
Emotional Intelligence and Hostility as Predictors of Cyber Bullying Among Undergraduates

Cynthia N. C. Udeze¹, Godson C. Anyaorah¹, Ifeoma J. Nnaemeka¹ and Chidiebere E. Udensi¹

¹Department of Psychology, Nnamdi Azikiwe University, Awka, Nigeria

Correspondence Author's Email Address: cn.onyejiaka-udeze@unizik.edu.ng

Abstract

This study examined emotional intelligence and hostility as predictors of cyber bullying among undergraduates. A total of two hundred and thirty-seven (237) undergraduates from Anambra State Polytechnic Mgbakwu, Awka North were selected for the study. They include 98 males (41.4%) and 139 females (58.6%) whose age ranged from 15 to 26 years with a mean age of 22.23 and a standard deviation of 2.43. Three instruments were used for data collection namely: Emotional Intelligence Scale by Lane, Meyer, Tracey, Davies, Thelwell, Gobirick, Carers, Willson and Westen (2009), Buss-Perry Aggression Questionnaire by Buss and Perry (1992) and Cyberbullying Test by Garaigordobil (2013). Two hypotheses were stated and tested at 0.05 significant levels. Linear Regression Analysis was used in the study to test emotional intelligence and hostility as predictors of cyber bullying among undergraduates. The findings of the study showed that emotional intelligence negatively predicted cyber bullying among undergraduates (Coefficient Beta = $-.11$, $p < .05$), thereby accepting hypothesis one, which stated that emotional intelligence would predict cyber bullying among undergraduates. However, hostility positively predicted cyber bullying among undergraduates (Coefficient Beta = $.03$, $p < .05$), thereby accepting hypothesis two, which stated that hostility would predict cyber bullying among undergraduates. Based on the findings of the study, it is recommended that schools should start up anti-cyber bullying programs and preventive strategies through public awareness campaigns using posters, electronics and social media. And they should provide training for faculties and address cyber bullying.

Keywords: emotional intelligence, hostility, cyber-bullying, undergraduates

Introduction

Considering the rapid growth of the digital age, children and adolescents can make use of emerging technology to access a wealth of information through the internet. There are numerous ways to interact electronically with one another as well (e.g., e-mail, text messaging, Facebook, WhatsApp). Unfortunately, some children and adolescents take advantage of the media to harass, intimidate and stalk others (Bullock, Wong-Lo & Robert, 2011).

A new type of aggressive behaviour called cyber bullying appeared together with the emergence of information and communication technologies (Zych, Ortega-Ruiz & Del Rey, 2015a). On the internet, positive interpersonal relationships and interactions can be destroyed by this repeated and intentional aggressive behaviour (Cuadrado-Gordillo & Fernandez-Antelo, 2016). Cyber bullying has been defined as: “willful and repeated harm inflicted through the use of computers, cell phones, or any electronic devices” (Hinduja & Patchin, 2009, P.5). This definition is useful due to its simplicity and because it captures the most important elements, which include: “willful” (the behaviour has to be intentional, not accidental); “repeated” (bullying reflects a pattern of behaviour, not just one isolated incident); “harm” (the target must perceive that harm was inflicted); and “computers, cell phones, and other electronic devices” (this is what differentiates cyber bullying from traditional bullying) (Hinduja & Patchin, 2010).

Cyber bullying, like traditional bullying, takes a variety of forms both in terms of the physical mechanism used by perpetrators and the content of the specific affront. Many of the tactics used in cyber bullying exemplify its uniqueness as a type of bullying and are thus helpful in understanding adolescent’s interpretations of online or mobile social interactions (Schacter, 2015). Across several studies, researchers have converged upon seven typical types of cyber bullying: harassment, denigration, masquerading, outing, trickery, exclusion, and cyber stalking (Dempsey, Sulkowski, Nichols & Storch, 2009; Katzer, Fetchenhauser & Belschak, 2009; Mishna, Cook, Gadalla, Daciuk & Solomon, 2010; Willard, 2004). Although all of these are types of cyber bullying, each one exhibits a distinct definition and purpose. Harassment, as the term typically connotes, involves the repeated sending of offensive or hurtful messages across any form of electronic media (Li, 2010; Willard, 2004). Similarly, cyber bullies who engage in denigration publically send or post cruel assertions which are not necessarily true about the individual.

Research has demonstrated that victims of online bullying often know the bully; however, it is not rare for cyber bullies to engage in masquerading, or the impersonation of someone else. Because the online environment facilitates attempts at anonymity, masquerading provides children with an opportunity to aggress upon their peers without concern for eventual identification (Suler, 2004). Masquerading also allows for online forms of

relational aggression; a bully can pretend to be someone else and then send or post information to destroy a person's reputation or social relationships (Willard, 2004). In the same vein of reputation damage, outing refers to the online and public disclosure of someone's private information or pictures. Given the permanent nature of the Internet and phone messages, outings in the context of cyber bullying may exacerbate the victim's feelings of shame and powerlessness. A similar mechanism for cyber bullying is trickery, or misleading someone into divulging personal and/or embarrassing secrets about him or her (Willard, 2004). As in the case of outings, acts of trickery often result in hurtful posts or messages that are impossible for the victim to remove. Another form of cyber bullying, perhaps most parallel to traditional types of bullying, is exclusion. Exclusion generally involves deliberately leaving someone out of an online or mobile group, such that the person is not awarded access to the social cyber-interactions of his or her peers (Willard, 2004).

The final form of cyber bullying, cyber stalking, is arguably the most harmful and thereby most concerning method of victimization. It is characterized by recurring harassment and attacks; cyber stalking is used by bullies to instigate fear and intimidation in their victims (Willard, 2004). In the case of cross-gender cyber interactions, cyber stalking has been found to occasionally take the form of sexual harassment. More specifically, especially among older adolescents, girls have been found more likely than boys to receive unsolicited sexual pictures or messages requesting them to engage in some sort of sexual act for a boy online (Mishna, Cook, Gadalla, Daciuk & Solomon, 2010). Cyber stalking, in addition to the six other methods of cyber bullying, consistently demonstrates its potential to provoke intense hurt and shame in the victims of such acts. Although typically observed in middle and high school students, with growing numbers of elementary school students gaining access to electronic communication, cyber stalking may begin to emerge at even younger ages (Schacter, 2015). It can also be seen among undergraduates because of the increase of mobile phones and internet usage within the adolescent population (Mesch, 2009).

Due to the very characteristics of cyber bullying, the negative effects on the victim can be even more harmful than the effects of conventional bullying (Bauman, Toomey, & Walker,

2013; Vandebosch & Van Cleemput, 2008). The anonymity of the aggressor and the quick spread of cyber aggression to an unlimited number of people who can, in turn, resend the humiliating messages or images received about the victim through cyberspace are just some of the characteristics that lead cyber bullying to cause greater psychological damage (Bhat, 2008; Buelga, Cava, & Musitu, 2010; Kowalski & Limber, 2013). The impact and psychological distress also depend on the kind of cyber-aggression waged by the aggressor (Buelga & Pons., 2012; Willard, 2007).

The fact is that the prevalence of cyber bullying is increasing among children and adolescents and has become a serious social and educational problem (Hyunseok, Juyoung, & Ramhee, 2014; Slonje, Smith & Frisen, 2013). Spotting someone who is being cyber bullied is akin to one who is being physically bullied (Morales, 2011). While traditional bullying has been studied at length in recent years, few studies have been done about cyber bullying (Hinduja & Patchin, 2010). The prevalence of cyber bullying has shown that it is not something that can simply be stopped by admonishment of the behaviour. We must start addressing bullying by the very roots where it begins, which is one's emotion (Lance, 2017). Emotions are involved in everything people do; every action, decision and judgment. Emotionally intelligent people recognize this and use their thinking to manage their emotions rather than being managed by them (Chris, 2009).

Psychologists, John Mayers and Peter Salovey (1993), introduced the concept of emotional intelligence in the early 1990s. According to them, emotions are an internal event that coordinates physiological responses, cognition and conscious awareness. They defined Emotional Intelligence as "the ability to perceive emotion, to access and generate emotions so as to assist thought, to understand emotions and emotional meaning and to reflectively regulate emotions in ways that promote emotional and intellectual growth" (Mayer, Salovey, & Carsuo, 2004). In last two decades, emotional intelligence researchers have developed three major models; they are ability, mixed and trait emotional intelligence models (Mayer, Carsuo, & Salovey, 2000). The main difference in these three categories is whether authors' models perceive their emotional intelligence as an innate human trait or a competence that can be systematically developed over time. Thus, measuring emotional intelligence differs per model varying from strict ability testing with right and wrong answers to subjective

self-report types of measurement. Bullies are most often kids who have their own personal troubles and high levels of stress in their lives, so those who are more laid back are much less likely to become bullies (Lance, 2017). It is seen that bullies tend to not be able to effectively express their emotions, so they turn to unhealthy methods of expressing their emotions through their bullying.

Hostility on the other hand is composed of cognitive, affective, and behavioural components. Smith, Glazer, Ruiz and Gallo (2004) define hostility as a primarily cognitive construct involving “negative attitude toward others, consisting of enmity, denigration and ill will”. Essentially, hostility generally reflects a person’s tendency to view the world in a negative, cynical fashion. The authors describe its components: the cynicism (i.e., a belief that others are motivated primarily by selfish concern); the mistrust (an expectation that people will tend to be hurtful); and denigration (i.e., a devaluation of other people’s motivation and goals). Other authors such as Barefoot, Siegman, Smith, Hillsdale and Lawrence (2009) define hostility as “antagonistic interpersonal attitude” including cognition (cynicism and hostile attributions), affect (hostile emotion) and behaviours (aggressive responses). Parrott and Giancola (2007), with Smith, Glazer, Ruiz and Gallo (2004) agreed that anger, aggression and hostility are distinct although closely related concepts but disagree on which concepts are the main ones and which are subordinates. For simplicity, here the concept of hostility is used as the main construct and it includes anger (i.e., irritability), hostile attitudes (i.e., cynicism and paranoia) and aggression (i.e., the way hostility is expressed) – AHA (anger, hostility, and aggression) phenomenon (Parrott & Giancola, 2007; T. W. Smith, 1994; T. W. Smith, Glazer, Ruiz, & Gallo, 2004).

Bullying and hostility among children is a long-standing and pervasive social issue (Jones, Manstead, & Livingstone, 2011). Cyber bullying is the unfortunate by-product of the union of adolescent aggression and electronic communication, and its growth is giving cause for concern (Hinduja & Patchin, 2008). Victims of bullying often experience far-reaching negative outcomes, such as internalizing problems (e.g., depression, suicide) and externalizing problems (e.g., aggression, anger; Cook, Williams, Guerra, Kim, & Sadek, 2010). With the pervasiveness of technology for use in personal communication, it follows that some individuals use such technology to cyber bully, which has become a significant

problem, particularly among children and adolescents (Cook, Williams, Guerra, Kim & Sadek, 2010).

Research indicates that children and adolescents involved in cyber bullying, either as the bully or as a victim, typically exhibit higher levels of aggression than their peers who are not involved in cyber bullying (Schultze-Krumbholz & Scheithauer, 2009). Further, adolescents who are cyber victimized often are willing to report that they retaliated by cyber bullying others (Tyman, Saylor, Taylor, & Corneaux, 2010). Cyber victims who report cyber bullying others have expressed that doing so made them feel negative emotions such as guilt, but also positive feelings such as being powerful, popular, and funny (Mishna, Cook, Gadalla, Daciuk, & Solomon, 2010). Thus, adolescents who are aggressive are more likely to be victimized by their peers but are also more likely to aggress against others by perpetrating the bullying, and this tendency also plays out when considering bullying and victimization using technological modalities (Cook, 2015).

Theoretical Framework

Ability Emotional Intelligence Model

This model was first coined by John Mayer and Peter Salovey (1990) and has continued to conduct research on the significance of construction. Their pure theory of emotional intelligence integrates key ideas from the fields of intelligence and emotion. They further mentioned that emotional intelligence is based on a model of intelligence. It proposes that emotional intelligence is comprised of two areas: experiential (ability to perceive, respond, and manipulate emotional information without necessarily understanding it) and strategic (ability to understand and manage emotions without necessarily perceiving feelings well or fully experiencing them). He had developed four branches for this model (Mayer & Salovey, 1997). The first branch, emotional perception, is the ability to be self-aware of emotions and to express emotions and emotional needs accurately to others. Emotional perception also includes the ability to distinguish between honest and dishonest expression of emotions.

The second branch, emotional assimilation, is the ability to distinguish between the different emotions such as feelings which identify those that are influencing their thought processes. The third branch, emotional understanding, is the ability to understand complex

emotions (such as feeling two emotions at once) and the ability to recognize transitions from one to the other.

Last and the fourth branch, emotional management, is the ability to connect or disconnect from an emotion depending on its usefulness in each situation.

Salovey and Mayer's (2000) strive to define Emotional Intelligence within standard criteria for new intelligence. Their continuing research was revised to their initial definition of Emotional Intelligence was "The ability to perceive emotion, integrate emotion to facilitate thought, understand emotions and to regulate emotions to promote personal growth." Thus, the ability-based model views emotions as useful source of information that helps one to work in social environment.

Hostile Attribution Bias

This theory was first coined by Nasby, Hayden, and DePaulo (1980) who noticed, along with several other key pioneers in this research area, such as Kenneth A. Dodge, that a subgroup of children tends to attribute hostile intent to ambiguous social situations more often than other children. Since then, hostile attribution bias has been conceptualized as a bias of social information processing (like other attribution biases), including the way individuals perceive, interpret, and select responses to situations. The hostile attribution bias (HAB) is the tendency to interpret the behaviour of others, across situations, as threatening, aggressive, or both. People who exhibit hostile attribution bias think that ambiguous behaviour of others is hostile and often directed toward them, while those who do not exhibit the hostile attribution bias interpret the behaviour in a non-hostile and non-threatening way. Furthermore, people who make the hostile attribute bias often respond to the other person's behaviour in an aggressive manner because they perceive it as a personal threat. When they respond aggressively, this action is often viewed as inappropriate because the other person's original behaviour was not intended to be aggressive.

An important point is that individuals who show hostile attribution bias often misperceive the intent of the other individual's behaviour as aggressive or harmful to themselves or another person, wrongly believing that the person is meant to cause harm in performing the action. This biased judgment of the other's intent represents a disruption in normal cognitive processing of events. The hostile attribution bias is the tendency to interpret

ambiguous provocation as intentional, that is, to view others' negative actions toward you as purposeful and hostile when their intention is unclear (Dodge, 1980, 2006). For example, imagine an adolescent who is walking down the hallway in his school. A peer runs down the hallway, knocking him over and spills his books on the floor, causing other peers to laugh. This adolescent with high levels of hostile attribution bias might assume that the individual aggressively knocks him down. And if this individual intentionally hits back, he has reacted in an aggressive manner that was inappropriate to the situation (Dodge, 2006, p. 791). Over a hundred studies have demonstrated that a hostile attribution bias is a predictor of the desire to enact reactive aggression. Dodge (2006) has theorized that past hostile experiences, such as abuse or long-term exposure to violent contexts, can lead to hostile schemas that produce a heightened vigilance to peers' hostility and therefore promote hostile intent attributions.

General Aggression Model

This model was developed by Anderson, Bushman and Huesmann, (2002). It has been utilized in many studies of aggression and has recently been introduced to the cyber bullying world through the work of Kowalski, Giumetti, Schroeder, and Lattanner (2014). General Aggression Model posits that any aggressive act should be evaluated based on the degree of hostility present, the automaticity of the actions, whether the main intent is to harm the victim or benefit the perpetrator, and the level of reflection on possible consequences of aggressive actions (DeWall & Anderson, 2011). Furthermore, this model also examines the cognitive factors within the aggressing individual, including their interpretations of their environment, their expectations regarding outcomes, their knowledge and beliefs about how a person acts in a particular situation (i.e., cognitive scripts), and the ability to respond to the individual (DeWall & Anderson, 2011). Finally, this theory consists of three inputs that contribute to the overall aggressive event: personal and situational inputs; inputs related to cognitions, affect, and arousal; and inputs arising from situational appraisals and decisions (Anderson & Bushman, 2002; DeWall & Anderson, 2011; Kowalski, Guimetti, Schroeder & Lattanner, 2014). The combination between environmental, situational, and cognitive factors has allowed General Aggression Model to

maintain a prominent place in aggression research for many years (Allen, Anderson, & Bushman, 2018).

Statement of the Problem

In this age of digital communication where majority of children and young people are computer literate and own mobile phones, there is a darker side to their easy access to information and contact. A search on the internet in November 2010 for 'cyber bullying stories found three hundred and fifty-eight thousand (358,000) results from around the world, highlighting the problem that has become known as 'cyber bullying', where the technology is misused to threaten, harass, humiliate or embarrass victims.

Despite the numerous forms of modern technology that allow for instant communication among adolescents, most research on cyber bullying to date has identified the Internet and mobile phones as being the most common domains for such activity (Katzner, Fetchenhauser & Belschak, 2009; Slonje & Smith, 2008). More specifically, cyber bullying tends to take place in chat rooms, over email, and through text messaging. As these technologies continue to develop innovative capacities that allow fast-paced interactions and the exchange of more than just text content (e.g., pictures and video), adolescents are becoming equipped with a wide variety of options for both positive and negative forms of social communication. It is therefore hardly surprising that these forms of electronic media serve as venues for new forms of bullying (Schacter, 2015). Cyber bullies do not have to be strong or fast; they just need access to a cell phone or computer and a desire to terrorize. Anyone can be a cyber-bully, and such people usually have few worries about having face-to-face confrontation with their victims. In fact, the anonymity of cyber bullying may cause students who normally would not bully in the tradition-sense to become a cyber-bully (Poland, 2010). The number of adolescents who use the Internet at home is rapidly growing, with now over 66% of fourth to ninth graders able to go online from the comfort of their bedrooms. Adolescents can engage in numerous Internet-based activities such as game playing, seeking information, and talking with friends. The constellation of benefits, however, has been recently eclipsed by numerous accounts of the Internet's undesirable social implications, which appear in both scholarly literature and popular media. A fair amount of attention has been given to

Internet offenses, including cyber stalking (Seto, 2002), sexual predation (Dombrowski, Lemasney, Ahia, & Dickson, 2004, as cited in Tokunaga, 2010), and cyber bullying (Bhat, 2008; David-Ferdon & Hertz, 2007 as cited in Tokunaga, 2010), which collectively place the safety of adolescents who use the internet into question (Tokunaga, 2010).

Despite the above concerns, not much empirical studies have looked at emotional intelligence and hostility as predictors of cyber bullying among undergraduates. Therefore, there is a gap in knowledge with regards to this and with limited empirical studies; the need to understand emotional intelligence and hostility as predictors of cyber bullying is a motivation for this study. Against the above issues, this study is positioned to examine emotional intelligence and hostility as predictors of cyber bullying among undergraduates to fill up the gap in knowledge.

Purpose of the Study

The general purpose of this study is to examine emotional intelligence and hostility as predictors of cyber bullying among undergraduates.

Hypotheses

1. Emotional intelligence would predict cyber bullying among undergraduates.
2. Hostility would predict cyber bullying among undergraduates.

Method

Participants

A total of two hundred and thirty-seven (237) undergraduates participated in the present study. They comprised of students from Anambra State Polytechnic (ANSPOLY) Mgbakwu, Awka North, Anambra State, ninety-eight (98) males (41.4%) and one hundred and thirty-nine (139) females (58.6%). Their age ranged from 15 to 26 years, with a mean age of 22.23 and a standard deviation of 2.43. All participants are extraction of 90% Igbo, 8% Ibibio and 2% Hausa. They are all Christians. Only 3% of the participants are married. They were all selected using simple random sampling for selecting the school and convenient sampling for selecting the participants.

Validity and Reliability of Instrument

Three instruments were used for data collection. They include: Emotional Intelligence Scale, Buss-Perry Aggression Questionnaire and Cyber-bullying Test.

Emotional Intelligence Scale

This scale was developed by Lane, Meyer, Tracey, Davies, Thelwell, Gobirick, Carers, Willson and Westen (2009). It was designed to measure an individual's perceptions of the extent to which he or she can appraise and regulate emotions in self and others and utilize emotions for problem solving. It is a 20 item self-report scale, arranged in a 5-point likert format ranging from 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree. One item was reversed (Item 4: It is difficult for me to understand why people feel the way they do). A high score is interpreted to be high emotional intelligence, while low score to be low emotional intelligence. The reliability of Emotional Intelligence Scale reported by Lane, Meyer, Tracey, Davies, Thelwell, Gobirick, Carers, Wilson and Westen (2009) reported Cronbach Alpha Coefficient of .73. However, to test the reliability of the test for the present study, a pilot test was conducted in Nigeria by Abdulaezeezh (2016). The Cronbach Alpha of .67 was obtained by correlating Emotional Intelligence Scale with criminogenic cognitive scale (Tangney, Suewig & Mashek, 2007).

Buss-Perry Aggression Questionnaire (BPQA)

This instrument was developed by Buss and Perry (1992). It was designed to measure all three cognitive, affective and behavioural dimensions of hostility construct. It contains 8 items of the hostility subscale, arranged on a 5-point Likert format ranging from 1 = extremely uncharacteristic of me, 2 = somewhat uncharacteristic of me, 3 = neither uncharacteristic nor characteristics of me, 4 = somewhat characteristics of me, and 5 = extremely characteristic of me. No item was reversed. High score in this test is interpreted to be high level of hostile behaviour, while low score interpreted to be low level of hostile behaviour.

The reliability of Buss-Perry Aggression Questionnaire (BPAQ) reported by Buss and Perry (1992) for hostility subscale was Cronbach Alpha of .77, and test-retest reliability coefficient of .72. However, to test the reliability of the instrument for the present study, a pilot study was conducted in Nigeria by Ngozi Nwakaego (2016) with 100 undergraduates from the Department of Psychology, Nnamdi Azikiwe University, Awka, Anambra State. A Cronbach Alpha of .64 with norm 23.71 of the hostility subscale was obtained, indicating a high reliability of the instrument for the study.

The Cyber-bullying Test

This instrument was developed by Garaigordobil (2013). It was designed to measure 15 cyber bullying behaviours (e.g., sending offensive or insulting messages by cell phones, or by internet, recording a beating and uploading the video to YouTube, sexual harassment, spreading rumors to discredit someone, stealing someone's password, isolating someone on social networks, and death threats). It contains 15 items arranged on a 4 point likert format ranging from 0 = never, 1 = sometimes, 2 = several times, and 3 = always. No item was reversed. High score in this test is interpreted to be high level of cyber-bullying, while low score to be low level of cyber bullying. The reliability of the Cyber-Bullying Test as reported by Garaigordobil (2013) was Cronbach Alpha of .91.

Procedure

The research was approved by the institutional review board validating the topic. Secondly, before embarking on the field research work, the authorities of the school (Anambra State Polytechnic, Mgbakwu) were informed about the study and their permission in using their students was obtained. Information concerning the aim, objectives and the relevance of the study were supplied and the respondents' informed consent obtained from each of the respondents. The aim and objective of the study were also explained to them, and they were assured of confidentiality and anonymity of the study.

The researcher also obtained an introduction letter from the Department of Psychology, Nnamdi Azikiwe University, Awka which identified her as a staff of the University conducting research.

The participants were selected using two sampling techniques; firstly, the school was randomly selected from three (3) Polytechnics, and four (4) Universities in Anambra State. Thereafter, one department and two levels (ND1 and ND2) were conveniently selected from the departments. The research instruments were administered to the participants, and the researcher assisted them in filling the questionnaires, by explaining the areas they found difficult to comprehend. A total of two hundred and forty-five (245) questionnaires were administered to the participants. However, during collation, it was found that only two hundred and thirty-seven (237) were properly filled and returned to the researcher, thus 8% of the questionnaire were not included in the final statistics.

Design and Statistics

This is a predictive survey study. It adopted predictive design and Linear Regression Analysis for data analysis.

Result

Table 1- Showing the mean and standard deviation of emotional intelligence and hostility on cyber bullying

Cyber bullying * Emotional Intelligence*Hostility			
Cyber bullying			
Emotional Intelligence	Mean	N	Std. Deviation
Low Emotional Intelligence	8.1429	14	6.01098
High Emotional Intelligence	5.6502	223	5.34769
Total	5.7975	237	5.40726
Hostility	Mean	N	Std. Deviation
High Hostility	5.1944	36	5.87887
Low Hostility	5.9055	201	5.32691
Total	5.7975	237	5.40726

Inspection of the mean in Table 1 revealed that low emotional intelligence ($M = 8.14$, $SD = 6.01$) predicted high cyber bullying than high emotional intelligence ($M = 5.65$, $SD = 5.35$) among undergraduates. The mean table also showed that high hostility ($M = 5.19$, $SD = 5.88$) predicted low cyber bullying than low hostility ($M = 5.91$, $SD = 5.33$) among undergraduates.

Table 2- Showing the result the Linear Regression Analysis conducted on emotional intelligence and hostility as predictors of cyber bullying among undergraduates

Model	Coefficients ^a			T	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	8.557	2.345		3.649	.000
1 Emotional Intelligence	-.046	.028	-.110	-1.670	.096
Hostility	.028	.063	.029	.443	.658

a. Dependent Variable: Cyber bullying

Hypothesis 1:

Hypothesis 1 which stated that emotional Intelligence would predict cyber bullying among undergraduates. The table above shows a negative prediction of emotional intelligence on cyber bullying among undergraduates $t(-1.67) = -.11, p < .05$. This shows that emotional intelligence predicted cyber bullying, but it was a weak prediction. Therefore, the hypothesis, which stated that emotional intelligence would predict cyber bullying among undergraduates, was accepted.

Hypothesis 2:

Hypothesis 2 stated that hostility would predict cyber bullying among undergraduates. The table also shows that hostility positively predicted cyber bullying among undergraduates $t(.44) = .03, p < .05$. This shows that hostility is a strong predictor of cyber bullying. Therefore, the hypothesis, which stated that hostility would predict cyber bullying among undergraduates, was accepted.

Discussion

The purpose of this study was to examine emotional intelligence and hostility as predictors of cyber bullying among undergraduates. The study also examined the levels of emotional intelligence and hostility on cyber bullying among undergraduates. Thus, it was found that low emotional intelligence predicted high cyber bullying among undergraduates ($M = 8.14, SD = 6.01$), than high emotional intelligence ($M = 5.65, SD = 5.35$). There was an obvious difference in the mean between low and high emotional intelligence on cyber bullying

among undergraduates. This shows that people with low emotional intelligence are prone to cyber bullying than those with high emotional intelligence. It was also found that there was no obvious difference in the mean between high hostility ($M = 5.19, SD = 5.88$) and low hostility ($M = 5.91, SD = 5.33$) on cyber bullying among undergraduates. This shows that whether high or low level of hostility, once an individual is hostile, that individual is prone to cyber bullying.

However, from the test of hypothesis one, it was found that the hypothesis one which stated that emotional intelligence would predict cyber bullying was accepted. Thus, it showed a negative prediction of emotional intelligence on cyber bullying among undergraduates. This implies that the more one is emotionally intelligent, the less cyber bullying, and the more one is not emotionally intelligent, the more cyber bullying. In other words, as emotional intelligence increases, cyber bullying decreases. This finding is in line with Baroncelli and Ciucci (2014), who used the Emotional Intelligence Scale (Schutte, Malouff, Hall, Haggerty, Cooper, Golden & Dornheim, 1998) and found that Italian pre-adolescents who had more difficulty regulating and using emotions were more likely to bully others.

Other studies using the Adolescent Swinburne University Emotional Intelligence Test (Adolescent SUEIT) (Luebbers, Downey, & Stough, 2007), which is a modified version of the Swinburne University Emotional Intelligence Test (Palmer & Stough, 2001), found that individuals who were lower on Emotional Management and Control were more likely to become bullies (Schokman, Downey, Lomas, Wellham, Wheaton, Simmons & Stough, 2014).

Furthermore, hypothesis two, which stated that hostility would predict cyber-bullying among undergraduates was also accepted. Thus, it showed a positive prediction of hostility on cyber bullying among undergraduates. This implies that the more one is hostile, the more one is prone to cyber-bullying. In other words, as hostility increases, cyber bullying increases. This may also explain the reason why there was no obvious difference in the mean of both high and low hostility level. This finding is in line with Schultze-Krumbholz and Scheithauer (2009) who indicated that children and adolescents involved in cyber bullying, either as the bully or as a victim, typically exhibit higher levels of aggression than their peers who are not involved in cyber bullying.

Further studies by Tyman, Saylor, Taylor and Corneaux (2010) showed that adolescents who are cyber victimized often are willing to report that they retaliated by cyber bullying others. Cyber victims who report cyber bullying others have expressed that doing so made them feel negative emotions such as guilt, but also positive feelings such as being powerful, popular, and funny (Mishna, Cook, Gadalla, Daciuk, & Solomon, 2010). Thus, adolescents who are aggressive are more likely to be victimized by their peers but are also more likely to aggress against others by perpetrating the bullying, and this tendency also plays out when considering bullying and victimization through the use of technological modalities (Cook, 2015).

Implication of the Study

This study has revealed that emotional intelligence is a weak predictor of cyber bullying among undergraduates. And hostility is a strong predictor of cyber bullying among undergraduates. Thus this finding has implication on mental health education; as it will be relevant to clinical psychologists, social psychologists, educational psychologists and guidance and counselors with the understanding of the dimensions of emotional intelligence and hostility on cyber-bullying among undergraduates. It will also help them to fully become aware of the various problems associated with cyber-bullying and help them in designing and implementing appropriate strategies intended for the reduction of cyber-bullying behaviour.

The findings of this study have the capacity to motivate further researchers to focus more on building emotional intelligence, thus providing knowledge that will help professionals curb cyber-bullying behaviour. This study has also provided information that would help undergraduates increase their knowledge about cyber-bullying.

Recommendations

This study found out that individuals with low emotional intelligence were more prone to cyber-bullying than those with high emotional intelligence. Therefore, it is recommended that schools should create programs every semester that will help students to learn the abilities of emotional intelligence, processing those abilities or even some of them which can

lead to a better achievement from childhood to adolescent, in the school, the workplace, and in the society at large.

It is also recommended that schools should start up anti-cyber bullying programs and preventive strategies through public awareness campaigns using posters, electronics and social media. Cyber bullying should be a behaviour that is clearly identified as code-of-conduct violation.

Finally, it is recommended that schools should provide training for faculties on how to facilitate and address cyber bullying. This training should include how to determine if student's behaviour is cyber bullying or not. The faculty and staff should be educated about the perils of cyber bullying.

Conclusion

This study was conducted to examine emotional intelligence and hostility as predictors of cyber-bullying among undergraduates. Cyber-bullying has become one of the major issues in today's society due to the increase in the use of technology and the internet in our everyday lives. Being connected online to a community is an essential part of young people's social reality. Its importance cannot be underestimated as a significant aspect of all young people's daily activity.

Likewise, everyone experiences and relate their feelings and emotions in day to day life. Emotions have valuable information about relationships, behaviour and every aspect of human life around us. Being able to connect to our emotions and having a present-moment awareness of them and its influence on our thoughts and actions is a key skill that every student should practice so they can remain calm and focused in stressful situations. As humans, we tend to be highly emotional and social creatures. Being emotionally intelligent will help students connect, which is the thing we need most in our lives to feel well. Learning to have a higher emotional intelligence will make them successful in every aspect of their lives.

Hostility, on the other hand, which is a behaviour stem out of anger referred to as a state of ill will and bad feeling where a person dislikes or hates someone or something, is very common among adolescent. It produces negative psychological effects to both cyber-bullies

and their victims, causing them to develop insecurities, poor relationships with people, and involvement in delinquent acts. In the field of Psychology, there is a need to address this cognitive-behavioural issue.

Thus, from the findings of this study, the researcher concluded that emotional intelligence is a predictor of cyber bullying among undergraduates, but a weak predictor. Indicating that, undergraduates with low emotional intelligence were more prone to cyber-bullying than those with high emotional intelligence. However, hostility was a strong predictor of cyber-bullying among undergraduates, and there was no observed difference between high and low hostility level on cyber bullying among undergraduates. This indicate that undergraduate who were hostile were prone to cyber-bullying. It is therefore imperative that clinical and social psychologists should educate students on the emotional, behavioural and mental health problem of cyber-bullying, so as to enable them reduce the rate of cyber-bullying and its psychological effects.

References

- Aboujaoude, E., Savage, M.W., Starcervic, V., & Salame, W.O. (2015). Cyberbullying: Review of an old problem gone viral. *Journal of Adolescent Health* 57(1), 10-18.
- Anderson, C.A., & Bushman, B.J. (2002). Human Aggression. *Annual Review of Psychology*, 57, 27-51.
- Baroncell, A., & Cucci, E. (2014). Unique effects of different components of trait emotional intelligence in traditional bullying and cyber bullying. *Journal of Adolescence*, 37(6), 807-815.
- Bauman, S., Underwood, M. K., & Card, N. A. (2013). Definitions: Another perspective and a proposal for beginning with cyberaggression. In S. Bauman, D. Cross, & J. Walker (Eds.). *Principles of Cyber Bullying Research: Definitions, Measures, and Methodology* (41-45).
- Bhat, C., Suniti, C., Shihttua, L., & Jamie, A. (2008). Addressing cyber bullying as media literacy. *New Horizons in Education*, 58(3), 34-43.
- Brighi, A., Guarini, A., Melotti, G., Galli, S., & Genta, M. L. (2012). Predictors of victimization across direct bullying, indirect bullying. *Emotional and Behavioural Differences*, 17(3-4), 375-388.

-
- Buelga, S., & Pons, J. (2012). Agresiones entre adolescents a braves del telepo movil y de internet. *Psychosocial Intervention, 21*, 91-101.
- Buelga, S., Cava, M. J., & Musitu, G. (2010). Cyber bullying victimization entre adolescents a traves del telefono movil y de internet. *Piscothema, 22*(4), 734-789.
- Chris, G. (2009). A New Definition of Emotional Intelligence. *National Psychological Cooperation, 162-311*.
- Cook, C. R., Williams, K. R., Guerra, N. G., Kim, T. E., & Sadek, S. (2010). Predictors of bullying and victimization in childhood and adolescence: A meta-analytic investigation. *School Psychology Quarterly, 25*, 65-83.
- Cross, D., Lester, L., & Barnes, A. (2015). A longitudinal study of the social and emotional predictors and consequences of cyber and traditional bullying victimization. *International Journal of Public Health, 60*(2), 207-217.
- Dempsey, A. G., Sulkowski, M. L., Nichols, R., & Storch, E. A. (2009). Differences between peer victimization in cyber and physical settings and associated psychological adjustment in early adolescence. *Psychology in the Schools, 46*(10), 962-972.
- Dempsey, A. G., Sulkowski, M. L., Dempsey, J., & Storch, E. A. (2011). Has cyber technology produced a new group of peer aggression? *Cyberpsychology, Behaviour and Social Networking, 14*(5), 297-302.
- DeWall, C. N. & Anderson, C. A. (2011). The general aggression model. In P. R. Shaver & M. Mikulincer (Eds.). *Human Aggression and Violence: Causes, Manifestations, and Consequences* (58-61).
- Dodge, K. A. (2006). Traditional science in action: Hostile attribution style and the development of aggressive behavior problems. *Development and Psychopathology, 18*(5), 791-814.
- Elipe, P., Mora-Merchan, J. A., Ortega-Ruiz, R., & Casas, J. A. (2015). Perceived emotional intelligence as a moderator variable between cybervictimization and its emotional impact. *Frontiers in Psychology, 6*, 486.
- Espelage, D. L. & Swearer, S. M. (2010). A social-ecological model for bullying prevention and intervention. Understanding the impact of adults on the social ecological of

- youngsters. In S. R. Jimerson, S. M. Swearer, & D. L. Espelage (Eds.). *Handbook of bullying in schools: An International Perspective*. (61-72).
- Gorzig, A. (2011). Who Bullies and Who Is Bullied Online? A study of 9-16 year old year internet users in 25 European Countries, London: *EU kids online, London School of Economics and Political Science*. (23-45).
- Gower, A.L., Shlafer, R. J., Polan, J., McRee, A. L., McMorris, B. J., Pettingell, S. L., & Sieving, R. E. (2014). Brief report: Associations between adolescent girls's social- emotional intelligence and violence. *Journal of Adolescence*, 37(1), 67-71.
- Gradinger, P., Strohmeier, D. J., & Spiel, C. (2009). Traditional bullying and cyber bullying: Identification of risk groups for adjustment problems. *Journal of Psychology*, 217(4), 205-213.
- Haynie, D. L., Nansel, T., Eitel, P., Crump, A. D., Saylor, K., Yu, K., & Simmons-Morton, B. (2001). Bullies, victims and bullying/victims: District group of at-risk youth. *Journal of Early Adolescence*, 21(1), 29-49
- Hemphil, S. A., Koterski, A., Tollit, M., Smith, R., Herrenkohl, T. L., Toumbourou, J. w., & Catalano, R. F. (2012). Longitudinal predictors of cyber and traditional bullying perpetration in Australian secondary school students. *Journal of Adolescent Health*, 51(1), 59-65.
- Hinduja, S, & Patchin, J. W. (2009). *Bullying Beyond The Schoolyard: Preventing and Responding To Cyber Bullying*. (46-59).
- Hinduja, S. & Patchin, J. W. (2008). Cyber bullying: An exploratory analysis of factors related to offending and victimization. *Deviant Behaviour*, 29(2), 129-156.
- Hinduja, S. & Patchin, J. W. (2010). Bullying, cyber bullying and suicide. *Archives of Suicide Research*, 14, 206-221.
- Jones, S. E., Manstead, A. S. R., & Livingstone, A. G. (2011). Ganging up or sticking together? Group processer and children's responses to text-message bullying. *British Journal of Psychology*, 102(1), 71-96.
- Katzer, C., Fetchenhaver, D., & Belschak, F. (2009). Cyber bullying: Who are the victims? *Journal of Media Psychology*, 21(1). 1864-1105.
- Kowalski, R. M. & Limber, S. P. (2007). Electronic bullying among middle school students. *Journal of Adolescent Health*, 41(6), 22-30.

-
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of cyber bullying research among youth. *Psychological Bulletin, 140*, 1073-1137.
- Kowalski, R. M., Limber, S. P., Limber, S., & Agatson, P. W. (2012). *Cyber bullying: Bullying in the digital age*. John Wiley & Son, 207-218.
- Lance, L. (2017). *Emotional intelligence and bullying*. (37- 48).
- Li, Q. (2010). Cyber bullying in high schools: A study of student's behaviours and beliefs about this new phenomenon. *Journal of Aggression, Maltreatment & Trauma, 19*, 372-392.
- Livingstone, S., Haddon, L., Gorzig, A., & Olafsson, K. (2011b). Technical Report and User Guide: The 2010 EU kids Online Survey, London, UK: *EU Kids Online, London School of Economics and Political Science*. (33-56).
- Mayer, J. D., & Salovey, P. (1993). *The intelligence of emotional intelligence, 17*,(4), 433-442.
- Mayer, J. D., Carsuo, D. R., & Salovey, P. (2000). *Models of Emotional Intelligence*. In R. Sternberg (Eds.). *Handbook of Intelligence*, 47-57.
- Mayer, J. D., Salovey, P., & Carsuo, D. R.(2004). Emotional intelligence: Theory, findings and implications. *Psychological Inquiry, 15*(3), 197.
- Mesch, G. (2009). Parental mediation online activities, and cyber bullying. *Cyberpsychology & Behaviour, 12*(4), 387-393.
- Mishna, F., Cook, C., Gadalle, T., Daciuk, J., & Solomon, S. (2010). Cyber bullying behaviours among middle and high school students. *American Journal of Orthopsychiatry, 80*, 362-374.
- Morales M. (2011). Cyber bullying. *Journal of Consumer Health on the Internet, 15*(4), 406-419.
- Nasby, W., Hayden, B., & DePaulo, B. M. (1980). Attribution bias among aggressive boys to interpreted social stimuli as displays of hostility. *Journal of Abnormal Psychology, 89*(3), 459.
- Ortega, R. Elipe, Mora-Merchan, J. A., Genta, M. L., Brighi, X., Guarini,A., Trippett, N. (2012). The emotional impact of bullying and cyber bullying on victims: A European cross-national study. *Aggression Behaviour, 38*, 342-356.

-
- Ortega, R., Elipe, P., Mora-Merchan, J. A., Calmaestra, J., & Vega, E. (2009). The emotional impact on victims of traditional bullying and cyber bullying. A study of Spanish adolescents. *Journal of Psychology, 217*(4), 197-204.
- Patchin, J. W. & Hinduja, S. (2006). Bullies move beyond the schoolyard: a preliminary look at cyber bullying. *Youth Violence & Juvenile Justice, 4*(2), 148-169.
- Peets, K. K. (2007). Hostile attributions and behavioural strategies in children: Does relationship type matter? *Developmental Psychology 43*(4), 889-900.
- Poland, S. (2010). Cyber bullying continues to challenge educators. *District Administration, 46*(5), 55.
- Salmivalli, C., & Nieminen, E. (2002). Proactive and reactive aggression among school bullies, victims, and bully-victims. *Aggressive behavior, 28*(1), 30-44.
- Schacter H. (2015). Cyber bullying in Elementary School: *The Role of Hostile Attribution Bias in Children's Social Information Processing.* (29-58).
- Schokman, C., Downey, L. A., Lomas, J., Wolham, D., Wheaton, A., Simmons, N., & Stough, C.(2014). Emotional Intelligence, Victimization, Bullying Behaviours and Attitudes. *Learning and Individual Differences,36*, 194-200.
- Schultze-Krumbholtz, A. & Scheithauer, H. (2009). Social-behavioural correlates of cyber bullying in German student sample. *Journal of Psychology, 217*, 224-226.
- Slonje, R., Smith, P. K., & Frisen, A. (2013). The nature of cyber bullying and strategies for prevention. *Computers In Human Behaviour, 29*,26-32.
- Smith, J. W., K. Glazer, Ruiz, J. M., & Gallo, L. C. (2004). Hostility, anger, aggressiveness, and coronary heart disease: An interpersonal perspective on personality, emotion and health. *Journal of Psychology, 72*(6): 1217-1270.
- Sontag, L. M., Clemans, K. H., Grabers, J. A., & Lyndon, S. T. (2011). Traditional and cyber aggressors and victims: A comparison of psychosocial characteristics. *Journal of Youth and Adolescence, 40*(4), 392-404.
- Sticca, F., & Perren, S. (2013). Is cyber bullying worse than traditional bullying? Examining the differential roles of medium, publicity, and anonymity for perceived severity of bullying. *Journal of Youth and Adolescence, 42*(5), 739-750.
- Suler, J. (2004). The online disinhibition effect. *Cyberpsychology & Behaviour, 7*(3), 321-326.

- Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyber bullying victimization. *Computers in Human Behaviour, 26*, 277-287.
- Twyman, K., Saylor, C., Taylor, L., & Comeaux, C. (2010). Comparing children and adolescents engaged in cyber bullying to matched peers. *Cyberpsychology, Behaviour, and Social Networking, 13*, 195-199.
- Vandebosch, H. & Van Cleemput, K. (2008). Defining cyber bullying: Qualitative research into the perceptions of youngsters. *Cyberpsychology & Behaviour, 11*, 499-503.
- Willard, N. (2004). *An educator's guide to cyber bullying and cyber threats*. (46-56).