Overview of Bullying and Cyberbullying among Adolescents : Preliminary Study

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Abstract. Bullying and cyberbullying are significant risk behaviors among adolescents, impacting mental health not only of victims but also perpetrators, with potential lifelong effects throughout their lifespan. Families, being the closest part of adolescents' lives, may predict these behaviors. Determining the factors of bullying and cyberbullying is essential to form the basis of more appropriate interventions. The aim of the study was to identify the determinants of bullying and cyberbullying among adolescents. This quantitative study involved 666 junior high school students (285 males; 381 females) aged 13-15 years, utilizing modified questionnaires from The Bully Survey-Student Version. Data were analyzed using chi-square tests in SPSS. Results showed that 27.33% of students experienced bullying, predominantly verbal (70%), occurring mainly in classrooms (31%). Cyberbullying was most common on WhatsApp (50%) and typically occurred once a day (48%). There was no significant relationship between gender (p = 0.767), parental status (p = 0.847), and maternal status (p = 0.485). However, economic status (p = 0.013) and living with parents (p = 0.013) were significant factors. The determinants of bullying and cyberbullying can explain the occurrence of these behaviors among adolescents. These findings have implications for strategies to prevent and intervene in bullying among adolescents.

Keywords: bullying, cyberbulying, family, adolescents

1 Introduction

Bullying has become a widespread issue, particularly among adolescents [1]. In recent years, bullying has gained global attention. According to UNESCO data, in 2021, one in three students (32%) experienced violence in schools worldwide [2]. Bullying is a global issue contributing significantly to global violence [3][4]. Currently, bullying is a serious problem related to mental and physical health that requires proper handling [5][6][7]. Both victims and perpetrators suffer negative impacts that can sometimes last throughout their lives [8]. These negative impacts include psychological well-being disturbances [9][10],emotional problems [11], delinquency [12], and increased risk of drug abuse [13][14].

Cyberbullying also has adverse effects on adolescents, including self-harm, depression, and suicidal ideation [15][16]. The pressure experienced by cyberbullying victims is heavy because the characteristics of cyberbullying differ from face-to-face bullying, such as the ability to post anonymously or repost content [17] and the different meaning of repetition in cyberspace, where one post can be shared multiple times [18]. Various negative impacts of bullying and cyberbullying can be addressed if interventions to tackle and prevent these behaviors are appropriately implemented. However, in practice, the prevention and management of bullying are not yet optimal [19]. The urgency for more effective interventions is clear. Bullying interventions will be effective, efficient, and comprehensive if based on the determinants that influence them, allowing the tracing of underlying risk factors [20]. There are various risk factors for bullying, with family environment being a primary factor [21].

Based on these issues, this study aims to explore the determinants of bullying among adolescents. The research questions are: What are the determinants of bullying and cyberbullying among adolescents? How do family determinants relate to bullying and cyberbullying among adolescents? The answers to these questions are expected to form the basis of more appropriate interventions.

2 Method

This research was a quantitative study with a cross-sectional design. The independent variables in this study are gender, paternal status, maternal status, living with parents, and parents' income. The dependent variables are the incidents of bullying and cyberbullying among adolescents. The respondents in this study were junior high school students aged 12-16 years. The sampling technique used was cluster random sampling. Respondents involving 666 students, consisting of 285 males (42,79%) and 381 females (57,21%).

The instrument used in this study was The Bully Survey-Student Version. The Bully Survey-Student version measures multiple parts, assessing experiences of being a bullying victim, perpetrator and bystander [22][23]. The scale consists of four sections. Section A assesses being bullying victims, Section B assesses bullying perpetrators, section C explores the experiences of bystanders and section D assesses attitudes toward bullying. Respondents Scale score are created by summing item score. Higher scores indicate more frequent bully-related experience. The questionnaire consisted of closed-ended questions with a choice of answers and open-ended questions. Respondents chose answers that suited their condition and provided explanations to answer open-ended questions. Examples of questions include "have you been bullied this school year?", IF YES, how often have you been bullied? (check one). The internal consistency reliability using coefficient alpha was 0,74 [22]. Respondents in this study filled out the inform consent and signed as a form of approval. Respondents then filled out sociodemographic data and The Bully Survey-Student version. Completion of the questionnaire was done classically at school. The collected data were then statistically analyzed.

In this study, univariate analysis was conducted to determine the distribution and frequency of each variable, including gender, paternal status, maternal status, parents' economic status, and living with parents. Additionally, analysis was conducted to determine the distribution and frequency of bullying cases, bullying frequency, types of bullying, places of bullying, causes of bullying, and impacts of bullying. Using the Chi-Square Test, bivariate analysis was conducted to determine the relationship between two variables. Data analysis used SPSS version 23.0.

3 Result

The distribution and frequency of respondents in this study is presented in Table 1.

Table 1. Frequency and Distribution Characteristics of Respondents

	Tuote 11 Trequency und Bistine		
No	Characteristic of Respondents	Frequency (n)	Percentage (%)
1	Gender		
	Male	285	42,79%
	Female	381	57,21%
2	Age (years old)		
	12	38	5,71%
	13	229	34,38%
	14	298	44,75%
	15	84	12,61%
	16	17	2,55%
	Total	666	100%

Table 1 describes that the majority of respondents in this study were at the age 14 years old. Based on gender characteristics, most of the respondents were female. Table 2 describes the distribution and frequency of respondents who have experienced bullying and cyberbullying.

Table 2. Frequency and Distribution among Adolescents

No	Bullying	Frequency (n)	Percentage (%)
1	Experienced bullying and cyberbullying		
	Male	80	
	Female	102	
	Total	182	27,33%
2	Have not experienced bullying dan cyberbullying		
	Male	205	
	Female	279	
	Total	484	72,67%
	Total	666	100%

Table 2 describes that 27.33% of students experienced bullying and cyberbullying. Female students were more frequently victims of bullying and cyberbullying compared to male students. Participants reported bullying and cyberbullying occurred most frequently one or more times a day. Figure 1 illustrates the distribution and frequency of bullying and cyberbullying. Respondents reported various forms of bullying, including face-to-face bullying such as physical bullying, verbal bullying, and social or relational bullying, as well as cyberbullying. The distribution and frequency of types of bullying and cyberbullying describes in Figure 2.

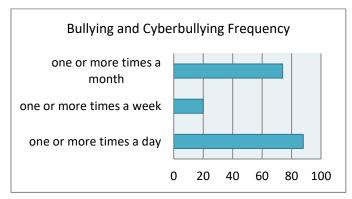


Fig. 1. Frequency of Bullying and Cyberbullying

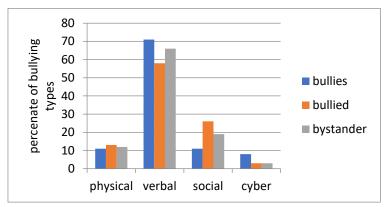


Fig. 2. Types of Bullying

Based on the Figure 2, verbal bullying was the most frequently reported form of bullying by victims, perpetrators, and bystanders. Forms of physical bullying reported included hitting, kicking, and hair-pulling. Extortion and vandalism of personal property also occurred. Forms of verbal bullying included teasing, calling by nicknames, calling by parents' names, and making outrageous jokes. Social or relational bullying included exclusion from groups, not inviting to be friends, not inviting to play together, and talking badly behind one's back. Forms of cyberbullying reported included writing bad things or fictional stories on social media.

The distribution and frequency of bullying locations can be seen in Figure 3. Based on the chart, bullying frequently happened in the classroom. Besides during class, bullying also frequently took place during break time. Besides that cyberbullying occurred through social media. The distribution and frequency of cyberbullying through social media describes in Figure 4.

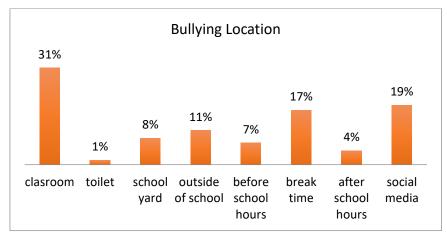


Fig. 3. Bullying Locations

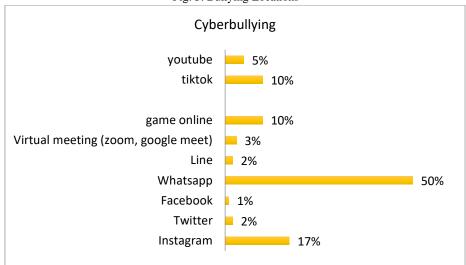


Fig. 4. Cyberbullying through Social Media

Various factors cause bullying and cyberbullying, including physical, family, academic, and behavioral conditions. The distribution and frequency of bullying and cyberbullying causes are presented in Figure 5. According to Figure 5 can be seen that physically related is the main cause of bullying. There are various negative impacts of bullying and cyberbullying. Based on

Figure 6 shows that the most commonly reported impact of bullying on victims was sadness, anger and anxiety.

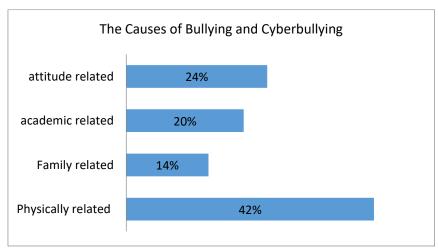


Fig. 5. The Causes of Bullying and Cyberbullying

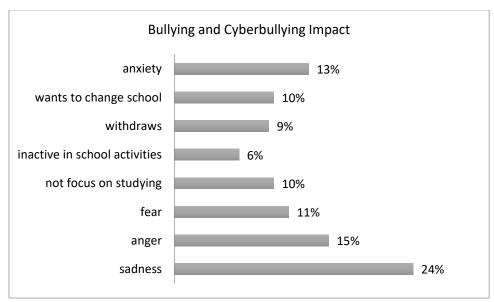


Fig. 6. Impact of Bullying

The distribution and frequency of parents knowing their child experienced bullying can be seen in Table 3. The result of this study describe families were unaware that their children were experiencing bullying because the children were afraid to talk, ashamed to share, not

open with their parents, rarely confided in their parents, seldom communicated with their parents, had parents who were busy working, and intentionally kept it a secret or chose not to tell their parents. Specifically, children did not inform their parents because they were worried their parents would get angry, become sad, did not want to burden their parents, did not want their parents to worry, did not want to disappoint their parents, held thought that it was pointless to talk because their parents do not care, believed they can resolve it themselves, or consider bullying to be just a joke.

Table 3. Parents Knowing Their Child Experienced Bullying

No	Parents k	knowing	their	child	Frequency (n)	Percentage (%)
1	Knowing	bunying			47	7,06%
2	Not knowing	9			135	92,94%
	Total				666	100%

The distribution and frequency of paternal status and maternal status are presented in Table 4 and Table 5. Table 4 explains that only a small number of students have lost their father (6,46%). While table 5 explains about 2,10% of students who have lost their mothers.

Table 4. Paternal and Maternal Status

		Frequency (n)	Percentage (%)
Paternal Status	Alive	624	93,69%
	Deceased	42	6,31%
	Total	666	100%
Maternal Status	Alive	652	97,90%
	Deceased	14	2,10%
	Total	666	100%

The distribution and frequency of living with parents describe in Table 5. Based on Table 5, shows that the number of that living with parent is higher than not living with parents.

Table 5. Living Status

No	Living Status	Frequency (n)	Percentage (%)
1	With parents	649	97,45%
2	Not with parents	17	2,55%
	Total	666	100%

The correlation analysis of family's determinant and bullying-cyberbullying was also found in this study. Based on the output of gender, the asymptotic significance (2-sided) value in the chi-square test is 0.767 (sig. >0.05), thus accepting H0 and rejecting H1, meaning there is no relationship between gender and bullying. Based on the output of parents's economic status, the asymptotic significance (2-sided) value in the chi-square test is 0.013 (sig. <0.05), thus rejecting H0 and accepting H1, meaning there is a relationship between parents' economic status and bullying. Based on the output of parental status, the asymptotic significance (2-sided) value in the chi-square test is 0.847 (sig. >0.05), thus accepting H0 and rejecting H1, meaning there is no relationship between the father's status and bullying. Based on the output of maternal status, the asymptotic significance (2-sided) value in the chi-square test is 0.485 (sig. >0.05), thus accepting H0 and rejecting H1, meaning there is no relationship between the mother's status and bullying. Based on the output of living with parents, the asymptotic significance (2-sided) value in the chi-square test is 0.013 (sig. <0.05), thus rejecting H0 and accepting H1, meaning there is a relationship between living with parents and bullying. Table 6 shows the statistical analysis results.

Table 6. The Correlation Between Family's determinant and Bullying-Cyberbullying

			Bull	ying			Total	P-value
Correlation	Gender	Bullying		Not Bullying		N	%	0,767
Between		N	%	N	%	_		
Gender and	Man	80	12,01%	205	30,78%	285	42,79%	_
Bullying	Woman	102	15,32%	279	41,89%	381	57,21%	_
	Total	182	27,33%	484	72,67%	666	100%	_
Correlation	Parents	Bullying		Not Bullying		N	%	0,013
Between	Economic	N	%	N	%			
Parents	status							_
Economic	Low	43	6,46%	109	16,37%	152	22,82%	
Status and	Mid	112	16,82%	330	49,55%	442	66,37%	
Bullying	High	27	4,05%	37	5,55%	64	9,61%	_
	Very high	0	0%	8	1,20%	8	1,20%	=
	Total	182	27,33%	484	72,67%	666	100%	_
Correlation	Paternal	Bullying		Not bullying		N	%	0,847
Between	Status	N	%	N	%			
Paternal	Alive	171	25,68%	454	68,17%	624	93,69%	_
Status and Bullying	Deceased	11	1,65%	30	4,50%	42	6,31%	_
Dunying	Total	182	27,33%	484	72,67%	666	100%	_
Relationship	Maternal	Bu	llying	Not 1	Bullying	N	%	0,485
Between	Status	N	%	N	%			
Maternal	Alive	177	26,58%	475	71,32%	652	97,90%	_
Status and Bullying	Deceased	5	0,75%	9	1,35%	14	2,10%	_
Dunying	Total	182	27,33%	484	72,67%	666	100%	_
Relationship	Living with	Bu	llying	Not 1	Bullying	N	%	0,013

between	parents	N	%	N	%		
living with parents and Bullying	Yes	179	26,88%	470	70,57%	649	97,45%
	No	3	0,45%	14	2,10%	17	2,55%
	Total	182	27,33%	484	72,67%	666	100%

4 Discussion

Previous literature reviews and research results have indicated the determinants of bullying and cyberbullying. The findings of this study has helped to illustrate bullying and cyberbullying among adolescents. Among various forms of bullying, adolescents most frequently experienced verbal bullying. Previous research explained that verbal bullying is the most frequently reported type of bullying among adolescents [24]. Unlike physical bullying, which shows physical evidence, verbal bullying is challenging to recognize, leading to a tendency to underestimate its impact. This finding implies the need for greater vigilance so that verbal bullying can also be easily recognized, reported, and addressed [25].

Bullying among adolescents most frequently occurred in the classroom. Previous research explained that the classroom is reported as the most unsafe environment [26][24]. The poor school climate correlates with high cases of bullying in schools [27][28][29]. In addition to face-to-face bullying, cyberbullying is also a prevalent form experienced by adolescents, primarily through social media. The impact of cyberbullying identified in this study includes fear, arising from social anxiety and social comparison. Previous research indicates a positive relationship between social anxiety and cyberbullying [30][31]. Other findings show a significant correlation between cyberbullying and social comparison [32]. Various impacts of bullying are also highlighted in this research, including feelings of sadness, anger, fear, social withdrawal, decreased academic focus, and reluctance to engage in school activities. These align with previous studies indicating that bullied students often exhibit poor academic performance, low engagement in school, and diminished learning participation [33][34][35][36].

The results of this study show various causes of bullying and cyberbullying. According to ecological theory, bullying might occur due to factors ranging from the microsystem to the chronosystem encompassing a child's life. The determinants of bullying can be seen in terms of gender and family. Based on the results of the study, there is no relationship between gender and bullying. The statement refers to the fact that both male and female students have an equal chance of being involved in bullying. Previous studies have shown that gender is an essential factor influencing bullying [37][38]. Research findings indicate varying relationships between gender and bullying across different countries and individual contexts [39]. Some studies show that males are more likely to be involved in bullying compared to females [40][41]. However, other studies show different results, indicating no gender differences in

bullying [42][43][44][45]. These differences suggest that males and females have an equal chance of being involved in bullying. The gender differences observed may be more specific to the type of bullying, with males being more vulnerable to physical bullying [46]. Boys are more likely to be involved as bystanders who reinforce bullying behavior, whereas girls are more likely to be involved as bystanders who defend bullying victims [27][47][48].

At the family microsystem level, the family plays a crucial role. Adolescent involvement in bullying behavior is significantly influenced by family dynamics as the primary environment. Family determinants affecting adolescent bullying behavior examined in this study include socioeconomic status, parental status, and living with parents. Research indicates a relationship between parental socioeconomic status and bullying, with economic hardship being a risk factor [49]. A meta-analysis also concluded that victims and perpetrators of bullying typically come from low socioeconomic families [50]. Economic stress is a risk factor for bullying among adolescents. Teens experiencing high economic stress are more likely to become victims of bullying. However, this study shows different results.

Based on the findings, there is no relationship between the status of the father and mother (whether alive or deceased) and bullying. This means that students with living parents and those whose parents have passed away have an equal chance of being involved in bullying. Most previous studies show a strong relationship between bullying and being a child left by parents [51]. However, some other studies show opposite results, indicating no relationship between being a child left by parents and bullying [52][53]. When one parent is absent, the remaining parent, whether the father or mother, will take on the role of protecting the child from external problems. Additionally, the Indonesian culture, which still involves extended families in child-rearing, allows extended family members to take on substitute roles in caregiving.

The study results indicate a relationship between living with parents and bullying. Living together facilitates parental monitoring of adolescents. Parental supervision has been identified as an important protective factor in adolescents' lives [54]. Previous studies have shown that poor monitoring is associated with adolescents' involvement in bullying [55]. Additionally, living with parents strengthens bonding and attachment with the child. Research shows that parental bonding is negatively related to adolescent anxiety, while adolescent anxiety is positively related to adolescent anger, and adolescent anger is positively related to bullying behavior [56]. Positive attachment between parents and children can protect adolescents from bullying [57].

The findings of this study indicate that family determinants, specifically parental status, are not significant predictors of adolescent bullying behavior. Based on this, further research is needed to investigate other family factors as predictors of bullying among adolescents. These other family factors are encapsulated in family functionality. For example, this study shows that not all parents are aware of their children's involvement in bullying and cyberbullying.

The primary reason is that children intentionally do not inform their parents. This decision is made considering that parents may become angry, sad, burdened, worried, disappointed, or simply because parents may not care. These emerging reasons indicate dysfunctional family processes such as communication, cohesion, and flexibility.

Family functionality refers to the comprehensive social and structural characteristics of the family environment, encompassing interactions and relationships within the family, levels of conflict and cohesion, adaptability, and the quality of communication [58]. These factors of family functionality can be further examined to understand the extent to which family functionality serves as a predictor of bullying behavior among adolescents.

5 Conclusion

This study highlights the determinants of bullying and cyberbullying among adolescents, emphasizing the significant role of family and socioeconomic factors. The findings suggest that interventions to prevent and address bullying and cyberbullying should be comprehensive and consider the broader context of adolescents' lives. By understanding the complex interplay of individual, family, and socioeconomic determinants, stakeholders can develop more effective strategies to create a safer and more supportive online and offline environment for adolescents.

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