Cyber Bullying, Goal Instability, Depression and Suicidal Ideation among Adolescents

Madalaimuthu Anthony, Ganesh Kumar J.
CHRIST (Deemed to be University), Bengaluru

Amalanadhan Felix
Immaculate College for Women

Adolescent suicide accounts for one third of suicides in India. Adolescents in the period of stress undergo self-doubt and other psychosocial issues leading to crisis. In today's virtual interactions, cyber bullying is a major cause of concern. This study aims to explore the relationship among cyber bullying, goal instability, depression, and suicidal ideation among adolescents. Data was collected using the self-report questionnaire designed in Google Form. From December 19, 2021, to January 10, 2022, 108 participants completed Socio Demographic Profile developed by the researchers and Adolescent Cyber-bulling scale by Sofia Buela et al. (2020), Goal Instability scale by Robbins and Patton (1985), depression by Kutcher (2006) and Brief Rating Symptoms Scale by Lung et al. (2008). The results revealed that cyber bullying, depression, and suicidal ideation had a significant and positive relationship whereas goal instability had significant and negative relationship with suicidal ideation and depression among the adolescents. A significant difference was found in cyber bullying and suicidal ideation based on gender. Partial correlation analysis showed that relationship among cyber bullying, depression and suicidal ideation significantly increased after controlling for goal instability and gender. Suicidal ideation is seen more among girls. This finding will be useful in designing counseling and intervention programs.

Keywords: Cyber bulling, suicidal ideation, depression, goal instability, adolescent

Adolescence is characterized as the period of heightened stress (Hall, 1904; Spear, 2000). Self-doubt and other psychosocial issues lead to it (Hashmi, 2013). Adolescents tend to resist adult authority, indulge in frequent conflicts with parents, experience more extremes of moods and are more likely to engage in reckless behavior that has potential to harm themselves and others (Arnett, 1999). During this period, adolescents' thoughts about their future develop which sets their educational and occupational goals (Beal & Crockett, 2013). COVID-19 pandemic had multifarious adverse effects on people's mental health (Hawes, Szenczy, Klein, Hajcak & Nelson, 2021). The pandemic elevated the threat of infection causing loneliness, depression, and anxiety disorders. Studies showed significant increases in BIMOB, cyber-bullying attitudes, and cyber-bullying perpetrators during the pandemic (Barlett, Simmers, Roth & Gentile, 2021). In this context, understanding the relationship among cyber-

bullying, goal instability, depression and suicidal ideation among adolescents is imperative.

In today's virtual interactions, cyber bullying is a major cause of concern. Cyber bullying is bullying that takes place over digital devices like cell phones, computers, and tablets (Smith, Mahdavi, Carvalho & Tippett, 2006). It can be as simple as continuing to send emails or text messages to harass someone who has said they want no further contact with the sender. It can occur through SMS, text, and apps or online in social media, forums, or gaming where people can view, participate in, or share content (Patchin, & Hinduja, 2012). It is expected that cyber bullying via these platforms will occur more often than through more stationary internet platforms. Cyber bullying perpetration indicates 'repeated violation, harassment, and ridicule of others online, or using mobile phones or even other electronic devices' (Patchin & Hinduja, 2012). The strength of these connections has been reinforced by

research demonstrating how exposure to peer harassment causes depression, diminished self-worth, hopelessness, and loneliness, all of which are risk factors for suicide ideation (Graham & Juvonen, 1998; Hawker & Boulton, 2000; Joiner & Rudd, 1996; Kaltiala-Heino, Rimpelä, Marttunen et al., 1999; Kaltiala-Heino, Rimpela, Rantanen et al., 2000; Langhinrichsen-Rohling & Lamis, 2008; Marr & Field, 2001; Roland, 2002). In addition, some researchers have hypothesized that many bullies previously have been victims and therefore suffer psychological and psychosomatic problems that lead to suicidal risks (van der Wal, deWit, & Hirasing, 2003). Estimates suggest that about 15% of adolescents have suffered from cyberbullying victimization (Modecki et al., 2014).

Studies have shown that cyber-bullying is linked to depression (Miller, 2010) and the effects of all types of bullying on suicidal ideation were mediated by subjective wellbeing, and that these mediations were gender dependent for bullying and cyber-bullying-mobile phone (Lucas-Molina, Perez-Albeniz & Fonseca-Pedrero, 2018). Degree of goal instability was directly related to negative career thoughts, dissatisfaction with career choice, career tension, and inversely related to classroom performance (Bertoch, Lenz, Reardon & Peterson, 2014) which also leads to poor self esteem and suicidal ideation. Adolescents who were victims of both traditional and cyber bullying had greater risks of adverse outcomes of suicidal ideation only, suicidal ideation plus self-harm and suicide attempts (Peng et al., 2019).

Adolescents are among the vast frequent users of social networking platforms, which raises concerns about the risks of cyberbullying. Individuals who are victimized to cyberbullying may experience a lot of emotional and behavioural problems. Such emotional and behavioural problems may include anxiety, low self-esteem, loneliness, depression, suicide attempts, externalizing symptoms, reactive and instrumental aggression, problematic peer relations, poor social skills, school absenteeism, academic under-achievement, low life satisfaction, and physical problems (Bauman et al. 2013; Campbell et al. 2012; Dooley et al. 2012; Gámez-Guadix et al.

2013; Kessel Schneider et al. 2012; Kowalski and Limber 2013; Leung and McBride-Chang 2013; Nordahl et al. 2013; Olenik-Shemesh et al. 2012; Perren et al. 2010; Price et al. 2013; Schultze-Krumbholz et al. 2012; Turner et al. 2013; Wang et al. 2011). Khodabakhsh and Li (2018) highlighted in their study that 16.4% of the students reported suicidal ideation and 14.2% indicated at least a moderate level of depression. These findings point to alarmingly high rates of depression and suicidal ideation. Numerous studies have suggested that cybervictimization exacerbates other emotional problems such as hopelessness, low self-esteem, anxiety, depression, and stress, thereby increasing suicidal thinking or behavior (Hinduja & Patchin, 2009, 2010). Some studies have shown that the relationship between cyberbullying and suicide may also reveal the existence of complex relationships that predispose victims to having emotional problems such as anxiety, depression, and stress which at the same time are associated with an increase in suicidal thinking (Hinduja & Patchin, 2009).

Furthermore, individuals with higher scores on the goal instability typically possess characteristics of unhealthy idealization including a weak sense of goals and values, lower levels of self-esteem, little social and community connectedness, and lower career decidedness (Bertoch et al., 2014) which might cause depression among students leading to suicidal ideation as well. There is a dearth of research on the relationship between cyber-bullying and goal stability.

Rationale of the study

Adolescents are at marked risk for lifetime suicide ideation (15.3%) and suicide attempts (3.2%; Mortier et al., 2017). To better understand these outcomes within this vulnerable group, researchers must try to pinpoint their causes and correlations. Even while there has been progress in this area, there is a lot that we do not understand about what leads an adolescent to think about or commit suicide. One factor that has been connected to suicidal ideation is having experienced bullying at school, in the neighbourhood, and elsewhere (Carney, 2000; High, 2007; Marr & Field, 2001). Many studies

have revealed the close relationships existing between suicidal thinking, anxiety, depression and stress and traditional bullying; however, few studies have specifically considered cyberbullying (Faucher et al., 2014; Jenaro et al., 2017; Schenk & Fremouw, 2012). Adolescents peer aggression has changed in recent years because of the proliferation of information and communication technologies. Adolescents have committed suicide in several high-profile situations, often because of harassment and abuse they received online (Apollo, 2007; Halligan, 2006; Jones, 2008), a phenomenon recently termed cyberbullicide - suicide indirectly or directly influenced by experiences with online aggression (Hinduja & Patchin, 2009). While these incidents are isolated and do not represent the norm, their gravity demands deeper inquiry and understanding. Adolescents who bully others or are bullied are more likely to have suicidal ideas, attempt suicide, or commit suicide (Baldry & Winkel, 2003; Mills, Guerin, Lynch, Daly et al., 2004; Rigby & Slee, 1999; van der Wal, de Wit, & Hirasing, 2003). Suicide is one of the leading causes of death in adolescents and is often associated with depression (Farabaugh et al., 2012). About 95% of students who commit suicide are clinically depressed (American College Health Association, 2007). Bertoch et al. (2014) indicated that goal instability was adversely correlated with classroom performance, which in turn was inversely correlated with negative career thoughts, dissatisfaction with career choice, and career anxiety, which would in turn lead to depression and suicidal ideation. The current study, therefore, aimed to explore the relationship among cyber bullying, goal instability, depression, and suicidal ideation among adolescents.

Reference to the above aim of the study the following hypotheses were framed based on the literature:

Hypothesis 1: There is a significant relationship between cyberbullying, goal instability, depression, and suicidal ideation among adolescents.

Hypothesis 2: There is a significant difference in cyberbullying, goal instability, depression, and suicidal ideation among adolescents based on gender.

Hypothesis 3: There is a significant relationship between cyberbullying, depression, and suicidal ideation among adolescents controlling goal instability and gender.

Method

Procedure:

The questionnaires were designed in a Google Form. The researchers shared the forms with the College principals on WhatsApp. The participants who agreed to the 'informed consent' were presented with the questionnaires; others were not allowed to continue.

Measures

Socio Demographic Profile: The researcher prepared a socio-demographic profile sheet asking their participants to provide their age and gender.

Adolescent Cyber-Aggressor Scale: It was developed by Sofia Buelga et al. (2020). This tool consisted of 18 items with a 5-point Likert Scale measuring adolescent's experience as a cyberbullying perpetrator. The frequency of behavior was rated as 1 – "Never", 2 – "Once or twice", 3- "A few times", 4 – "Several times", 5 – "Many times". The internal consistency of the scale in this study was 0.957.

Goal Instability Scale: It was developed by Robbins and Patton (1985). This tool consisted of 10 items to explore the lapses in generalized motivation or drive in the educational attainment process. It is a 6-point Likert Scale rated as 1 – "strongly agree" to 6– "strongly disagree". The internal consistency of the scale in this study was 0.894.

Kutcher Adolescent Depression Scale: It was developed by Kutcher (2006). This tool consisted of 11 items with a 4-point Likert Scale (0 – "hardly ever", 1 – "much of the time", 2- "most of the time", 3 – "all the time") measuring frequency of feelings, mood over the last week. Higher score indicated worsening depression. The internal consistency of the scale in this study was 0.912.

Brief Rating Symptoms Scale: It was developed by Lung et al. (2008). This tool

consisted of five items measuring the experiences in their everyday lives. The items were scored on a 5- point Likert Scale rating as 0 – "Not at all", 1 – "A little bit", 2- "moderately", 3 – "quite a bit", 4 – "extremely". Higher score indicated higher suicidal thinking. The internal consistency of the scale in this study was 0.943.

Statistical Analysis: The data was screened in MS-Excel and scoring was done based on the manual. The Cronbach Alpha was carried out to establish the internal consistency of the scales. Correlation was carried out to explore the relationship among the study variables. "t" test was conducted to find the difference in study variables based on gender.

Results

Table 1 shows that cyber-bullying, depression, and suicidal ideation had a significant and positive relationship among the adolescents; goal instability had a significant and negative relationship with suicidal ideation and depression among the adolescents. The relationship between cyber bullying and goal instability is insignificant among the adolescents.

From table 2, it can be inferred that adolescents differ significantly in cyber bullying and suicidal ideation based on gender. The mean value for males is higher than females in

Table 1. Relationship between study variables among the adolescents

Study Variables	1	2	3	4
Cyber-bullying	1			
Depression	0.378**	1		
Suicidal Ideation	0.308**	0.787**	1	
Goal Instability	-0.049	-0.256*	-0.261**	1

**Significant at 0.01 level; * Significant at 0.05 level

cyber bullying whereas females were high on suicidal ideation. Adolescents do not differ in goal instability and depression based on their gender.

From table 3, it can be observed that the relationship among cyber bullying, depression, and suicidal ideation significantly increases after controlling for goal instability and gender. Hence, it can be concluded that cyber bullying has a strong link with depression and suicidal ideation irrespective of gender and goal instability.

Discussion

This study explored the relationship between cyber-bullying, goal instability, depression, and

Table 2. Difference in study variables based on gender.

Study Variables	Male (N=45)		Female (N=52)		"t" value
	M1	SD1	M2	SD2	
Cyber bullying	22.96	9.22	19.33	2.81	2.69**
Depression	7.20	6.31	9.92	7.34	1.94NS
Suicidal Ideation	4.07	4.15	7.23	5.37	3.20**
Goal Instability	38.11	13.43	36.90	11.53	0.47 NS

**Significant at 0.01 level; *significant at 0.05 level

Table 3. Partial correlation between study variables among the adolescents

Control Variable	Study Variables	Cyber bullying	Depression	Suicidal Ideation
Goal Instability	Cyber-bullying	1		
	Depression	0.378**	1	
	Suicidal Ideation	0.306**	0.772**	1
Goal Instability & Gender	Cyber-bullying	1		
	Depression	0.454**	1	
	Suicidal Ideation	0.426**	0.764**	1

**Significant at 0.01 level

suicidal ideation among adolescents and find out the gender difference in these variables. The results revealed that cyber-bullying, depression, and suicidal ideation had a significant, moderate, and positive relationship among adolescents. Our findings are consistent with earlier studies. Suicidal ideation is transient and dynamic. Since adolescents experienced lifestyle transition during COVID-19, and uncertainty, the percentage of respondents endorsing suicidal ideation was greater with each passing month for those under lockdown (Killgore, Cloonan, Taylor, Allbright & Dailey, 2020). Therefore, suicidal ideation had a significant and positive relationship with depression. Individual with low scores on goal instability reflected unhealthy idealization, lower level of self esteem and higher level of depression and anxiety (Santos, 2003); directly related to dissatisfaction with career choice and career tension (Bertoch, Lenz, Reardon & Peterson, 2014). Therefore, we expected that goal instability would have a significant and positive relationship with suicidal ideation and depression. Contrary to our expectation, goal instability had a significant and negative relationship with suicidal ideation and depression among the adolescents.

This study also revealed that male adolescents had a higher tendency to intimidate through digital devices than females. Also, it showed that females experienced a high level of suicidal ideation than male adolescents. There was no significant difference in depression and goal instability based on gender. Previous studies reported that female adolescents exhibited higher risk of depression during COVID-19 (Chen et. al., 2020).

Conclusion

The influence of cyber bullying on depression, suicidal ideation is well established; goal instability with depression and suicidal ideation is also established by earlier researchers. This study provided evidence after partialing out the influence of gender and goal instability among the adolescents. Suicidal ideation is seen more among girls. This finding will be useful in designing counseling and intervention programs. Additionally, there should be online awareness campaigns that encourage young people to discuss cyberbullying. They should also be educated on cyber security.

References

American College Health Association. (2007). National College Health Assessment Spring 2006 reference group data report (abridged). *Journal of American College Health, 55*(4), 195.

Apollo, A. M. (2007). Cyberbullying: Taking the fight online. Retrieved February 20, 2007, from http://saferschools.blogspot.com/2007/02/october-9-2005-bonita-banner.html

Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. American Psychologist, 54(5), 317.

Barlett, C. P., Simmers, M. M., Roth, B., & Gentile, D. (2021). Comparing cyberbullying prevalence and process before and during the COVID-19 pandemic. *The Journal of Social Psychology, 161*(4), 408-418.

Bauman, S., Toomey, R. B., & Walker, J. L. (2013). Associations among bullying, cyberbullying, and suicide in high school students. *Journal of Adolescence, 36*(2), 341-350.

Beal, S. J., & Crockett, L. J. (2013). Adolescents' occupational and educational goals: A test of reciprocal relations. *Journal of Applied Developmental Psychology, 34*(5), 219-229.

Bertoch, S. C., Lenz, J. G., Reardon, R. C., & Peterson, G. W. (2014). Goal instability in relation to career thoughts, decision state, and performance in a career course. *Journal of Career Development, 41*(2), 104-121.

Bertoch, S. C., Lenz, J. G., Reardon, R. C., & Peterson, G. W. (2014). Goal instability in relation to career thoughts, decision state, and performance in a career course. *Journal of Career Development, 41*(2), 104-121.

Buelga, S., Postigo, J., Martínez-Ferrer, B., Cava, M. J., & Ortega-Barón, J. (2020). Cyberbullying among adolescents: Psychometric properties of the CYB-AGS cyber-aggressor Scale. *International Journal of Environmental Research and Public Health, 17*(9), 3090.

Campbell, M., Spears, B., Slee, P., Butler, D., & Kift, S. (2012). Victims' perceptions of traditional and cyberbullying, and the psychosocial correlates of their victimization. *Emotional and Behavioural Difficulties, 17*(3-4), 389-401.

Carney, J. V. (2000). Bullied to death. *School Psychology International, 21*(2), 213 – 223.

Chen, F., Zheng, D., Liu, J., Gong, Y., Guan, Z., & Lou, D. (2020). Depression and anxiety among

adolescents during COVID-19: A cross-sectional study. *Brain, Behavior, and Immunity, 88*, 36.

Dooley, J. J., Shaw, T., & Cross, D. (2012). The association between the mental health and behavioural problems of students and their reactions to cyber-victimization. *European Journal of Developmental Psychology, 9*, 275–289.

Farabaugh, A., Bitran, S., Nyer, M., Holt, D. J., Pedrelli, P., Shyu, I.,... & Fava, M. (2012). Depression and suicidal ideation in college students. *Psychopathology, 45*(4), 228-234.

Faucher, C., Jackson, M., & Cassidy, W. (2014). Cyberbullying among university students: Gendered experiences, impacts, and perspectives. Education Research International, 2014.

Gámez-Guadix, M., Orue, I., Smith, P. K., & Calvete, E. (2013). Longitudinal and reciprocal relations of cyber bullying with depression, substance use, and problematic internet use among adolescents. *Journal of Adolescent Health, 53*, 446–452. doi:10.1016/j.jadohealth.2013.03.030.

Graham, S., & Juvonen, J. (1998). Self-blame and peer victimization in middle school: An attributional analysis. *Developmental Psychology, 34*, 587 – 599.

Halligan, J. (2006). Ryan Patrick Halligan. Retrieved January 23, 2008, from http://www.ryanpatrickhalligan.org/

Hawes, M. T., Szenczy, A. K., Klein, D. N., Hajcak, G., & Nelson, B. D. (2021). Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic. *Psychological Medicine,* 1-9.

Hawker, D. S. J., & Boulton, M. J. (2000). Twenty years' research on peer victimization and psychological maladjustment: A meta-analysis review of cross-sectional studies. *Journal of Child Psychology and Psychiatry, 41*(4), 441 – 445.

High, B. (2007). Bullycide in America: Moms speak out about the bullying/suicide connection. Alberta, Canada: JBS Publishing, Inc.

Hinduja, S., & Patchin, J. W. (2009). Bullying beyond the schoolyard: Preventing and responding to cyberbullying. Thousand Oaks, CA: Sage Publications (Corwin Press).

Hinduja, S., & Patchin, J. W. (2010). Bullying, cyberbullying, and suicide. *Archives of suicide research, 14*(3), 206-221.

Holmbeck, G. N., & Hill, J. P. (1988). Storm and stress beliefs about adolescence: Prevalence, self-reported antecedents, and effects of an undergraduate course. *Journal of Youth and Adolescence, 17*(4), 285-306.

Jenaro, C., Flores, N., & Frías, C. P. (2021). Anxiety and depression in cyberbullied college students: A retrospective study. *Journal of interpersonal violence, 36*(1-2), 579-602.

Joiner, T. E. J., & Rudd, M. D. (1996). Disentangling the interrelations between hopelessness, loneliness, and suicidal ideation. *Suicide and Life-Threatening Behavior, 26,* 19 – 26.

Jones, T. (2008). A deadly web of deceit: A teen's online 'friend' proved false, and cyber-vigilantes are avenging her. Retrieved January 10, 2008, from http://www.washingtonpost.com/wp-dyn/content/article/2008/01/09/AR2008010903367_pf.html

Kaltiala-Heino, R., Rimpelä, M., et al. (1999). Bullying, depression, and suicidal ideation in Finnish adolescents: School survey. *British Medical Journal, 319*(7206), 348 – 351.

Kaltiala-Heino, R., Rimpela, M., et al. (2000). Bullying at school—an indicator of adolescents at risk for mental disorders. *Journal of Adolescence, 23*, 661 – 674.

Kessel Schneider, S., O'Donnell, L., Stueve, A., & Coulter, R. W. S. (2012). Cyber bullying, school bullying, and psychological distress: a regional census of high school students. *American Journal of Public Health, 102,* 171–177. doi:10.2105/AJPH.2011.300308.

Khodabakhsh, S., & Li, S. S. (2018). Relationship between online and face-to-face connectedness and general health among undergraduate students in Malaysia. *MOJPC: Malaysia Online Journal of Psychology & Counselling, 5*(1), 1-10.

Killgore, W. D., Cloonan, S. A., Taylor, E. C., Allbright, M. C., & Dailey, N. S. (2020). Trends in suicidal ideation over the first three months of COVID-19 lockdowns. *Psychiatry Research, 293,* 113390.

Kowalski, R. M., & Limber, S. P. (2013). Psychological, physical, and academic correlates of cyber bullying and traditional bullying. *Journal of Adolescent Health, 53*(1, Suppl), S13–S20. doi:10.1016/j.jadohealth.2012.09.018.

Langhinrichsen-Rohling, J., & Lamis, D. A. (2008). Current suicide proneness and past suicidal behavior in adjudicated adolescents. *Suicide and Life-Threatening Behavior, 38*(4), 415 – 426.

Leung, A. N., & McBride-Chang, C. (2013). Game on? Online friendship, cyber bullying, and psychosocial adjustment in Hong Kong Chinese

children. *Journal of Social and Clinical Psychology, 32*, 159–185. doi:10.1521/jscp.2013.32.2.159.

Lucas-Molina, B., Perez-Albeniz, A., & Fonseca-Pedrero, E. (2018). The potential role of subjective wellbeing and gender in the relationship between bullying or cyberbullying and suicidal ideation. *Psychiatry Research, 270*, 595-601.

Marr, N., & Field, T. (2001). Bullycide: Death at playtime-An expose of child suicide caused by bullying. London: Success Unlimited.

Miller, M. G. (2010). Depression high among youth victims of school cyber bullying, NIH researchers report.

Modecki, K. L., Minchin, J., Harbaugh, A. G., Guerra, N. G., & Runions, K. C. (2014). Bullying prevalence across contexts: A meta-analysis measuring cyber and traditional bullying. *Journal of Adolescent Health, 55*(5), 602-611.

Nordahl, J., Beran, T. N., & Dittrick, C. J. (2013). Psychological impact of cyber-bullying: implications for school counsellors. *Canadian Journal of Counselling and Psychotherapy/Revue Canadienne de Counseling et de Psychothérapie, 47*, 383–402.

Olenik-Shemesh, D., Heiman, T., & Eden, S. (2012). Cyber bullying victimization in adolescence: relationships with loneliness and depressive mood. *Emotional and Behavioural Difficulties, 17*, 361–374. doi:10.1080/13632752.2012.704227.

Patchin, J. W., & Hinduja, S. (Eds.). (2012). Cyberbullying prevention and response: Expert perspectives. Routledge.

Peng, Z., Klomek, A. B., Li, L., Su, X., Sillanmäki, L., Chudal, R., & Sourander, A. (2019). Associations between Chinese adolescents subjected to traditional and cyber bullying and suicidal ideation, self-harm, and suicide attempts. *BMC Psychiatry, 19*(1), 1-8.

Perren, S., Dooley, J., Shaw, T., & Cross, D. (2010). Bullying in school and cyberspace: associations with depressive symptoms in Swiss and Australian adolescents. C*hild and Adolescent Psychiatry and Mental Health, 4*, 28. doi:10.1186/1753-2000-4-28.

Price, M., Chin, M. A., Higa-McMillan, C., Kim, S., & Frueh, C. B. (2013). Prevalence and internalizing problems of ethnoracially diverse victims of traditional and cyber bullying. *School Mental Health, 5*, 183–191. http://dx.doi.org.proxy.library. vanderbilt.edu/10.1007/s12310-013-9104-6.

Roland, E. (2002). Bullying, depressive symptoms and suicidal thoughts. *Educational Research, 44,* 55 – 67.

Santos, P. J. (2003). Goal instability, self-esteem, and vocational identity of high school Portuguese students. *Análise Psicológica, 21*(2), 229-238.

Schenk, A. M., & Fremouw, W. J. (2012). Prevalence, psychological impact, and coping of cyberbully victims among college students. *Journal of School Violence, 11*(1), 21-37.

Schultze-Krumbholz, A., Jäkel, A., Schultze, M., & Scheithauer, H. (2012). Emotional and behavioural problems in the context of cyber bullying: a longitudinal study among German adolescents. *Emotional and Behavioural Difficulties, 17,* 329–345. doi:10.1080/1363275 2.2012.704317.

Smith, P. K., Mahdavi, J., Carvalho, M., & Tippett, N. (2006). An investigation into cyberbullying, its forms, awareness and impact, and the relationship between age and gender in cyberbullying. Research Brief No. RBX03-06. London: DfES.

Spear, L. P. (2000). The adolescent brain and age-related behavioral manifestations. *Neuroscience & Biobehavioral Reviews, 24*(4), 417-463.

Turner, M. G., Exum, M. L., Brame, R., & Holt, T. J. (2013). Bullying victimization and adolescent mental health: general and typological effects across sex. *Journal of Criminal Justice, 41*(1), 53–59. doi:10.1016/j.jcrimjus.2012.12.005.

Van der Wal, M. F., de Wit, C. A. M., & Hirasing, R. A. (2003). Psychosocial health among young victims and offenders of direct and indirect bullying. *Pediatrics, 111*, 1312 – 1317.

Wang, J., Nansel, T. R., & Iannotti, R. J. (2011). Cyber and traditional bullying: differential association with depression. *Journal of Adolescent Health, 48,* 415–417. doi:10.1016/j.jadohealth.201.07.012.

Madalaimuthu Anthony, Department of Psychology, CHRIST (Deemed to be University), Bengaluru. Email: magdalaimuthu@gmail.com

Ganesh Kumar J., Department of Psychology, CHRIST (Deemed to be University), Bengaluru.

Amalanadhan Felix, Department of English, Immaculate College for Women Affiliated to Annamalai University, Tamil Nadu. Email: felix3medutech@gmail.com