

Cyberbullying Among Adolescent Students: Moderator Effects of Emotional Intelligence and Family Incivility

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Abstract:

Cyberbullying perpetration and victimization became a common phenomenon with the development of Information and Communication Technologies (ICT). The prevalence rate of cyberbullying among adolescents, in general, was ranged between 10-40 %. The study aimed to explore the moderator effects of Emotional Intelligence and family incivility on cyberbullying among adolescent students at Zagazig University. This descriptive cross-sectional study was conducted on 1500 Egyptian students from theoretical and practical faculties. Data were collected through four tools: Socio-demographic data sheet, the European Cyberbullying Intervention Project Questionnaire, the Family Incivility Scale, and Schutte Self Report Emotional Intelligence Scale. The results indicated that more than one-fourth of adolescents were bully-victims (26.3%), while 15.8% were bully perpetrators. Cyber-bully victims increased with cyber-bully perpetrators, high family incivility associated with lower Emotional Intelligence ($p < 0.001$). Cyberbullying perpetrators and victims had negative correlation with Emotional Intelligence and positive correlation with family incivility. The study concluded that the cyber-bully perpetrators prevalence was less than cyber-bully victims among the university students. As well as, family incivility, and Emotional Intelligence have moderating effects on cyberbullying victims and perpetrators. The study recommended psychosocial intervention programs directed to adolescent students and their parents to prevent cyberbullying, avoid family incivility and enhancement of Emotional Intelligence among adolescents.

Keywords: *Cyberbullying, adolescents, Moderators Effects, Emotional intelligence & Family incivility.*

Introduction:

In a world characterized by huge and quick development in digitalism, a major psychosocial problem known as cyberbullying has been emerged (Palermi et al., 2017). Cyberbullying is defined as hostile and intentional behaviors perpetrated by an individual or a group of people against peers or people who are unable to defend themselves by utilizing communication technologies (internet, mobile phones, chat or instant messaging, websites, online games, etc.) over time (Garaigordobil; Prevalencia, 2011 & Smith, 2015).

Wang et al., (2019) mentioned that depending on cultural variation, the prevalence of cyberbullying varies widely from country to country. According to Zych et al., (2015) the prevalence rate of cyberbullying in general was ranged between 10–40% of adolescents with fifteen percent of incidence for adolescent cyber-victimization. Some studies found that Canada and China had the highest median prevalence (23.8%, ranging from 1.9% to 65.0% and 23.0%, ranging from 11.2% to 56.9% respectively),

while the lowest median prevalence was observed in the studies from Australia (5.0%), Sweden (5.2%), and Germany (6.3%) (Baldasare et al., 2012; Brochado et al., 2017).

Cyberbullies intent to emotionally harm their victims through insults, malicious harassment, inciting social exclusion or spreading rumors, and threats. There are many factors that facilitate cyberbullying such as ease of access to contact with others, widespread and rapid transmission of harmful material, lack of physical and temporal restrictions online, and increased loss of control over the victim. As a result, the victims experienced negative effects on their physical and mental health caused by cyberbullying as sadness, hopelessness, depression and emotional distress. (Campbell, & Bauman, 2018). Both cyber-victims and cyber-aggressors demonstrated lower life satisfaction scores and higher levels of depressive symptoms, loneliness, negative self-concept, perceived stress, social anxiety, as well as a higher likelihood of attempting suicide (Extremera, et al., 2018; and Hinduja & Patchin, 2019).

Theoretically, Emotional Intelligence (EI) is described as a mental capacity that enables us to perceive, recognize, comprehend, and control our own and others' emotions, as well as act on them (Mayer et al., 2016). The higher emotional abilities are associated with higher life satisfaction, better psychological adjustment and more prosocial behaviors (Cheung et al., 2018). Looking at the specific dimensions of EI, the researchers found that teenagers with higher emotional understanding reported better stress management and more positive relationships, while lower levels of emotional regulation were associated with more social anxiety and more stress symptoms (Cejudo et al., 2018). Emotional intelligence has characteristics that make it one of the strongest protective factors against the rise of cyberbullying. Both perpetrators and victims of cyberbullying have been found to have low levels of emotional intelligence (Extremera et al., 2018).

According to (Cho & Yoo, 2017) Emotional Intelligence can reduce the severity of cyberbullying among adolescents and has a protective impact and function against the harmful consequences of cyberbullying (Extremera et al., 2018). Adolescents with high emotional intelligence are able to control and manage their emotions as well as the emotions of others, which improves their life, psychological well-being, and happiness, preventing them from leading a psychologically maladjusted life. Additionally, those with greater levels of EI are more likely to engage in more positive social activities and be less vulnerable to peer cyberbullying, otherwise, those who are victims of cyberbullying, have a higher capacity to attend to emotions and jointly having a weaker ability to comprehend or organize their emotions. (Elipe et al., 2015; Rey et al., 2018).

Recently, a new type of family interactions known as family incivility has been emerged. It's characterized by low-intensity deviant behaviors with ambiguous intentions that violate the rules of mutual respect in the family. Instead of intentionally harming the victim, uncivil family members may act rudely out of their ignorance and apathy. Incivility amongst family members crosses familial boundaries and weakens mutual respect (Lim & Tai, 2014).

Some implications may be drawn from many aspects of familial incivility. First and foremost, family incivility is easily overlooked in everyday life due to its low intensity and lack of immediate consequences compared to family abuse or aggression. Furthermore, because the objectives of familial incivility are often ambiguous, the victims typically misinterpret them as unintended behavior and ignore them. This resulted in the long-term survival of familial incivility because it is understood as submissiveness. Finally, because familial incivility is often unseen and ineffectively

regulated, it can afflict victims for a long time. Moreover, familial incivility has a significant impact on adult victims, whereas adolescents' victims are less affected (Bai, 2020).

According to D'Auria, (2014), a close connection between negative family environment and decreasing of individual and social resources of adolescents leaving them more vulnerable to intimidation and mistreatment by their peers. As well, Gomes- & Sendín, (2014) stated that youngsters are forced to spend more time connected to the Internet to substitute or rebel against family connections due to dysfunctional and deteriorating family relationships. Parental cohesion and family support, on the other hand, are a beneficial resource in the social adjustment of adolescents and the development of positive peer relationships, and they facilitate adolescents' social adjustment, thus constituting a protective factor against cyberbullying, as well as hostility, antisocial behavior, and peer violence (Navarro et al., 2015).

Moreover, highly emotionally intelligent adolescents who have experienced family incivility understand the harm of being socially abused, thus they are less likely to cause unpleasant feelings in others through cyberbullying, unlike the way they are hurt by their family members. Research has also indicated that cyber-bullies have a lower level of empathetic response. As a result, for adolescents with high EI, the link between family incivility and cyberbullying might be reduced (Brewer & Kerlake, 2015).

Significance of study

Easily Internet accessibility via smart phones and other advanced devices increases the adolescents interact in the cyberspace, and numbers of people they connected (Ferreira & Deslandes, 2018). Consequently, these cyber-relationships contribute to the increased risk of being involved in cyberbullying (Pieper & Pieper, 2017; Shapka & Maghsoudi, 2017). In Egypt, especially with a new digital educational system, students have been given tablets to be used at any setting, which can lead to intensive use and misuse of social networks. Students may unintentionally disseminate their personal information in an out-of-control manner, consequently, they may be exposed to aggressive behaviors of cyberbullying. Cyberbullying can lead to experience anger, sadness, depression, frustration, embarrassment or fear. These emotions are linked to interpersonal violence and delinquency among youth and young adults (Maity et al, 2018).

Emotional Intelligence is playing a fundamental role in cyberbullying. Adolescents with high EI have strong relationships and are able to resilient with any violation effectively. They enjoy better social skill

and have greater ability to resolve conflict. Additionally, EI helps individuals to distinguishing between appropriate and inappropriate behavior, making them less likely to engage in cyberbullying. Family incivility is considered an ambiguous negative family interaction, which may lead to low EI, and escaping of adolescents from family interactions to internet interaction.

Aim of study:

Explore the moderator effects of Emotional Intelligence and family incivility on cyberbullying among adolescent students at Zagazig University.

Research questions:

1. What is the prevalence of cyberbullying victims and perpetrators among adolescent students?
2. Does emotional intelligence and family incivility have moderator effects on cyberbullying among adolescent students?
3. What is the relationship between cyberbullying, emotional intelligence and family incivility among adolescent students?

Subjects and Methods:

Study Design and Setting:

This descriptive cross-sectional study was carried out in the faculties of Zagazig University, Sharkia Governorate in Egypt. The study included students from theoretical and practical faculties. Faculties of Literature/Art, Law, and Commerce represented the theoretical faculties and Faculties of Engineering, Science, and Agriculture represented the practical faculties.

Sample:

A total sample of 1500 students were selected from the previously mentioned settings according to the following inclusion criteria.

Inclusion criteria:

- Both sexes
- Age from 17 to 20 years old.
- Enrolled during the time of the study in any of the six selected faculties.
- Agree to participate in the study.

Exclusion criteria:

Students who don't have access to the internet.

Sample size:

Epi-info software, version 7, Stat Calc was used to calculate the sample size. Assuming that the total number of the university students in the academic year 2020-2021 was 146932 and level of cyberbullying among university students in Istanbul was 28% (Dilmaç, 2017). Accordingly, the total sample size was estimated to 1350 undergraduate students enrolled in the previously selected faculties. (This number was increased to 1500 to account for dropout and nonresponse rate).

Sampling technique:

A multistage stratified random sampling technique was utilized. First stage was for selection of facilities: According to the General Department of Education Affairs at Zagazig University, the total number of the university facilities is 22 divided into theoretical and practical groups. Three facilities were randomly selected from each group constituting the faculties representing the study sample. The second stage was for selection of students: The students were selected from each of the strata randomly. Seven-hundred and fifty students were selected randomly from each of the selected faculties' groups, and 250 students were chosen randomly from each of the selected faculties' first grades.

Study Tools: Data were collected using the following tools:

Tool (I): Socio-demographic data sheet: It was developed by the researchers. It entailed data about age, gender, residence, father and mother presence at home, father and mother educational level, father and mother job status. This part also included some questions about internet-related behaviors such as, access to the internet, social media, frequency (ranged from never to more than once/day) and place of internet use, daily hours of internet use (ranged from less than one to more than 3hours), and purpose of internet use.

Tool (II): The European Cyberbullying Intervention Project Questionnaire (ECIPQ): It was developed by Del Rey et al. (2015), to assess the level of involvement in cyberbullying over the last two months. It contains 22 items divided into two dimensions assessing the frequency of Cyber-victimization (11items) and Cyber-aggression (11items).

Scoring system:

The responses were rated on a 5-point Likert scale "0 = No, 1= yes, once or twice, 2= once or twice a month, 3= yes, about once a week, 4= yes, more than once a week." The prevalence of involvement in cyber-bullying was computed based on the criteria suggested by the scale authors (Del Rey et al., 2015). The respondent was considered "victim" if he/she checked "once or twice a month" or more to any of the cyber-victim items and at the same time checked "no" or "once or twice" to all cyber-bully items. Similarly, for perpetration or aggression behavior, those who checked cyber-bully items "once or twice a month" or "more frequently" and as well checked "no" or "once or twice" for cyber-victim items were considered "bullies" or perpetrators.

Tool (III): Family Incivility Scale: It is based on the Workplace Incivility Scale (Cortina, et al. 2001), which has been updated by Lim & Tai (2014). It is encompassing six items to assess incivility

experienced from family members. Items were: Put you down or was condescending to you, Paid little attention to your statement or showed little interest in your opinion, Made demeaning or degrading comments about you, Ignored or excluded you from social activities, Doubted your judgment on a matter over which you have responsibility and Made unwanted attempts to draw you into a discussion of personal matters.

Scoring system:

The responses were rated on a 5-point Likert scale "not at all" to "many times". These were ranged from 1 to 5. They are summed together so that a higher score indicates more family incivility. For categorical analysis, high family incivility was considered if the average score of the six items was higher than 3, corresponding to "Frequent" and "Many times" scale points.

Tool (IV): Bilingual English–Arabic version of Schutte Self Report Emotional Intelligence Scale (SSREI): It is a modified version of Schutte Self Report Emotional Intelligence Scale (SSREI). It was developed by **Naeem & Muijtjens (2015)**, as a more suitable tool for assessing emotional intelligence in Arab societies. It consisted of 16 items divided into three subscales; Optimism (9 items), Awareness-of-emotions (2 items) and Use-of-emotions (5 items).

Scoring system:

Each item had 5 levels of responses ranging from "strongly agree" to "strongly disagree." These were respectively scored from 5 to 1. The mean score was calculated by adding the scores of the items in each dimension and dividing the total by the number of the items, giving a mean score so that a higher score indicates more emotional intelligence. For categorical analysis, high emotional intelligence was considered if the average score of the items of each dimension and the total scale was higher than 3, corresponding to "agree" and "strongly agree" scale points.

Pilot study:

A pilot study of 135 students (10% of the total sample) from the selected faculties was conducted to assess the tools' clarity and applicability, as well as to estimate the time required to complete the data collection tools. There were some unclear statements and the necessary modifications were done, namely rephrasing and utilizing simpler semantic for these statements. These students were not included in the main study sample.

Administrative design:

An official permission for conducting this study was obtained by submitting an official letter containing the aim of the study issued from the Dean of the Faculty of Nursing at Zagazig University to the Deans of the randomly selected faculties.

Ethical considerations:

An approval for conducting this study was obtained from the Human Research Ethics Committee at the Faculty of Nursing, Zagazig University. The acceptance for participating in the study was obtained from the students after explanation of its aim of through an oral consent. Participation was verified to be voluntary. Clear instructions were given on how to fill in the questionnaire. Anonymity and confidentiality were secured and that it would only be used for scientific research purposes. They were informed that they can withdraw at any stage of filling in the scales and that it will not affect their grades.

Content validity and reliability:

To ensure the original validity of the study tools, the researchers used the translation and back-translation technique to translate them into Arabic. The tools' content validity was assessed by asking a power of seven experts from the academic staff at the Faculty of Nursing, Zagazig University (psychiatric and mental health nursing, community health nursing) and psychiatric and public health department at Faculty of Medicine, Zagazig University) who revised the tools for applicability, clarity, comprehensiveness, relevance, understanding, and simplicity for implementation. They ascertained the face and content validity of the tools. Their suggestions and recommendations were taken into consideration.

Cronbach's test in the Statistical Package for Social Science (SPSS) version 20 was used to examine the tools' reliability (SPSS Inc., Chicago, Illinois, USA). They demonstrate a good level of reliability as follows: Cyber bullying victim ($\alpha=0.913$), Cyber bullying perpetrator ($\alpha= 0.935$), Emotional intelligence: Optimism ($\alpha=0.858$), Awareness of emotions ($\alpha= 0.742$), Use of emotions ($\alpha= 0.763$), and Family incivility ($\alpha=0.830$).

Field work:

After obtaining the necessary permissions to conduct the study, the researchers met the Vice Deans for Students Affairs and Education in each one of the randomly selected facilities explaining to them the aim of the study and data collection tools to gain their approval and cooperation in data collection. After reviewing the first year educational schedules of the selected faculties, the researchers selected the classrooms randomly through practical sections or theoretical lectures. The researchers entered the classrooms, introduced themselves to the students, and explained the aim of the study and the data collection forms to them. After obtaining verbal consents from the student to participate in the study, clear instructions on how to complete these tools were given to them. Before answering the data collection forms, the participants were given instructions on

how they should respond and were advised not to influence each other while responding. In order to assure that they respond to the scale honestly and sincerely without any hesitation, the researchers stayed in the classroom while students were filling in the data collection sheet to answer any question. The same procedures were repeated by the researchers with the students in the first year at the six selected faculties. The student took about 15-25 minutes to complete the tools of data collection. Data collection continued from beginning of October to the end of December 2020.

Statistical analysis:

The Statistical Package for Social Science (SPSS) 20.0 statistical software package was used for data entry and statistical analysis. At the coding and data

entry stages, quality control was performed. Cronbach alpha coefficient was calculated to assess the reliability of the tools through their internal consistency. The Chi-square test was used to compare categorical variables. The inter-relationships between quantitative and ranking variables were assessed using Spearman rank correlation. Multiple linear regression analysis and analysis of variance for the complete regression models were performed to find the independent predictors of bullying, familial incivility, and emotional intelligence scores. Hierarchical regression was carried out to examine the moderator effects of family incivility and emotional intelligence scores. Statistical significance was considered at p-value <0.05.

Results:

Table (1): Socio-demographic Characteristics of Students in the Study Sample (n=1500)

Item	Frequency	%
Age:		
▪ 17-18	1075	71.7
▪ >18-20	425	28.3
Gender:		
▪ Male	794	52.9
▪ Female	706	47.1
Residence:		
▪ Urban	726	48.4
▪ Rural	774	51.6
Father present at home:		
▪ No	261	17.4
▪ Yes	1239	82.6
Mother present at home:		
▪ No	156	10.4
▪ Yes	1344	89.6
Father education:		
▪ Illiterate	375	25.0
▪ Basic	140	9.3
▪ Intermediate	551	36.7
▪ High	434	28.9
Mother education:		
▪ Illiterate	185	12.3
▪ Basic	186	12.4
▪ Intermediate	717	47.8
▪ High	412	27.5
Father job:		
▪ Unemployed/retired	196	13.1
▪ Employed	1304	86.9
Mother job:		
▪ Housewife	989	65.9
▪ Working	511	34.1

Table (2): Availability and Use of Internet as Reported by Students in the Study Sample (n=1500)

Items	Frequency	%
Have: ≠		
▪ Home internet	1039	69.3
▪ Mobile internet	1105	73.7
▪ Social media account	1388	92.5
Frequency of net use:		
▪ Never	338	22.6
▪ Once/month	69	4.6
▪ Once/week	110	7.3
▪ Once/day	410	27.3
▪ >1/day	573	38.2
Place of net use:		
▪ Home	1098	73.2
▪ Outside home	197	13.1
▪ Both	205	13.7
Daily hours of net use:		
▪ <1	567	37.7
▪ 1-<2	325	21.7
▪ 2-3	241	16.1
▪ >3	367	24.5
Purpose of net use:		
▪ University work	318	21.2
▪ Non-university work	761	50.7
▪ Both	421	28.1

≠ Means more than one answer

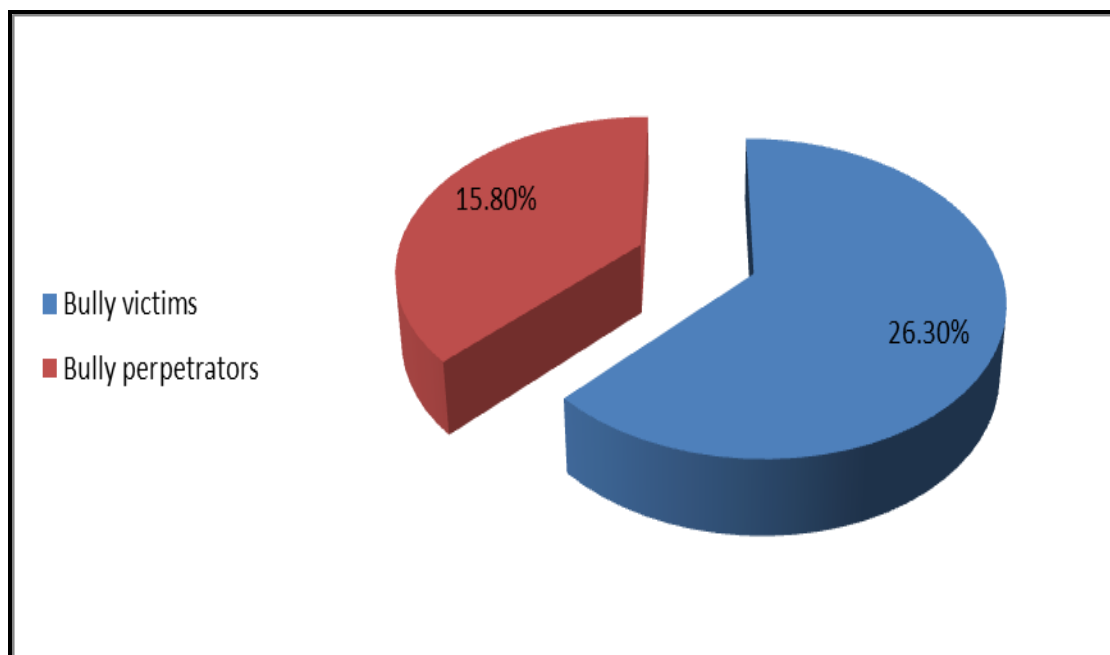


Figure (1): Cyberbullying (Victims & Perpetrators) among Students in the Study Sample (n=1500)

Table (3): Relations between Students' Cyberbullying (Victims) and their Emotional Intelligence, and Family Incivility in the Study Sample (n=1500).

Items	Bully victim				² X test	p-value
	No		Yes			
	No.	%	No.	%		
Bully perpetrator:						
▪ No	1094	86.6	169	13.4	691.32	<0.001*
▪ Yes	11	4.6	226	95.4		
Emotional intelligence:						
Optimism:					78.37	<0.001*
▪ Low	96	48.0	104	52.0		
▪ High	1009	77.6	291	22.4		
Awareness of emotions:					21.70	<0.001*
▪ Low	158	62.0	97	38.0		
▪ High	947	86.1	298	13.9		
Use of emotions:					77.69	<0.001*
▪ Low	100	48.5	106	51.5		
▪ High	1005	77.7	289	22.3		
Emotional intelligence:					68.17	<0.001*
▪ Low	102	50.0	102	50.0		
▪ High	1003	77.4	293	22.6		
Family incivility:					41.53	<0.001*
▪ Normal	1063	75.6	344	24.4		
▪ High	42	45.2	51	54.8		

(*)Statistically significant at $p < 0.05$

Table (4): Relations between Students' Cyberbullying (Perpetrator) and their Emotional Intelligence, and Family Incivility in the Study Sample (n=1500).

Items	Bully perpetrator				² X test	p-value
	No		Yes			
	No.	%	No.	%		
Emotional intelligence:						
Optimism:					137.95	<0.001*
▪ Low	112	56.0	88	44.0		
▪ High	1151	88.5	149	11.5		
Awareness of emotions:					58.86	<0.001*
▪ Low	174	68.2	81	31.8		
▪ High	1089	87.5	156	12.5		
Use of emotions:					198.20	<0.001*
▪ Low	105	51.0	101	49.0		
▪ High	1158	89.5	136	10.5		
Emotional intelligence:					147.29	<0.001*
▪ Low	113	55.4	91	44.6		
▪ High	1150	88.7	146	11.3		
Family incivility:					5.94	0.01*
▪ Normal	1193	84.8	214	15.2		
▪ High	70	75.3	23	24.7		

(*)Statistically significant at $p < 0.05$

Table (5): Correlation Matrix of Students' Scores of Cyberbullying, Emotional Intelligence, and Family Incivility in the Study Sample (n=1500).

Items	Spearman's rank correlation coefficient						Family incivility
	Bullying		Emotional intelligence				
	Victim	Perpetrator		Awareness	Use	Total	
Bullying:							
Victim	1.000						
Perpetrator	-.711**	1.000					
Emotional intelligence: Optimism	-.398**	-.346**					
Awareness	-.173**	-.185**		1.000			
Use	-.213**	-.215**		.571**	1.000		
Total	-.303**	-.295**		.877**	.825**	1.000	
Family incivility	.503**	.421**	1.000	-.116**	-.125**	-.227**	.447**

(**)Statistically significant at $p < 0.01$ **Table (6): Correlations between Students' Scores of Cyberbullying, Emotional Intelligence, and Family Incivility and their Characteristics in the Study Sample (n=1500).**

Characteristics	Spearman's rank correlation coefficient			
	Bullying (victim)	Bullying (perpetrator)	Emotional intelligence	Family Incivility
Age	.061*	.029	.043	.069**
Father education	-.290**	-.163**	.147**	-.256**
Mother education	.100**	.095**	-.113**	.024
Frequency of net use	-.371**	-.212**	.205**	-.318**
Hours of net use	-.180**	-.077**	.125**	-.178**

(*)Statistically significant at $p < 0.05$ (**)Statistically significant at $p < 0.01$ **Table (7): Hierarchical Regression Model for the Bullying (Victim) Score with Moderator Effects of Family Incivility and Emotional Intelligence in the Study Sample (n=1500).**

Items	Model I		Model II		Model III	
	Beta coefficient	p-value	Beta coefficient	p-value	Beta coefficient	p-value
Constant	1.251	.012	1.155	.018	1.25	0.010
Female gender	-.270	<0.001	-.266	<0.001	-0.24	<0.001
Urban residence	-.106	<0.001	-.082	.004	-0.06	0.035
Father co-living	.237	<0.001	.282	<0.001	0.30	<0.001
Mother co-living	-.273	<0.001	-.306	<0.001	-0.33	<0.001
Father education	-.044	.009	-.048	.003	-0.05	0.005
Mother education	.061	<0.001	.068	<0.001	0.07	<0.001
Father works	-.133	<0.001	-.143	<0.001	-0.13	<0.001
Mobile net	.082	.005	.099	.001	0.10	0.001
Net frequency	-.041	.006	-.031	.035	-0.03	0.040
Multiple net places	.148	<0.001	.133	<0.001	0.13	<0.001
Net hours	.072	<0.001	.062	<0.001	0.06	<0.001
Family incivility			.131	<0.001	0.10	<0.001
Emotional intelligence					-0.09	<0.001
R2		.489		.510		.520
R2-change		.495		.021		.010
p-(R2-change)		<0.001		<0.001		<0.001
Model p-value		<0.001		<0.001		<0.001

(*)Statistically significant at $p < 0.001$

Table (8): Hierarchical Regression Model for the Bullying (Perpetrator) Score with Moderator Effects of Family Incivility, and Emotional Intelligence in the Study Sample (n=1500).

Items	Model I		Model I		Model III	
	Beta coefficient	p-value	Beta coefficient	p-value	Beta coefficient	p-value
Constant	1.527	<0.001	1.264	<0.001	1.631	<0.001
Female gender	-.193	<0.001	-.187	<0.001	-.158	<0.001
Father co-living	.259	<0.001	.296	<0.001	.299	<0.001
Mother co-living	-.236	<0.001	-.259	<0.001	-.280	<0.001
Father education	-.057	.001	-.058	.001	-.053	.002
Mother education	.067	<0.001	.070	<0.001	.062	<0.001
Multiple net places	.096	<0.001	.084	<0.001	.087	<0.001
Net hours	.062	<0.001	.058	<0.001	.059	<0.001
Family incivility			.091	<0.001	.072	<0.001
Emotional intelligence					-.144	<0.001
R2		.326		.339		.371
R2-change		.326		.012		.032
p-(R2-change)		<0.001		<0.001		<0.001
Model p-value		<0.001		<0.001		<0.001

(*)Statistically significant at $p < 0.001$

Table (1): Shows that 71.7% of adolescents aged from 17 to 18 years, and 52.9% were males and residing in rural areas 51.6%. The father and mother were present at home (82.6% & 89.6% respectively). The educational level of adolescents' fathers and mothers was intermediate level (36.7% & 47.8% respectively). The fathers' job was employees 86.9%, and the job of their mothers was housewives 65.9%.

Table (2): As shown in 69.3% of the studied adolescents had home internet, 73.7% had mobile internet and social media account 92.5%. While, the studied adolescents were using the internet more than one time per day 38.2%, and the most common place of net use was home 73.2%, and 37.7% of them were using internet less than one hour per day. The purpose of net use was for non-university work in 50.7% of studied sample.

Figure (1): Illustrates that 26.30% of the studied adolescents were bully-victims. While, 15.80% were bully perpetrators.

Table (3): Shows that adolescents' cyber-bully victims have highly statistically significant relations with cyber-bully perpetrators, total Emotional Intelligence and its dimensions and family incivility ($p < 0.001$). The same table shows generally increasing trends of the percentages of adolescents' cyber-bully victims with their cyber-bully perpetrators, lower emotional intelligence and with higher family incivility.

Table (4): Displays that in the percentages of adolescents cyber-bully perpetrators were highest among those with lower level of emotional intelligence ($p < 0.001$), and with higher level of

family incivility ($p = 0.01$). The differences were statistically significant.

Table (5): Demonstrates statistically significant weak negative correlations between adolescents' cyber bullying for both victims and perpetrators with total emotional intelligence ($r = -0.303$ & $r = -0.295$ respectively) and its dimensions from one side and weak to moderate positive correlations with the score of family incivility from the other side ($r = 0.503$ & $r = 0.421$ respectively). As well as, statistically significant moderate to strong positive correlations among the scores of adolescents' use of emotion, awareness of emotion, and total Emotional Intelligence. Conversely, total Emotional Intelligence ($r = -0.227$) and use of emotion dimension ($r = -0.125$), and awareness of emotion ($r = -0.116$) have statistically weak negative correlations with score of adolescents' family incivility.

Table (6): Reveals that adolescents' age has statistically significant weak positive correlations with cyberbullying victims ($r = 0.061$) and family incivility scores ($r = 0.069$). Father education has statistically significant weak negative correlations with adolescents' cyberbullying victims ($r = -0.290$), perpetrators ($r = -0.163$) and family incivility scores ($r = -0.256$), while it has positive correlation with EI ($r = 0.147$). Meanwhile, mother education has statistically significant weak positive correlations with adolescents' cyberbullying for victims ($r = 0.100$) and perpetrators ($r = 0.095$), while it has negative weak correlation with emotional intelligence (EI) score ($r = -0.113$). Similarly, frequency and hours of net use have weak negative correlations with adolescents' cyberbullying for both victims ($r = -0.371$ & $r = -0.180$)

and perpetrators ($r=-0.212$ & $r=-0.077$) and family incivility ($r=-0.318$ & $r=-0.178$). However, statistically significant weak positive correlation was found between them and EI score ($r=0.205$ & $r=0.125$).

Table (7): The model without moderator effects explains that 48.9% of the variation in the cyber-victim score, family incivility added 2.1% of the variance explanation and increased the cyber-victim score. Meanwhile, the score of emotional intelligence added 1.0% of the variance explanation and decreased the cyber-victim score. These changes were statistically significant indicating a moderator effect of each of these two scores on the cyber-victim score.

Table (8): The model without moderator effects explains 32.6% of the variation in the cyber-bully (perpetrator) score. Family incivility added 1.2% of the variance explanation and increased the cyber-bully score. Meanwhile, the score of emotional intelligence added 3.2% of the variance explanation and decreased the cyber-bully score. These changes were statistically significant indicating a moderator effect of each of these two scores on the cyber-bully scores.

Discussion:

The findings of the current study indicates that the majority of the adolescents had mobile or home internet, and most of them had social media account, which reflect easy and availability of electronic communications, watching different programs, videos, applications and games and can lead to acquisition of good or bad behaviors. In accordance of the current study result, the study of **Makri-Botsari & Karagianni, (2014)**, who found most of the students (98.6%) were connected to the internet from their home, whereas just 1.7% and 4.0% of them connected to the internet from an internet café or other place, respectively. In the same line, Egypt is rated the 17th in the world in terms of Facebook subscribers, with 98% of internet users having a Facebook account; 52% of them are under the age of 24 years. (**eMarketing Egypt Online Competitiveness Intelligence report, 2015**). Also, the present finding is in the line with **the Ministry of Communications and Information Technology (MCIT), (2016)** in Egypt, which reported that the number of Egyptians accessing the internet has increased dramatically, from 12.3 million in 2009 to 29.84 million in 2016. As well, almost one out of every two individuals worldwide is using the internet, and one billion households are having internet access, and more than two and half billions of people in the developing countries using it.

The current study result indicated that nearly one quarter of adolescents' students were using internet more than 3 hours per day. As well, half of them were

using it for non-educational purpose, which predicts that those students spent time in entertainments activities as games, watching videos, chatting, programs, etc and may be influenced by negative or aggressive behaviors. These results are in agreement with those of the study of **Makri-Botsari & Karagianni (2014)**, who found that, more than one third of their studied students were connected to the Internet from one to three hours each day. At the same context, the Egyptian study of **Arafa & Senosy (2017)** revealed that the students' use of Internet was ranged from ten minutes to sixteen hours per day with a mean duration of 5.5 ± 3.8 hours.

In the current study results, cyberbully perpetrators was less than cyberbully victims among the adolescents' students, representing less than fifth while, victims representing more than quarter of adolescent students, it may be related to inability of students to protect themselves from electronic bullying, ignorance of electronic security and sometimes due to misuse of the Internet and social media and conducts behaviors such as publishing personal news, photos, family information, etc. which may lead to exploitation and bullying. However the findings highlight the existence of the problem of cyberbullying as victims and perpetrators among adolescents' students. These results are in agreement with those of **Athanasiaides et al., (2015)**, who found that almost one-fifth of their studied students were victims of cyberbullying once or twice during the past six months, one quarter sent insulting or bad messages to someone once or twice. As well, **Sanghvi & Rai (2015)** found that 14.3% of the participants reported that they had cyberbullied someone once or more often in their lifetime, while 24.2 % of participants reported that they had been a victim of cyberbullying at least once in their lifetime. The present study finding also is going with the study conducted by **Arafa & Senosy (2017)**, in Egypt, who found that almost half of the students (48.2%) in their study, reported experiencing cyberbullying victimization in the past 6 months.

The present study result revealed increasing trends of the percentages of students' cyberbully victims with their cyber bully perpetrators, this result reflects the general strain theory (GST) of **Lianos & McGrath, (2018)** who stated that the cyberbullying victimization, as a negative stimulus, is an important source of pressure leading to cyberbullying perpetration. However, the current study result is in agreement with those of **Wong et al. (2014)**, who found a strong positive association between cyberbullying victimization and perpetration in a study of Hong Kong teenage pupils. As well, **Gibb & Devereux, (2014)** conducted a survey among college students and found that, cyberbullying victims are

likely to express their emotions through cyberbullying and become perpetrators themselves, contributing to a vicious cycle. At the same line **Rice et al, (2015)** found that 4.3% of students being a perpetrator–victim from 6.6% were victims. In addition to the study conducted in Thailand by **Boonya-Anuchit & Piyaraj (2018)**, reported that 13.3% of students were dual cyber perpetrator and victimization.

The present study result showed a moderator effect and positive correlations between students' cyberbullying for both victims and perpetrators with the family incivility in form of high family incivility which had been associated with increased cyberbully victims and perpetrators, this findings reflects the possibility of associated role of family incivility with the adolescents' cyberbullying because of the family incivility can be accompanied by a lack of affection and poor communication, little promotion of autonomy, and excessive behavioral control, all of these contribute to increase the vulnerability victimization or bullying. The current study findings support the opinion in the study of **Gómez-Ortiz et al, (2019)** who indicated that, the higher levels of aggression and victimization in cyberbullying were linked to the strict and authoritarian parenting styles and the lower levels to the normative or indulgent democratic. As well, **Ortega Barón et al, (2019)** highlighted that, cyberbullying and cybervictimization were significantly and positively related to family conflict, offensive communication, and avoidant communication with mother and father. Also, the study findings are consistent with those of a very recent study carried out by **Qiyu et al. (2020)**, who clarified that a positive relationship was detected between familial incivility and cyberbullying.

The present study results revealed a moderator effect and negative correlations between students' cyberbullying for both victims and perpetrators with Emotional Intelligence in the form of high IE associated with decreased cyberbully victims and perpetrators, this result indicated the association role of Emotional Intelligence with adolescents cyberbullying and support the opinion of that adolescents with limited EI competencies have fewer resources to resolve interpersonal conflicts and resort more to aggression as a mean of solving problems, to the detriment of more adaptive strategies. However, the current study results are in agreement with those of **Elipe et al, (2015)** who found that the students with higher levels of EI had experiences of more positive social behaviors, and they were less exposed to cyberbullying by their peers. As well, the cyberbullying victims were having higher abilities to attend emotions and lower abilities to understand or regulate their emotions. Similarly, the study of **Rey et al, (2018)** found that higher levels of total EI were

significantly and negatively associated with lower scores in cyber victimization both in males and females. Also, negative relationship between EI and cybervictimization was found in two very recent studies of **Martínez-Martínez et al,(2020) & Qiyu et al, (2020)**.

Adolescents' age has statistically significant weak positive correlations with cyber bullying victims and family incivility scores in the current study results, this finding is in agreement with the national survey results of **Hinduja & Patchin, (2014)** which applied on 4,441 adolescents and reported that older adolescents are more likely to be victims of cyberbullying than younger ones. On the other hand, several global studies found that young people aged 13-15 years were more likely to be cyberbullied than older or younger youth Livingstone (**Mascheroni et al, 2014**). Other studies, however, found no differences between age groups in terms of online victimization (**Kowalski et al., 2014**).

Positive correlations were found between mothers' education and adolescents' cyberbullying for victims and perpetrators in current study results, but it has negative correlation with Emotional Intelligence. As well, Negative correlations between fathers' education and family incivility, adolescents' cyberbullying victims, and perpetrators were found in the current study, while it has positive correlation with EI which reflect the influence of the educational level on the fathers' style of children rearing when tend to be authoritative and they have open minds and give their children the chances to communicate and express their ideas, feeling, sharing in decisions, which lead to good family relationship and sociable children and less aggression and hostility among children. The present study findings are at the same context with **Garaigordobil & Machimbarrena, (2017)** study which found that the victims and aggressors of bullying had parents with higher levels of stress, used authoritarian parenting styles, and applied permissive practices; also found the parents of aggressors had a lower level of parental competence. As well, the study of **Broll & Reynolds, (2021)** concluded that neglectful parenting was associated with cyberbullying offending and indulgent parenting was associated with cyberbullying victimization.

The present results indicated that hours and frequency of the Internet use among students had negative correlations with cyberbullying for both victims and perpetrators and family incivility, while they had positive correlation with Emotional Intelligence. These results indicated lack time of family members communication which reduce the family incivility, as well highlight the influence role of social media and electronic communication on adolescents emotional experiences. However, the current findings is in

accordance with **Payal's, (2018)** finding, which indicated that those who use social networking sites for two hours had a considerably lower Emotional Intelligence score than people who use it for four hours. while, the study result of **Saraiva et al., (2018)** disagreed with the finding of the present study result as they found that the variables of emotional intelligence and Internet addiction are mostly negative and significant. From the researcher point of view, internet use behaviour has more impact on adolescents" behaviour especially concerning their family, and social relationships more than frequency and hours of internet using.

Conclusion:

Based on the current study findings it can be concluded that the prevalence of cyberbully perpetrators was less than cyberbully victims among the adolescent students; family incivility and Emotional Intelligence have moderating effects on cyberbullying victims and perpetrators. Moreover, high family incivility was associated with increased cyberbully victims and perpetrators, while, high Emotional Intelligence was associated with decreased cyberbully victims and perpetrators.

Recommendations:

- Psychosocial intervention programs directed to adolescent students and their parents to prevent cyberbullying, avoid family incivility and enhance emotional intelligence.
- Outreach programs directed to secondary school students, parents, and community to increase their awareness about cyberbullying and its consequences.
- Health education programs for cyberbully victims to identify the protective factors such as self-esteem, empathy, emotional intelligence and forgiveness to protect them to become aggressive through unhealthy relationships.

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