

Types	Item No	Indicators	Mean	S.D.	Interpretation
Flaming	Y01	I say bad words about someone without they're knowing	2.98	0.87	Moderate
	Y02	I attack others with rude words	3.21	0.93	Moderate
	Y03	I make fun others about their embarrassing and bad behavior	3.13	0.94	Moderate
	Y04	I tease someone with physical impairment (e.g. you are fat, you are handicapped, etc)	3.33	0.90	Moderate
	Y05	I say words to harm, embarrass and dishonor their reputation	3.54	0.80	High
Slandering	Y06	I slander using someone's name to other person	3.65	0.75	High
	Y07	I slander using someone's name to make others hate them	3.81	0.57	High
	Y08	I distribute someone's embarrassing picture or video online	3.83	0.57	High
	Y09	I distribute someone's picture to harm their reputation	3.85	0.53	High
	Y10	I distribute someone's rumor to humiliate them online	3.79	0.59	High
Identity Theft	Y11	I use someone's name to chat online without permission	3.73	0.67	High
	Y12	I use someone's name for bad things without permission	3.90	0.43	High
	Y13	I use someone's image without permission	3.60	0.78	High
	Y14	I use someone's name without permission	3.78	0.61	High
	Y15	I use someone's name to hurt others without permission	3.88	0.46	High
Reveal Others Secret	Y16	I distribute someone's parents or close relative name	3.74	0.67	High
	Y17	I distribute someone's inferiority complex secret online	3.83	0.54	High
	Y18	I distribute someone's shameful and disgraceful secret online	3.86	0.48	High
	Y19	I distribute someone's personal information online	3.74	0.65	High
	Y20	I distribute someone's secret to others online	3.73	0.66	High
Deleting or Blocking Others from Group	Y21	I remove someone I don't like from the group	3.55	0.79	High
	Y22	I block someone I don't like from the group	3.42	0.92	Moderate
	Y23	I ask my friends to remove someone I don't like online	3.58	0.76	High
	Y24	I ask my friends to block someone I don't like from the group	3.68	0.70	High

## 2.2. Relationships between the nine determinant variables and cyberbullying

Figures 5-13 show visually the relationships between the nine determinant variables and cyberbullying relating to youth in Jakarta. Based on Pearson product moment correlations, it was found that the determinants were six positively correlated and were three negatively correlated with cyberbullying at the  $p < .001$  level. Exposure of media violence ( $X_5$ ),  $r = .95$ , exposure of family violence ( $X_6$ ),  $r = .85$ , exposure of peer violence ( $X_7$ ),  $r = .84$ , time spent online ( $X_4$ ),  $r = .80$ , problematic Internet use ( $X_3$ ),  $r = .68$ , and attitude toward cyberbullying ( $X_8$ ),  $r = .56$  had a positive and high correlation with cyberbullying. The social support from friends ( $X_2$ ),  $r = -.85$ , social support from family ( $X_1$ ),  $r = -.83$  had a negative and high correlation with cyberbullying. Lastly, self-esteem ( $X_9$ ) had a negative and medium correlation with cyberbullying ( $r = -.47$ ) which was also significant at  $p < .001$ .

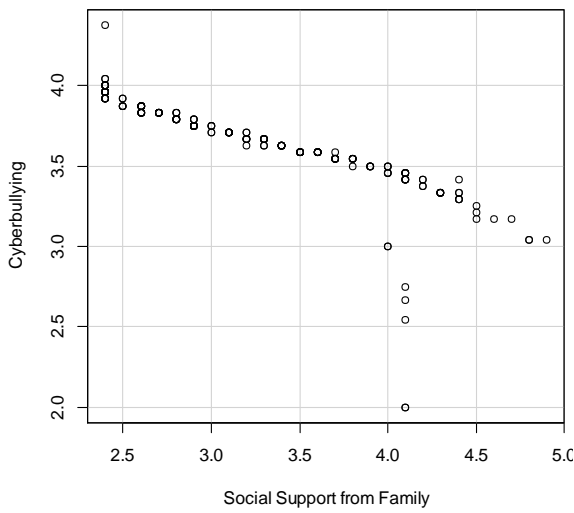


Figure 5. Relationship between social support from family and cyberbullying

$r = -0.83$                        $p = .000$   
 95 % confidence interval = -  
 0.86, -0.77

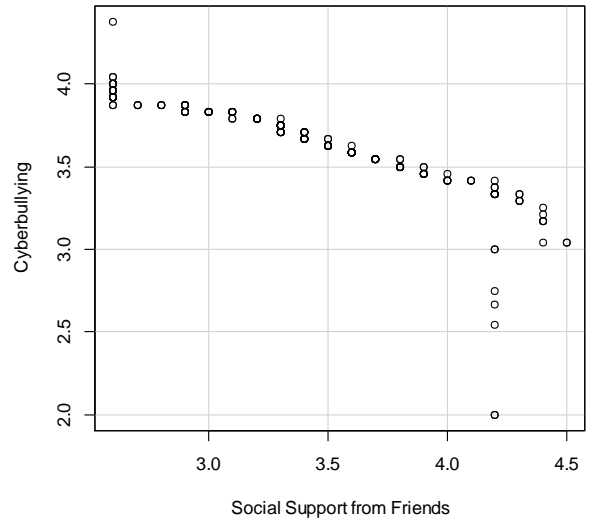


Figure 6. Relationship between social support from friends and cyberbullying

$r = -0.85$                        $p = .000$   
 95% confidence interval = -  
 0.88, -0.80

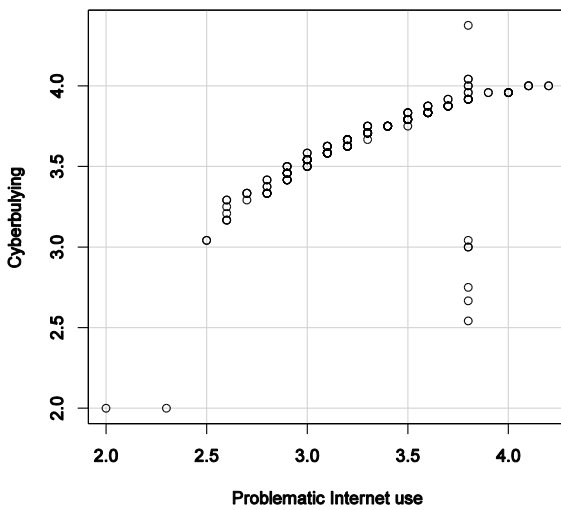


Figure 7. Relationship between problematic Internet use and cyberbullying

$r = 0.68$                        $p = .000$   
 95% confidence interval = 0.60, 0.75

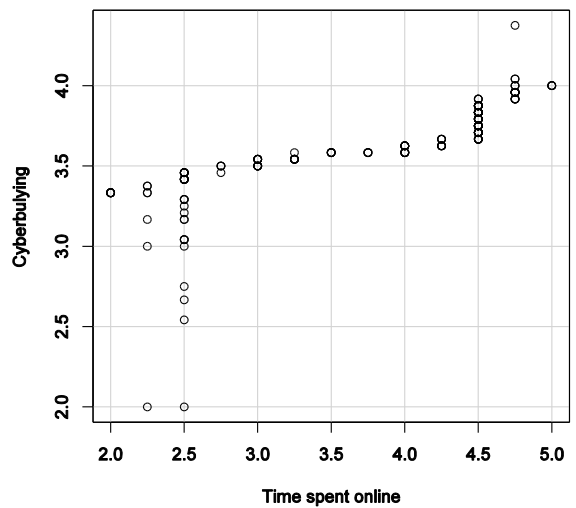


Figure 8. Relationship between time spent online and cyberbullying

$r = 0.80$                        $p = .000$   
 95% confidence interval = 0.75, 0.85



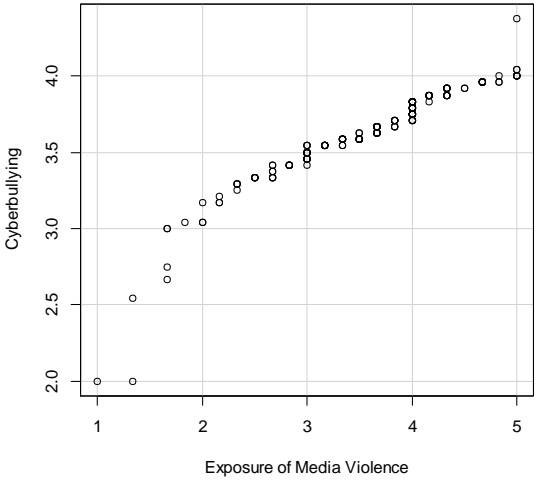


Figure 9. Relationships between Exposure of Media Violence and cyberbullying

$r = 0.95$        $p = .000$   
95% confident interval = 0.93, 0.96

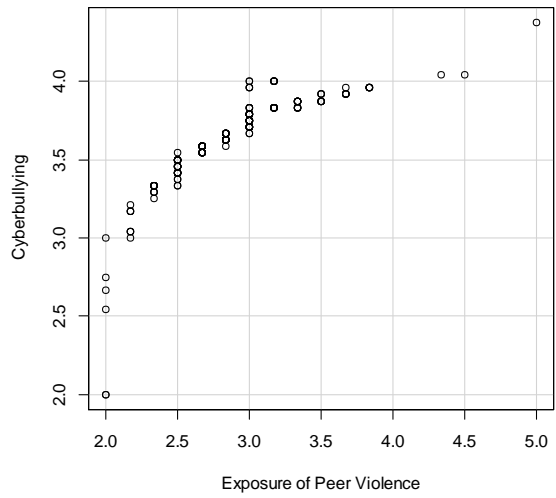


Figure 10. Relationships between Exposure of Peer Violence and cyberbullying

$r = 0.84$        $p = .000$  95%  
confident interval = 0.79, 0.87

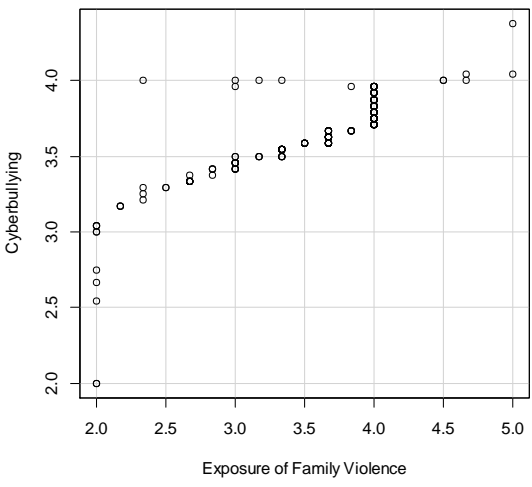


Figure 11. Relationships between Exposure of Family Violence and cyberbullying

$r = 0.85$        $p = .000$   
95% confident interval = 0.81, 0.88

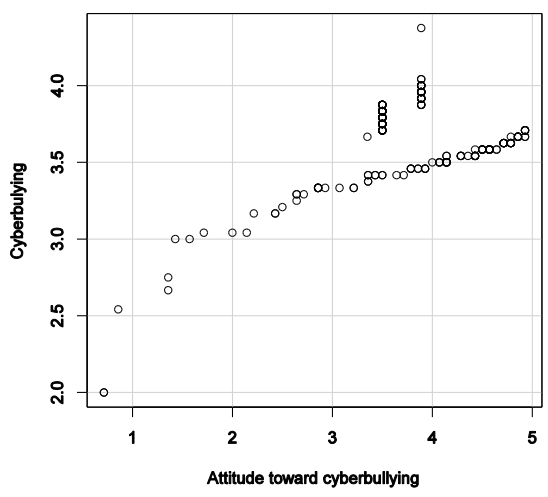


Figure 12. Relationships between attitude toward cyberbullying and cyberbullying

$r = 0.56$        $p = .000$   
95% confidence interval = 0.46, 0.64

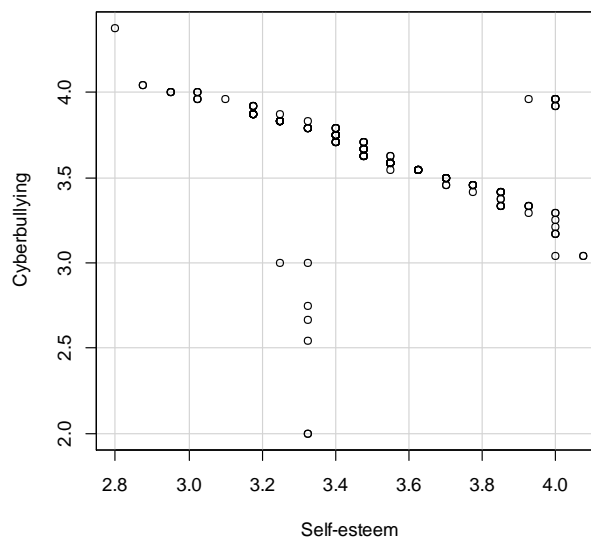


Figure 13. Relationships between self-esteem and cyberbullying

$r = -0.47$

$p = .000$

95% confidence interval = -0.57, -0.36

Table 7 shows the results of the multiple regression analysis and it was found that there were statistically significant explanatory relationships between cyberbullying behavior and seven of the determinant variables: exposure of media violence, social support from friends, problematic internet use, exposure to family violence, time spent online, self-esteem, and attitude toward cyberbullying. The residual deviance was 0.0789 on 202 degrees of freedom ( $p=0.000$ ) and the four determinant variables explained about 93.3 % of the variance in cyberbullying behavior.

The largest beta coefficient obtained was 0.44 (95 % C I= 0.38, 0.5) for exposure of media violence, meaning that this made the strongest contribution in explaining cyberbullying behavior. Social support from friends was the second strongest determinant contributing to cyberbullying behavior with a beta value of 0.16 (95 % C I= 0.08, 0.24). The third largest beta coefficient was problematic internet use with a beta coefficient of 0.15 (95 % C I= 0.09, 0.21). Next determinant is exposure of family violence with a beta

coefficient of 0.12 (95 % C I= 0.08, 0.16). Time spent online was the only one with negative beta coefficient, -0.11 (95 % C I= -0.15, -0.07). The final determinant were self-esteem and attitude toward cyberbullying with beta coefficients of 0.09 (95 % C I= 0.03, 0.15), and 0.03 (95 % C I= 0.01, 0.05), respectively.

*Table 7. Reduced linear regression model of relationship between determinant variables and the outcome variable: cyberbullying, final model*

<b>Determinant Variables</b>	<b>B</b>	<b>S.E.</b>	<b>p value</b>	<b>95% CI</b>
Constant	0.58	0.29	.045	-0.02, 1.18
Social Support from Friends (X <sub>2</sub> )	0.16	0.04	.000	0.08, 0.24
Problematic Internet Use (X <sub>3</sub> )	0.15	0.03	.000	0.09, 0.21
Time Spent Online (X <sub>4</sub> )	-0.11	0.02	.000	-0.15, -0.07
Exposure of Media Violence (X <sub>5</sub> )	0.44	0.03	.000	0.38, 0.5
Exposure of Family Violence (X <sub>7</sub> )	0.12	0.02	.000	0.08, 0.16
Attitude toward Cyberbullying (X <sub>8</sub> )	0.03	0.01	.002	0.01, 0.05
Self-Esteem (X <sub>9</sub> )	0.09	0.03	.001	0.03, 0.15

Note: Multiple R-Squared: 0.933, Adjusted R-squared: 0.9313

Residual standard error: 0.0789 on 202 degrees of freedom

The raw score prediction equation for cyberbullying among youth in Jakarta, Indonesia could be written:

$$\hat{Y}_Y = 0.58 + 0.16(X_2) + 0.15(X_3) - 0.11(X_4) + 0.44(X_5) + 0.12(X_7) + 0.03(X_8) + 0.09(X_9)$$

### 3. Logistic regression

#### 3.1. Data Descriptive of Cyberbullying Behavior and the nine Determinants

On table 8, the data collected from the 210 participants showed that the largest percentage (41.0 %) had a low level of perceived social support from their family, followed by 33.8 % who had a high level of perceived social support from their family, and 25.2 %

who had a moderate level of perceived social support from their family. For the perceived social support from their friends, it was found that the largest percentage of the participants (39.5 %) had a high level of perceived social support from their friends, followed by those (32.9 %) who had a moderate level of perceived social support from their friends, and those (27.6 %) with a low level of perceived social support from their friends.

Most of the young people (40.0 %) regularly indulged in problematic Internet use, while 31.4 % never did, with 28.6 % occasionally indulging in problematic Internet use. It was found that 42.4 % never spent excessive time online, while 31.4 % regularly did so, and 26.2 % did so occasionally. As many as 31 % of the young people were regularly exposed to the media violence, while most were only exposed occasionally (40 %), with the remaining approximately 29 % never being exposed to media violence.

For exposure to peer violence, 30 % were regularly exposed, 29.52 % were occasionally exposed, and 40.48 % were never exposed to it. It was found that the largest percentage of the young people (34.29 %) were regularly exposed to family violence, with 31.9 % occasionally exposed and 33.81 % never being exposed to it.

For the final two determinants, it was found that 29.52 % of the young people had a positive attitude toward cyberbullying but the largest percentage (39.52 %) had a neutral attitude toward it with the remaining 30.95 % having a negative attitude toward cyberbullying. For the self-esteem variable, 31.90 % of the young people had a low level of self-esteem while 36.19 % had a moderate level of self-esteem with 31.90 % having a high level of self-esteem.

*Table 8. Binary Percentage of Nine Determinants and Outcome (Cyberbullying)*

<b>Determinants</b>		<b>Total</b>
<b>Perceived Social Support from the Family</b>	High	33.8
	Moderate	25.2
	Low	41.0
<b>Perceived Social Support from Friends</b>	High	39.5
	Moderate	32.9

<b>Determinants</b>	<b>Total</b>	
	Low	27.6
<b>Problematic Internet Use</b>	Never	31.4
	Occasionally	28.6
	Regularly	40.0
	Never	42.4
<b>Time Spent Online</b>	Occasionally	26.2
	Regularly	31.4
	Never	29.1
<b>Exposure to Media Violence</b>	Occasionally	40.0
	Regularly	30.9
	Never	40.5
<b>Exposure to Peer Violence</b>	Occasionally	29.5
	Regularly	30.0
	Never	33.8
<b>Exposure to Family Violence</b>	Occasionally	31.9
	Regularly	34.3
	Negative	31.0
<b>Attitude Toward Cyberbullying</b>	Neutral	39.5
	Positive	29.5
	High	31.9
<b>Self-Esteem</b>	Moderate	36.2
	Low	31.9
	<b>Cyberbullying</b>	Commit Cyberbullying
Not Commit Cyberbullying		59.5

In this study, as noted above, the cyberbullying behavior outcome was classified as a dichotomous variable with 125 young people falling into the ‘*not commit cyberbullying*’ category and 85 falling into the ‘*commit cyberbullying*’ category (59.5 and 40.5 % respectively).

### 3.2. Association between Cyberbullying Behavior and the nine Determinants

Table 9 shows the result of the analysis of the association between cyberbullying behavior and the nine determinants, (perceived social support from the family, perceived social support from friends, problematic Internet use, time spent on-line, exposure to media violence, exposure to peer violence, exposure to family violence, attitude toward cyberbullying and self-esteem). The results of chi-square tests showed that six determinants were significantly associated with cyberbullying behavior among the young people who participated in the study. Those were: perceived social support from the family, perceived social support from friends, exposure to media violence, exposure to peer violence, exposure to family violence and attitude toward cyberbullying.

*Table 9. Association between cyberbullying behavior and nine determinants*

Determinant	Cyberbullying risk behaviors			Chi Square	P value
	Non Cyberbullying	Cyberbullying	Total		
<b>Perceived Social Support from the Family</b>				12.801**	0.001
High	74.6	25.4	33.8		
Moderate	60.4	39.6	25.2		
Low	46.5	53.5	41.0		
<b>Perceived Social Support from Friends</b>				23.252***	0.000
High	74.7	25.3	39.5		
Moderate	62.3	37.7	32.9		
Low	34.5	65.5	27.6		
<b>Problematic Internet Use</b>				4.180	0.123
Never	66.7	33.3	31.4		
Occasionally	63.3	36.7	28.6		
Regularly	51.2	48.8	40.0		

Determinant	Cyberbullying risk behaviors			Chi Square	P value
	Non Cyberbullying	Cyberbullying	Total		
<b>Time Spent Online</b>				1.475	0.478
Never	64.0	36.0	42.4		
Occasionally	58.2	41.8	26.2		
Regularly	54.5	45.5	31.4		
<b>Exposure to Media Violence</b>				17.771***	0.000
Never	72.1	27.9	29.1		
Occasionally	66.7	33.3	40.0		
Regularly	38.5	61.5	30.9		
<b>Exposure to Peer Violence</b>				26.041***	0.000
Never	76.5	23.5	40.5		
Occasionally	61.3	38.7	29.5		
Regularly	34.9	65.1	30.0		
<b>Exposure to Family Violence</b>				9.350**	0.009
Never	71.8	28.2	33.8		
Occasionally	46.3	53.7	31.9		
Regularly	59.7	40.3	34.3		
<b>Attitude Toward Cyberbullying</b>				13.372**	0.001
Negative	75.4	24.6	31.0		
Neutral	45.8	54.2	39.5		
Positive	61.3	38.7	29.5		
<b>Self-Esteem</b>				1.649	0.438
High	65.7	34.3	31.9		
Moderate	57.9	42.1	36.2		
Low	55.2	44.8	31.9		

### 3.3. Factors Associated with Cyberbullying Behavior

Table 10 shows the final factorial model of the factors associated with cyberbullying behavior among the sample of young people in Jakarta based on binary logistic regression. As can be seen, there were six determinants that were significantly associated with cyberbullying behavior: perceived social support from the family, perceived social support from friends, exposure to media violence, exposure to peer violence, exposure to family violence and attitude toward cyberbullying. The residual deviance was 204.49 on 197 degrees of freedom.

Young people with low and moderate levels of perceived social support from their family were 4.47 times (95 % CI 1.61, 12.45) and 2.41 times (95 % CI 0.83, 6.93), respectively, more likely to commit cyberbullying than those who had high perceived social support from their family. Young people with low and moderate levels of perceived social support from their friends were 3.09 times (95 % CI 1.01, 7.13) and 0.62 times (95 % CI 0.20, 1.88), respectively, more likely to commit cyberbullying than those who had high perceived social support from their friends.

Young people who were regularly or occasionally exposed to media violence were 2.68 times (95 % CI 1.01, 7.13) and 0.77 times (95 % CI 0.29, 2.04), respectively, more likely to commit cyberbullying than those who had low exposure to media violence. Young people subjected to the regular and occasional exposure of peer violence were 6.96 times (95 % CI 2.92, 16.61) and 3.46 times (95 % CI 1.39, 8.63), respectively, more likely to commit cyberbullying than those who had low exposure to peer violence.

Young people with regular and occasional exposure to family violence were 3.98 times (95 % CI 1.37, 11.52) and 2.30 times (95 % CI 0.86, 6.13), respectively, more likely to commit cyberbullying than those who had low exposure to family violence. Young people with positive and neutral attitudes toward cyberbullying were 2.74 times (95 % CI 1.06, 7.09) and 2.66 times (95 % CI 1.10, 6.45), respectively, more likely to indulge in cyberbullying behavior than those who had a negative attitude toward cyberbullying.



Table 10. Factors associated with cyberbullying behavior: the final model

<b>Determinants</b>	<b>Odds ratio</b>	<b>S.E.</b>	<b>95% CI</b>	<b>P</b>
<b>Perceived Social Support from the Family</b>				
High	1			
Moderate	2.41	0.54	0.83, 6.93	.104
Low	4.47	0.52	1.61, 12.45	.004
<b>Perceived Social Support from Friends</b>				
High	1			
Moderate	0.62	0.57	0.20, 1.88	.397
Low	3.09	0.48	1.21, 7.92	.018
<b>Exposure to Media Violence</b>				
Never	1			
Occasionally	0.77	0.50	0.29, 2.04	.594
Regularly	2.68	0.50	1.01, 7.13	.047
<b>Exposure to Peer Violence</b>				
Never	1			
Occasionally	3.46	0.47	1.39, 8.63	.008
Regularly	6.96	0.44	2.92, 16.61	.000
<b>Exposure to Family Violence</b>				
Never	1			
Occasionally	2.30	0.50	0.86, 6.13	.095
Regularly	3.98	0.54	1.37, 11.52	.011
<b>Attitude Toward Cyberbullying</b>				
Negative	1			
Neutral	2.66	0.45	1.10, 6.45	.030
Positive	2.74	0.48	1.06, 7.09	.037

## DISCUSSIONS AND SUGGESTIONS

This study had two objectives, first was to study the level of cyberbullying in Jakarta. Second objective was to estimate the association between perceived social support factors (perceived social support from family and friends), cyber factors (problematic internet use and time spent online), exposure of violence factors (exposure of media, peer, and family violence), and psychological factors (attitude toward cyberbullying and self-esteem) with cyberbullying among the youth in Jakarta, Indonesia. In this part, the finding to answer the two objectives were discussed.

### 1. Discussions

#### 1.1. Level of Cyberbullying among the Youth in Jakarta

First objective was to find out about the level of cyberbullying among youth in Jakarta, Indonesia, whether it's low, moderate or high. This part is important because it helps to figure out how is the recent condition of the cyberbullying among the youth of Jakarta. Based on the descriptive analysis, it was found that the mean of cyberbullying in Jakarta was scored 3.36 and determined as high level.

Cyberbullying activities performed by youth in Jakarta were flaming, slandering, identity theft, reveal other's secret, and deleting or blocking someone from the group (Tudkuea & Laeheem, 2014). This study examined the mean score of each types of cyberbullying.

The highest types of cyberbullying was slandering, with the mean score of 3.79. Slandering indicators were: slander using someone's name to other person, slander using someone's name to make others hate them, distribute someone's embarrassing picture or video online, distribute someone's picture to harm their reputation, distribute someone's rumor to humiliate them online.

The result was align with the previous study from Tudkea and Laeheem that slandering was found to have the highest score among other types of cyberbullying. Seeing

the reality of cyberbullying in Indonesia, slandering was very common to see because the act were not directly attacking the victim, but more to creating an opinion about them through spreading pictures, videos, or rumors.

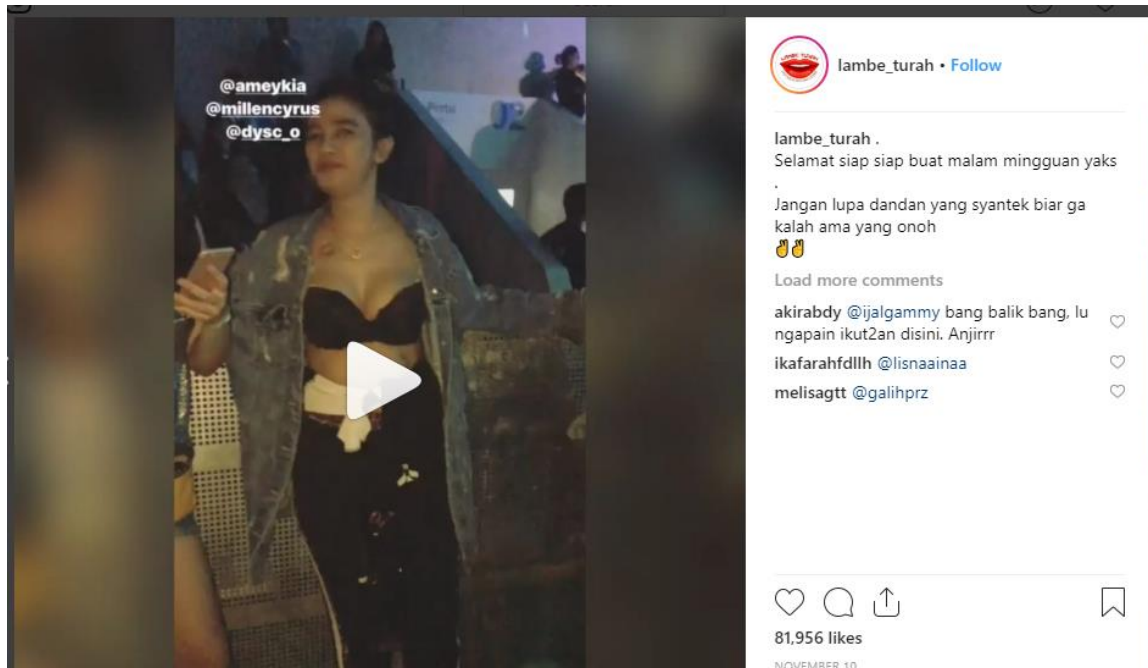


Figure 14. Example of Slandering

The picture above shows the example of slandering, distributing someone's embarrassing photo or video online. The video was about a transgender who was partying with her friends. They did embarrassing thing on the video, and it was distributed by a controversial gossip account on Instagram, named Lambe Turah (username @lambe\_turah). After the video was uploaded, there were more than 2.7 million views and 11.000 comments.

This example is align with concept of cyberbullying from Smith that said that cyberbullying is an aggressive and intentional act. The account, Lambe Turah was clearly in the intention to embarrass other people by uploading their videos. Lambe Turah was also providing space for other internet users to see and comment about the videos, because they has huge number of followers (5.7 million followers).

“Repeatedly” concept of cyberbullying not to be seen as how many times an individual leave their comments, but more with the “like”, “share”, and how many people

have seen the content. When someone left a comment and 200 people likes it, it implied that they agreed to the content of the comment and for the victim it would be feel like she received 200x rude comments. Account with big number of followers also reach more people so it has bigger impact and increase the likelihood that the content will be shared to more and more person.

“Power imbalance” concept is about how easy people could hide behind anonymity of internet, like the Lambe Turah account that is anonymous and it is unknown who was creating and managing the account. This give the anonymous account more power because they could post any content to hurt people without getting the consequences.

Second type was identity theft, with the mean score of 3.78. The indicators were: use someone’s name to chat online without permission, use someone’s name for bad things without permission, use someone’s image without permission, use someone’s name without permission, and use someone’s name to hurt others without permission.

Third type was reveal others secret, with mean score of 3.78. The indicators were: distribute someone’s parents or close relative name, distribute someone’s inferiority complex secret online, distribute someone’s shameful and disgraceful secret online, distribute someone’s personal information online, and distribute someone’s secret to others online.

Fourth type was deleting and blocking others from group with the mean score of 3.55. The indicators were: remove someone I don’t like from the group, block someone I don’t like from the group, ask my friends to remove someone I don’t like online, and ask my friends to block someone I don’t like from the group.

Last type was flaming with the mean score of 3.22. The indicators were: say bad words about someone without they’re knowing, attack others with rude words, make fun others about their embarrassing and bad behavior, tease someone with physical impairment (e.g. you are fat, you are handicapped, etc), and say words to harm, embarrass and dishonor their reputation.

Aside of analyzing in a group of cyberbullying types, each item of cyberbullying indicators was also analyzed. It was found that the cyberbullying act with the highest score

was “use someone’s name for bad things without permission” with the mean score of 3.90 and the cyberbullying act with the lowest score was “say bad words about someone without they’re knowing” with the mean score of 2.98.

Using logistic regression, it was found that 59.5% of the respondents fell into “*not commit cyberbullying*” and the rest 40.5% of the respondents fell into “*commit cyberbullying*” category. This condition is worrying, because almost half of the respondent were a cyberbullying perpetrator. This finding was slightly higher than previous study in Medan city, which found that 36% of the participants were a cyberbully (Nazriani & Zahreni, 2016).

## **1.2. Association between perceived social support factors, cyber factors, exposure of violence factors, and psychological factors with cyberbullying among the youth in Jakarta**

To answer the second objective, this study also investigate about the association of nine determinants: perceived social support from family, perceived social support from friends, problematic internet use, time spent online, exposure of media violence, exposure of peer violence, exposure of family violence, attitude toward cyberbullying, self-esteem with the likelihood of committing cyberbullying behavior among the youth in Jakarta, Indonesia.

From the results, we could conclude that there were several determinants associated with cyberbullying according to two analysis, multiple linear regression and logistic regression analysis. Using the multiple linear regression, it was found that there were seven determinants related with cyberbullying behavior, those are perceived social support from friends, problematic internet use, time spent online, exposure of media violence, exposure of family violence, attitude toward cyberbullying and self-esteem. The determinant with the highest score using multiple linear regression was exposure to media violence.

On the other hand, logistic regression analysis found that there were six determinants associated with cyberbullying behavior, those are perceived social support from family, perceived social support from friends, exposure to media violence, exposure

of peer violence, exposure to family violence, and attitude toward cyberbullying. The determinant with the highest score using logistic regression was exposure to peer violence.

If we compare with the youth who have high level of perceived social support from family, high level of perceived social support from friends, never exposed to media violence, never exposed to peer violence, never exposed to family violence, and have negative attitude toward cyberbullying, youth with following criteria are more likely to commit cyberbullying behavior. Youth with moderate (2.41 times) level of perceived social support from family; youth with high (4.77 times) level of perceived social support from family; youth with moderate (0.62 times) level of perceived social support from friends; youth with high (3.09 times) level of perceived social support from friends; youth who occasionally (0.77 times) exposed to media violence; youth who regularly (2.68 times) exposed to media violence; youth who occasionally (3.46 times) exposed to peer violence; youth who regularly (6.96 times) exposed to peer violence; youth who occasionally (2.30 times) exposed to family violence; youth who regularly (3.98 times) exposed to family violence; and youth who have neutral (2.66 times) attitude toward cyberbullying; and youth who have positive (2.47 times) attitude toward cyberbullying.

There are four determinants that found significant in both analysis: perceived social support from friends, exposure of media violence, exposure of family violence, and attitude toward cyberbullying. This means that youth with low level of perceived social support from friends, high level of exposure of media violence and exposure of family violence, and have positive attitude toward cyberbullying were more likely to commit cyberbullying behavior than those who weren't.

Perceived social support from friends was the first factor associated with cyberbullying. Perceived social support from friend have negative relationship with cyberbullying, which means that youth with low level of perceived social support from friends have more tendencies to commit cyberbullying behavior. It also could be understood that perceived social support from friends is a protective factors of the youth to avoid cyberbullying behavior.

This finding can be explain further with Hirschi's (1969) social control theory. This theory explain about the relationship of social bond and negative behavior. Social bond

consists of four elements, those are attachment, commitment, involvement, and belief. Attachment means that two people that have social bonds to another tend to be sensitive and care about each other's opinion toward them. It matters to them what their mate is thinking if they commit negative behavior. Commitment means that people that have social bonds tend to have a certain goals to achieve together, e.g. educational or occupational goals. If one of them commit negative behavior, it could affect their way to achieve their mutual goals. Involvement means that when some people tied in a social bond, they will likely to do many activities together, and they may not have time to commit negative behavior because they spend most of their time to do some other activity. Belief means that people tied in social bond tend to believe in conventional norms. Their belief in moral validity like laws and norms will keep them off from performing negative behavior (Costello, 2010).

Understanding the social control theory, it could be concluded that social bond can prevent someone from committing negative behavior as the protective factor. The role of people that an individual share social bond with could change as the time goes by. Early on our life, the role will fall to our parents or other family members, but then as an individual grew older, our social environment also widen. Friends starting to share the role of social bonding partner (Furman & Buhrmester, 1992). Friend's perception and social support started to become important for adolescents in deciding what actions they will perform. In specific case, perception of peer behavior found to have relationship with cyberbullying tendency (Hinduja & Patchin, 2013).

Previous study also found similar result, that there were connection between friend's social support and cyberbullying likelihood. It was found that youth who commit cyberbullying behavior tend to have low level of perceived social support from their peers (Holt & Espelage, 2007). Different study proves that perceived social support from friends was associated negatively with cyberbullying (Calvete, Orue, Estevez, Villardon, & Padilla, 2010). Low level participation of cyberbullying behavior was found among the youth who have perception that their peers were caring, trustworthy and helpful (Williams & Guerra, 2007).

Exposure to violent content is another thing to discuss in association with cyberbullying behavior. In Bandura (1986) Social Learning Theory, it could be understood that one's behavior can be influenced by the observational learning on their surrounding environment. Therefore, exposure of violent behavior could create tendency for them to imitate such violent act, especially for young people that still learning about what's good and what's bad. Unfortunately, it is difficult to avoid such violent content or act, because it can be anywhere, such as from television, internet, videos, social media, peers, or even family member at home.

Previous study has found that exposure of media violence is related with violence tendency. Children who were regularly exposed to violence on television found to be more likely to perform violent or aggressive behavior in the future (Huesman, 1986). Not only television, exposure of violent and aggressive content from playing video games also created similar result (Lam, Cheng, & Liu, 2013). Exposure of media violence can also decrease the sympathy to the victim and real-life sensitivity to aggression (Fanti, Vanman, Henrich, & Avraamides, 2009). This condition will trigger them to perform violent behavior because their lack of compassion to the victim.

Based on facts explained above, this study have the hypotheses that exposure of media violence is associated with cyberbullying behavior, and the result proved that the idea is true. There were also some of previous study that found the same result, that exposure of media violence could increase cyberbullying tendency (Lee & Shin, 2017; Fanti, Vanman, Henrich, & Avraamides, 2009; Calvete, Orue, Estevez, Villardon, & Padilla, 2010), especially from aggressive video games (Lam, Cheng, & Liu, 2013) and anti-social and risk behavior content (Hamer & Konijn, 2015).

Similar with the exposure of media violence, exposure of family violence was also a problem for young people. Family is the place where people grew up and learnt about life values. People interact with their family most of the time, especially for children and adolescents. Looking back to the social learning theory, family is the prime place to internalize and imitate some behaviors for the future life. If the home environment is violent and negative, it would affect the people living in it.



Previous research found that living in a violent home environment might internalized the violent behavior to the youth and higher the chance that they will re-perform it elsewhere, such as involving in direct bullying (Baldry, 2003) and cyberbullying (Calvete, Orue, Estevez, Villardon, & Padilla, 2010; Tanrikulu & Campbell, 2015; Festl & Quandt, 2016; Low & Espelage, 2013). These result align with this study result that exposure of family violence was associated with cyberbullying.

Lastly, attitude is one of the factors that contributes in determining someone's behavior. This fact is explained more in Ajzen's (1991) theory of planned behavior. In the theory of planned behavior, it could be learned that someone's behavior is mainly came from their intention. There are three items that affecting someone's intention: perceived behavioral control, attitude toward the behavior, and subjective norm. On a separate study, it is known that among three items, attitude toward the behavior is the strongest item in determining cyberbullying likelihood on adolescents (Heirman & Walrave, 2012).

This study found the same thing, that when someone have a positive attitude toward cyberbullying, it is more likely that they will commit cyberbullying behavior. It is because attitude reflect on the person's degree of favor toward the certain behavior. If a person think that cyberbullying is a normal or fine thing to do, then they will more likely to perform cyberbullying, rather than a person who think cyberbullying is a crime or negative behavior. A study already proved that when someone have a positive attitude toward violence behavior, then it raise their tendency to commit violent behavior (Mesch, Fishman, & Eisikovits, 2003). Specifically, some study also found similar finding that someone who have positive attitude toward cyberbullying, is more likely to perform cyberbullying behavior (Heirman & Walrave, 2012; Williams & Guerra, 2007; Barlett & Chamberlin, 2017; Kircaburun & Bastug, 2016).

## **2. Conclusion and Recommendations**

This research's purpose is to study about the level of cyberbullying behavior and to determine the association of perceived social support factors, cyber factors, exposure of violence factors, and psychological factors with cyberbullying among the youth in Jakarta.

This study found that the level of cyberbullying in Jakarta generally was on the high level. Type of cyberbullying with highest score among all was slandering. The act of cyberbullying with the highest score was “use someone’s name for bad things without permission”.

Factors associated with cyberbullying was examined using two kind of analysis, multiple linear regression and logistic regression. Using multiple linear regression, the most significant determinant was exposure to media violence. Using logistic regression, the most significant determinant was exposure to peer violence. From both analysis, it was found that there were four determinants that significant: perceived social support from friends, exposure of media violence, exposure of family violence, and attitude toward cyberbullying.

Based on the finding of the study, people should raise the awareness of this issue to remind people that cyberbullying is a real serious issue in Indonesia, especially in Jakarta. Youth’s environment such as friends, family, educational institutes should give positive social support to the youth and encourage them to do positive activities. Exposure of violence is inevitable, but parents or other older figure should give more attention to the amount and content of media exposure of the youth.

Parents and family member at home also should provide comfortable and positive home environment, free from violent or aggressive behavior that may affect the youth. People should also raise the awareness to bring the understanding that cyberbullying is a real threat. With the awareness that cyberbullying is a problem, the youth will change their positive attitude toward cyberbullying into negative. Everyone can do it by spreading the positivity to their own environment, and employ that cyberbullying is a negative act, and there are real people hurting by being the victim. Finding of this study hopefully also can help the government and non-governmental organization such as NGOs that working in this area to take their steps in framing policies or creating anti-cyberbullying campaign.

Future studies are recommended to study more deeply about the each individual factors in association with cyberbullying to get more deep insight about overcoming this cyberbullying issue. It is also suggested to widen the research area into cyber-victim, and bystander side to have a better understanding about the cyberbullying issue.

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## **Appendices**

## Appendix 1

### Questionnaire

#### Part 0. Introduction and consent

## Faktor-faktor yang Terasosiasi dengan Cyberbullying pada pemuda di Jakarta, Indonesia

Selamat pagi/siang/sore/malam.

Perkenalkan, nama saya Santi Gusti Handono, mahasiswi S2 jurusan Human and Social Development, Prince of Songkla University, Thailand.

Saat ini saya sedang mengadakan penelitian berjudul "Faktor-faktor yang terasosiasi dengan Cyberbullying pada pemuda di Jakarta, Indonesia" guna melengkapi thesis saya agar dapat menyelesaikan pendidikan yang sekarang sedang saya tempuh.

Seluruh data yang masuk akan dijaga kerahasiaannya dan hanya dipergunakan untuk kebutuhan penelitian. Jika anda setuju anda dapat melanjutkan proses pengisian kuisisioner ini. Pengisian kuisisioner ini bersifat sukarela dan anda dapat berhenti kapan saja jika merasa tidak nyaman.

Saya berterima kasih sebesar-besarnya atas partisipasi anda dalam penelitian ini. Salam,

Santi Gusti Handono  
[santihandono@gmail.com](mailto:santihandono@gmail.com)

\*Wajib

**Saya berusia 15-24 tahun dan merupakan warga DKI Jakarta \***

*Tandai satu oval saja.*

Ya

Tidak, berhenti disini *Berhenti mengisi formulir ini.*

#### Part 1. Personal Data

### Informasi Dasar Responden

Bagian ini berisi informasi dasar mengenai responden.

**1. Apa jenis kelamin anda? \***

*Tandai satu oval saja.*

Laki-laki

Perempuan

**2. Berapa umur anda? \***

*Tandai satu oval saja.*

15-17 tahun

18-20 tahun

21-24 tahun

**3. Apakah agama yang anda anut? \***

*Tandai satu oval saja.*

Islam

Kristen

Katolik

Buddha

Hindu

Yang lain: \_\_\_\_\_

**4. Apa pendidikan terakhir anda? \***

*Tandai satu oval saja.*

SMP

SMA

D3/S1/S2

Yang lain: \_\_\_\_\_

**5. Apa pekerjaan anda? \***

*Tandai satu oval saja.*

Pelajar

Karyawan

Tidak Bekerja

Yang lain: \_\_\_\_\_

**6. Berapa uang yang anda habiskan untuk membeli paket internet setiap bulannya? \***  
Tandai satu oval saja.

- Dibawah Rp50.000
- Rp50.001-100.000
- Rp100.001-150.000
- Diatas Rp150.000
- Tidak mengeluarkan uang karena memakai wifi di rumah

**7. Apa pendidikan terakhir ayah anda? \***  
Tandai satu oval saja.

- SD/SMP/SMA
- D3/S1
- S2/S3
- Yang lain: \_\_\_\_\_

**8. Apa pendidikan terakhir ibu anda? \***  
Tandai satu oval saja.

- SD/SMP/SMA
- D3/S1
- S2/S3
- Yang lain: \_\_\_\_\_

## Part 2. Perceived Social Support Factors

### Faktor dukungan sosial yang dirasakan

Faktor dukungan sosial yang dirasakan terdiri dari 2 bagian, yaitu dukungan sosial dari keluarga dan dukungan sosial dari teman-teman.

#### Dukungan sosial dari keluarga

Skala:

- 1 - Sangat tidak setuju  
2 - Tidak setuju











**6. Ketika tidak ada internet yang tersedia, saya merasa rentan. \****Tandai satu oval saja.*

	1	2	3	4	5	
Sangat tidak setuju	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Sangat setuju

---

**7. Saya memposisikan internet diatas hal-hal penting dan aktifitas sehari-hari. \****Tandai satu oval saja.*

	1	2	3	4	5	
Sangat tidak setuju	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Sangat setuju

---

**8. Karena internet saya kehilangan motivasi untuk menyelesaikan hal-hal lain. \****Tandai satu oval saja.*

	1	2	3	4	5	
Sangat tidak setuju	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Sangat setuju

---

**9. Waktu tidur saya berkurang karena internet. \****Tandai satu oval saja.*

	1	2	3	4	5	
Sangat tidak setuju	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Sangat setuju

---

**10. Kinerja belajar/pendidikan saya terkena dampak secara negatif akibat waktu yang saya habiskan di internet. \****Tandai satu oval saja.*

	1	2	3	4	5	
Sangat tidak setuju	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Sangat setuju

---

**Lama waktu yang dihabiskan di Internet**

Seluruh penggunaan internet, termasuk penggunaan internet ketika bekerja, media sosial, pesan singkat, membaca berita online, streaming online dan lainnya.

**1. Berapa jam anda menggunakan internet setiap harinya di hari kerja? (Senin-Jum'at)\***


---

**2. Berapa jam anda menggunakan internet setiap harinya di akhir pekan? (Sabtu-Minggu)\***


---

## Part 4. Exposure to Violence Factors

### Faktor Pengaruh Kekerasan

Faktor Pengaruh Kekerasan terdiri dari 3 bagian, yaitu pengaruh kekerasan di media, teman sebaya, dan keluarga.

#### Pengaruh kekerasan di media

Skala:

- 1 - Tidak pernah
- 2 - Jarang
- 3 - Kadang-kadang
- 4 - Sering
- 5 - Selalu

#### 1. Saya pernah melihat seseorang melakukan tindakan agresif di TV. \*

Tindakan agresif mencakup tindakan yang membahayakan atau menyakiti orang lain

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 2. Saya pernah melihat seseorang terancam di TV. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 3. Saya pernah melihat seseorang melakukan tindakan agresif di internet. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 4. Saya pernah melihat seseorang terancam di internet. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 5. Saya pernah melihat seseorang melakukan tindakan agresif di film. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu







**5. Apa pendapat anda mengenai Cyberbullying? (Menyenangkan/Tidak menyenangkan) \****Tandai satu oval saja.*

1	2	3	4	5	6	7		
Menyenangkan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Tidak menyenangkan

**6. Apa pendapat anda mengenai Cyberbullying? (Memuaskan/Tidak memuaskan) \****Tandai satu oval saja.*

1	2	3	4	5	6	7		
Memuaskan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Tidak memuaskan

**7. Apa pendapat anda mengenai Cyberbullying? (Menginspirasi/Tidak menginspirasi) \****Tandai satu oval saja.*

1	2	3	4	5	6	7		
Menginspirasi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Tidak menginspirasi

**8. Apa pendapat anda mengenai Cyberbullying? (Seru/Tidak seru) \****Tandai satu oval saja.*

1	2	3	4	5	6	7		
Seru	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Tidak seru

**9. Apa pendapat anda mengenai Cyberbullying? (Memberi rasa santai/Tidak memberi rasa santai) \****Tandai satu oval saja.*

1	2	3	4	5	6	7		
Memberi rasa santai	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Tidak memberi rasa santai

**10. Apa pendapat anda mengenai Cyberbullying? (Tidak memalukan/Memalukan) \****Tandai satu oval saja.*

1	2	3	4	5	6	7		
Tidak memalukan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Memalukan

**Rasa percaya diri**

Skala:

- 1 - Sangat tidak setuju
- 2 - Tidak setuju
- 3 - Netral
- 4 - Setuju
- 5 - Sangat setuju







## Memfitnah

Skala:

- 1 - Tidak pernah
- 2 - Jarang (kurang dari 6 kali)
- 3 - Kadang-kadang (6-10 kali)
- 4 - Sering (11-15 kali)
- 5 - Selalu (16 kali atau lebih)

### 6. Saya memfitnah menggunakan nama seseorang kepada orang lain.\*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

### 7. Saya memfitnah menggunakan nama orang lain agar orang-orang membencinya. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

### 8. Saya menyebarluaskan secara online foto atau video seseorang yang tidak pantas. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

### 9. Saya menyebarluaskan foto atau video seseorang untuk mencoreng nama baik mereka.\*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

### 10. Saya menyebarkan secara online gosip tentang orang lain untuk membuat mereka malu.\*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu



### Membuka rahasia orang lain

Skala:

- 1 - Tidak pernah
- 2 - Jarang (kurang dari 6 kali)
- 3 - Kadang-kadang (6-10 kali)
- 4 - Sering (11-15 kali)
- 5 - Selalu (16 kali atau lebih)

#### 16. Saya menyebarluaskan secara online nama orangtua atau keluarga dekat dari seseorang.\*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 17. Saya menyebarluaskan secara online rahasia yang merendahkan orang lain. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 18. Saya menyebarluaskan secara online rahasia seseorang yang memalukan dan tercela. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 19. Saya menyebarluaskan secara online informasi personal seseorang.\*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 20. Saya menyebarluaskan secara online rahasia seseorang ke orang lain. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

### Menghapus atau memblokir orang lain dari grup

Skala:

- 1 - Tidak pernah
- 2 - Jarang (kurang dari 6 kali)
- 3 - Kadang-kadang (6-10 kali)
- 4 - Sering (11-15 kali)
- 5 - Selalu (16 kali atau lebih)

#### 21. Saya mengeluarkan orang yang saya tidak suka di grup.\*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 22. Saya memblokir seseorang yang saya tidak suka di grup.\*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 23. Saya meminta teman saya menghapus orang yang saya tidak suka di internet. \*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Selalu

#### 24. Saya meminta teman saya memblokir seseorang yang saya tidak suka di grup.\*

*Tandai satu oval saja.*

	1	2	3	4	5	
Tidak pernah	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

## Appendix 2

### Questionnaire (English Version)

#### Part 0. Introduction and consent

## Factors Associated with Cyberbullying among the Youth in Jakarta, Indonesia

Good morning/afternoon/evening.

Let me introduce myself, my name is Santi Gusti Handono, a master degree student in Human and Social Development, Prince of Songkla University, Thailand.

Right now I'm doing a research entitled „Factors Associated with Cyberbullying among the Youth in Jakarta Indonesia“ to complete my thesis in order to finish my education.

All incoming data will be remained confidential and only used for the purpose of the research. If you agree, you can continue to fill in the questionnaire. Participation of this questionnaire is voluntary and if you feel uncomfortable you can stop at any point.

I really appreciate for your participation in this research. Greetings,

Santi Gusti Handono  
[santihandono@gmail.com](mailto:santihandono@gmail.com)

\*Compulsory

**I am 15-24 years old and a Jakarta resident\***

*Choose one.*

Yes

No, stop her

*Stop filling the questionnaire.*

#### Part 1. Personal Data

### Personal Information

This part contains basic information about the participant.

**1. What is your gender?\***

*Choose one.*

Male

Female

**2. What is your age? \***

*Choose one.*

15-17 years old

18-20 years old

21-24 years old

**3. What is your religion? \***

*Choose One.*

Islam

Christian

Catholic

Buddha

Hindu

Others: \_\_\_\_\_

**4. What is your latest educational level? \***

*Choose one.*

SMP

SMA

D3/S1/S2

Yang lain: \_\_\_\_\_

**5. What is your occupation? \***

*Choose one.*

Student

Employee

Jobless

Others: \_\_\_\_\_

**6. How much do you spend on the internet per month? \***

*Choose one.*

Under Rp50.000

Rp50.001-100.000

Rp100.001-150.000

Above Rp150.000

Using home wifi

**7. What is your father's educational level? \***

*Choose one.*

SD/SMP/SMA

D3/S1

S2/S3

Others: \_\_\_\_\_

**8. What is your mother's educational level?\***

*Choose one.*

SD/SMP/SMA

D3/S1

S2/S3

Others: \_\_\_\_\_

**Part 2. Perceived Social Support Factors**

**Perceived Social Support Factors**

Perceived social support factors consisted of 2 parts, social support from family and social support from friends.

**Social support from family**

Scale:











**6. When internet is not available, I feel vulnerable. \****Choose one.*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

---

**7. I put internet on the top of important and daily activities. \****Choose one.*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

---

**8. Because of internet I lose motivation to get other things done. \****Choose one.*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

---

**9. My sleeping time has been decreased because of the internet. \****Choose one.*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

---

**10. My school/study performance has been affected negatively by my internet time. \****Choose one.*

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Agree

---

**Time spent online**

All of internet use, including internet use when working, playing social media, chatting, reading online news, online streaming and others.

**a. How many hours do you spend on the internet on weekdays? (Mon-Fri) \***


---

**b. How many hours do you spend on the internet on weekend? (Sat-Sun)\***


---

**Part 4. Exposure to Violence Factors****Exposure to Violence**

Exposure to violence consisted of three parts, exposure to media, peer and family violence.

## Exposure to media violence

Scale:

- 1 - Never
- 2 - Rarely
- 3 - Sometimes
- 4 - Often
- 5 - Always

### 1. I witness someone doing aggressive action on TV. \*

Aggressive act including dangerous act or act that can put others in danger.

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 2. I witness someone got threaten on TV. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 3. I witness someone doing aggressive action on the internet. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 4. I witness someone got threaten on the internet. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 5. I witness someone doing aggressive action in the movie. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 6. I witness someone got threaten in the movie. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

## Exposure to peer violence

Scale:

- 1 - Never
- 2 - Rarely
- 3 - Sometimes
- 4 - Often
- 5 - Always

### 1. I witness my friend got slapped/punched/hit. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 2. I witness my friend got threaten. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 3. I witness my friend got beaten. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 4. My friend has slapped/punched/hit me. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 5. My friend has threaten me.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 6. My friend has beaten me. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

## Exposure to family violence

Scale:

- 1 - Never
- 2 - Rarely
- 3 - Sometimes
- 4 - Often
- 5 - Always

### 1. I witness someone got slapped/punched/hit at home. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 2. I witness someone got threaten at home. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 3. I witness someone got beaten at home.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 4. Someone has slapped/punched/hit me at home. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 5. Someone has threatened me at home. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 6. Someone has beaten me at home. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always











## Slandering

Scale:

1 - Never

2 – Rarely (less than 6 times)

3 – Sometimes (6-10 times)

4 – Often (11-15 times)

5 – Always (16 times or more)

### 6. I slander using someone's name to other person.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 7. I slander using someone's name to make others hate them. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 8. I distribute someone's embarrassing picture or video online. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 9. I distribute someone's picture to harm their reputation.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 10. I distribute someone's rumor to humiliate them online.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

## Identity Theft

Scale:

- 1 - Never
- 2 - Rarely (less than 6 times)
- 3 - Sometimes (6-10 times)
- 4 - Often (11-15 times)
- 5 - Always (16 times or more)

### 11. I use someone's name to chat online without permission.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 12. I use someone's name for bad things without permission.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 13. I use someone's image without permission.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 14. I use someone's name without permission.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 15. I use someone's name to hurt others without permission.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

## Revealing Other's Secret

Scale:

1 - Never

2 – Rarely (less than 6 times)

3 – Sometimes (6-10 times)

4 – Often (11-15 times)

5 – Always (16 times or more)

**16. I distribute someone's parents or close relative name online.\***

*Choose one.*

1      2      3      4      5

Never

Always

**17. I distribute someone's inferiority complex secret online. \***

*Choose one.*

1      2      3      4      5

Never

Always

**18. I distribute someone's shameful and disgraceful secret online. \***

*Choose one.*

1      2      3      4      5

Never

Always

**19. I distribute someone's personal information online.\***

*Choose one.*

1      2      3      4      5

Never

Always

**20. I distribute someone's secret to others online. \***

*Choose one.*

1      2      3      4      5

Never

Always

## Deleting or blocking others from group

Scale:

1 - Never

2 – Rarely (less than 6 times)

3 – Sometimes (6-10 times)

4 – Often (11-15 times)

5 – Always (16 times or more)

### 21. I remove someone I don't like from the group.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 22. I block someone I don't like from the group.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 23. I ask my friends to remove someone I don't like online. \*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

### 24. I ask my friends to block someone I don't like from the group.\*

Choose one.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

## Appendix 2

### Photos





## **Indexing for Paper**

## Journal Paper 1

10th International Conference on Humanities and Social Sciences, 10<sup>th</sup> ICHiSS 2018  
 Kuala Lumpur (Malaysia) 11<sup>th</sup> May 2018-13<sup>th</sup> May 2018  
 Theme: Understanding Regional and Global Integration on Humanities and Social Sciences

# Relationship between Violence Influence Factors and Cyberbullying of Youth in Jakarta, Indonesia

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## Abstract

The purpose of this study was to examine the relationship between violence influence factors as the predictor variables of cyberbullying. In this quantitative study, the data collecting instrument was online questionnaire. The participants of this study were 210 youth in Jakarta, Indonesia, who were selected using convenient sampling in several shopping malls in Jakarta. Pearson Product-Moment correlation and multiple linear regression were used to analyze the association between cyberbullying outcome and three predictor variables: influence of media violence, influence of peers violence, and influence of family violence. This study suggested that there were significant relationship between cyberbullying and influence of media violence and influence of family violence. The influence of media violence was the strongest predictors for the cyberbullying behavior (Beta value= 0.32). Meanwhile the influence of family violence also contributed on explaining cyberbullying behavior (Beta value= 0.05).

**Keywords:** cyberbullying, youth in Jakarta, violence influence factors, influence of media violence, influence of peers violence, influence of family violence.

## 1. Introduction

In this millennial era, internet took important part of our life. Many things we do daily require internet, such as chatting with friends, sending email to co-workers, watching cooking tutorial videos on Youtube, expanding social network on social media, or browsing on some information on Google. As the internet world keeps growing bigger, it comes not only with the benefit but also with the consequences. The nature of the open space of internet, make anyone from children to elderly can access the various content of the internet without knowing if its good or bad for them.

Everytime people open their social media, news portal or various websites and see many contents which not all were appropriate for them. They also might engage with online activities that not necessarily good for them or for other people.

One of the consequences of the internet is cyberbullying. Bullying activities which originally happened verbal and physical, now has expanded into the cyberspace. Cyberbullying is an aggressive and intentional act done by an individual or group repeatedly and over time using electronic platform to individual or group that cannot defend themselves. It can happen in several platform, which are mobile text messaging, phone call, instant messaging, chat room, email, website and picture/video [1]. Cyberbullying could happen to anyone, from regular person to celebrities, or even politician. As long as they are available on the internet, they are not safe from cyberbullying.

Cyberbullying happened in any form: flaming, slandering, identity theft, reveal other's secret, and deleting or blocking others from group [2]. Many of those simple things that we see everyday on the internet, might be one of cyberbullying behaviour. Simple aggressive things, like commenting other people photo with bad words, distributing shameful picture of others, or spreading rumors about others. Sometimes people take it as a joke, but once a content has been uploaded online, it could be seen, downloaded or shared by other internet users, make it difficult to delete it permanently.

As well as other form of bullying, cyberbullying also created a damaging psychological impact on the victim. Many people doesn't know that things they did online can actually hurts another person in real life. The side effects of cyberbullying are very dangerous, especially for teenagers and adolescents. Experiencing cyber-victimization could raise anxiety and stress in adolescents [3], sadness, and disappointment [4], lower their self-esteem [5], and increase their loneliness level [6].

In Indonesia itself, cyberbullying has been quite a problem. A research in Yogyakarta city assessing high school students found that 80% of the respondents have been cyber-bullied. They reported that they were been cyberbullied through social media such as Facebook, Twitter, Youtube, as well as other platforms such as text messages and phone calls [18]. Another report came from Jakarta Police Office, said that there were approximately 25 reports of cyberbullying cases each day. The case was usually about flaming. Not every case went to the court, because mediation process was taken to solve the problem [19].

Many research about cyberbullying linked several factors to predict cyberbullying, one of those was violence influence factors. Exposures of violent behavior might increase the likelihood of someone to commit a violent behavior. Media like television, internet, and movie were a familiar part of teenagers and adolescents life. Even though people are trying to see only the appropriate content on the media, the inappropriate content such as violent contents are still everywhere. It was argued that media violence can decrease both the sensitivity of aggression in real life and sympathy of the victim [9]. Research also showed that television-viewing and electronic game-playing could lead to indirect violence [15]. Further, influence of media violence was found to be associated to cyberbullying likelihood [7,8,14].

Peers which also a familiar part for teenager and adolescent, but its not always in a good place. In school, violent behavior like physical or verbal bullying were inevitable. The bullies, the victim, and the bystander all were exposed to violence. Research also found that exposure of peers violence also influenced cyberbullying behavior [1,7,8]. Like peers, exposure of family violence also had a positive relationship with cyberbullying likelihood [10,7,11,12].

This research purpose was to examine the correlation and the relationship between influence of media violence, influence of peers violence, influence of family violence and cyberbullying of youth in Jakarta. Seeing the cyberbullying phenomenon as a new issue for the new generation, it is important to examine what are the factors that could predict the cyberbullying behavior. This study should be useful for the related organization or party that forming the policy to prevent or overcome the cyberbullying problem.

## 2. Methods

### 2.1 Participants

The participants of the study consisted of 210 person. The participants were on the age range 15-24 years old. All of the participants were the resident of DKI Jakarta province.

### 2.2 Data Collection

This study was a cross-sectional study. The data collecting instrument was online questionnaire (google form). Online questionnaire was used to make it simple and flexible. Writtern consent was written on the introductory part of the questionnaire to ensure the participant agreed to it and had the knowledge that their confidentiality was protected.

The data collecting process was done in several shopping malls all across Jakarta. The participant was chosen by convenient sampling by the researcher. The researcher asked to the prospective participant about their age and their willingness to participate in this research. For those who willing to participate, the researcher prepared the gadget with internet connectivity as the platform for filling out the online questionnaire and waited until the participant finished the questionnaire. It took approximately 10-15 minutes.

### 2.3 Measure

*Cyberbullying* is a 24 items self-report questionnaire which scored on a five-point scale, ranging from Never (1), Rarely (2), Sometimes (3), Often (4), and Always (5). The questionnaire divided by five parts: Flaming (5 items), Slandering (5 items), Identity Theft (5 items), Revealing Other's Secret (5 items), and Deleting or Blocking Others from Group (4 items). Example questions for this part are "*I distribute someone's embarrassing picture or video online*" and "*I use someone's name to chat online without permission*". The internal consistency is .91, which was an excellent internal consistency.

*Influence of Media Violence* is a self-report questionnaire which scored on a five-point scale, ranging from Never (1), Rarely (2), Sometimes (3), Often (4), and Always (5). This part consists of 6 items, including witnessing aggressive actions and threaten on television, internet, and movies. Example question for this part is "*I witness someone doing aggressive action on TV*". The internal consistency is .88, which was a good internal consistency.

*Influence of Peers Violence* is a self-report questionnaire which scored on a five-point scale, ranging from Never (1), Rarely (2), Sometimes (3), Often (4), and Always (5). This part consists of 6 items, including witnessing friend being slapped/threaten/beaten or experiencing being slapped/threaten/beaten by friend. This part consists of 6 items. Example question for this part is "*I witness my friend got slapped/punched/hit*". The internal consistency is .93, which was an excellent internal consistency.

*Influence of Family Violence* is a 6 items self-report questionnaire which scored on a five-point scale, ranging from Never (1), Rarely (2), Sometimes (3), Often (4), and Always (5). This part

consists of 6 items, including witnessing family member being slapped/threaten/beaten at home or experiencing being slapped/threaten/beaten by family member at home. Example for this question is “*Someone has beaten me at home*”. The internal consistency is .93, which was an excellent internal consistency.

#### 2.4 Data Analysis

This study consists of four parts of data analysis. First, we explained about the profiles of the subjects. It consists of age range, religion, occupation, internet spending per month, father’s occupation and mother’s occupation. Second, we explained about descriptive analysis of outcome variable and predictors variables. Thirdly, we measured the correlation between cyberbullying and three violence influence factors (media, peers and family) using Pearson Product-moment correlation. Fourth, we used multiple linear regression to examine about the relationship of cyberbullying and three violence influence factors (media, peers and family). Using stepwise method, the variables were eliminated.

### 3. Results

#### 3.1 Profiles of the Subjects

From all 210 respondents, 61.43% person were female, and 38.57% person were male. They were divided by three age groups, 15-17 years old (21.9%), 18-20 years old (38.1%), and 21-24 years old (40%). Most of the respondent’s religion were Islam (92.38%), and the rest were Christian (6.19%), Catholic (0.95%), and Buddha (0.48%). Education level of the respondents were mostly senior high school (64.29%), college (33.81%), and junior high school (1.90%). Most of the respondent’s occupation were student (60.48%), working (28.57%), college student (6.67%), not working (4.29%). On the internet spending per month, most of the respondents spent IDR50.001-100.000 (56.67%), IDR100.001-150.000 (19.52%), under IDR50.000 (12.86%), above IDR150.000 (6.67%), and none because they were using their home wi-fi (4.29%). Respondent’s father educational level mostly were basic education (elementary-high school) (59.52%), diploma/bachelor (30.95%), and master/PhD (9.52%). Lastly, respondent’s mother educational level were school (59.05%), diploma/bachelor (36.67%), and master/phD (4.29%).

#### 3.2 Descriptive Analysis of Outcome Variables (Cyberbullying) and Predictor Variables

Cyberbullying is the outcome variable (Y) of this study, and it was interpreted that youth in Jakarta have high level of cyberbullying (mean = 3.63). The analysis of the predictor variable related to violence influence factor of the respondents showed high level of influence of media violence among youth in Jakarta (mean = 3.58). Second predictor that also on the high level was influence of family violence (mean = 3.54). The influence of peers violence was the only predictor in moderate level (mean = 2.88) (TABLE I)

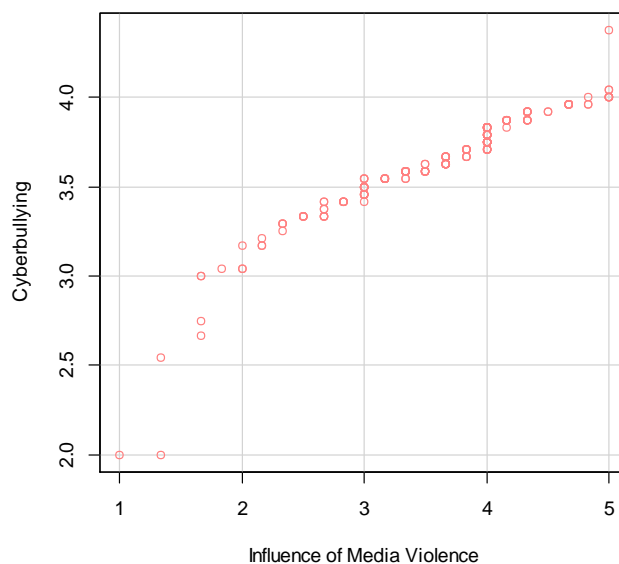
TABLE I: Descriptive statistics of outcome variable (cyberbullying) and predictor variables

Variable	Mean Score	S.D.	Interpretation
Cyberbullying (Y)	3.63	0.30	High

Influence of Media Violence ( $X_1$ )	3.58	0.79	High
Influence of Peers Violence ( $X_2$ )	2.88	0.45	Moderate
Influence of Family Violence ( $X_3$ )	3.54	0.62	High

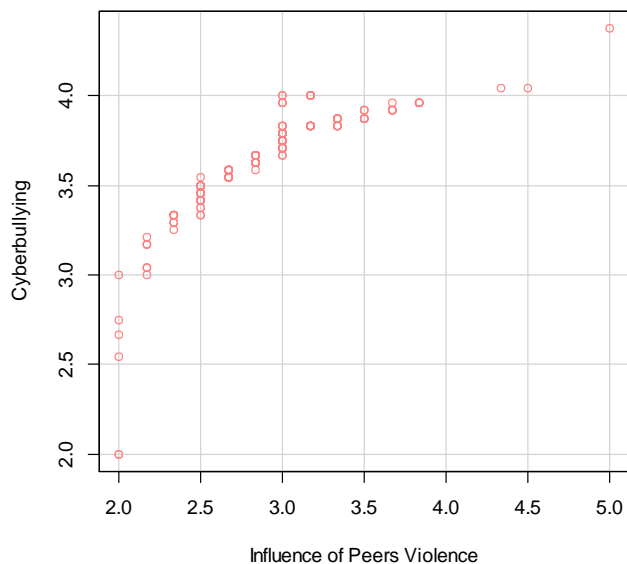
### 3.3 Relationships between Outcome Variable: Cyberbullying and Three Predictors

Using Pearson's product moment correlation coefficients, we analyzed the relationships between the three predictors and cyberbullying of youth in Jakarta, Indonesia. It was found that all three predictors had highly significant, positive relationships with cyberbullying. The influence of media violence had the highest relationship with cyberbullying ( $r = .95$ ,  $p < .001$ ) (Figure 1). The influence of family violence had the second-high relationship with cyberbullying ( $r = .85$ ,  $p < .001$ ) (Figure 3). Lastly, the influence of peers violence also had high relationship with cyberbullying with a slight score difference ( $r = .84$ ,  $p < .001$ ) (Figure 2).



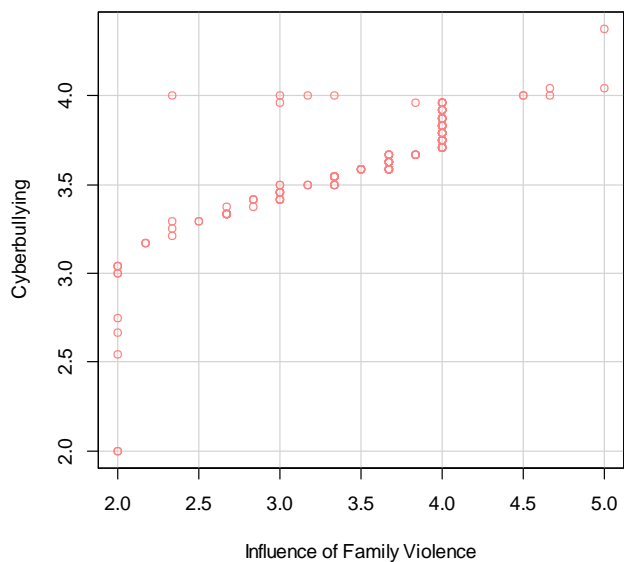
$r = 0.95$        $p = .000$       95% confident interval = 0.93, 0.96

Fig. 1: Relationships between Influence of Media Violence and cyberbullying



$r = 0.84$        $p = .000$  95%      confident interval = 0.79, 0.87

Fig. 2: Relationships between Influence of Peers Violence and cyberbullying



$r = 0.85$        $p = .000$       95% confident interval = 0.81, 0.88

Fig. 3: Relationships between Influence of Family Violence and cyberbullying

### 3.4 Factors Predicting Cyberbullying

An analysis using multiple linear regression was done to examine the relationship between cyberbullying as the outcome and the predictor variables. From the result we learned that there were a statistically significant relationship between cyberbullying and influence of media violence and influence of family violence. The residual deviance of 0.099 on 207 degrees of freedom ( $p = .000$ ) and the two predictor variables explain about 89.0% of the variance in bullying behavior.

In table II, it was stated that the largest beta coefficient obtained was 0.32 (95% C I = 0.28, 0.36) for the influence of media violence. This means that the influence of media violence was the strongest contributor for cyberbullying behavior. The beta value for influence of family violence was 0.05 (95% C I = 0.01, 0.09), suggesting that this predictor variable also had contribution for cyberbullying behavior.

TABLE II: Reduced linear regression model of relationship between predictor variables and the outcome variable: cyberbullying, final model

Predictor Behavior	B	S.E.	$\beta_0$	$p$ value	95% CI
Constant	2.30	0.04		.000	1.50, 3.10
Influence of Media Violence ( $X_1$ )	0.32	0.02	.85	.000	0.28, 0.36
Influence of Family Violence ( $X_3$ )	0.05	0.02	.10	.032	0.01, 0.09

Note: Multiple R-Squared: 0.892, Adjusted R-squared.: 0.890  
Residual standard error: 0.099 on 207 degrees of freedom

#### 4. Discussion and Conclusion

This study examined the relationship between cyberbullying and the influence of media violence, influence of peers violence and influence of family violence. The result indicate that there were a relationship between cyberbullying and two predictors variable: influence of media violence and influence of family violence. The two predictor variable explain about 89.2% variance of cyberbullying behavior. Influence of media violence was found to be the most stronger predictor in explaining youth cyberbullying behavior. This means the more youth were exposed to media violence, the more likely they will commit cyberbullying behavior rather than those who were with low exposure of media violence.

Earlier study about exposure of violent content on television explained that children who were exposed from violent content more likely to commit aggressive behavior or crime later when they grew up [17]. Exposure of violence from playing aggressive online games also taking account for aggressive behavior and increased the likelihood of being cyberbullying perpetrator [14]. Alongside with bad effect of media violence exposure to the youth's behavior, exposure of anti social and risk behavior (wider than violent behavior) on media also have positive relationship with cyberbullying likelihood [16]. These facts suggest when inappropriate behavior displayed on the media, the youth tend to be influenced by those behavior and might reflect it on their future behavior toward other people.

This result was align with Bandura's Social Learning Theory, which explained that people will behave according to their result of observational learning of their surrounding environment [13]. This suggest that when people were exposed to the violent behavior on media, they more likely to do observational learning and imitate the aggressive behavior, especially for young people that sometimes still can't decide whether it's an appropriate behavior or not. Since cyberbullying was done online and not in person, the perpetrator



also might not see the victim's reaction and might not realize that they were actually hurting the victim in real life. The more they were exposed to violent behavior, the more they might justify the behavior and felt less compassion for the victim. This result is similar with previous study about the positive relationship between exposure of media violence and cyberbullying likelihood [7,8,9].

From this study, it is known that a positive relationship was also found between exposure of family violence and cyberbullying behavior, meaning that youth who have been exposed into violent environment at home more likely to commit cyberbullying behavior. Living in a violent home environment could bring such negative effect to the youth because they have to be in it everyday and might internalize the violent behavior and perform it elsewhere, like being involved in direct bullying [20] and cyberbullying [7,10,11,12].

This study found that cyberbullying is a serious issue among youth in Jakarta, Indonesia. Influence of media violence is the highest risk factor of the cyberbullying behavior. The findings should be helpful for the related institution, both governmental or non-governmental to create a good decision about prevent and overcome cyberbullying issue. Parents, older people, teacher and the surrounding environment of the youth should control all the media exposure of the youth, make sure the youth exposed to the violent content of media on the minimum quantity and quality. Although we cannot control the content maker of television, internet, and movies, but the government could appealed the content maker to create a content that free or at least with minimum violent behavior for the producer of television and movies in Indonesia. The government institution and related NGO organization should also create the anti-cyberbullying campaign, to educate the youth about the disadvantage and effect of cyberbullying, that cyberbullying could actually hurt someone else. With this campaign we hope that they will be more careful and thoughtful when using the internet.

## 5. Acknowledgments

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## Journal Paper 2

### Factors Related with Cyberbullying among the Youth of Jakarta, Indonesia

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#### Abstract

*Background* The purpose of this study was to measure the relationship between various determinant variables and cyberbullying behavior among youth in Jakarta, Indonesia. Six determinant variables were examined including perceived social support factors (social support from family and friends), cyber factors (problematic Internet use and time spent online), and psychological factors (attitude toward cyberbullying and self-esteem). The results of this study can be used to make recommendations to the government or related organizations about cyberbullying issues.

*Methods* This study used a questionnaire as the data collecting instrument. A total of 210 young people participated in this study. Pearson product moment correlations were used to measure the relationship between the determinant variables and the likelihood of cyberbullying, and multiple linear regression was used to identify the factors related with cyberbullying.

*Results* We found a high level of cyberbullying behavior among young people in Jakarta (mean= 3.63 out of 5). From six determinant variables, we found that five were related with cyberbullying behavior. Social support from friends was found to have the strongest relationship with cyberbullying behavior (Beta value= -0.24). Self-esteem, social support from family, attitude toward cyberbullying, and problematic internet use were also found to be related with cyberbullying behavior (Beta values= 0.16, -0.14, 0.13, 0.09, respectively).

*Conclusions* There were significant relationships between cyberbullying behavior and four determinant variables. The strongest was social support from friends followed by self-esteem, social support from family, attitude toward cyberbullying, and problematic internet use.

Keywords: cyberbullying, social support from family, social support from friends, problematic Internet use, time spent online, attitude toward cyberbullying, self-esteem.

#### Introduction

In this millennium, the Internet has become an integral part of our lives. Nowadays many of our daily activities require the Internet, such as sending email to co-workers, reading the news online, watching cooking recipe videos and chatting with friends. The Internet offers us a simpler and easy life and Internet use all over the world has been gradually increasing,

with the number of users reaching 4 billion in January 2018 (Kemp, 2018). Social media has also become a significant Internet trend, with more than 3 billion users as of January 2018 (Kemp, 2018). This has created a huge cyberspace where people from anywhere can connect and interact with each other.

Human interaction has traditionally been based on face-to-face interaction, but this has now expanded to encompass cyber or online interaction using the Internet. However, despite all the benefits offered by the Internet, there are also drawbacks and traditional bullying, which usually happened in schools in the form of verbal or physical violence, has also spread to cyberspace creating a new form of bullying, called cyberbullying.

Cyberbullying is an aggressive act done by one person or group with the intention to hurt another powerless person or group using an electronic platform. The behavior must be performed repeatedly and over time (Smith, et al., 2008). There are several types of cyberbullying behavior, such as flaming, slandering, identity theft, revealing others' secrets, and deleting or blocking someone from a group. Some examples are attacking someone with bad words, using someone's identity without permission, distributing rumors to humiliate others, and removing people we don't like from the group (Tudkuea & Laeheem, 2014).

Like traditional bullying, cyberbullying has negative effects on the victim, particularly by causing psychological distress. It is known that being a victim of cyberbullying can raise anxiety and stress (Broll, Dunlop, & Crooks, 2018), sadness and disappointment (Patchin & Hinduja, 2008), loneliness (Sahin, 2012), and lower self-esteem (Patchin & Hinduja, 2010). There have also been cases where cyber-victims end their own life because of being severely cyberbullied. One of these was a 12 year-old girl from the USA who committed suicide after being attacked and humiliated on social media by her school friends (Rosenblatt, 2017).

In Indonesia, cyberbullying is also not rare and research among adolescents in Medan found that 36% of the participants claimed to be cyberbullies themselves with 50% claiming to be cyber-victims (Nazriani & Zahreni, 2016). Meanwhile in Yogyakarta, research found that 80% of the participants claimed to be cyber-victims and to be cyberbullied through social media (notably, Facebook and Twitter), videos streamed to the YouTube web site, text messages and phone calls (Safaria, 2016).

These findings suggest that cyberbullying is an inevitable phenomenon and it is therefore important to understand the factors which motivate youth to indulge in cyberbullying behavior. Much earlier research about cyberbullying has found links to several factors which affect the likelihood of cyberbullying, one of which is perceived social support. Social support from the surrounding environment is an important personal need and the term perceived social support is used to describe a person's perceptions of the availability and provision of social support (Shumaker & Brownell, 1984). An appropriate level of

perceived social support from friends and family can create a good environment for adolescents and be a factor which prevents bullying (Williams & Guerra, 2007).

It is known that social support from the family has a great impact in preventing involvement in cyberbullying (Fanti, Demetriou, & Hawa, 2012). Previous research has also shown that a high level of social support from the family is negatively associated with cyberbullying behavior (Williams & Guerra, 2007). Along with the family, high social support from friends has also been found to be negatively associated with cyberbullying (Calvete, Orue, Estevez, Villardon, & Padilla, 2010) and people with greater peer support have a lower likelihood of performing cyberbullying.

Another factor linked with cyberbullying is the cyber behavior of the people themselves, including problematic Internet use and time spent online. Problematic Internet use is defined as excessive, impulsive, and risky Internet use that might affect someone's life in physical, emotional, social or functional ways (Moreno, Jelenchick, & Christakis, 2013). An earlier study in Korea found that problematic Internet use was associated with cyberbullying behavior (Jung, et al., 2014) and both Kircaburun and Bastug (2016) and Nartgun and Cicioglu (2015) also found that problematic Internet use is a significant predictor of cyberbullying with the amount of time people spend on the Internet often being linked with cyberbullying behavior. Thus the more time people spend online, the more likely they are to commit cyberbullying (Navarro et.al, 2013).

The final factors that are usually linked with cyberbullying behavior are psychological factors, including one's attitude towards cyberbullying and one's self-esteem. Ajzen's (1991) theory of planned behavior explains that when an individual performs certain behavior, it will be supported by several factors, one of which is attitude toward that behavior. Attitude is the degree of favor with which an individual regards a behavior. If one has a favorable or positive attitude toward a behavior, the intention to perform it will also be increased.

In previous research, it was found that attitude toward cyberbullying is the strongest factor to affect the behavior (Heirman & Walrave, 2012). Previous research has also found that a positive attitude toward cyberbullying could increase the likelihood of cyberbullying (Kircaburun & Bastug, 2016; Williams & Guerra, 2007; Barlett & Chamberlin, 2017). Another psychological factor, self-esteem, has also been found to have a relationship with the likelihood of cyberbullying. People with lower self-esteem have been found to have a greater tendency to be involved in cyberbullying, both as the perpetrator and the victim (Brewer & Kerslake, 2015; Patchin & Hinduja, 2010; Okoiye, Anayochi, & Onah, 2015).

This researcher was interested to explore the factors related with cyberbullying among youth in Jakarta. The results of this study could be useful to both government and non-government organisations, in helping them to frame policies and find solutions to overcome cyberbullying as a growing social problem particularly in Jakarta and generally throughout Indonesia.

## Methods

### Participants

The participants in this study were 210 young people in Jakarta aged between 15 and 24 years. The participants were chosen by convenience sampling from five shopping malls from five regions of Jakarta Province: East Jakarta, South Jakarta, West Jakarta, North Jakarta, and Central Jakarta. The shopping malls were also selected using convenience sampling. The prospective participants were asked their age and those who fell within the selected age range were asked to complete a questionnaire. It was explained to the potential participants that participation in the study was voluntary and that they had the right to refuse. Indeed, some people did refuse to fill in the questionnaire.

### Data collection

This study was a cross-sectional study. Data were collected from 1 January 2018 to 31 January 2018. There were three steps in data collection: a pilot study, a try-out study and real data collection. The questionnaire was written in English and translated to Bahasa Indonesia by two licensed translators using the back and forward method. After translation, the questionnaire was tested in a pilot study to ensure the quality of the translation. Then, the questionnaire was tested in a try-out study on 40 respondents in the city of Bekasi to measure the reliability of the questions. After eliminating some questions which were found not to meet the reliability criterion, real data collection began.

The researcher provided the participants with an appliance connected to the Internet on which they completed the questionnaire. The questionnaire commenced by obtaining the participant's written consent and stated that the data obtained from the questionnaire as well as their identity would be confidential. While the participants were filling in the questionnaire, the researcher stood by in case they had any inquiries about it.

### Measures

Cyberbullying, which was defined as any behavior happening in cyberspace committed by a person or group causing harm to another person or group, was measured using the 24 cyberbullying indicators from Tudkuea and Laeheem (2014) which are divided into 5 aspects: flaming, slandering, identity theft, revealing others' secrets, and deleting or blocking others from a group. We asked the participants to answer items relating to all the 24 indicators based on a 5-point scale consisting of: never, rarely, sometimes, often, and always.

## Data Analysis

We used the R program to analyze the data in this study. Firstly, we measured the descriptive statistics of the determinant variables and outcome variable to determine the mean score and standard deviation. To categorize the level of the mean score, we used the interpretations from Best (1981) in which a mean of 1.00-1.49 is interpreted as lowest, 1.50-2.49 is interpreted as low, 2.50-3.49 is interpreted as moderate, 3.50-4.49 is interpreted as high, and 4.50-5.00 is interpreted as highest.

Second, we measured the relationship between the determinant variables using Pearson product moment correlations. We used Cohen's (1988) interpretation to interpret the correlation based on the coefficient value:  $r = .10$  to  $.29$  as a small correlation,  $r = .30$  to  $.49$  as a medium correlation, and  $r = .50$  to  $1.0$  as a large correlation. Then, we examined the relationship between the determinant variables and the outcome variable using multiple linear regression. The determinant variables were eliminated using the stepwise method.

## Results

There were 210 respondents in this study, 38.57 % were male and 61.43 % were female. All of the respondents were in the age range of 15-24 years. They were divided into three smaller ranges, 15-17 years old (21.9 %), 18-20 years old (38.1 %), and 21-24 years old (40 %). The participants' religion was mostly Islam (92.38 %), followed by Christianity, and Buddhism which together made up less than 8%. The respondents' present educational attainment was mostly senior high school (64.29 %), with the remainder having completed college (33.81 %) or junior high school (1.90 %). The respondents were mostly students (60.48 %) or workers (28.57 %), with college students (6.67 %), or jobless (4.29 %) making up the balance. Most of the respondents (56.67 %) spent IDR50.001-100.000 on Internet access per month, with 19.52 % spending IDR100.001-150.000, 12.86 % spending under IDR50.000, 6.67% spending above IDR150.000, and 4.29 % spending nothing because they used wi-fi at their homes. The educational levels of the respondents' fathers were school: 59.52 %, diploma/bachelor's degree: 30.95 %, and master's degree/PhD: 9.52 %. The educational level of the respondents' mothers were school: 59.05 %, diploma/bachelor's degree: 36.67 %, and master's degree/PhD: 4.29 %.

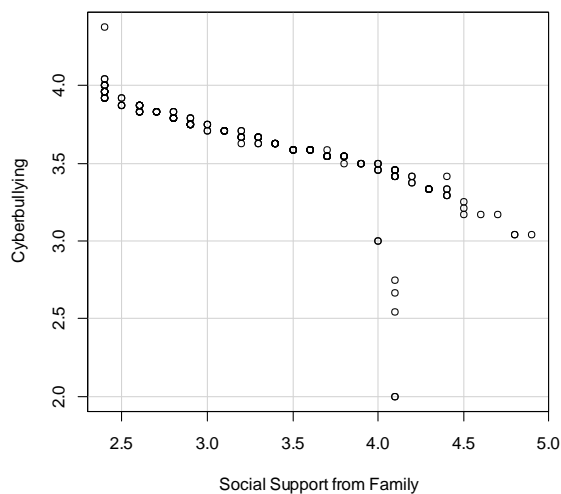
Table 1 shows the descriptive statistics of the outcome variable (cyberbullying) and the determinant variables. It was found that youth in Jakarta had a high level of experience of cyberbullying (mean = 3.63). There were six determinant variables in this study and the results found varied between them. Three of the variables were found to be on the high level, those are time spent online (mean = 3.83), attitude toward cyberbullying (mean = 3.75), and self-esteem (mean = 3.50). The rest of the variables were in the moderate level, those are social support from family (mean = 3.30), social support from friends (mean = 3.43), and problematic internet use (mean = 3.29).

**Table 1.** Descriptive statistics of outcome variable (cyberbullying) and determinant variables

<b>Variable</b>	<b>Mean Score</b>	<b>S.D.</b>	<b>Interpretation</b>
<i>Outcome</i>			
Cyberbullying	3.63	0.30	High
<i>Perceived Social Support Factors</i>			
Social Support from Family (X <sub>1</sub> )	3.30	0.67	Moderate
Social Support from Friends (X <sub>2</sub> )	3.43	0.53	Moderate
<i>Cyber Factors</i>			
Problematic Internet Use (X <sub>3</sub> )	3.29	0.40	Moderate
Time Spent Online (X <sub>4</sub> )	3.83	0.91	High
<i>Psychological Factors</i>			
Attitude toward Cyberbullying (X <sub>5</sub> )	3.75	0.79	High
Self-Esteem (X <sub>6</sub> )	3.50	0.28	High

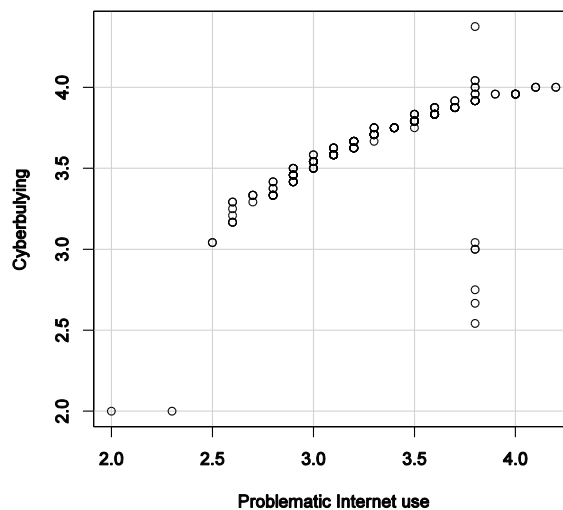
Figures 1-6 show visually the relationships between the six determinant variables and cyberbullying relating to youth in Jakarta. Based on Pearson product moment correlations, we found that the determinants were three positively correlated and were three negatively correlated with cyberbullying at the  $p < .001$  level. The time spent online (X<sub>4</sub>),  $r = .80$ , problematic Internet use (X<sub>3</sub>),  $r = .68$ , and attitude toward cyberbullying (X<sub>5</sub>),  $r = .56$  had a positive and high correlation with cyberbullying. The social support from friends (X<sub>2</sub>),  $r = -.85$ , social support from family (X<sub>1</sub>),  $r = -.83$  had a negative and high correlation with cyberbullying. Lastly, self-esteem (X<sub>6</sub>) had a negative and medium correlation with cyberbullying ( $r = -.47$ ) which was also significant at  $p < .001$ .





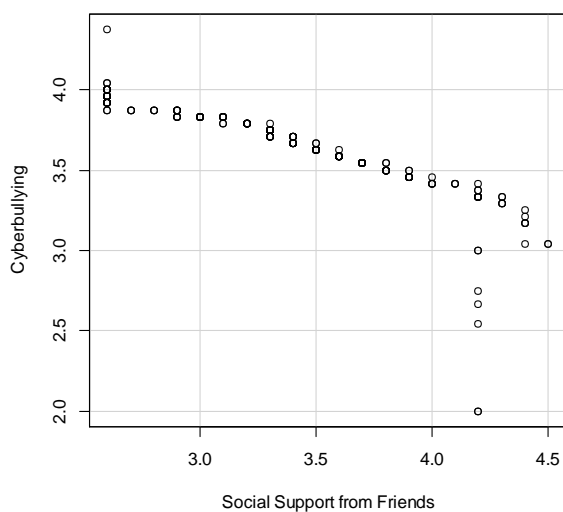
$r = -0.83$   $p = .000$   
 95 % confidence interval = -0.86, -0.77

Fig. 1: Relationship between social support from family and cyberbullying



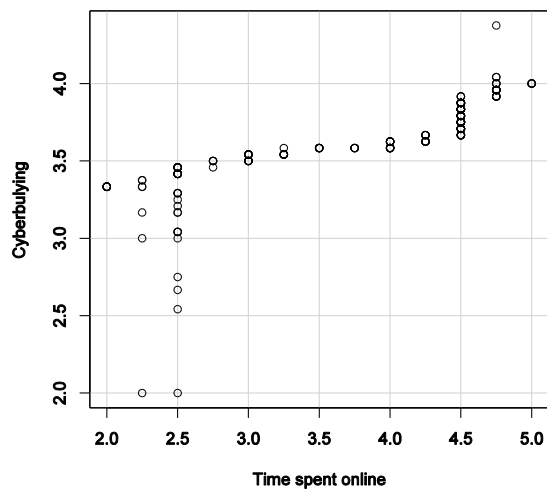
$r = 0.68$   $p = .000$   
 95% confidence interval = 0.60, 0.75

Fig. 3: Relationship between problematic Internet use and cyberbullying



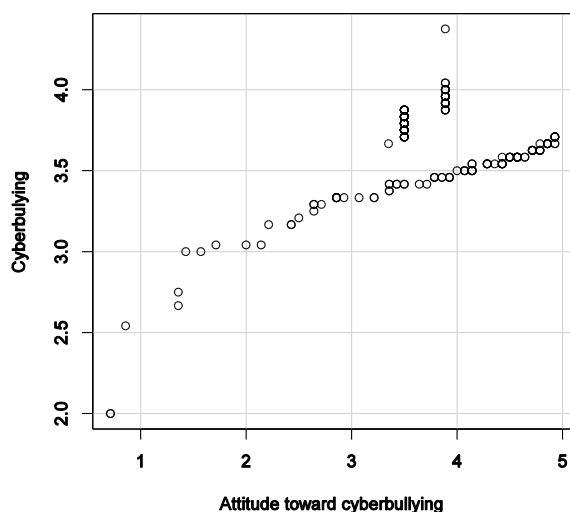
$r = -0.85$   $p = .000$   
 95% confidence interval = -0.88, -0.80

Fig. 2: Relationship between social support from friends and cyberbullying



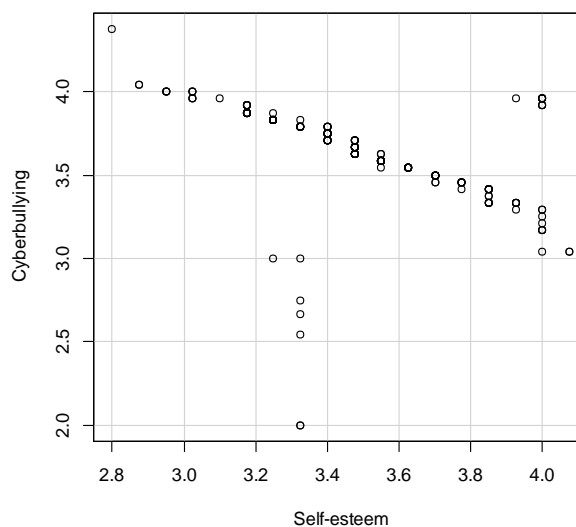
$r = 0.80$   $p = .000$   
 95% confidence interval = 0.75, 0.85

Fig. 4: Relationship between time spent online and cyberbullying



$r = 0.56$        $p = .000$   
95% confidence interval = 0.46, 0.64

Fig. 5: Relationships between attitude toward cyberbullying and cyberbullying



$r = -0.47$        $p = .000$   
95% confidence interval = -0.57, -0.36

Fig. 6: Relationships between self-esteem and cyberbullying

Table 2 shows the results of the multiple regression analysis and it can be seen that there were statistically significant explanatory relationships between cyberbullying behavior and four of the determinant variables: social support from family, attitude toward cyberbullying, problematic Internet use and self-esteem. The residual deviance was 0.1281 on 204 degrees of freedom ( $p=0.000$ ) and the four determinant variables explained about 82.3 % of the variance in cyberbullying behavior.

The largest beta coefficient obtained was -0.24 (95 % C I= -0.42, -0.06) for social support from friends, meaning that this made the strongest contribution in explaining cyberbullying behavior. Self-esteem was the second strongest determinant contributing to cyberbullying behavior with a beta value of 0.16 (95 % C I= 0.07, 0.25). The third largest beta coefficient was social support from family with a beta coefficient of -0.14 (95 % C I= -0.28, -0.02). Next determinant is attitude toward cyberbullying with a beta coefficient of 0.13 (95 % C I= 0.10, 0.15). The final determinant, problematic internet use had a beta value of 0.09 (95% C I= 0.00, 0.19).

**Table 2.** Reduced linear regression model of relationship between determinant variables and the outcome variable: cyberbullying, final model

Determinant Variables	<i>B</i>	S.E.	$\beta$	<i>p</i> value	95% CI
Constant	1.82	0.10		.000	2.89, 4.32
Social Support from Family (X <sub>1</sub> )	-0.14	0.07	-.320	.005	-0.28, -0.02
Social Support from Friends (X <sub>2</sub> )	-0.24	0.09	-.419	.001	-0.42, -0.06
Problematic Internet Use (X <sub>3</sub> )	0.09	0.47	.126	.005	0.00, 0.19
Attitude toward Cyberbullying (X <sub>5</sub> )	0.13	0.13	.340	.000	0.10, 0.15
Self-Esteem (X <sub>6</sub> )	0.16	0.05	.150	.000	0.07, 0.25

Note: Multiple R-Squared: 0.8234, Adjusted R-squared: 0.8191

Residual standard error: 0.1281 on 204 degrees of freedom

## Discussion and Conclusion

This study investigated the relationship between the cyberbullying behavior of youth in Jakarta, and six determinant variables, social support from family, social support from friends, problematic Internet use, time spent online, attitude toward cyberbullying, and self-esteem. The results showed that cyberbullying behavior had a statistically significant relationship with five determinant variables: social support from family, social support from friends, attitude toward cyberbullying, problematic Internet use and self-esteem, and these five determinant variables explained 82.3 % of the variance in cyberbullying behavior.

Social support from friends was the strongest determinant related with cyberbullying behavior. Social support from friends was negatively related with cyberbullying, meaning that youth who had a low level of social support from their friends were more likely to commit cyberbullying, compared to those who had a high level of social support from their friends. Social support from friends thus became a protective factor in the cyberbullying behavior of these youth.

Hirschi's (1969) social control theory concerns the relationship between social bond and negative behavior. Within this theory, social bond is divided into four elements: attachment, commitment, involvement, and belief. Attachment explains that people with social bond are sensitive to the opinions of others. They care about what other people think about them, and this makes them less likely to commit negative behavior. Commitment explains that people tied through social bond usually have some life goals to achieve together, such as education or occupational goals and performing negative behavior might imperil their ability to achieve those goals. Involvement explains that, people with social bond tend to do many activities together and those activities take up most of their time, so they will not have time to commit negative behavior. Lastly, belief explains that people with social bond will believe in conventional norms. The more people believe in the moral

validity of laws and norms, the more they will abide by them and not perform negative behavior (Costello, 2010).

Based on social control theory it can be understood that social bond can be a protective factor preventing someone from negative behavior. Along the time goes by, people tend to rely about social support onto different sides. On the early phase, parents are the important source of social support, and then friends are starting to take some parts as they became adolescents (Furman & Buhrmester, 1992). Not only for the social support, perception of the peers also important for the young people in determining what action they are going to take. Study found that perception of peer behavior was related to the tendency of the participation of cyberbullying (Hinduja & Patchin, 2013).

Several studies found the connection between social support from friends and cyberbullying behavior. Youth who involved in bullying activities whether as bullies or victims tend to have low level of perceived social support from friends (Holt & Espelage, 2007). Another study also proves that perceived social support from friends was negatively associated with cyberbullying behavior (Calvete et.al, 2010). Youth whom in the perception that their peers were trustworthy, caring, and helpful were showed to be in the low level of participation in cyberbullying (Williams & Guerra, 2007).

This study showed that cyberbullying is a serious social problem in Indonesia, particularly in Jakarta. Social support from the friends was the highest risk factor related with cyberbullying behavior. The finding of this study might help government or non-government organizations working in this area to frame related policies or to take steps to overcome cyberbullying. A high level of social support from the surrounding environment, especially the family and close friends, will prevent youth from indulging in such negative behavior, because it entails social control. The government, on the other hand, must provide seminars or other forms of education to raise cyberbullying awareness which should warn young people not to become involved in cyberbullying because it has so many bad effects on them as well as on their friends.

### **Key Messages**

- It was found that the level of cyberbullying among the youth of Jakarta is at a high level.
- Youth with a low level of social support from their friends were found to be more likely to be involved in cyberbullying behavior.
- Friends, family and other surrounding environments must contribute to preventing youths' involvement on cyberbullying behavior.

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**Journal Paper 3****Risk Factors Associated with Cyberbullying by Young People in Jakarta, Indonesia****Faktor Resiko yang Terasosiasi dengan Perundungan Siber oleh Kaum Muda di Jakarta, Indonesia****Santi Gusti Handono<sup>1</sup>, Kasetchai Laeheim<sup>2</sup> and Ruthaychonnee Sittichai<sup>3</sup>**

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**Abstract**

This study aimed to examine the risk factors associated with cyberbullying behavior in Jakarta, Indonesia. The study used quantitative methods to analyze data collected using a questionnaire from 210 participants ranging in age from 15 to 24 years. The data were analysed with the R Program employing chi-square tests and logistic regression to investigate the independent associations between the determinant variables and cyberbullying as the outcome variable. The results showed that there were six factors that were significantly associated with cyberbullying behavior: perceived social support from the family, perceived social support from friends, exposure to media violence, exposure to peer violence, exposure to family violence and attitude toward cyberbullying.

Tujuan dari studi ini adalah untuk menelaah factor resiko yang terasosiasi dengan perundungan siber di Jakarta, Indonesia. Studi ini menggunakan metode kuantitatif untuk menganalisa data yang dikumpulkan menggunakan kuisioner dari 210 partisipan berusia



15 sampai 24 tahun. Data dianalisis menggunakan program komputer R menggunakan tes chi-square dan regresi logistik untuk menginvestigasi asosiasi independen antara variable prediktor dan perundungan siber sebagai variabel output. Hasil penelitian menunjukkan bahwa ada enam factor yang terasosiasi secara signifikan dengan perilaku perundungan siber: dukungan sosial yang dirasakan dari keluarga, dukungan sosial yang dirasakan dari teman-teman, eksposur kekerasan dari media, eksposur kekerasan dari teman, eksposur kekerasan dari keluarga, dan sikap terhadap perundungan siber.

*Keywords: attitude toward cyberbullying, cyberbullying, exposure to violence, social support, young people*

## **1. Introduction**

The Internet has become an important part of daily life. The number of Internet users around the world has also increased and approximately 51.7 % of the world's population are active Internet users (Internet World Stats, 2017). Although the Internet has made life easier in many ways, there have also been negative consequences, one of which is cyberbullying. Cyberbullying has also become an issue which people have to deal with, especially the younger generation because they are more likely to regularly use the Internet.

A study in the USA found that about 30 % of the participants had experienced cyberbullying, and, 22 % had committed some form of cyberbullying (Patchin & Hinduja, 2010). In a study in Spain, it was found that 44.1 % of the participants had committed cyberbullying activities (Calvete, Orue, Estevez, Villardon, & Padilla, 2010). A study in Korea found that about 34 % of the respondents had experience of cyberbullying activities (Lee & Shin, 2017).

Indonesia, with slightly more than half of the population being active internet users (Internet World Stats, 2017), has not been able to avoid the issue of cyberbullying. It was found that about 36 % of the participants in their study were involved in cyberbullying activities as perpetrators, while 50 % were cyber-victims (Nazriani & Zahreni, 2016).

In explaining cyberbullying, it is necessary to consider the definition of bullying. According to Olweus, bullying is an aggressive or harmful act done repeatedly by a person/group to another person/group. The nature of the relationship reflects a power imbalance between them. Although the core meaning of cyberbullying is similar to that of bullying, it is somewhat different because the setting of the acts is in cyberspace and the power imbalance is not related to physical or psychological power, but more about anonymity (Olweus, 1997).

The study adopted the classification of cyberbullying developed by Tudkea and Laeheem which divided cyberbullying behavior into five categories: flaming, slandering, identity theft, revealing other people's secrets, and deleting or blocking others from groups (Tudkuea & Laeheem, 2014). These activities might happen on social media, email, text, websites, or other on-line media.

There have been numerous studies of the causes of cyberbullying and the first factor identified is perceived social support. People with lower social support from their family (Wang, Iannotti, & Nansel, 2009; Fanti, Demetriou, & Hawa, 2012) and friends (Calvete, Orue, Estevez, Villardon, & Padilla, 2010; Williams & Guerra, 2007) were more likely to be involved in cyberbullying. Another factor is problematic Internet use (PIU). PIU is impulsive, excessive and risky Internet use. Such behaviors might affect someone's life in physical, emotional, social or functional aspects (Moreno, Jelenchick, & Christakis, 2013) and a number of previous studies have found that PIU is linked with the likelihood of cyberbullying (Jung, et al., 2014; Kircaburun & Bastug, 2016; Nartgun & Cicioglu, 2015). Study also found that people who spent more time online more likely to involve in cyberbullying behavior (Nartgun & Cicioglu, 2015; Navarro, Serna, Martinez, & Luiz-Oliva, 2013).

Exposure to violence has also been found to be a factor in cyberbullying. According to Bandura's social learning theory, people learn how to behave through observational learning from their surrounding environment (Bandura, 1977). This theory helps to explain the connection between exposure to violence and the likelihood of violent behavior. Some research found that there was a connection between cyberbullying behavior and exposure to media (Fanti, Vanman, Henrich, & Avraamides, 2009; Calvete, Orue, Estevez,

Villardón, & Padilla, 2010), peer (Lee & Shin, 2017; Smith, et al., 2008) and family (Tanrikulu & Campbell, 2015; Festl & Quandt, 2016; Low & Espelage, 2013) violence.

Last factors related with cyberbullying are psychological factors: attitude toward cyberbullying and self-esteem. Attitude toward a behavior represents the degree of favor with which a person views that behavior. Positive attitude toward a behavior means that people are more likely to perform the behavior, and vice versa (Ajzen, 1991). Positive attitude toward cyberbullying has a significant relationship with the likelihood of cyberbullying (Barlett & Chamberlin, 2017; Kircaburun & Bastug, 2016; Williams & Guerra, 2007; Heirman & Walrave, 2012). Other studies found that low self-esteem is associated with cyberbullying, both for the perpetrator and the victim (Brewer & Kerslake, 2015; Okoiye, Anayochi, & Onah, 2015; Patchin & Hinduja, 2010). The effects of cyberbullying are mainly felt through psychological distress. Some research has shown that being a cyber-victim can cause anxiety and stress (Broll, Dunlop, & Crooks, 2017) sadness, disappointment (Patchin & Hinduja, 2008), lowered self-esteem (Patchin & Hinduja, 2010), and loneliness (Sahin, 2012).

To date there has been only limited research about this phenomenon and more research is necessary in order to understand cyberbullying. In particular it is important to study the factors leading to cyberbullying behavior. The results of such research will be useful in helping government and non-governmental bodies to take steps to deal with issues surrounding cyberbullying.

## **2. Methods**

The population of this study consisted of young people aged 15-24 years in Jakarta, Indonesia. The participants were chosen using convenience sampling in five shopping malls on each Jakarta area (North, East, South, West, and Central). They were asked their age and consent to participate in this study before completing a questionnaire. The researcher provided equipment on which the participants were able to complete the questionnaire. This quantitative study used a questionnaire to collect data. There were six

parts in the questionnaire: personal information, perceived social support factors, cyber factors, violence factors, psychological factors, and cyberbullying.

There were nine determinant variables in this study all of which were assessed at three levels, as follows: perceived social support from the family, perceived social support from friends, and self-esteem (low, moderate, high). Problematic Internet use, time spent online, exposure to media violence, exposure to peer violence, and exposure to family violence (never, occasionally, regularly). Lastly, attitude toward cyberbullying (negative, neutral, positive).

In this study, the cyberbullying outcome was classified into two categories; *commit cyberbullying* and *not commit cyberbullying*. The outcome variable was measured by asking the participants to respond to 24 items consisting of statements relating to cyberbullying on a 5-point Likert scale of “Never”, “Once in a while”, “Rather often”, “Often”, and “Regularly” which were allocated scores of 1, 2, 3, 4 and 5, respectively. The scores from all 24 items were then summed and transformed into Z-scores (standardized to a mean of 0 and a standard deviation of 1), and then divided into two categories: Those who had a Z-score greater than or equal to 1.0 ( $Z \geq 1.0$ ) were classified as *commit cyberbullying* while those who had a Z-score lower than 1.0 ( $Z < 1.0$ ) were classified as *not commit cyberbullying* (Gini, 2008; Laeheim, Kuning, McNeil, & Besag, 2009).

All determinants were measured based on the participants’ responses to the relevant items in the questionnaire. The mean score for each participant for each variable was then calculated and standardized into Z-scores as detailed above. They were then divided into three groups where the cut points were set as follows: If the Z-score was lower than -1.00, the variable for that participant was at the low or never or negative level. If the Z-score was from -1.00 to 1.00, the variable was at the moderate, occasionally or neutral level, and if the Z-score was above 1.00, the variable was at the high, regularly or positive level (Laeheim, 2016). To analyze the data, the R computer program was used. The statistics employed in this study were frequency distributions, percentages, chi-square tests, odds ratio tests and logistic coefficients.

### 3. Results

**General Data Relating to Cyberbullying Behaviors and the nine Determinants.** The data collected from the 210 participants showed that 38.57 % of them were male and 61.43 % were female. The participants ages ranged from 15 to 24 years, 12.9 % were 15-17 years old, 38.1 % were 18-20 years old, but the largest group (40 %) was 21-24 years old.

The participants' religion was mostly Islam (92.38 %), followed by Christianity and Buddhism for the remaining small percentage. The respondent's educational level was mostly high school (66.19 %), with the remainder being at college (33.81 %). The respondents were mostly students (67.15 %), workers (28.57 %), or they were jobless (4.28 %).

**Data Descriptive of Cyberbullying Behavior and the nine Determinants.** The data collected from the 210 participants showed that 41.0 % had a low level of perceived social support from their family, while 33.8 % were on the high and 25.2 % were on the moderate level. It was found that 39.5 % of the participant had a high, 32.9 % had a moderate and 27.6 % had a low level of perceived peer social support.

As many as 40.0 % participants regularly indulged in problematic Internet use, while 31.4 % never did, and 28.6 % did it occasionally. It was found that 42.4 % never spent excessive time online, while 31.4 % regularly did so, and 26.2 % did so occasionally. As many as 31 % of the young people were regularly exposed to the media violence, while most were only exposed occasionally (40 %), and 29 % never been.

For exposure to peer violence, 30 % were regularly exposed, 29.52 % were occasionally exposed, and 40.48 % were never exposed to it. It was found that 34.29 % were regularly exposed to family violence, with 31.9 % occasionally exposed and 33.81 % never being exposed to it.

It was found that 29.52 % of the young people had a positive attitude toward cyberbullying but the largest percentage (39.52 %) had a neutral attitude toward it with the remaining 30.95 % having a negative attitude toward cyberbullying. For the self-esteem variable,

31.90 % of the young people had a low level of self-esteem while 36.19 % had a moderate level of self-esteem with 31.90 % having a high level of self-esteem.

In this study, as noted above, the cyberbullying behavior outcome was classified as a dichotomous variable with 125 young people falling into the ‘*not commit cyberbullying*’ category and 85 falling into the ‘*commit cyberbullying*’ category (59.5 and 40.5 % respectively).

**Association between Cyberbullying Behavior and the nine Determinants.** Table 1 shows the result of the analysis of the association between cyberbullying behavior and the nine determinants. The results of chi-square tests showed that six determinants were significantly associated with cyberbullying behavior. Those were: perceived social support from the family, perceived social support from friends, exposure to media violence, exposure to peer violence, exposure to family violence and attitude toward cyberbullying.

**Table 1. Association between cyberbullying behavior and nine determinants**

Determinant	Cyberbullying risk behaviors			Chi Square	P value
	Non Cyberbullying	Cyberbullying	Total		
<b>Perceived Social Support from the Family</b>				12.801**	0.001
High	74.6	25.4	33.8		
Moderate	60.4	39.6	25.2		
Low	46.5	53.5	41.0		

<b>Perceived Social Support from Friends</b>				23.252***	0.000
High	74.7	25.3	39.5		
Moderate	62.3	37.7	32.9		
Low	34.5	65.5	27.6		
<b>Problematic Internet Use</b>				4.180	0.123
Never	66.7	33.3	31.4		
Occasionally	63.3	36.7	28.6		
Regularly	51.2	48.8	40.0		
<b>Time Spent Online</b>				1.475	0.478
Never	64.0	36.0	42.4		
Occasionally	58.2	41.8	26.2		
Regularly	54.5	45.5	31.4		
<b>Exposure to Media Violence</b>				17.771***	0.000
Never	72.1	27.9	29.1		
Occasionally	66.7	33.3	40.0		
Regularly	38.5	61.5	30.9		
<b>Exposure to Peer Violence</b>				26.041***	0.000
Never	76.5	23.5	40.5		
Occasionally	61.3	38.7	29.5		

Regularly	34.9	65.1	30.0		
<b>Exposure to Family Violence</b>				9.350**	0.009
Never	71.8	28.2	33.8		
Occasionally	46.3	53.7	31.9		
Regularly	59.7	40.3	34.3		
<b>Attitude Toward Cyberbullying</b>				13.372**	0.001
Negative	75.4	24.6	31.0		
Neutral	45.8	54.2	39.5		
Positive	61.3	38.7	29.5		
<b>Self-Esteem</b>				1.649	0.438
High	65.7	34.3	31.9		
Moderate	57.9	42.1	36.2		
Low	55.2	44.8	31.9		

**Factors Associated with Cyberbullying Behavior.** Table 2 shows the final factorial model of the factors associated with cyberbullying behavior among the sample of young people in Jakarta based on binary logistic regression. As can be seen, there were six determinants that were significantly associated with cyberbullying behavior: perceived social support from the family, perceived social support from friends, exposure to media violence, exposure to peer violence, exposure to family violence and attitude toward cyberbullying. The residual deviance was 204.49 on 197 degrees of freedom.



**Table 2. Factors associated with cyberbullying behavior: the final model**

<b>Factors</b>	<b>Odds ratio</b>	<b>S.E.</b>	<b>95% CI</b>	<b>p</b>
<b>Perceived Social Support from the Family</b>				
High	1			
Moderate	2.41	0.54	0.83, 6.93	.104
Low	4.47	0.52	1.61, 12.45	.004
<b>Perceived Social Support from Friends</b>				
High	1			
Moderate	0.62	0.57	0.20, 1.88	.397
Low	3.09	0.48	1.21, 7.92	.018
<b>Exposure to Media Violence</b>				
Never	1			
Occasionally	0.77	0.50	0.29, 2.04	.594
Regularly	2.68	0.50	1.01, 7.13	.047
<b>Exposure to Peer Violence</b>				
Never	1			
Occasionally	3.46	0.47	1.39, 8.63	.008
Regularly	6.96	0.44	2.92, 16.61	.000
<b>Exposure to Family Violence</b>				

Never	1			
Occasionally	2.30	0.50	0.86, 6.13	.095
Regularly	3.98	0.54	1.37, 11.52	.011
<b>Attitude Toward Cyberbullying</b>				
Negative	1			
Neutral	2.66	0.45	1.10, 6.45	.030
Positive	2.74	0.48	1.06, 7.09	.037

Young people with low and moderate levels of perceived social support from their family were 4.47 times (95 % CI 1.61, 12.45) and 2.41 times (95 % CI 0.83, 6.93), respectively, more likely to commit cyberbullying than those who had high perceived social support from their family. Young people with low and moderate levels of perceived social support from their friends were 3.09 times (95 % CI 1.01, 7.13) and 0.62 times (95 % CI 0.20, 1.88), respectively, more likely to commit cyberbullying than those who had high perceived social support from their friends.

Young people who were regularly or occasionally exposed to media violence were 2.68 times (95 % CI 1.01, 7.13) and 0.77 times (95 % CI 0.29, 2.04), respectively, more likely to commit cyberbullying than those who had low exposure to media violence. Young people subjected to the regular and occasional exposure of peer violence were 6.96 times (95 % CI 2.92, 16.61) and 3.46 times (95 % CI 1.39, 8.63), respectively, more likely to commit cyberbullying than those who had low exposure to peer violence.

Young people with regular and occasional exposure to family violence were 3.98 times (95 % CI 1.37, 11.52) and 2.30 times (95 % CI 0.86, 6.13), respectively, more likely to commit cyberbullying than those who had low exposure to family violence. Young people with positive and neutral attitudes toward cyberbullying were 2.74 times (95 % CI 1.06, 7.09)

and 2.66 times (95 % CI 1.10, 6.45), respectively, more likely to indulge in cyberbullying behavior than those who had a negative attitude toward cyberbullying.

#### **4. Discussion**

The results of this study showed there were six factors that were significantly associated with cyberbullying behavior: perceived social support from the family, perceived social support from friends, exposure to media violence, exposure to peer violence, exposure to family violence and attitude toward cyberbullying. Compared to those with high perceived social support from the family, high perceived social support from friends, those never exposed to media violence, never exposed to peer violence, never exposed to family violence, and having a negative attitude toward cyberbullying, young people who were at a higher risk of committing cyberbullying behavior were as follows: Young people with low (4.47 times) and moderate (2.41 times) level of perceived social support from their family; young people with a low (3.09 times) and moderate (0.62 times) level of perceived social support from friends; young people with regular (2.68 times) and occasional (0.77 times) exposure to media violence; young people with regular (6.96 times) and occasional (3.46 times) exposure to peer violence; young people with regular (3.98 times) and occasional (2.30 times) exposure to family violence; young people with a positive (2.74 times) and neutral (2.66 times) attitude toward cyberbullying.

It can be seen from the results that the factor with the highest association with cyberbullying behavior was exposure to peer violence. This result supports Bandura's social learning theory. Peers are an important aspect of the social environment for young people because during their youth, they go to school and have frequent interactions with their friends. Things that happen in the social interactions between an individual and his/her peers are instrumental in shaping their behavior, including violent behavior. This result is also in line with previous research which has found that adolescents who are involved in either role in traditional bullying (Smith, et al., 2008) or as the perpetrator of bullying (Lee & Shin, 2017) are more likely to be involved in cyberbullying as well.

Perceived social support from the family and the exposure of family violence are the next most important factors associated with cyberbullying. This suggests that the family still has a big influence in the life of young people. Previous studies have shown that social support from the family is one of the protective factors discouraging young people from committing violent behavior (Laufer & Harel, 2003). Close parent-child relationships influence children in terms of selecting their friends wisely and can prevent them from becoming involved in violent behavior (Smith, Flay, Bell, & Weissberg, 2001). In particular, on a study of cyberbullying, it was found that higher parental support was negatively associated with involvement in cyberbullying (Wang, Iannotti, & Nansel, 2009).

Along with parental support, exposure to family violence was also found to be associated with cyberbullying behavior. If social support from the family contributes positively to young people's behavior, exposure to violence in the family or at home can have the opposite effect. Regular exposure to violence by parents or other family members can increase the likelihood of cyberbullying behavior. In several previous studies it has also been found that exposure to family violence is positively related to cyberbullying behavior (Tanrikulu & Campbell, 2015; Calvete, Orue, Estevez, Villardon, & Padilla, 2010; Festl & Quandt, 2016; Low & Espelage, 2013).

The next factor associated with cyberbullying is perceived social support from friends. Thus young people with low perceived social support from friends are more likely to commit cyberbullying. Several previous studies have found that peer support is a protective factor preventing violent behavior, including cyberbullying (Williams & Guerra, 2007), and that people with a low level of social support from friends are more likely to indulge in cyberbullying behavior (Calvete, Orue, Estevez, Villardon, & Padilla, 2010).

Attitude toward cyberbullying is also a factor associated with cyberbullying behavior and individuals with a positive attitude toward cyberbullying are more likely to commit cyberbullying. This is in line with the theory of planned behavior, which explains that attitude toward a certain behavior is a strong factor in determining one's tendency to commit that behavior. Cyberbullying behavior is therefore strongly affected by one's attitude toward cyberbullying (Heirman & Walrave, 2012). Previous studies have found that attitudes toward violent behavior have a positive relationship with the likelihood of

committing violence (Mesch, Fishman, & Eisikovits, 2003), and that a positive attitude toward cyberbullying will tend to result in committing cyberbullying (Barlett & Chamberlin, 2017; Kircaburun & Bastug, 2016; Williams & Guerra, 2007; Heirman & Walrave, 2012).

The final factor associated with cyberbullying is exposure to media violence. Most young people interact regularly with various forms of media, and if they are regularly exposed to media violence this might increase the chance of them committing cyberbullying. Previous studies relating to exposure to media violence and its association with violent behavior have found that children who are exposed to violent content on television are more likely to commit aggressive or violent behavior in the future (Huesman, 1986). Other research has also found that exposure to media violence can decrease real-life sensitivity to aggression and also sympathy for the victim (Fanti, Vanman, Henrich, & Avraamides, 2009). Exposure to media violence has also been found to increase the likelihood of cyberbullying behavior (Calvete, Orue, Estevez, Villardon, & Padilla, 2010).

## **5. Conclusions**

Cyberbullying is a dangerous behavior and action must be taken to stop it. This study demonstrates that the surrounding environment such as the family and one's peers have a very important influence in determining young people's violent behavior, including cyberbullying. Therefore, it is suggested that parents should become more positively involved in their children's lives. Parents, family members and friends should care about each other and create positive and caring relationships to prevent young people from committing any form of violent behavior. Government organizations and educational institutes that are concerned with this issue should raise awareness that cyberbullying is a harmful behavior that may hurt others.

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**(b) Master Peer Review Articles**

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